

TRANSPORTATION NEEDS REPORT

William Preston Lane Jr. Memorial (Bay) Bridge



December 2004

Volume II of II



EXISTING TRAFFIC SUMMARIES

Location: William Preston Lane Bridge (Bay Bridge)

Direction: Eastbound

Date: Saturday, August 18, 2001

				Heavy Vehicles						
Beginning		Passenger		Single Unit					Total Heavy	
Hour	Motorcycles	Cars	Buses	Trucks	WB40	WB50	WB60	Length > 66'	Vehicles	Total
0:00	0	766	6	34	9	27	8	1	79	851
01:00	0	405	12	14	6	32	5	1	58	475
02:00	0	340	7	20	7	23	3	1	54	401
03:00	0	277	20	26	11	26	7	2	72	369
04:00	2	303	22	35	14	38	7	1	95	422
05:00	1	626	30	63	13	29	11	2	118	775
06:00	3	1500	28	61	14	47	8	5	135	1666
07:00	3	2751	25	90	23	21	18	4	156	2935
08:00	6	3364	29	96	22	40	13	2	173	3572
09:00	5	3466	37	67	23	33	19	3	145	3653
10:00	8	3354	28	71	17	30	14	2	134	3524
11:00	11	3285	32	57	22	28	7	1	115	3443
12:00	6	3336	30	80	21	20	13	2	136	3508
13:00	5	2882	25	46	12	23	16	1	98	3010
14:00	6	2956	11	68	20	14	6	2	110	3083
15:00	9	3421	25	79	19	37	10	4	149	3604
16:00	14	3272	29	85	16	37	9	5	152	3467
17:00	6	1843	17	70	17	21	9	2	119	1985
18:00	3	2071	14	74	11	23	4	1	113	2201
19:00	2	1646	17	67	12	28	4	1	112	1777
20:00	1	1369	15	45	13	23	9	4	94	1479
21:00	0	1218	8	42	6	24	9	2	83	1309
22:00	1	981	3	23	5	15	3	1	47	1032
23:00	0	687	2	33	4	19	3	1	60	749
Total:	92	46119	472	1346	337	658	215	51	2607	49290
Percentage:	0.20%	93.57%	0.96%	2.73%	0.68%	1.33%	0.44%	0.10%	5.29%	

Total Motorcycles, Cars and Buses:	46683
Percentage Motorcycles, Cars and Buses:	94.71%

Total Heavy Vehicles:	2607
Percentage Heavy Vehicles:	5.29%

Location: William Preston Lane Bridge (Bay Bridge)

Direction: Westbound

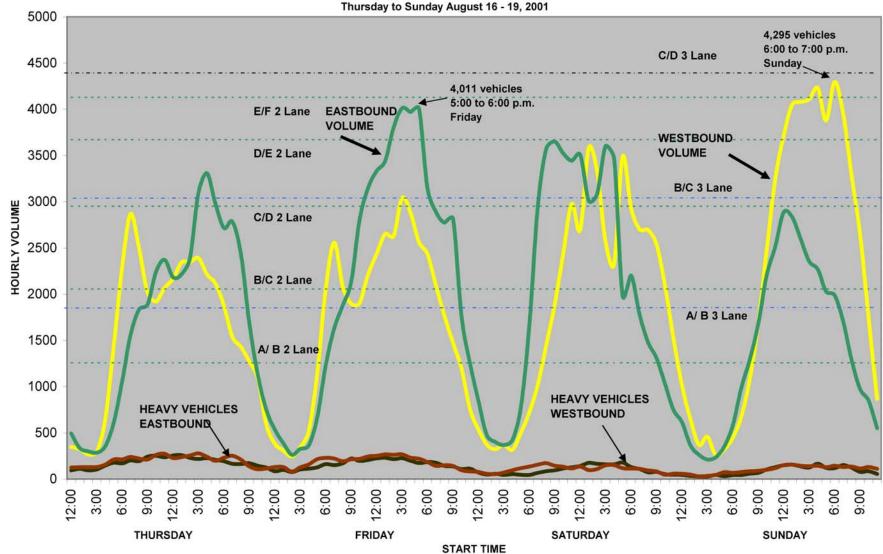
Date: Saturday, August 18, 2001

\neg			3	Heavy Vehicles	ı					
vy	Total Heavy					Single Unit		Passenger		Beginning
s Tota	Vehicles	Length > 66'	WB60	WB50	WB40	Trucks	Buses	Cars	Motorcycles	Hour
539	71	0	11	31	11	18	6	462	0	0:00
372	49	0	10	20	9	10	4	319	0	01:00
324	57	1	8	27	11	10	10	256	1	02:00
372	46	1	10	19	6	10	7	319	0	03:00
31	54	2	5	31	10	6	2	260	1	04:00
50 ⁻	47	2	5	18	5	17	4	450	0	05:00
72	46	2	3	13	8	20	6	669	1	06:00
101	67	2	17	19	14	15	9	942	1	07:00
144	86	4	9	32	13	28	17	1340	2	08:00
188	96	4	18	28	16	30	26	1765	0	09:00
243	114	3	15	31	24	41	24	2297	4	10:00
297	127	2	7	24	35	59	47	2803	1	11:00
269	142	1	2	8	17	114	37	2511	5	12:00
358	176	1	6	5	26	138	51	3355	3	13:00
333	165	4	11	20	36	94	40	3124	4	14:00
256	160	1	4	7	21	127	44	2352	9	15:00
232	160	4	7	6	20	123	37	2124	6	16:00
348	180	1	11	19	32	117	65	3238	5	17:00
293	130	4	18	31	16	61	54	2743	4	18:00
270	110	1	15	31	13	50	42	2546	5	19:00
269	73	1	8	14	13	37	22	2597	2	20:00
254	78	1	3	23	10	41	17	2446	0	21:00
209	54	2	3	11	11	27	10	2031	2	22:00
152	47	1	5	15	6	20	9	1462	4	23:00
4539	2335	45	211	483	383	1213	590	42411	60	Total:
	5.14%	0.10%	0.46%	1.06%	0.84%	2.67%	1.30%	93.42%	0.13%	Percentage:

Total Motorcycles, Cars and Buses:	43061
Percentage Motorcycles, Cars and Buses:	94.86%

Total Heavy Vehicles:	2335
Percentage Heavy Vehicles:	5.14%

FIGURE E-1
HOURLY VOLUME COMPOSITE CHART - BAY BRIDGE
Thursday to Sunday August 16 - 19, 2001



Location: William Preston Lane Bridge (Bay Bridge)

Direction: Eastbound

Date: Wednesday, October 17, 2001

				Heavy Vehicles						
Beginning		Passenger		Single Unit					Total Heavy	
Hour	Motorcycles	Cars	Buses	Trucks	WB40	WB50	WB60	Length > 66'	Vehicles	Total
0:00	0	240	4	17	17	66	30	0	130	374
01:00	0	96	2	15	7	46	27	0	95	193
02:00	2	67	4	11	11	47	31	0	100	173
03:00	2	69	2	18	15	56	28	2	119	192
04:00	0	107	4	18	18	82	27	2	147	258
05:00	1	248	12	39	21	83	28	2	173	434
06:00	2	651	21	62	30	58	23	3	176	850
07:00	0	1010	24	83	20	67	13	4	187	1221
08:00	2	1183	31	85	21	62	21	0	189	1405
09:00	0	1070	16	73	25	68	29	1	196	1282
10:00	0	1124	25	78	34	81	25	3	221	1370
11:00	0	1343	27	84	25	75	38	4	226	1596
12:00	1	1310	12	82	31	62	39	7	221	1544
13:00	3	1495	22	99	23	71	36	3	232	1752
14:00	2	1556	23	75	28	73	29	6	211	1792
15:00	3	1940	19	92	26	65	37	3	223	2185
16:00	3	2350	24	99	19	78	24	2	222	2599
17:00	0	2836	15	102	27	72	29	1	231	3082
18:00	3	2864	23	125	30	81	54	1	291	3181
19:00	2	1603	17	66	25	54	35	0	180	1802
20:00	2	1247	17	66	20	70	34	2	192	1458
21:00	1	938	9	38	8	53	29	2	130	1078
22:00	2	672	10	45	6	52	23	5	131	815
23:00	0	410	11	41	7	43	35	4	130	551
Total:	31	26429	374	1513	494	1565	724	57	4353	31187
Percentage:	0.10%	84.74%	1.20%	4.85%	1.58%	5.02%	2.32%	0.18%	13.96%	

Total Motorcycles, Cars and Buses:	26834
Percentage Motorcycles, Cars and Buses:	86.04%

Total Heavy Vehicles:	4353
Percentage Heavy Vehicles:	13.96%

Location: William Preston Lane Bridge (Bay Bridge)

Direction: Westbound

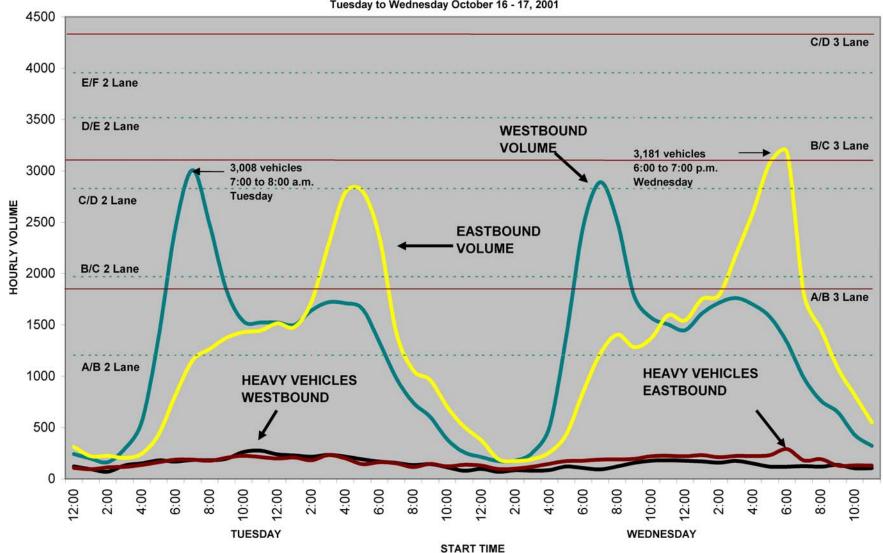
Date: Wednesday, October 17, 2001

				Heavy Vehicles						
Beginning		Passenger		Single Unit					Total Heavy	
Hour	Motorcycles	Cars	Buses	Trucks	WB40	WB50	WB60	Length > 66'	Vehicles	Total
0:00	0	106	4	9	11	57	24	1	102	212
01:00	1	96	3	8	6	47	12	1	74	174
02:00	0	85	5	8	15	56	8	1	88	178
03:00	2	149	3	25	16	47	10	3	101	255
04:00	1	382	3	36	13	52	14	4	119	505
05:00	4	1207	22	59	17	58	16	7	157	1390
06:00	1	2267	14	86	26	45	15	6	178	2460
07:00	1	2727	9	70	24	41	14	5	154	2891
08:00	0	2290	18	93	30	59	12	3	197	2505
09:00	4	1535	9	86	29	87	29	2	233	1781
10:00	1	1332	19	61	33	90	35	0	219	1571
11:00	2	1249	17	72	29	107	28	1	237	1505
12:00	2	1211	6	60	34	102	32	2	230	1449
13:00	5	1365	18	73	21	95	31	5	225	1613
14:00	1	1484	23	73	28	80	23	4	208	1716
15:00	0	1517	23	69	30	90	29	3	221	1761
16:00	0	1485	19	63	26	74	29	2	194	1698
17:00	2	1395	19	60	18	55	20	7	160	1576
18:00	1	1146	11	63	14	74	19	1	171	1329
19:00	2	818	11	39	12	69	31	2	153	984
20:00	0	613	6	29	10	74	24	5	142	761
21:00	1	483	5	29	14	72	41	4	160	649
22:00	0	314	1	12	8	59	32	3	114	429
23:00	0	198	5	19	12	68	20	0	119	322
Total:	31	25454	273	1202	476	1658	548	72	3956	29714
Percentage:	0.10%	85.66%	0.92%	4.05%	1.60%	5.58%	1.84%	0.24%	13.31%	

Total Motorcycles, Cars and Buses:	25758
Percentage Motorcycles, Cars and Buses:	86.69%

Total Heavy Vehicles:	3956
Percentage Heavy Vehicles:	13.31%

FIGURE E-2
HOURLY VOLUME COMPOSITE CHART - BAY BRIDGE
Tuesday to Wednesday October 16 - 17, 2001





2001 CAPACITY ANALYSIS WORKSHEETS

Bay Bridge 2001 Summer Weekend Day Westbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	<u></u>			
7	D-1- 311-				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:		ACTURE CENT			
	BAY BRIDGE WESTE	SOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		END			
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
Volume, V		1019	veh/h		
Peak-hour factor, PHF		0.90	VeII/II		
Peak 15-min volume, v15		283	**		
Trucks and buses		6	V %		
Recreational vehicles		0			
		•	%		
Terrain type:		Grade	٥.		
Grade		3.50 0.60	%		
Segment length			mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	(1- / 1		
Flow rate, vp		400	pc/h/ln		
	Speed Inputs an	d Adjustments			
Tana wideh		10 0	£ L		
Lane width	1	12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal	1 /1		
FFS or BFFS	C	65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, iN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
LOS and Performance Measures					
Flow rate, vp		400	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	need S	60.4	mi/h		
Number of lanes, N	peda, b	3	m±/11		
Density, D		6.6	pc/mi/ln		
Level of service, LOS		0.0 A	PC/1111		
TOVEL OF BUILDING, HOD		A			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Analy	ysis			
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
Date Performed:	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE WESTBO	UND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEKE	ND			
Description: 3 WB LANE	IS				
	Flow Inputs and A	Adjustments			
Volume, V		1445	veh/h		
Peak-hour factor, PHF		0.90	. 2-2, 2-		
Peak 15-min volume, v15		401	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	IT	2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmer	nt, fHV	0.943			
Driver population factor	or, vp	1.00			
Flow rate, vp		567	pc/h/ln		
	Speed Inputs and	Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	nent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
LOS and Performance Measures					
Flow rate, vp		567	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	speed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		9.4	pc/mi/ln		
Level of service, LOS		A			

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	117515			
7 7	n 1 11 1'				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		CEND			
Description: 3 WB LANE	S				
	Flow Inputs and	d Adjustments	-		
17.2 3		1007	veh/h		
Volume, V		1887	VeII/II		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		524	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC	•	3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00			
Flow rate, vp		741	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Performance Measures				
Flow rate, vp		741	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		12.3	pc/mi/ln		
Level of service, LOS		В			

HCS2000: Basic Freeway Segments Release 4.1a

	OPELACIONAL AND	117515			
Anolitat.	Bala Akundi				
Analyst: Agency or Company:					
Date Performed:	Parsons				
Analysis Time Period:	8/13/02				
		COIND CDAN			
<pre>Freeway/Direction: From/To:</pre>	BAY BRIDGE WESTE	SOUND SPAN			
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEK	rent)			
Description: 3 WB LANK		CEND			
Descripcion 5 WD Emi					
	Flow Inputs and	a Adjustments			
Volume, V		2439	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15	5	678	V		
Trucks and buses		6	%		
Recreational vehicles		0	96		
Terrain type:		Grade			
Grade		3.50	96		
Segment length		0.60	mi		
Trucks and buses PCE, I	ET	2.0			
Recreational vehicle Po		3.0			
Heavy vehicle adjustmen	nt, fHV	0.943			
Driver population factor		1.00			
Flow rate, vp		958	pc/h/ln		
	Speed Inputs ar	nd Adiustments			
	Speed inpues ar	ia riajasemerres			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	stment, fLC	1.6	mi/h		
Interchange density ad:		0.0	mi/h		
Number of lanes adjustr	ment, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway	7		
	LOS and Perform	nance Measures			
Eleva mete		0.50	ng/h/ln		
Flow rate, vp		958	pc/h/ln mi/h		
Free-flow speed, FFS	n been	60.4			
Average passenger-car s	speed, S	60.4	mi/h		
Number of lanes, N		3	ng/mi/ln		
Density, D		15.9	pc/mi/ln		
Level of service, LOS		В			

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis______ Analyst: Bala Akundi Data Akting or Company: Parsons Date Performed: 8/12/00 Analysis Time Analysis Time Period: 11 AM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 3 WB LANES _____Flow Inputs and Adjustments___ Volume, V 2978 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 827 V Trucks and buses Recreational vehicles Terrain type: Grade 3.50 용 Grade Segment length 0.60 Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1169 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway _____LOS and Performance Measures_____ pc/h/ln Flow rate, vp 1169 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 19.4 pc/mi/ln

Overall results are not computed when free-flow speed is less than 55 mph.

Level of service, LOS

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	11,212			
71	Dele Menedi				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		END - FRIDAY			
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
77-1		2424	1- /1-		
Volume, V		2434	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		676	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	T	2.0			
Recreational vehicle PC	E, ER	3.0			
Heavy vehicle adjustmen	t, fHV	0.943			
Driver population facto	r, vp	1.00			
Flow rate, vp		956	pc/h/ln		
	Speed Inputs an	d Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
-		Urban Freeway			
	LOS and Perform	nance Measures			
Flow rate, vp		956	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		15.8	pc/mi/ln		
Level of service, LOS		В	_		
•					

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana				
71	Dala Marradi				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		END - FRIDAY			
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
Molumo M		2652	veh/h		
Volume, V Peak-hour factor, PHF		0.90	VeII/II		
Peak 15-min volume, v15		737	77		
Trucks and buses		6	V %		
Recreational vehicles		0			
		*	00		
Terrain type:		Grade	0		
Grade		3.50	%		
Segment length	-	0.60	mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC	•	3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	(3. (3.		
Flow rate, vp		1041	pc/h/ln		
-	Speed Inputs an	nd Adjustments			
		10.0	5.		
Lane width	-	12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS	_	65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
LOS and Performance Measures					
Elevanote		1041	ng/h/ln		
Flow rate, vp		1041	pc/h/ln		
Free-flow speed, FFS	J	60.4	mi/h		
Average passenger-car s	peea, S	60.4	mi/h		
Number of lanes, N		3	/ . / .		
Density, D		17.2	pc/mi/ln		
Level of service, LOS		В			

HCS2000: Basic Freeway Segments Release 4.1a

		1			
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	RAV RRIDGE WESTE	ROLIND SDAM			
From/To:	DAI DRIDGE WEGIL	SCOND STAN			
Jurisdiction:					
Analysis Year:	2001 STIMMED WEEK	TEND - EPIDAY			
Description: 3 WB LANE		TRIDAT			
Descripcion: 5 WE HAVE	D				
	Flow Inputs and	d Adjustments			
Volume, V		2627	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		730	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	T	2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto		1.00			
Flow rate, vp		1031	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
LOS and Performance Measures					
Elev mate		1021	ng/h/1n		
Flow rate, vp		1031	pc/h/ln		
Free-flow speed, FFS	nood C	60.4	mi/h		
Average passenger-car s	peea, S	60.4	mi/h		
Number of lanes, N		3	ng/mi/ln		
Density, D		17.1	pc/mi/ln		
Level of service, LOS		В			

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	117515			
7	D-1- 3114				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		CEND			
Description: 3 WB LANE	S				
	Flow Inputs and	d Adjustments			
Volume, V		2565	veh/h		
Peak-hour factor, PHF		0.90	V E11/ 11		
Peak 15-min volume, v15		713	V		
Trucks and buses		6	v %		
Recreational vehicles		0	6 %		
Terrain type:		u Grade	6		
Grade		3.50	90		
		0.60	· .		
Segment length Trucks and buses PCE, E	т	2.0	mi		
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	/b /l		
Flow rate, vp		1007	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density	Clearance	0.50	interchange/mi		
Number of lanes, N		3	incci change/ mi		
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	ft.W	0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm		3.0	mi/h		
Free-flow speed, FFS	lenc, in	60.4	mi/h		
riee ilow speed, rrs		Urban Freeway	1111/11		
		Olban Fleeway			
	LOS and Perform	nance Measures			
Flow rate, vp		1007	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N	1	3	,		
Density, D		16.7	pc/mi/ln		
Level of service, LOS		В	<u> </u>		

HCS2000: Basic Freeway Segments Release 4.1a

	OPELACIONAL AND	117515			
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
-	BAY BRIDGE WESTE	ROIND SDAN			
From/To:	DAI DRIDGE WESTI	SCOND STAN			
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEK	CEND			
Description: 3 WB LANK					
	Flow Inputs and	d Adjustments			
1		0205	1. /1.		
Volume, V		2327	veh/h		
Peak-hour factor, PHF	_	0.90			
Peak 15-min volume, v15)	646	V •.		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade	0,		
Grade		3.50 0.60	%		
Segment length Trucks and buses PCE, I	200		mi		
		2.0			
Recreational vehicle PO		0.943			
Heavy vehicle adjustment Driver population factor		1.00			
	or, vp	914	pc/h/ln		
Flow rate, vp		914	pc/11/111		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	stment, fLC	1.6	mi/h		
Interchange density ad:	justment, fID	0.0	mi/h		
Number of lanes adjustr	ment, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway	•		
	LOS and Perform	nance Measures			
Flow rate, vp		914	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	sneed S	60.4	mi/h		
Number of lanes, N	predu, b	3	111±/11		
Density, D		15.1	pc/mi/ln		
Level of service, LOS		В	PO/1111		
LOVEL OF DELVICE, HOD		<u> </u>			

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional And	X1 Y D 1 D			
7 7	D 1 11 1'				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		KEND			
Description: 3 WB LANE	S				
	Flow Inputs and	d Adjustments			
Volume, V		3488	veh/h		
Peak-hour factor, PHF		0.90	V CII/ II		
Peak 15-min volume, v15		969	V		
Trucks and buses		6	ତ ଚ		
Recreational vehicles		0	90		
Terrain type:		Grade	0		
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	т	2.0	шт		
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto		1.00			
Flow rate, vp	I, VP	1369	pc/h/ln		
riow race, vp		1507	PC/11/111		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm		3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
LOS and Performance Measures					
Flow rate, vp		1369	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		22.7	pc/mi/ln		
Level of service, LOS		С			

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional And	117515			
7	D-1- 31				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		KEND			
Description: 3 WB LANE	S				
	Flow Inputs and	d Adjustments			
Volume, V		2931	veh/h		
Peak-hour factor, PHF		0.90	V (11 / 11		
Peak 15-min volume, v15		814	V		
Trucks and buses		6	v %		
Recreational vehicles		0	• •		
Terrain type:		•	6		
Grade		Grade 3.50	90		
		0.60	· .		
Segment length	ш		mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	/b /l		
Flow rate, vp		1151	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	4.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3	3		
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fT.W	0.0	mi/h		
Lateral clearance adjus		0.8	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm		3.0	mi/h		
Free-flow speed, FFS		61.2	mi/h		
rice rich speed, ric		Urban Freeway	,		
	LOS and Perform	nance Measures			
Flow rate, vp		1151	pc/h/ln		
Free-flow speed, FFS		61.2	mi/h		
Average passenger-car s	peed, S	61.2	mi/h		
Number of lanes, N		3			
Density, D		18.8	pc/mi/ln		
Level of service, LOS		C			

Bay Bridge 2001 Summer Weekend Day Eastbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE EASTE	SOUND SPAN			
From/To:	5111 51115 62 511612				
Jurisdiction:					
Analysis Year:	2001 SUMMER WEEK	END			
Description: 2 EB LANE					
	Flow Inputs and	l Adjustments			
	<u> </u>	<u> </u>			
Volume, V		2935	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15	5	815	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.00	%		
Segment length		0.70	mi		
Trucks and buses PCE, I	CT	1.5			
Recreational vehicle PO	CE, ER	3.0			
Heavy vehicle adjustmer	nt, fHV	0.971			
Driver population factor	or, vp	1.00			
Flow rate, vp		1679	pc/h/ln		
	Speed Inputs an	d Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		2			
Free-flow speed:		Ideal			
FFS or BFFS	G-1	65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		2.4	mi/h		
Interchange density ad		0.0	mi/h		
Number of lanes adjustr		4.5	mi/h		
Free-flow speed, FFS		58.1	mi/h		
		Urban Freeway			
	LOS and Perform	nance Measures			
Flow rate, vp		1679	pc/h/ln		
Free-flow speed, FFS		58.1	mi/h		
Average passenger-car s	speed. S	58.1	mi/h		
Number of lanes, N		2	/ 11		
Density, D		28.9	pc/mi/ln		
Level of service, LOS		D	F 0 / 1111		
LEVEL OF SCHVICE, HOD		_			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi			
Agency or Company:	Parsons			
	8/13/02			
Analysis Time Period: Freeway/Direction:	BAY BRIDGE EASTE	OLIND CDAN		
From/To:	BAI BRIDGE EASIL	SOUND SPAN		
Jurisdiction:				
Analysis Year:	2001 CIIMMED WEEK	TEND		
Description: 2 EB LANE		LEND		
Description: 2 LB LANE	io			
	Flow Inputs and	l Adjustments		
Volume, V		3572	veh/h	
Peak-hour factor, PHF		0.90	V C11/ 11	
Peak 15-min volume, v15		992	V	
Trucks and buses		6	%	
Recreational vehicles		0	00	
Terrain type:		Grade	.0	
Grade		3.00	00	
Segment length		0.70	mi	
Trucks and buses PCE, E	·T	1.5	III I	
Recreational vehicle PC		3.0		
Heavy vehicle adjustmen		0.971		
Driver population factor		1.00		
Flow rate, vp		2044	pc/h/ln	
Tiow race, vp		2011	PC/11/111	
	Speed Inputs an	nd Adjustments		
Lane width		12.0	ft	
Right-shoulder lateral	alearande	2.0	ft	
Interchange density	Clearance	0.50	interchange/mi	
Number of lanes, N		2	incerchange/mi	
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	ft M	0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm		4.5	mi/h	
Free-flow speed, FFS	ient, in	58.1	mi/h	
riee-llow speed, Frs			1111/11	
		Urban Freeway		
LOS and Performance Measures				
Flow rate, vp		2044	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car s	need S	56.0	mi/h	
Number of lanes, N	peca, b	2	m±/11	
Density, D		36.5	pc/mi/ln	
Level of service, LOS		50.5 E	PC/1111	
TOVEL OF BETAICE, TOP		15		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EASTE	ROIND SDAN	
From/To:	DAI DRIDGE EASII	SCOND STAN	
Jurisdiction:			
	2001 CHMMED MEEK	Z E NID	
Analysis Year: Description: 2 EB LANE		KEND	
Description: 2 LB LANE	ت		
	Flow Inputs and	d Adjustments	
77 77		2652	lo / lo
Volume, V		3653	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		1015	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	8
Segment length	_	0.70	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor, vp		1.00	(2. (2.
Flow rate, vp		2090	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj	ustment, fID	0.0	mi/h
Number of lanes adjustm	ent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	•
	LOS and Perform	nance Measures	
Flow rate, vp		2090	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S	55.2	mi/h
Number of lanes, N		2	
Density, D		37.8	pc/mi/ln
Level of service, LOS		E	

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	alysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EAST	BOUND SPAN	
From/To:	BHI BRIDGE BASTA	SOONE STIN	
Jurisdiction:	0001 GIRAGED LIEU		
Analysis Year: Description: 2 EB LAN	2001 SUMMER WEER ES	KEND	
	Flow Inputs and	d Adjustments	
Volume, V		3524	veh/h
Peak-hour factor, PHF		0.90	VE11/11
Peak 15-min volume, v1	5	979	77
Trucks and buses	J	9 <i>1</i> 9 6	V %
Recreational vehicles			0 00
		0	6
Terrain type:		Grade	0
Grade		3.00	8
Segment length		0.70	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle Po		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor, vp		1.00	
Flow rate, vp		2017	pc/h/ln
	Speed Inputs an	nd Adjustments_	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjust		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Free	
	LOS and Perform	mance Measures_	
Elements		2015	/lo /l
Flow rate, vp		2017	pc/h/ln
Free-flow speed, FFS	1 0	58.1	mi/h
Average passenger-car	speea, S	56.3	mi/h
Number of lanes, N		2	(
Density, D		35.8	pc/mi/ln
Level of service, LOS		E	

HCS2000: Basic Freeway Segments Release 4.1a

		-		
Analyst:	Bala Akundi			
Agency or Company:	Parsons			
Date Performed:	8/13/02			
Analysis Time Period:				
Freeway/Direction:	BAY BRIDGE EASTE	BOUND SPAN		
From/To:				
Jurisdiction:				
Analysis Year:	2001 SUMMER WEER	KEND		
Description: 2 EB LANE				
-	Elev Innuts one	l Adiustmonts		
	FIOW INPULS AND	d Adjustments		
Volume, V		3443	veh/h	
Peak-hour factor, PHF		0.90	. 5,	
Peak 15-min volume, v15		956	V	
Trucks and buses		6	8	
Recreational vehicles		0	ે ર	
Terrain type:		Grade		
Grade		3.00	%	
Segment length		0.70	mi	
Trucks and buses PCE, E	lT	1.5		
Recreational vehicle PC	CE, ER	3.0		
Heavy vehicle adjustmer	nt, fHV	0.971		
Driver population factor, vp		1.00		
Flow rate, vp		1970	pc/h/ln	
	Speed Inputs ar	nd Adjustments		
Lane width		12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2	3 · ,	
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fLW	0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm		4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
	LOS and Perform	mance Measures		
Flow rate, vp		1970	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car s	speed, S	56.9	mi/h	
Number of lanes, N	- ,	2	•	
Density, D		34.6	pc/mi/ln	
Level of service, LOS		D	_	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi			
Agency or Company:	Parsons			
	8/13/02			
Analysis Time Period:				
	BAY BRIDGE EASTE	NADS CINID		
From/To:	DAI DRIDGE EASII	SCOND SPAN		
Jurisdiction:				
	2001 CIMMED WEEK	ZENID		
Analysis Year:		KEND		
Description: 2 EB LANE	5			
	Flow Inputs and	d Adjustments		
Wolumo W		3508	veh/h	
Volume, V Peak-hour factor, PHF		0.90	VeII/II	
Peak 15-min volume, v15		974	**	
Trucks and buses		6	V %	
Recreational vehicles		0	% %	
		Grade	6	
Terrain type: Grade		3.00	00	
		0.70		
Segment length Trucks and buses PCE, E	т	1.5	mi	
Recreational vehicle PC		3.0		
	•	0.971		
Heavy vehicle adjustment, fHV		1.00		
Driver population factor, vp			ng/h/ln	
Flow rate, vp		2007	pc/h/ln	
	Speed Inputs ar	nd Adjustments		
T		10.0	£L	
Lane width	7	12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2		
Free-flow speed:		Ideal	. (1	
FFS or BFFS	C	65.0	mi/h	
Lane width adjustment,		0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm	ent, iN	4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
LOS and Performance Measures				
71 av		2007	/lo /l	
Flow rate, vp		2007	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car s	peed, S	56.5	mi/h	
Number of lanes, N		2		
Density, D		35.6	pc/mi/ln	
Level of service, LOS		E		

HCS2000: Basic Freeway Segments Release 4.1a

		1		
Analyst:	Bala Akundi			
Agency or Company:	Parsons			
	8/13/02			
Analysis Time Period:				
Freeway/Direction:		OUIND CDAN		
From/To:	DAI DRIDGE EASII	SCOND SPAN		
Jurisdiction:				
	2001 CIIMMED WEEK	TEND		
Analysis Year:		CEND		
Description: 2 EB LANE	5			
	Flow Inputs and	d Adjustments		
Volume, V		3010	veh/h	
Peak-hour factor, PHF		0.90	VE11/11	
Peak 15-min volume, v15		836	v	
Trucks and buses		6	v %	
Recreational vehicles		0	° 00	
		Grade	6	
Terrain type: Grade		3.00	00	
Segment length		0.70	mi	
Trucks and buses PCE, E	т	1.5	шт	
Recreational vehicle PC		3.0		
Heavy vehicle adjustmen	•	0.971		
-		1.00		
Driver population factor, vp Flow rate, vp		1722	pc/h/ln	
riow lace, vp		1/22	pc/11/111	
	Speed Inputs ar	nd Adjustments		
Lane width		12.0	ft	
Right-shoulder lateral	aloarango	2.0	ft	
Interchange density	Clearance	0.50		
Number of lanes, N		2	interchange/mi	
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
	£T W		·	
Lane width adjustment,		0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm	ient, in	4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
LOS and Performance Measures				
Flow rate, vp		1722	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car s	need S	58.1	mi/h	
Number of lanes, N	heea' p	2	шт/П	
Density, D		29.6	pc/mi/ln	
Level of service, LOS		29.0 D	PC/1111	
TOVET OF BETATOE, HOD		D		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi			
Agency or Company:	Parsons			
	8/13/02			
Analysis Time Period: Freeway/Direction:	BAV BRIDGE FACTE	ROIND SDAN		
From/To:	BAI BRIDGE EASIL	SCOND SPAN		
Jurisdiction:				
	2001 CIMMED WEEK	Z ENTO		
Analysis Year:		KEND		
Description: 2 EB LANE	5			
	Flow Inputs and	d Adjustments		
Volume, V		3083	veh/h	
Peak-hour factor, PHF		0.90	VE11/11	
Peak 15-min volume, v15		856	v	
Trucks and buses		6	v %	
Recreational vehicles		0	° 00	
Terrain type:		Grade	6	
Grade		3.00	00	
Segment length		0.70	mi	
Trucks and buses PCE, E	т	1.5	шт	
Recreational vehicle PC		3.0		
Heavy vehicle adjustmen		0.971		
		1.00		
Driver population factor, vp Flow rate, vp		1764	pc/h/ln	
riow lace, vp		1704	pc/11/111	
	Speed Inputs ar	nd Adjustments		
Lane width		12.0	ft	
	alaamanaa			
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2		
Free-flow speed:		Ideal	/1-	
FFS or BFFS	ET II	65.0	mi/h	
Lane width adjustment,		0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm	ent, in	4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
LOS and Performance Measures				
Flow rate, vp		1764	pc/h/ln	
· -		58.1	mi/h	
Free-flow speed, FFS Average passenger-car s	need C	58.0	mi/h	
	peeu, s	2	шт/П	
Number of lanes, N Density, D		30.4	ng/mi/ln	
Level of service, LOS			pc/mi/ln	
Hever or service, LOS		D		

HCS2000: Basic Freeway Segments Release 4.1a

	_			
Analyst:	Bala Akundi			
Agency or Company:	Parsons			
Date Performed:	8/13/02			
Analysis Time Period:				
Freeway/Direction:	BAY BRIDGE EASTE	BOUND SPAN		
From/To:				
Jurisdiction:				
Analysis Year:	2001 SUMMER WEEK	CEND		
Description: 2 EB LANE				
	Flow Inputs and	l Adjustments		
	rrow inputs and	Adjustments		
Volume, V		3604	veh/h	
Peak-hour factor, PHF		0.90	. 5,	
Peak 15-min volume, v15		1001	V	
Trucks and buses		6	%	
Recreational vehicles		0	%	
Terrain type:		Grade		
Grade		3.00	%	
Segment length		0.70	mi	
Trucks and buses PCE, E	Т	1.5		
Recreational vehicle PC	E, ER	3.0		
Heavy vehicle adjustment, fHV		0.971		
Driver population factor, vp		1.00		
Flow rate, vp		2062	pc/h/ln	
Speed Inputs and Adjustments				
		10 110 J 00 J 110 D		
Lane width		12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2		
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm	ent, fN	4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
LOS and Performance Measures				
		0060	(3. (3.	
Flow rate, vp		2062	pc/h/ln	
Free-flow speed, FFS	a	58.1	mi/h	
Average passenger-car s	peea, S	55.7	mi/h	
Number of lanes, N		2		
Density, D		37.0	pc/mi/ln	
Level of service, LOS		E		

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	lysis		
Analyst:	Bala Akundi			
Agency or Company:	Parsons			
Date Performed:	8/13/02			
Analysis Time Period:				
Freeway/Direction: From/To:	BAY BRIDGE EASTE	SOUND SPAN		
Jurisdiction:				
Analysis Year: Description: 2 EB LANE	2001 SUMMER WEEK	END		
	Flow Inputs and	l Adjustments		
Volume, V		3467	veh/h	
Peak-hour factor, PHF		0.90	V E11/ 11	
Peak 15-min volume, v15		963	V	
Trucks and buses)	6	90	
Recreational vehicles		0	000	
Terrain type:		Grade	· ·	
Grade		3.00	%	
Segment length		0.70	mi	
Trucks and buses PCE, E	lT	1.5		
Recreational vehicle PC		3.0		
Heavy vehicle adjustmen		0.971		
Driver population factor, vp		1.00		
Flow rate, vp		1984	pc/h/ln	
	Speed Inputs an	nd Adjustments		
Lane width		12.0	ft	
Right-shoulder lateral	aloarango	2.0	ft	
Interchange density	Clearance	0.50	interchange/mi	
Number of lanes, N		2	interchange/ mi	
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,	fT.W	0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density ad		0.0	mi/h	
Number of lanes adjustm		4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
LOS and Performance Measures				
Flow rate am		1984	ng/h/ln	
Flow rate, vp Free-flow speed, FFS		58.1	pc/h/ln mi/h	
Average passenger-car s	rneed S	56.7	mi/h	
Number of lanes, N	ישרפת, ה	2	111111111111111111111111111111111111111	
Density, D		35.0-	pc/mi/ln	
Level of service, LOS		D	L 0 / 1111 / TIT	
2.22 22 200, 200		_		

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis______ Analyst: Bala Akundi Data Akt Parsons Date Performed: 8/12/00 Analysis Time Analysis Time Period: 5 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND Description: 2 EB LANES _____Flow Inputs and Adjustments___ Volume, V 1985 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 551 V Trucks and buses Recreational vehicles Terrain type: Grade 3.00 용 Grade Segment length 0.70 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1136 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway _____LOS and Performance Measures_____ pc/h/ln Flow rate, vp 1136 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Number of lanes, N 2 Density, D 19.6 pc/mi/ln Level of service, LOS

HCS2000: Basic Freeway Segments Release 4.1a

	Operational An	alysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EAST	BUIND CDIN	
From/To:	DAI DKIDGE EASI	BOUND SPAN	
Jurisdiction:			
Analysis Year:	2001 SUMMER WEE	KEND	
Description: 2 EB LANE		KEND	
peseriperon 2 12 Em.			
	Flow Inputs an	d Adjustments	
Volume, V		2201	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		611	V
Trucks and buses		6	%
Recreational vehicles		0	96
Terrain type:		Grade	
Grade		3.00	96
Segment length		0.70	mi
Trucks and buses PCE, E	Т	1.5	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population facto		1.00	
Flow rate, vp	,	1259	pc/h/ln
	Speed Inputs a	nd Adjustments_	
I and width		12.0	£+
Lane width	-1	12.0 2.0	ft ft
Right-shoulder lateral	clearance		
Interchange density		0.50	interchange/mi
Number of lanes, N		2 Ideal	
Free-flow speed:		65.0	mi/h
FFS or BFFS	£T T.T		mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, in	4.5	mi/h
Free-flow speed, FFS		58.1 Urban Free	mi/h
		orban Free	way
	LOS and Perfor	mance Measures_	
Flow rate, vp		1259	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S	58.1	mi/h
Number of lanes, N	- •	2	•
Density, D		21.7	pc/mi/ln
Level of service, LOS		C	<u> </u>

Bay Bridge 2001 Summer Weekend – Friday Westbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	11,212			
71	Dele Menedi				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		END - FRIDAY			
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
77-1		2424	1- /1-		
Volume, V		2434	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		676	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	T	2.0			
Recreational vehicle PC	E, ER	3.0			
Heavy vehicle adjustmen	t, fHV	0.943			
Driver population facto	r, vp	1.00			
Flow rate, vp		956	pc/h/ln		
	Speed Inputs an	d Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
-		Urban Freeway			
	LOS and Perform	nance Measures			
Flow rate, vp		956	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		15.8	pc/mi/ln		
Level of service, LOS		В	_		
•					

HCS2000: Basic Freeway Segments Release 4.1a

		,	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:		ROLIND SDAM	
From/To:	DAI DRIDGE WEGIL	SCOND STAN	
Jurisdiction:			
Analysis Year:	2001 CIIMMED WEEK	TEND - EPIDAY	
Description: 3 WB LANE		TRIDAT	
Descripcion: 5 WD DANE	Б		
	Flow Inputs and	d Adjustments	
Volume, V		2652	veh/h
Peak-hour factor, PHF		0.90	·
Peak 15-min volume, v15		737	V
Trucks and buses		6	%
Recreational vehicles		0	96
Terrain type:		Grade	
Grade		3.50	%
Segment length		0.60	mi
Trucks and buses PCE, E	Т	2.0	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.943	
Driver population facto		1.00	
Flow rate, vp		1041	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus	tment, fLC	1.6	mi/h
Interchange density adj	ustment, fID	0.0	mi/h
Number of lanes adjustm	ent, fN	3.0	mi/h
Free-flow speed, FFS		60.4	mi/h
		Urban Freeway	
	LOS and Perform	nance Measures	
-		1041	
Flow rate, vp		1041	pc/h/ln
Free-flow speed, FFS	1 0	60.4	mi/h
Average passenger-car s	peed, S	60.4	mi/h
Number of lanes, N		3	, , , ,
Density, D		17.2	pc/mi/ln
Level of service, LOS		В	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Agency or Company: Date Performed: Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: 3 WB LANE	BAY BRIDGE WESTBO 2001 SUMMER WEEKE			
	Flow Inputs and	Adjustments		
Volume, V		2627	veh/h	
Peak-hour factor, PHF		0.90		
Peak 15-min volume, v15		730	V	
Trucks and buses		6	%	
Recreational vehicles		0	8	
Terrain type:		Grade		
Grade		3.50	8	
Segment length	_	0.60	mi	
Trucks and buses PCE, E		2.0		
Recreational vehicle PC		3.0		
Heavy vehicle adjustmen		0.943		
Driver population facto	r, vp	1.00	(1. /7	
Flow rate, vp		1031	pc/h/ln	
	Speed Inputs and	Adjustments		
			_	
Lane width	_	12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		3		
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment,		0.0	mi/h	
Lateral clearance adjus		1.6	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm	ent, fN	3.0	mi/h	
Free-flow speed, FFS		60.4	mi/h	
		Urban Freeway		
LOS and Performance Measures				
			(2. (2.	
Flow rate, vp		1031	pc/h/ln	
Free-flow speed, FFS	1 0	60.4	mi/h	
Average passenger-car s	peed, S	60.4	mi/h	
Number of lanes, N		3	/ 1/3	
Density, D		17.1	pc/mi/ln	
Level of service, LOS		В		

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	11,212			
7	Dele Menedi				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:		ACTURE CENT			
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:	0001 0				
Analysis Year:		END - FRIDAY			
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
Volume, V		3042	veh/h		
Peak-hour factor, PHF		0.90	V C11/ 11		
Peak 15-min volume, v15		845	v		
Trucks and buses		6	> &		
Recreational vehicles		0	%		
Terrain type:		Grade	0		
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	т	2.0	ш		
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen	•	0.943			
Driver population factor		1.00			
Flow rate, vp	Ι, νρ	1194	pc/h/ln		
riow race, vp		1101	pc/11/111		
	Speed Inputs an	d Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density	crearance	0.50	interchange/mi		
Number of lanes, N		3	incer enange/ mi		
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fT.W	0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm		3.0	mi/h		
Free-flow speed, FFS	CIIC, III	60.4	mi/h		
rice from speca, rrb		Urban Freeway	1117 11		
		Olban Fleeway			
	LOS and Perform	nance Measures			
Flow rate, vp		1194	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N	<u>-</u> ,	3	•		
Density, D		19.8	pc/mi/ln		
Level of service, LOS		С	-		
·					

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis_____

Analyst: Bala Akundi Data Aki Parsons Date Performed: 8/12/00 Analysis Time Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 3 WB LANES _____Flow Inputs and Adjustments__ Volume, V 2878 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 799 V Trucks and buses 0 Recreational vehicles Terrain type: Grade 3.50 용 Grade Segment length 0.60 Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 1130 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway LOS and Performance Measures_____ pc/h/ln Flow rate, vp 1130 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 18.7 pc/mi/ln Level of service, LOS

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period: Freeway/Direction:	DAY DDIDCE MECTE	OUIND CDAN	
From/To:	DAI BRIDGE WESTI	SCOND SPAN	
Jurisdiction:			
Analysis Year:	2001 СІІММЕР МЕСК	TEND - EDIDAY	
Description: 3 WB LANE		CEND - FRIDAI	
Description: 5 WB DAME	D .		
	Flow Inputs and	d Adjustments	
Volume, V		2563	veh/h
Peak-hour factor, PHF		0.90	,
Peak 15-min volume, v15		712	V
Trucks and buses		6	8
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.50	%
Segment length		0.60	mi
Trucks and buses PCE, E	Т	2.0	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.943	
Driver population facto		1.00	
Flow rate, vp		1006	pc/h/ln
	Oraced Transition and	. J. 7 J	
	Speed Inputs ar	a Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	4.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus	tment, fLC	0.8	mi/h
Interchange density adj	ustment, fID	0.0	mi/h
Number of lanes adjustm	ent, fN	3.0	mi/h
Free-flow speed, FFS		61.2	mi/h
		Urban Freeway	
	LOS and Perform	nance Measures	
71 t.		1006	(]- (]
Flow rate, vp		1006	pc/h/ln
Free-flow speed, FFS		61.2	mi/h
Average passenger-car s	peea, S	61.2	mi/h
Number of lanes, N		3	(
Density, D		16.4	pc/mi/ln
Level of service, LOS		В	

HCS2000: Basic Freeway Segments Release 4.1a

	Operational A	nalysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:	6 PM		
Freeway/Direction:	BAY BRIDGE WES	TBOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 SUMMER WE	EKEND - FRIDAY	
Description: 3 WB LANE	S		
	Flow Inputs a	nd Adjustments	
Volume, V		2435	veh/h
Peak-hour factor, PHF		0.90	•
Peak 15-min volume, v15		676	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.50	%
Segment length		0.60	mi
Trucks and buses PCE, E	T	2.0	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.943	
Driver population facto	r, vp	1.00	
Flow rate, vp		956	pc/h/ln
	Speed Inputs	and Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		1.6	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, fN	3.0	mi/h
Free-flow speed, FFS		60.4	mi/h
		Urban Freeway	
	LOS and Perfo	rmance Measures	
Flow rate, vp		956	pc/h/ln
Free-flow speed, FFS		60.4	mi/h
Average passenger-car s	peed, S	60.4	mi/h
Number of lanes, N		3	
Density, D		15.8	pc/mi/ln
Level of service, LOS		В	

Bay Bridge 2001 Summer Weekend – Friday Eastbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	alysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EAST	DUIND GDYN	
From/To:	DAI DKIDGE EASII	SOUND SPAN	
Jurisdiction:			
Analysis Year:	2001 SUMMER WEER	YFND - FRIDAY	
Description: 2 EB LANE		KEND PRIDAT	
	Flow Inputs and	d Adjustments	
Molumo M		2221	veh/h
Volume, V		3332	ven/n
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		926	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	_
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC	•	3.0	
Heavy vehicle adjustmen		0.971	
Driver population facto	r, vp	1.00	
Flow rate, vp		1907	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fT.W	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS	ciic, iii	58.1	mi/h
rice riow speca, ris		Urban Freewa	
	LOS and Perform	mance Measures	
Flow rate, vp		1907	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S	57.4	mi/h
Number of lanes, N		2	
Density, D		33.2	pc/mi/ln

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis______ Analyst: Bala Akundi Data Akting or Company: Parsons Date Performed: 8/12/00 Analysis Time Analysis Time Period: 1 PM Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES _____Flow Inputs and Adjustments__ Volume, V 3440 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 956 V Trucks and buses 0 Recreational vehicles Terrain type: Grade 3.00 용 Grade Segment length 0.70 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 1968 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway _____LOS and Performance Measures_____ pc/h/ln Flow rate, vp 1968 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 56.9 mi/h Number of lanes, N 2 Density, D 34.6 pc/mi/ln Level of service, LOS

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Agency or Company: Date Performed: Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: 2 EB LANE	BAY BRIDGE EASTBO			
	Flow Inputs and	Adjustments		
Volume, V Peak-hour factor, PHF		3804 0.90	veh/h	
Peak 15-min volume, v15		1057	V	
Trucks and buses		6	%	
Recreational vehicles		0	000	
Terrain type:		Grade	.0	
Grade		3.00	00	
Segment length		0.70	mi	
Trucks and buses PCE, E	т	1.5	шт	
Recreational vehicle PC		3.0		
Heavy vehicle adjustmen		0.971		
Driver population facto		1.00		
Flow rate, vp	-, ·F	2177	pc/h/ln	
Tion race, vp		21,,	PC/ 11/ 111	
	Speed Inputs and	Adjustments		
		10.0	5.	
Lane width	1	12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2		
Free-flow speed:		Ideal		
FFS or BFFS	ETM	65.0	mi/h	
Lane width adjustment,		0.0	mi/h	
Lateral clearance adjus		2.4	mi/h	
Interchange density adj		0.0	mi/h	
Number of lanes adjustm Free-flow speed, FFS	ent, in	4.5	mi/h mi/h	
riee-liow speed, rrs		58.1	1111/11	
		Urban Freeway		
LOS and Performance Measures				
Flow rate, vp		2177	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car s	peed, S	53.5	mi/h	
Number of lanes, N	- ·	2		
Density, D		40.7	pc/mi/ln	
Level of service, LOS		E		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EASTE	ROLIND SPAN	
From/To:	DIII DICIDOL LINGIL		
Jurisdiction:			
Analysis Year:	2001 SUMMER WEEK	END - FRIDAY	
Description: 2 EB LANE			
	Flow Inputs and	l Adjustments	
Volume, V		4013	veh/h
Peak-hour factor, PHF		0.90	V 322, 22
Peak 15-min volume, v15		1115	V
Trucks and buses		6	%
Recreational vehicles		0	00
Terrain type:		Grade	·
Grade		3.00	90
Segment length		0.70	mi
Trucks and buses PCE, E	Т	1.5	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor		1.00	
Flow rate, vp	-, · · · ·	2296	pc/h/ln
			1 - /
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density	010010100	0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS	·	58.1	mi/h
-		Urban Freeway	
		_	
	LOS and Perform	nance Measures	
Flow rate, vp		2296	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S		mi/h
Number of lanes, N		2	
Density, D			pc/mi/ln
Level of service, LOS		F	

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis_____ Analyst: Bala Akundi Data Akı Parsons Date Performed: 8/12/00 Analysis Tim Freeway/Direction: BAY BRIDGE EASTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 SUMMER WEEKEND - FRIDAY Description: 2 EB LANES _____Flow Inputs and Adjustments__ Volume, V 3972 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1103 V Trucks and buses Recreational vehicles 0 Terrain type: Grade 3.00 % Grade Segment length 0.70 Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.971 Driver population factor, vp 1.00 Flow rate, vp 2273 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures_____ pc/h/ln Flow rate, vp 2273 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 50.9 mi/h Number of lanes, N 2 Density, D 44.6 pc/mi/ln Level of service, LOS \mathbf{E}

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Anai	.ysis			
7	Dala Marradi				
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE EASTBO	OUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:		ND - FRIDAY			
Description: 2 EB LANE	S				
	Flow Inputs and	Adjustments			
Volumo V		4011	veh/h		
Volume, V			VeII/II		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		1114	V o.		
Trucks and buses		5	%		
Recreational vehicles		0	%		
Terrain type:		Grade	2		
Grade		3.00	%		
Segment length		0.70	mi		
Trucks and buses PCE, E		1.5			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.976			
Driver population facto	r, vp	1.00			
Flow rate, vp		2284	pc/h/ln		
	Speed Inputs and	l Adjustments			
T		10.0	£ .		
Lane width	-1	12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		2			
Free-flow speed:		Ideal	1.73		
FFS or BFFS	C	65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		2.4	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, fN	4.5	mi/h		
Free-flow speed, FFS		58.1	mi/h		
		Urban Freeway			
	LOS and Performa	nce Measures			
Flow rate, vp		2284	pc/h/ln		
Free-flow speed, FFS		58.1	mi/h		
	nood C	20.1			
Average passenger-car s	peea, s	2	mi/h		
Number of lanes, N		2			
Density, D		T-1	pc/mi/ln		
Level of service, LOS		F			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational An	alysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:	6 PM		
Freeway/Direction:	BAY BRIDGE EAST	BOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 SUMMER WEE	KEND - FRIDAY	
Description: 2 EB LANE	S		
	Flow Inputs and	d Adjustments	
Volume, V		3146	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		874	v
Trucks and buses		5	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	9
Segment length		0.70	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC	•	3.0	
Heavy vehicle adjustmen		0.976	
Driver population facto	r, vp	1.00	(1. / 7
Flow rate, vp		1791	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, iN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Perfor	mance Measures	
Flow rate, vp		1791	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S	58.0	mi/h
Number of lanes, N		2	
Density, D		30.9	pc/mi/ln
Level of service, LOS		D	

Bay Bridge 2001 Average Weekday Westbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

		_			
Analyst:	BKA				
Agency or Company:	Parsons				
Date Performed:	8/13/02				
Analysis Time Period:	7 AM				
Freeway/Direction:	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE	S				
	Flow Inputs and	d Adjustments			
Volume, V		2891	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		803	v		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	Т	2.0			
Recreational vehicle PC	E, ER	3.0			
Heavy vehicle adjustmen	t, fHV	0.943			
Driver population facto	r, vp	1.00			
Flow rate, vp		1135	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Perform	nance Measures			
_					
Flow rate, vp		1135	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		18.8	pc/mi/ln		
Level of service, LOS		С			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Anal	ysis	
Analyst:	BKA		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:		MADS CIMII	
From/To:	BIII BRIDGE WEBIBO	OND BITH	
Jurisdiction:			
Analysis Year:	2001 WEEKDAY		
Description: 3 WB LANE			
	Flow Inputs and	Adjustments	
77. 1 77		25.05	1- /1-
Volume, V		2505	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		696	V
Trucks and buses		6	8
Recreational vehicles		0	%
Terrain type:		Grade	0
Grade		3.50	%
Segment length	ım	0.60	mi
Trucks and buses PCE, E		2.0 3.0	
Recreational vehicle PC Heavy vehicle adjustmen		0.943	
_		1.00	
Driver population factor, vp		983	pc/h/ln
Flow rate, vp		903	pc/11/111
	Speed Inputs and	Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		3	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus	tment, fLC	1.6	mi/h
Interchange density adj	ustment, fID	0.0	mi/h
Number of lanes adjustm	ent, fN	3.0	mi/h
Free-flow speed, FFS		60.4	mi/h
		Urban Freeway	
	LOS and Performa	nce Measures	
Flow rate, vp		983	pc/h/ln
Free-flow speed, FFS		60.4	mi/h
Average passenger-car s	meed S	60.4	mi/h
Number of lanes, N	peca, b	3	
Density, D		16.3	pc/mi/ln
Level of service, LOS		В	pc/ m1/ 111

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	BKA				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE WESTE	ROUND SPAN			
From/To:	BIII BRIDGE WEGIL				
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE					
Deberration 5 ND Entre					
	Flow Inputs and	d Adjustments			
Volume, V		1781	veh/h		
Peak-hour factor, PHF		0.90	V 311, 11		
Peak 15-min volume, v15		495	V		
Trucks and buses		6	ତ ୧		
Recreational vehicles		0	90		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	Т	2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.971			
Driver population facto		1.00			
Flow rate, vp		679	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Perform	mance Measures			
-1		600	(1. (2.		
Flow rate, vp		679	pc/h/ln		
Free-flow speed, FFS	1 0	60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3	(
Density, D		11.2	pc/mi/ln		
Level of service, LOS		В			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	BKA				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE WESTE	ROUND SPAN			
From/To:	DITI DRIDGE WEGIT				
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE					
Joseph S WE Ellis	~				
	Flow Inputs and	d Adjustments			
Volume, V		1571	veh/h		
Peak-hour factor, PHF		0.90	,		
Peak 15-min volume, v15		436	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	Т	2.0			
Recreational vehicle PC	E, ER	3.0			
Heavy vehicle adjustmen	t, fHV	0.943			
Driver population facto	r, vp	1.00			
Flow rate, vp		617	pc/h/ln		
	Speed Inputs ar	nd Adiustments			
	bpeca inpacb ar	ia hajabemeneb			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Perform	nance Measures			
Til		C17	/b /l		
Flow rate, vp		617	pc/h/ln		
Free-flow speed, FFS	a	60.4	mi/h		
Average passenger-car s	peea, S	60.4	mi/h		
Number of lanes, N		3	(
Density, D		10.2	pc/mi/ln		
Level of service, LOS		A			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	llysis			
Analyst:	BKA				
Agency or Company:	Parsons				
Date Performed:	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE WESTE	SOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
Volume, V		1505	veh/h		
Peak-hour factor, PHF		0.90	veii/ii		
Peak 15-min volume, v15		418	77		
Trucks and buses		6	V %		
Recreational vehicles		0	% %		
Terrain type:		Grade	.0		
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	т	2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen	•	0.943			
Driver population factor		1.00			
Flow rate, vp		591	pc/h/ln		
	Speed Inputs an	nd Adjustments			
Lane width		12.0	ft		
	Right-shoulder lateral clearance		C.		
Interchange density		2.0	ft		
	clearance	0.50	interchange/mi		
Number of lanes, N	clearance	0.50	= -		
Number of lanes, N Free-flow speed:	clearance	0.50 3 Ideal	interchange/mi		
Number of lanes, N Free-flow speed: FFS or BFFS		0.50 3 Ideal 65.0	interchange/mi		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment,	fLW	0.50 3 Ideal 65.0 0.0	interchange/mi mi/h mi/h		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus	fLW tment, fLC	0.50 3 Ideal 65.0 0.0 1.6	<pre>interchange/mi mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment adjustment, Interchange density adj	fLW tment, fLC ustment, fID	0.50 3 Ideal 65.0 0.0 1.6 0.0	<pre>interchange/mi mi/h mi/h mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment adjustment, Interchange density adjustment adjustment of lanes adjustment.	fLW tment, fLC ustment, fID	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0	<pre>interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment adjustment, Interchange density adj	fLW tment, fLC ustment, fID	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4	<pre>interchange/mi mi/h mi/h mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment adjustment, Interchange density adjustment adjustment of lanes adjustment.	fLW tment, fLC ustment, fID	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0	<pre>interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment adjustment, Interchange density adjustment adjustment of lanes adjustment.	fLW tment, fLC ustment, fID	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4 Urban Freeway	<pre>interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS	fLW tment, fLC ustment, fID ent, fN	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4 Urban Freeway	<pre>interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h</pre>		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp	fLW tment, fLC ustment, fID ent, fN	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4 Urban Freeway	interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS	fLW tment, fLC ustment, fID ent, fNLOS and Perform	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4 Urban Freeway mance Measures	interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS	fLW tment, fLC ustment, fID ent, fNLOS and Perform	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4 Urban Freeway mance Measures	interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h		
Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car se	fLW tment, fLC ustment, fID ent, fNLOS and Perform	0.50 3 Ideal 65.0 0.0 1.6 0.0 3.0 60.4 Urban Freeway mance Measures 591 60.4 60.4	interchange/mi mi/h mi/h mi/h mi/h mi/h mi/h mi/h		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	BKA				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE WESTE	BOUND SPAN			
From/To:	BIII BRIDGE WEGIL				
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE					
1					
	Flow Inputs and	d Adjustments			
Volume, V		1449	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		403	V		
Trucks and buses		6	%		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	T	2.0			
Recreational vehicle PC	E, ER	3.0			
Heavy vehicle adjustmen	t, fHV	0.943			
Driver population factor	r, vp	1.00			
Flow rate, vp		569	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Perform	mance Measures			
Flow rate, vp		569	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed. S	60.4	mi/h		
Number of lanes, N	F 5 5 6 7 5	3	/ 11		
Density, D		9.4	pc/mi/ln		
Level of service, LOS		A	F - / /		
		==			

HCS2000: Basic Freeway Segments Release 4.1a

	-	_			
Analyst:	BKA				
Agency or Company:	Parsons				
Date Performed:	8/13/02				
	1 PM				
Freeway/Direction:	BAY BRIDGE WEST	ROIMD SDAN			
From/To:	DAI DRIDGE WEGII	BOOND BLAN			
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE					
Description: 3 WB LANE	۵				
	Flow Inputs and	d Adjustments			
Molumo M		1612	rrah /h		
Volume, V		1613	veh/h		
Peak-hour factor, PHF		0.90			
Peak 15-min volume, v15		448	V •		
Trucks and buses		6	%		
Recreational vehicles		0	8		
Terrain type:		Grade	0		
Grade		3.50 0.60	% 		
Segment length	m		mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC	•	3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	/1- / 7		
Flow rate, vp		633	pc/h/ln		
	Speed Inputs a	nd Adjustments			
		10.0	6.		
Lane width	-	12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal	1.0		
FFS or BFFS	5	65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway	7		
	LOS and Perform	mance Measures			
71 t.		(22	/1- /1		
Flow rate, vp		633	pc/h/ln		
Free-flow speed, FFS	1 0	60.4	mi/h		
Average passenger-car s	peea, S	60.4	mi/h		
Number of lanes, N		3	(' ' / 3		
Density, D		10.5	pc/mi/ln		
Level of service, LOS		A			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	BKA		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:		SOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 WEEKDAY		
Description: 3 WB LANI			
	Flow Inputs and	l Adjustments	
Volume, V		1716	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v1	5	477	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.50	8
Segment length		0.60	mi
Trucks and buses PCE, I		2.0	
Recreational vehicle Po		3.0	
Heavy vehicle adjustmen		0.943	
Driver population factor	or, vp	1.00	43. 43
Flow rate, vp		674	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
	alcarango		ft
Right-shoulder lateral	Clearance	2.0 0.50	
Interchange density Number of lanes, N		3	interchange/mi
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	ft W	0.0	mi/h
Lateral clearance adjust		1.6	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjustr		3.0	mi/h
Free-flow speed, FFS		60.4	mi/h
rice riow speed, ris		Urban Freeway	
		,,	
	LOS and Perform	nance Measures	
Flow rate, vp		674	pc/h/ln
Free-flow speed, FFS		60.4	mi/h
Average passenger-car	speed, S	60.4	mi/h
Number of lanes, N		3	
Density, D		11.2	pc/mi/ln
Level of service, LOS		В	

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	<u></u>			
7 7	DILA				
Analyst:	BKA				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
	BAY BRIDGE WESTE	BOUND SPAN			
From/To:					
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE	S				
	Flow Inputs and	l Adjustments			
Volume, V		1761	veh/h		
Peak-hour factor, PHF		0.90	Ve11/11		
Peak 15-min volume, v15		489	**		
Trucks and buses		6	V %		
Recreational vehicles		0			
		•	%		
Terrain type:		Grade	0		
Grade		3.50	%		
Segment length	m	0.60	mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	(1- / 1		
Flow rate, vp		691	pc/h/ln		
	Speed Inputs an	d Adjustments			
T		10 0	£ L		
Lane width	-1	12.0	ft ft		
Right-shoulder lateral	clearance	2.0			
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal	/ 1-		
FFS or BFFS	CTTT	65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, in	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Perform	nance Measures			
Flow rate, vp		691	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	need S	60.4	mi/h		
Number of lanes, N	peca, b	3	m±/11		
Density, D		11.4	pc/mi/ln		
Level of service, LOS		В	PC/1111		
TOVEL OF BUTAICE, HOD		ם			

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis_____ Analyst: BKA Parsons Agency or Company: Date Performed: Analysis Time Period: 4 PM Freeway/Direction: BAY BRIDGE WESTBOUND SPAN From/To: Jurisdiction: Analysis Year: 2001 WEEKDAY Description: 3 WB LANES _____Flow Inputs and Adjustments___ Volume, V 1698 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 472 V Trucks and buses Recreational vehicles 0 Terrain type: Grade 3.50 응 Grade Segment length 0.60 Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.943 Driver population factor, vp 1.00 Flow rate, vp 667 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 3 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 1.6 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 3.0 mi/h Free-flow speed, FFS 60.4 mi/h Urban Freeway LOS and Performance Measures_____ pc/h/ln Flow rate, vp 667 Free-flow speed, FFS 60.4 mi/h Average passenger-car speed, S 60.4 mi/h Number of lanes, N 3 Density, D 11.0+ pc/mi/ln Level of service, LOS

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	BKA				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE WESTE	ROUND SPAN			
From/To:	BIII BRIDGE WEGIL				
Jurisdiction:					
Analysis Year:	2001 WEEKDAY				
Description: 3 WB LANE					
Joseph S WE Ellis	~				
	Flow Inputs and	d Adjustments			
Volume, V		1576	veh/h		
Peak-hour factor, PHF		0.90	,		
Peak 15-min volume, v15		438	V		
Trucks and buses		6	8		
Recreational vehicles		0	%		
Terrain type:		Grade			
Grade		3.50	%		
Segment length		0.60	mi		
Trucks and buses PCE, E	Т	2.0			
Recreational vehicle PC		3.0			
Heavy vehicle adjustmen	t, fHV	0.943			
Driver population facto		1.00			
Flow rate, vp		619	pc/h/ln		
	Oracod Transita and	. J. 7 J			
	Speed Inputs ar	ia Aajustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	1.6	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway			
	LOS and Perform	mance Measures			
-1			(1, 7,		
Flow rate, vp		619	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3	4 1 45		
Density, D		10.2	pc/mi/ln		
Level of service, LOS		A			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	BKA				
Agency or Company:	Parsons				
Date Performed:	8/13/02				
Analysis Time Period:	6 PM				
Freeway/Direction:	BAY BRIDGE WEST	SUIND SDAN			
From/To:	DAI DRIDGE WEGII	BOOND BIAN			
Jurisdiction:					
	2001 WEEKDAY				
Analysis Year: Description: 3 WB LANE	2001 WEEKDAY				
Description: 3 WB LANE	ت				
	Flow Inputs and	d Adjustments			
Molumo M		1329	veh/h		
Volume, V		0.90	veii/ii		
Peak-hour factor, PHF		369			
Peak 15-min volume, v15			V •.		
Trucks and buses		6	%		
Recreational vehicles		0	8		
Terrain type:		Grade	0		
Grade		3.50	% !		
Segment length		0.60	mi		
Trucks and buses PCE, E		2.0			
Recreational vehicle PC	•	3.0			
Heavy vehicle adjustmen		0.943			
Driver population facto	r, vp	1.00	(1 ()		
Flow rate, vp		522	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
			_		
Lane width	_	12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		3			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,		0.0	mi/h		
Lateral clearance adjus		1.6	mi/h		
Interchange density adj		0.0	mi/h		
Number of lanes adjustm	ent, fN	3.0	mi/h		
Free-flow speed, FFS		60.4	mi/h		
		Urban Freeway	•		
	LOS and Perform	mance Measures			
Flow rate, vp		522	pc/h/ln		
Free-flow speed, FFS		60.4	mi/h		
Average passenger-car s	peed, S	60.4	mi/h		
Number of lanes, N		3			
Density, D		8.6	pc/mi/ln		
Level of service, LOS		A			

Bay Bridge 2001 Average Weekday Eastbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

	-	_	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
	7 AM		
_		COIND CDAN	
Freeway/Direction:	BAY BRIDGE EASTE	SOUND SPAN	
From/To:			
Jurisdiction:	0001		
Analysis Year:	2001 WEEKDAY		
Description: 2 EB LANE	IS		
	Flow Inputs and	d Adjustments	·
_			
Volume, V		1221	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		339	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, E	'T	1.5	
Recreational vehicle PC	E, ER	3.0	
Heavy vehicle adjustmen	t, fHV	0.971	
Driver population factor	er, vp	1.00	
Flow rate, vp		699	pc/h/ln
	Speed Inputs ar	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	3-7
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fT.W	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS	iciic, iii	58.1	mi/h
rice from speca, ris		Urban Freeway	
		orban rreeway	
	LOS and Perform	nance Measures	
Flow rate, vp		699	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	need S	58.1	mi/h
Number of lanes, N	peca, b	2	
Density, D		12.0	pc/mi/ln
Level of service, LOS		12.0 B	PC/ IIIT/ TII
TEACT OF SCIAICE, TOS		D	

HCS2000: Basic Freeway Segments Release 4.1a

	Operacional Ana	11,212	
7 7	D 1 21 1'		
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
	BAY BRIDGE EASTE	BOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:			
Description: 2 EB LANE	S		
	Flow Inputs and	l Adjustments	
Volume, V		1405	veh/h
Peak-hour factor, PHF		0.90	V E11/ 11
Peak 15-min volume, v15		390	77
Trucks and buses		6	V %
Recreational vehicles		0	
		•	%
Terrain type:		Grade	0
Grade		3.00	8
Segment length	_	0.70	mi
Trucks and buses PCE, E		1.5	
Recreational vehicle PC	· ·	3.0	
Heavy vehicle adjustmen		0.971	
Driver population facto	r, vp	1.00	
Flow rate, vp		804	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	aloarango	2.0	ft
Interchange density	Clearance	0.50	interchange/mi
Number of lanes, N		2	incerchange/mi
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
	£T W	0.0	mi/h
Lane width adjustment,			
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, in	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Perform	nance Measures	
Flow rate, vp		804	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	need. S	58.1	mi/h
Number of lanes, N	peca, b	2	
Density, D		13.8	pc/mi/ln
Level of service, LOS		В	PC/ III./ 111
TOVET OF BETATOE, TOP		ם	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EASTE	SOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 WEEKDAY		
Description: 2 EB LANE			
	Flow Inputs and	Adjustments	
Volume, V		1282	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15	5	356	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	8
Segment length		0.70	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle Po	•	3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor	or, vp	1.00	
Flow rate, vp		734	pc/h/ln
	Speed Inputs an	d Adjustments	
T		10.0	£ L
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50 2	interchange/mi
Number of lanes, N			
Free-flow speed: FFS or BFFS		Ideal 65.0	mi/h
Lane width adjustment,	ft W	0.0	mi/h
		2.4	mi/h
Lateral clearance adjustment, fLC Interchange density adjustment, fID		0.0	mi/h
Number of lanes adjustr		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
riee-liow speed, rrs		Urban Freeway	1111/11
		Olban Fleeway	
LOS and Performance Measures			
Flow rate, vp		734	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	speed, S	58.1	mi/h
Number of lanes, N	<u>.</u> ,	2	•
Density, D		12.6	pc/mi/ln
Level of service, LOS		В	<u>-</u> , , ,
,			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EASTE	SOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 WEEKDAY		
Description: 2 EB LANE			
	Flow Inputs and	Adjustments	
1		1250	1 (1
Volume, V		1370	veh/h
Peak-hour factor, PHF	-	0.90	
Peak 15-min volume, v15)	381	V
Trucks and buses		6	%
Recreational vehicles		0	8
Terrain type: Grade		Grade 3.00	90
		0.70	mi
Segment length Trucks and buses PCE, F	тm	1.5	шт
Recreational vehicle Po		3.0	
Heavy vehicle adjustmen	•	0.971	
Driver population factor		1.00	
Flow rate, vp		784	pc/h/ln
riow race, vp		701	PC/11/111
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	3 ·
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjustment, fLC		2.4	mi/h
Interchange density adj	justment, fID	0.0	mi/h
Number of lanes adjustment, fN		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
LOS and Performance Measures			
Flow rate am		784	ng/h/ln
Flow rate, vp Free-flow speed, FFS		58.1	pc/h/ln mi/h
Average passenger-car s	speed S	58.1	mi/h
Number of lanes, N	פרכת, מ	2	/ 11
Density, D		13.5	pc/mi/ln
Level of service, LOS		В	PC/ III./ 111
LCVCI OI BELVICE, HOS		ם	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:		SOUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 WEEKDAY		
Description: 2 EB LANE			
	Flow Inputs and	l Adjustments	
Volume, V		1596	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15	5	443	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, I		1.5	
Recreational vehicle Po		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor	or, vp	1.00	
Flow rate, vp		913	pc/h/ln
	Speed Inputs an	nd Adjustments	
T		10.0	£L
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50 2	interchange/mi
Number of lanes, N			
Free-flow speed: FFS or BFFS		Ideal 65.0	mi/h
Lane width adjustment,	ft W	0.0	mi/h
Lateral clearance adjust		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustr		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
riee-liow speed, rrs		Urban Freeway	1111/11
		orban Freeway	
LOS and Performance Measures			
Flow rate, vp		913	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	speed, S	58.1	mi/h
Number of lanes, N	,	2	·
Density, D		15.7	pc/mi/ln
Level of service, LOS		В	<u> </u>
,			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:		ROUND SPAN	
From/To:			
Jurisdiction:			
Analysis Year:	2001 WEEKDAY		
Description: 2 EB LANI			
	Flow Inputs and	l Adjustments	
Volume, V		1544	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15	5	429	v
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, I	ΣT	1.5	
Recreational vehicle Po	CE, ER	3.0	
Heavy vehicle adjustmen	nt, fHV	0.971	
Driver population factor	or, vp	1.00	
Flow rate, vp		884	pc/h/ln
	Speed Inputs an	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS	_	65.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjustment, fLC		2.4	mi/h
Interchange density ad		0.0	mi/h
Number of lanes adjustr		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
LOS and Performance Measures			
Flow rate, vp		884	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car speed, S		58.1	mi/h
Number of lanes, N	,	2	·
Density, D		15.2	pc/mi/ln
Level of service, LOS		В	<u>-</u> · · · · ·
,			

HCS2000: Basic Freeway Segments Release 4.1a

		_		
Analyst:	Bala Akundi			
Agency or Company:	Parsons			
Date Performed:				
Analysis Time Period:	8/13/02			
-	BAY BRIDGE EAST	OLIND CDAN		
Freeway/Direction:	BAI BRIDGE EASI	BOUND SPAN		
From/To:				
Jurisdiction:	0001			
Analysis Year:				
Description: 2 EB LANE	iS			
	Flow Inputs and	d Adjustments		
1		1850	1. (1.	
Volume, V		1752	veh/h	
Peak-hour factor, PHF		0.90		
Peak 15-min volume, v15)	487	V	
Trucks and buses		6	%	
Recreational vehicles		0	%	
Terrain type:		Grade		
Grade		3.00	%	
Segment length		0.70	mi	
Trucks and buses PCE, E		1.5		
Recreational vehicle PO		3.0		
Heavy vehicle adjustmer		0.971		
Driver population factor	or, vp	1.00		
Flow rate, vp		1003	pc/h/ln	
	Speed Inputs an	nd Adjustments		
Lane width		12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2		
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment, fLW		0.0	mi/h	
Lateral clearance adjustment, fLC		2.4	mi/h	
Interchange density adj	justment, fID	0.0	mi/h	
Number of lanes adjustm	nent, fN	4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway	•	
LOS and Performance Measures				
DOD and refrontmance measures				
Flow rate, vp		1003	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car speed, S		58.1	mi/h	
Number of lanes, N		2		
Density, D		17.3	pc/mi/ln	
Level of service, LOS		В		

HCS2000: Basic Freeway Segments Release 4.1a

	_						
Analyst:	Bala Akundi						
Agency or Company:	Parsons						
Date Performed:	8/13/02						
Analysis Time Period:							
Freeway/Direction:	BAY BRIDGE EAST	DOLLND CDAN					
From/To:	BAI BRIDGE EASII	SOUND SPAN					
Jurisdiction:							
	2001 MEEKDAY						
Analysis Year:							
Description: 2 EB LANE	72						
	Flow Inputs and	d Adjustments					
77-1		1700	la /la				
Volume, V		1792	veh/h				
Peak-hour factor, PHF	_	0.90					
Peak 15-min volume, v15		498	V				
Trucks and buses		6	%				
Recreational vehicles		0	8				
Terrain type:		Grade					
Grade		3.00	8				
Segment length		0.70	mi				
Trucks and buses PCE, F		1.5					
Recreational vehicle PO		3.0					
Heavy vehicle adjustmer		0.971					
Driver population factor	or, vp	1.00					
Flow rate, vp		1025	pc/h/ln				
	Speed Inputs ar	nd Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	clearance	2.0	ft				
Interchange density		0.50	interchange/mi				
Number of lanes, N		2					
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment,	fLW	0.0	mi/h				
Lateral clearance adjus	stment, fLC	2.4	mi/h				
Interchange density adj	justment, fID	0.0	mi/h				
Number of lanes adjustm	ment, fN	4.5	mi/h				
Free-flow speed, FFS		58.1	mi/h				
		Urban Freeway	У				
	LOS and Perform	mance Measures					
Flow rate, vp		1025	pc/h/ln				
Free-flow speed, FFS		58.1	mi/h				
Average passenger-car s	speed, S	58.1	mi/h				
Number of lanes, N		2					
Density, D		17.6	pc/mi/ln				
Level of service, LOS		В					

HCS2000: Basic Freeway Segments Release 4.1a

	_						
Analyst:	Bala Akundi						
Agency or Company:	Parsons						
Date Performed:	8/13/02						
Analysis Time Period:							
Freeway/Direction:	BAY BRIDGE EASTE	OUIND SDAN					
From/To:	DAI DRIDGE EASII	SCOND STAN					
Jurisdiction:							
Analysis Year:	2001 WEEKDAY						
Description: 2 EB LANE							
Description: 2 LB LANG	10						
	Flow Inputs and	d Adjustments					
Maluma M		2105	rroh /h				
Volume, V		2185	veh/h				
Peak-hour factor, PHF		0.90					
Peak 15-min volume, v15		607	V				
Trucks and buses		6	00				
Recreational vehicles		0	%				
Terrain type:		Grade	2				
Grade		3.00	8				
Segment length		0.70	mi				
Trucks and buses PCE, F		1.5					
Recreational vehicle PO		3.0					
Heavy vehicle adjustmer		0.971					
Driver population factor	or, vp	1.00					
Flow rate, vp		1250	pc/h/ln				
	Speed Inputs ar	nd Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	clearance	2.0	ft				
Interchange density		0.50	interchange/mi				
Number of lanes, N		2					
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment,	fLW	0.0	mi/h				
Lateral clearance adjus	stment, fLC	2.4	mi/h				
Interchange density adj	justment, fID	0.0	mi/h				
Number of lanes adjustm	nent, fN	4.5	mi/h				
Free-flow speed, FFS		58.1	mi/h				
		Urban Freeway					
	LOS and Perform	nance Measures					
		marioc ricabat cb					
Flow rate, vp		1250	pc/h/ln				
Free-flow speed, FFS		58.1	mi/h				
Average passenger-car s	speed, S	58.1	mi/h				
Number of lanes, N		2					
Density, D		21.5	pc/mi/ln				
Level of service, LOS		C					

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi						
Agency or Company:	Parsons						
Date Performed:	8/13/02						
Analysis Time Period:							
Freeway/Direction:	BAY BRIDGE EASTE	ROUND SPAN					
From/To:	Biii Biiibon Biibii	SCOND BITH					
Jurisdiction:							
Analysis Year:	2001 WEEKDAY						
Description: 2 EB LANE							
	Flow Inputs and	d Adjustments					
Volume, V		2599	veh/h				
Peak-hour factor, PHF		0.90	·				
Peak 15-min volume, v15		722	V				
Trucks and buses		6	%				
Recreational vehicles		0	%				
Terrain type:		Grade					
Grade		3.00	%				
Segment length		0.70	mi				
Trucks and buses PCE, E	Т	1.5					
Recreational vehicle PC	E, ER	3.0					
Heavy vehicle adjustmen	t, fHV	0.971					
Driver population facto	r, vp	1.00					
Flow rate, vp		1487	pc/h/ln				
	Speed Inputs ar	nd Adiustments					
Lane width		12.0	ft				
Right-shoulder lateral	clearance	2.0	ft				
Interchange density		0.50	interchange/mi				
Number of lanes, N		2					
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment,	fLW	0.0	mi/h				
Lateral clearance adjus	tment, fLC	2.4	mi/h				
Interchange density adj	ustment, fID	0.0	mi/h				
Number of lanes adjustm	ent, fN	4.5	mi/h				
Free-flow speed, FFS		58.1	mi/h				
		Urban Freeway					
	LOS and Perform	nance Measures					
Elev mete		1 4 0 7	ng/h/ln				
Flow rate, vp		1487	pc/h/ln				
Free-flow speed, FFS	nood C	58.1	mi/h				
Average passenger-car s	peea, S	58.1	mi/h				
Number of lanes, N		2	ng/mi/ln				
Density, D		25.6	pc/mi/ln				
Level of service, LOS		С					

HCS2000: Basic Freeway Segments Release 4.1a

Analyst:	Bala Akundi						
Agency or Company:	Parsons						
	8/13/02						
Analysis Time Period: Freeway/Direction:	BAY BRIDGE EASTE	POLIND CDAN					
From/To:	DAI DRIDGE EASIE	SOUND SPAN					
Jurisdiction:							
	2001 MERICAN						
Analysis Year:							
Description: 2 EB LANE	15						
	Flow Inputs and	d Adjustments					
Wolumo W		3082	veh/h				
Volume, V Peak-hour factor, PHF		0.90	VeII/II				
Peak 15-min volume, v15		856	**				
Trucks and buses		6	V %				
Recreational vehicles		0					
		•	%				
Terrain type:		Grade	96				
Grade		3.00 0.70					
Segment length	m	1.5	mi				
Trucks and buses PCE, E Recreational vehicle PC		3.0					
Heavy vehicle adjustmen		0.971					
_		1.00					
Driver population facto	r, vp	1764	ng/h/ln				
Flow rate, vp		1/04	pc/h/ln				
	Speed Inputs ar	nd Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	alaamanaa	2.0	ft				
Interchange density	Clearance	0.50					
Number of lanes, N		2	interchange/mi				
Free-flow speed:		Ideal					
FFS or BFFS			mi/h				
	£T W	65.0 0.0	mi/h				
Lane width adjustment, Lateral clearance adjus							
_		2.4	mi/h				
Interchange density adj Number of lanes adjustm		0.0 4.5	mi/h mi/h				
Free-flow speed, FFS	lent, in	58.1	mi/h				
riee-llow speed, Frs			1111/11				
		Urban Freeway					
	LOS and Perform	nance Measures					
Flow rate, vp		1764	pc/h/ln				
Free-flow speed, FFS		58.1	mi/h				
Average passenger-car s	peed. S	58.0	mi/h				
Number of lanes, N	F 5 5 6 7 5	2	/				
Density, D		30.4	pc/mi/ln				
Level of service, LOS		D	F = / 1111				
		_					

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Agency or Company: Date Performed: Analysis Time Period: Freeway/Direction: From/To: Jurisdiction: Analysis Year: Description: 2 EB LANE	BAY BRIDGE EASTB	OUND SPAN	
	Flow Inputs and	Adjustments	
Volume, V Peak-hour factor, PHF		3181 0.90	veh/h
Peak 15-min volume, v15		884	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type: Grade		Grade 3.00	%
Segment length		0.70	mi
Trucks and buses PCE, E	!T	1.5	шт
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor		1.00	
Flow rate, vp	,	1820	pc/h/ln
	Speed Inputs and	d Adiustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS	_	65.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, IN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Perform	ance Measures	
Flow rate, vp		1820	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S	57.9	mi/h
Number of lanes, N	_	2	
Density, D		31.4	pc/mi/ln
Level of service, LOS		D	

Bay Bridge 2001 Summer Weekend Day Reversible Lane Operation Westbound Analysis

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 7 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEED)		
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Undivided	l		
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
		_		1
	_VOLUME			
Direction	1		2	
Volume, V	1019	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	283		0	
Trucks and buses	6	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	%	0.00	%
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.943		1.000	
Flow rate, vp	600	pcphpl	0	pcphpl
· -				
	_RESULTS			
Direction	1		2	
Flow rate, vp	600	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph
Level of service, LOS	37.3 A	mP11	A	L.
Density, D	10.4	pc/mi/ln	==	pc/mi/ln
		PC// 111	J. J	F 0/ m 1/ 111

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 8 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEEI)		
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Undivided	i.		
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
Tice flow byced	37.3	mp11	00.0	mpii
	_VOLUME			
Direction	1		2	
Volume, V	1445	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	401		0	
Trucks and buses	5	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	용	0.00	%
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	842	pcphpl	0	pcphpl
	_RESULTS			
Direction	1		2	
Flow rate, vp	842	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph
Level of service, LOS	В	P	Α	[
Density, D	14.6	pc/mi/ln	==	pc/mi/ln
201122011 2		PC// 111		F 0 / 1111

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 9 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEED			
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Undivided			
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
-		-		-
	_VOLUME			
Direction	1		2	
Volume, V	1887	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	524		0	
Trucks and buses	5	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	용	0.00	용
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	1100	pcphpl	0	pcphpl
	_RESULTS			
Direction	1		2	
Flow rate, vp	1100	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph
Level of service, LOS	C C	P11	A	m511
Density, D	19.1	pc/mi/ln	==	pc/mi/ln
	±2•±	PC/ III / TII	J. 0	PC/ III./ TII

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 10 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEEI)		
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Undivided	l		
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
-		_		-
	_VOLUME			
7 .	1		0	
Direction	1	,	2	,
Volume, V	2439	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	678		0	
Trucks and buses	5	%	0	ુ •
Recreational vehicles	0	%	0	ે
Terrain type	Grade		Level	
Grade	3.50	8	0.00	%
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	1422	pcphpl	0	pcphpl
	_RESULTS			
Direction	1		2	
7	1.400	1- 1	0	1- 1
Flow rate, vp	1422	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph
Level of service, LOS	C	, , , , ,	A	, , , ,
Density, D	24.7	pc/mi/ln	0.0	pc/mi/ln

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 11 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEED				
Direction	1		2		
Lane width	12.0	ft	12.0	ft	
Lateral clearance:				20	
Right edge	2.0	ft	6.0	ft.	
Left edge	6.0	ft	6.0	ft	
Total lateral clearance	8.0	ft	12.0	ft	
Access points per mile	0		0	20	
Median type	Undivided				
Free-flow speed:	Base		Measured		
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustment, FLW	0.0	mph	0.0	mph	
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph	
Median type adjustment, FM	1.6	mph	0.0	mph	
Access points adjustment, FA	0.0	mph	0.0	mph	
Free-flow speed	57.5	mph	60.0	mph	
riee-liow speed	57.5	шрп	00.0	шрп	
	VOLUME				
Direction	1		2		
Volume, V	2978	vph	0	vph	
Peak-hour factor, PHF	0.90		0.90		
Peak 15-minute volume, v15	827		0		
Trucks and buses	5	%	0	%	
Recreational vehicles	0	%	0	%	
Terrain type	Grade		Level		
Grade	3.50	%	0.00	%	
Segment length	0.60	mi	0.00	mi	
Number of lanes	2		2		
Driver population adjustment, fP	1.00		1.00		
Trucks and buses PCE, ET	2.0		1.5		
Recreational vehicles PCE, ER	3.0		1.2		
Heavy vehicle adjustment, fHV	0.952		1.000		
Flow rate, vp	1737	pcphpl	0	pcphpl	
, -		1 1 1		1 1 1	
RESULTS					
Direction	1		2		
Elev rate un	1727	nanhn]	0	nanhnl	
Flow rate, vp	1737	pcphpl	0	pcphpl	
Free-flow speed, FFS	57.5	mph	60.0	mph	
Avg. passenger-car travel speed, S	56.1	mph	60.0	mph	
Level of service, LOS	D 31 0		A	ma/mi /1	
Density, D	31.0	pc/mi/ln	0.0	pc/mi/ln	

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 12 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEEI	D		
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Undivided	i		
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
	_VOLUME			
Direction	1		2	
Volume, V	2695	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	749		0	
Trucks and buses	5	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	%	0.00	%
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	1572	pcphpl	0	pcphpl
	_RESULTS			
5 1	1		0	
Direction	1		2	
Flow rate, vp	1572	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
-	56.9	mph	60.0	mph
Avg. passenger-car travel speed. S	30.9	IIIDII		
Avg. passenger-car travel speed, S Level of service, LOS	D D	шрп	Α	шрп

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 1 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

	-			
FREE	-FLOW SPEEI)		
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft.
Access points per mile	0		0	
Median type	Undivided	l		
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
riee-liow speed	37.3	шрп	00.0	шрп
	_VOLUME			
Direction	1		2	
Volume, V	3585	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	996		0	
Trucks and buses	5	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	%	0.00	%
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	2091	pcphpl	0	pcphpl
	_RESULTS			
=1	1		0	
Direction	1		2	
Flow rate, vp	2091	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	54.0	mph	60.0	mph
Level of service, LOS	54.0 E	whi	A	
Density, D	38.8	pc/mi/ln	==	pc/mi/ln
	50.0	F0/ m1/ 111		F 0 / 1111

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 2 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEED			
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:	12.0	10	12.0	10
Right edge	2.0	ft	6.0	ft.
Left edge	6.0	ft	6.0	ft
Total lateral clearance	8.0	ft	12.0	ft
Access points per mile	0	10	0	10
Median type	Undivided		Ü	
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	-	0.0	mph
Median type adjustment, FM	1.6	mph mph	0.0	=
Access points adjustment, FA	0.0	mph mph	0.0	mph mph
		-		-
Free-flow speed	57.5	mph	60.0	mph
	VOLUME			
Direction	1		2	
Volume, V	3333	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	926		0	
Trucks and buses	5	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	%	0.00	%
Segment length	0.60	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.952		1.000	
Flow rate, vp	1944	pcphpl	0	pcphpl
, _				1 1 1
	_RESULTS			
Direction	1		2	
Flow rate up	1944	nanhnl	0	nanhnl
Flow rate, vp		pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	54.9	mph	60.0	mph
Level of service, LOS	E 35.4	ng/mi/1=	A	ng/mi/ln
Density, D	33.4	pc/mi/ln	0.0	pc/mi/ln

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 3 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE-FLOW SPEED					
Direction	1		2		
Lane width	12.0	ft	12.0	ft	
Lateral clearance:					
Right edge	2.0	ft	6.0	ft	
Left edge	6.0	ft	6.0	ft	
Total lateral clearance	8.0	ft	12.0	ft	
Access points per mile	0		0		
Median type	Undivide	d			
Free-flow speed:	Base		Measured		
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustment, FLW	0.0	mph	0.0	mph	
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph	
Median type adjustment, FM	1.6	mph	0.0	mph	
Access points adjustment, FA	0.0	mph	0.0	mph	
Free-flow speed	57.5	mph	60.0	mph	
-		-		-	
	VOLUME				
Direction	1		2		
Volume, V	2565	vph	0	vph	
Peak-hour factor, PHF	0.90		0.90		
Peak 15-minute volume, v15	713		0		
Trucks and buses	5	%	0	%	
Recreational vehicles	0	%	0	%	
Terrain type	Grade		Level		
Grade	3.50	%	0.00	%	
Segment length	0.60	mi	0.00	mi	
Number of lanes	2		2		
Driver population adjustment, fP	1.00		1.00		
Trucks and buses PCE, ET	2.0		1.5		
Recreational vehicles PCE, ER	3.0		1.2		
Heavy vehicle adjustment, fHV	0.952		1.000		
Flow rate, vp	1496	pcphpl	0	pcphpl	
	RESULTS				
Direction	1		2		
Flow rate, vp	1496	pcphpl	0	pcphpl	
Free-flow speed, FFS	57.5	mph	60.0	mph	
Avg. passenger-car travel speed, S	57.2	mph	60.0	mph	
Level of service, LOS	D	"FII	Α	L.11	
Density, D	26.1	pc/mi/ln		pc/mi/ln	
2011220112	20.1	PC/1/111		F 0 / 1111	

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 4 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE-FLOW SPEED					
Direction	1		2		
Lane width	12.0	ft	12.0	ft	
Lateral clearance:					
Right edge	2.0	ft	6.0	ft	
Left edge	6.0	ft	6.0	ft	
Total lateral clearance	8.0	ft	12.0	ft	
Access points per mile	0		0		
Median type	Undivide	d			
Free-flow speed:	Base		Measured		
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustment, FLW	0.0	mph	0.0	mph	
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph	
Median type adjustment, FM	1.6	mph	0.0	mph	
Access points adjustment, FA	0.0	mph	0.0	mph	
Free-flow speed	57.5	mph	60.0	mph	
Tree rrem breed	37.5	[-11		[-11	
	_VOLUME				
Direction	1		2		
Volume, V	2327	vph	0	vph	
Peak-hour factor, PHF	0.90		0.90		
Peak 15-minute volume, v15	646		0		
Trucks and buses	5	%	0	%	
Recreational vehicles	0	%	0	%	
Terrain type	Grade		Level		
Grade	3.50	%	0.00	%	
Segment length	0.60	mi	0.00	mi	
Number of lanes	2		2		
Driver population adjustment, fP	1.00		1.00		
Trucks and buses PCE, ET	2.0		1.5		
Recreational vehicles PCE, ER	3.0		1.2		
Heavy vehicle adjustment, fHV	0.952		1.000		
Flow rate, vp	1357	pcphpl	0	pcphpl	
· -					
	_RESULTS				
Direction	1		2		
Flow rate, vp	1357	pcphpl	0	pcphpl	
Free-flow speed, FFS	57.5	mph	60.0	mph	
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph	
Level of service, LOS	37.3 C	шрш	A	mP11	
Density, D	23.6	pc/mi/ln	==	pc/mi/ln	

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 5 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEEI)				
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	6.0	ft		
Left edge	6.0	ft	6.0	ft		
Total lateral clearance	8.0	ft	12.0	ft		
Access points per mile	0		0			
Median type	Undivided	1				
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
riee-liow speed	37.3	шрп	00.0	шрп		
	_VOLUME					
21	-		0			
Direction	1	1	2	1		
Volume, V	3488	vph	0	vph		
Peak-hour factor, PHF	0.90		0.90			
Peak 15-minute volume, v15	969		0	_		
Trucks and buses	5	%	0	%		
Recreational vehicles	0	%	0	ે		
Terrain type	Grade		Level			
Grade	3.50	8	0.00	8		
Segment length	0.60	mi	0.00	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		1.2			
Heavy vehicle adjustment, fHV	0.952		1.000			
Flow rate, vp	2034	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	2034	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	54.3	mph	60.0	mph		
Level of service, LOS	E .		Α			
Density, D	37.4	pc/mi/ln		pc/mi/ln		

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 6 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	6.0	ft		
Left edge	6.0	ft	6.0	ft		
Total lateral clearance	8.0	ft	12.0	ft		
Access points per mile	0		0			
Median type	Undivide	ed				
Free-flow speed:	Base		Measure	d		
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	0.0	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
Tice flow bpeed	37.3	mpii	00.0	mp11		
	_VOLUME					
Direction	1		2			
Volume, V	2931	vph	0	vph		
Peak-hour factor, PHF	0.90	VPII	0.90	v PII		
Peak 15-minute volume, v15	814		0.50			
Trucks and buses	5	8	0	8		
Recreational vehicles	0	96	0	%		
Terrain type	Grade	0	Level	0		
Grade	3.50	8	0.00	%		
Segment length	0.60	mi	0.00	mi		
Number of lanes	2	шт	2	шт		
Driver population adjustment, fP	1.00		1.00			
	2.0		1.5			
Trucks and buses PCE, ET Recreational vehicles PCE, ER	3.0		1.2			
Heavy vehicle adjustment, fHV	0.952		1.000	la 1		
Flow rate, vp	1709	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	1709	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	56.3	mph	60.0	mph		
Level of service, LOS	D	-	A	-		
Density, D	30.4	pc/mi/ln	0.0	pc/mi/ln		
-		-		=		

Bay Bridge 2001 Summer Weekend Day Reversible Lane Operation Eastbound Analysis (2 Lanes, 80 Percent Traffic)

HCS2000: Basic Freeway Segments Release 4.1a

	Operational An	alysis				
Analyst:	BKA					
Agency or Company:	Parsons					
Date Performed:	8/13/02					
Analysis Time Period:						
Freeway/Direction:	BAY BRIDGE EAST	ROUND				
From/To:						
Jurisdiction:	Anne Arundel Co	unty				
-	Analysis Year: 2001					
Description: REVERSIBL	E OPERATION 2 LA	NES 80% EB TRAFFIC				
	Flow Inputs an	d Adjustments				
Volume, V		2348	veh/h			
Peak-hour factor, PHF		0.90	V C11, 11			
Peak 15-min volume, v15		652	V			
Trucks and buses		6	00			
Recreational vehicles		0	٥			
Terrain type:		Grade				
Grade		3.00	ଚ୍ଚ			
Segment length		0.70	mi			
Trucks and buses PCE, E	т	1.5				
Recreational vehicle PC		3.0				
Heavy vehicle adjustmen		0.971				
Driver population factor		1.00				
Flow rate, vp	-, vp	1344	pc/h/ln			
III III III III		1011	F 0, 11, 111			
	Speed Inputs a	nd Adjustments				
Lane width		12.0	ft			
Right-shoulder lateral	clearance	2.0	ft			
Interchange density		0.50				
Number of lanes, N		0.30	interchange/mi			
		2	interchange/mi			
Free-flow speed:			interchange/mi			
		2	<pre>interchange/mi mi/h</pre>			
Free-flow speed:	fLW	2 Ideal				
Free-flow speed: FFS or BFFS		2 Ideal 65.0	mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment,	tment, fLC	2 Ideal 65.0 0.0	mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus	tment, fLC ustment, fID	2 Ideal 65.0 0.0 2.4	mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus Interchange density adj	tment, fLC ustment, fID	2 Ideal 65.0 0.0 2.4 0.0	mi/h mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment Interchange density adjustment Number of lanes adjustment	tment, fLC ustment, fID	2 Ideal 65.0 0.0 2.4 0.0 4.5	mi/h mi/h mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjustment Interchange density adjustment Number of lanes adjustment	tment, fLC ustment, fID ent, fN	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1	mi/h mi/h mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustment Free-flow speed, FFS	tment, fLC ustment, fID ent, fN	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway	mi/h mi/h mi/h mi/h mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp	tment, fLC ustment, fID ent, fN	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures	mi/h mi/h mi/h mi/h mi/h mi/h mi/h pc/h/ln			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS	tment, fLC ustment, fID ent, fNLOS and Perfor	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures	mi/h mi/h mi/h mi/h mi/h mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car se	tment, fLC ustment, fID ent, fNLOS and Perfor	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1344 58.1 58.1	mi/h mi/h mi/h mi/h mi/h mi/h mi/h pc/h/ln			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car se Number of lanes, N	tment, fLC ustment, fID ent, fNLOS and Perfor	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1344 58.1 58.1 2	mi/h mi/h mi/h mi/h mi/h mi/h mi/h mi/h			
Free-flow speed: FFS or BFFS Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustment Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car se	tment, fLC ustment, fID ent, fNLOS and Perfor	2 Ideal 65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1344 58.1 58.1	mi/h mi/h mi/h mi/h mi/h mi/h mi/h mi/h			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational	Analysis				
Analyst:	BKA					
Agency or Company:	Parsons					
	8/13/02					
Analysis Time Period:						
Freeway/Direction:	BAY BRIDGE EA	STROUND				
From/To:						
Jurisdiction:	Anne Arundel	County				
Analysis Year:						
Description: REVERSIBL	E OPERATION 2	LANES 80% EB TRAFFIC				
	Flow Inputs	and Adjustments				
Volume, V		2858	veh/h			
Peak-hour factor, PHF		0.90	, 555, 55			
Peak 15-min volume, v15		794	V			
Trucks and buses		6	%			
Recreational vehicles		0	90			
Terrain type:		Grade				
Grade		3.00	%			
Segment length		0.70	mi			
Trucks and buses PCE, E	т	1.5				
Recreational vehicle PC		3.0				
Heavy vehicle adjustmen		0.971				
Driver population factor		1.00				
Flow rate, vp	-, vp	1635	pc/h/ln			
, _						
	Speed Inputs	and Adjustments	· · · · · · · · · · · · · · · · · · ·			
Lane width		12.0	ft			
Right-shoulder lateral	clearance	2.0	ft			
Interchange density		0.50	interchange/mi			
Number of lanes, N		2				
Free-flow speed:		Ideal				
FFS or BFFS		65.0	mi/h			
Lane width adjustment,	fLW	0.0	mi/h			
Lateral clearance adjus	tment, fLC	2.4	mi/h			
Interchange density adj	ustment, fID	0.0	mi/h			
Number of lanes adjustm	ent, fN	4.5	mi/h			
Free-flow speed, FFS		58.1	mi/h			
		Urban Freeway				
	LOS and Perf	ormance Measures				
Flow rate, vp		1635	pc/h/ln			
Free-flow speed, FFS		58.1	mi/h			
	nood C		•			
Average passenger-car s	peeu, s	58.1 2	mi/h			
Number of lanes, N			ng/mi/ln			
Density, D Level of service, LOS		28.1	pc/mi/ln			
HEVEL OF SELVICE, HOS		D				

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ar	nalysis				
Analyst:	BKA					
Agency or Company:	Parsons					
	8/13/02					
Analysis Time Period:						
Freeway/Direction:		TROUND				
From/To:						
Jurisdiction:	Anne Arundel County					
Analysis Year:						
Description: REVERSIBI	E OPERATION 2 LA	ANES 80% EB TRAFFIC				
	Flow Inputs ar	nd Adjustments				
Volume, V		2922	veh/h			
Peak-hour factor, PHF		0.90				
Peak 15-min volume, v15		812	V			
Trucks and buses		6	90			
Recreational vehicles		0	%			
Terrain type:		Grade	·			
Grade		3.00	%			
Segment length		0.70	mi			
Trucks and buses PCE, E	!Т	1.5				
Recreational vehicle PC		3.0				
Heavy vehicle adjustmen		0.971				
Driver population factor		1.00				
Flow rate, vp	- / · F	1672	pc/h/ln			
			1 - / /			
	Speed Inputs a	and Adjustments				
Lane width		12.0	ft			
Right-shoulder lateral	clearance	2.0	ft			
Interchange density		0.50	interchange/mi			
Number of lanes, N		2				
Free-flow speed:		Ideal				
FFS or BFFS		65.0	mi/h			
Lane width adjustment,	fLW	0.0	mi/h			
Lateral clearance adjus	tment, fLC	2.4	mi/h			
Interchange density adj	ustment, fID	0.0	mi/h			
Number of lanes adjustm	ent, fN	4.5	mi/h			
Free-flow speed, FFS		58.1	mi/h			
		Urban Freeway				
	LOS and Perfor	rmance Measures				
Flow rate, vp		1672	pc/h/ln			
Free-flow speed, FFS		58.1	mi/h			
Average passenger-car s	peed, S	58.1	mi/h			
Number of lanes, N	/	2	,			
Density, D		28.8	pc/mi/ln			
Level of service, LOS		D	<u>-</u> · · · · ·			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational A	nalysis					
Analyst:	BKA						
Agency or Company:	Parsons						
	8/13/02						
Analysis Time Period:	-, -, -						
Freeway/Direction:		TBOUND					
From/To:							
	Jurisdiction: Anne Arundel County						
-	Analysis Year: 2001						
Description: REVERSIBI	E OPERATION 2 L	ANES 80% EB TRAFFIC					
	Flow Inputs a	nd Adjustments					
Volume, V		2819	veh/h				
Peak-hour factor, PHF		0.90	,				
Peak 15-min volume, v15		783	V				
Trucks and buses		6	%				
Recreational vehicles		0	%				
Terrain type:		Grade					
Grade		3.00	%				
Segment length		0.70	mi				
Trucks and buses PCE, E	Т	1.5					
Recreational vehicle PC	E, ER	3.0					
Heavy vehicle adjustmen	t, fHV	0.971					
Driver population facto	r, vp	1.00					
Flow rate, vp		1613	pc/h/ln				
	Speed Inputs	and Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	alearange	2.0	ft				
Interchange density	Clearance	0.50	interchange/mi				
Number of lanes, N		2	incerenange, mi				
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment,	ft.W	0.0	mi/h				
Lateral clearance adjus		2.4	mi/h				
Interchange density adj		0.0	mi/h				
Number of lanes adjustm		4.5	mi/h				
Free-flow speed, FFS	•	58.1	mi/h				
-		Urban Freeway					
LOS and Performance Measures							
Elevanote		1612					
Flow rate, vp		1613	pc/h/ln				
Free-flow speed, FFS	nood C	58.1	mi/h				
Average passenger-car s	peea, s	58.1 2	mi/h				
Number of lanes, N		27.8	ng/mi/ln				
Density, D Level of service, LOS		27.8 D	pc/mi/ln				
TOACT OF BETATOE' TOB		D					

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	alysis				
Analyst:	BKA					
Agency or Company:	Parsons					
Date Performed:	8/13/02					
Analysis Time Period:						
Freeway/Direction:	BAY BRIDGE EAST	BOUND				
From/To:						
Jurisdiction:	Anne Arundel Co	unty				
Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC						
Description: REVERSIBL	E OPERATION 2 LAI	NES 80% EB TRAFFIC				
	Flow Inputs and	d Adjustments				
Volume, V		2754	veh/h			
Peak-hour factor, PHF		0.90	V 311, 11			
Peak 15-min volume, v15		765	V			
Trucks and buses		6	8			
Recreational vehicles		0	%			
Terrain type:		Grade				
Grade		3.00	%			
Segment length		0.70	mi			
Trucks and buses PCE, E	Т	1.5				
Recreational vehicle PC	E, ER	3.0				
Heavy vehicle adjustmen	t, fHV	0.971				
Driver population facto	r, vp	1.00				
Flow rate, vp		1576	pc/h/ln			
	Speed Inputs a	nd Adjustments				
Lane width		12.0	ft			
Right-shoulder lateral	clearance	2.0	ft			
Interchange density	CICALANCC	0.50	interchange/mi			
Number of lanes, N		2	inecremanye, mi			
Free-flow speed:						
FFS or BFFS		Ideal				
LLO OT DLLO		Ideal 65.0	mi/h			
	fLW	65.0 0.0	mi/h mi/h			
Lane width adjustment,		65.0				
Lane width adjustment, Lateral clearance adjus	tment, fLC	65.0 0.0	mi/h			
Lane width adjustment,	tment, fLC ustment, fID	65.0 0.0 2.4	mi/h mi/h			
Lane width adjustment, Lateral clearance adjus Interchange density adj	tment, fLC ustment, fID	65.0 0.0 2.4 0.0	mi/h mi/h mi/h			
Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustm	tment, fLC ustment, fID	65.0 0.0 2.4 0.0 4.5	mi/h mi/h mi/h mi/h			
Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustm	tment, fLC ustment, fID	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway	mi/h mi/h mi/h mi/h			
Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustm Free-flow speed, FFS	tment, fLC ustment, fID ent, fN	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway	mi/h mi/h mi/h mi/h mi/h mi/h			
Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp	tment, fLC ustment, fID ent, fN	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures	mi/h mi/h mi/h mi/h mi/h mi/h pc/h/ln			
Lane width adjustment, Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS	tment, fLC ustment, fID ent, fNLOS and Perform	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures	mi/h mi/h mi/h mi/h mi/h mi/h pc/h/ln mi/h			
Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car s	tment, fLC ustment, fID ent, fNLOS and Perform	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1576 58.1 58.1	mi/h mi/h mi/h mi/h mi/h mi/h pc/h/ln			
Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car s Number of lanes, N	tment, fLC ustment, fID ent, fNLOS and Perform	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1576 58.1 58.1 2	mi/h mi/h mi/h mi/h mi/h mi/h mi/h mi/h			
Lane width adjustment, Lateral clearance adjus Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car s	tment, fLC ustment, fID ent, fNLOS and Perform	65.0 0.0 2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1576 58.1 58.1	mi/h mi/h mi/h mi/h mi/h mi/h pc/h/ln mi/h			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational	Analysis				
Analyst:	BKA					
Agency or Company:	Parsons					
	8/13/02					
Analysis Time Period:						
Freeway/Direction:	BAY BRIDGE EA	A STROLIND				
From/To:						
Jurisdiction:	Anne Arundel County					
Analysis Year:						
Description: REVERSIBL	E OPERATION 2	LANES 80% EB TRAFFIC				
	Flow Inputs	and Adjustments				
Volume, V		2806	veh/h			
Peak-hour factor, PHF		0.90	,			
Peak 15-min volume, v15		779	V			
Trucks and buses		6	000			
Recreational vehicles		0	00			
Terrain type:		Grade	·			
Grade		3.00	90			
Segment length		0.70	mi			
Trucks and buses PCE, E	Т	1.5				
Recreational vehicle PC		3.0				
Heavy vehicle adjustmen		0.971				
Driver population facto		1.00				
Flow rate, vp	, 1	1606	pc/h/ln			
·	Speed Inputs	s and Adjustments				
Lane width		12.0	ft			
Right-shoulder lateral	aloarango	2.0	ft			
Interchange density	Clearance	0.50	interchange/mi			
Number of lanes, N		2	incerchange/ mi			
Free-flow speed:		Ideal				
FFS or BFFS		65.0	mi/h			
Lane width adjustment,	ft.w	0.0	mi/h			
Lateral clearance adjus		2.4	mi/h			
Interchange density adj		0.0	mi/h			
Number of lanes adjustm		4.5	mi/h			
Free-flow speed, FFS		58.1	mi/h			
II de II du Speca, II d		Urban Freeway				
	LOS and Perf	Formance Measures				
Flow rate, vp		1606	pc/h/ln			
Free-flow speed, FFS		58.1	mi/h			
Average passenger-car s	peed, S	58.1	mi/h			
Number of lanes, N		2				
Density, D		27.6	pc/mi/ln			
Level of service, LOS		D				

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	lysis					
Analyst:	BKA						
Agency or Company:	Parsons						
	8/13/02						
Analysis Time Period:							
Freeway/Direction:		SOUND					
From/To:							
	Jurisdiction: Anne Arundel County						
-	Analysis Year: 2001 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC						
Description: REVERSIBL	E OPERATION 2 LAN	ES 80% EB TRAFFIC					
	Flow Inputs and	Adjustments					
Volume, V		2408	veh/h				
Peak-hour factor, PHF		0.90					
Peak 15-min volume, v15		669	V				
Trucks and buses		6	%				
Recreational vehicles		0	%				
Terrain type:		Grade					
Grade		3.00	%				
Segment length		0.70	mi				
Trucks and buses PCE, E	Т	1.5					
Recreational vehicle PC	E, ER	3.0					
Heavy vehicle adjustmen	t, fHV	0.971					
Driver population factor	r, vp	1.00					
Flow rate, vp		1378	pc/h/ln				
	Speed Inputs an	d Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	clearance	2.0	ft				
Interchange density	010010100	0.50	interchange/mi				
Number of lanes, N		2	3 - ,				
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment,	fLW	0.0	mi/h				
Lateral clearance adjus		2.4	mi/h				
Interchange density adj		0.0	mi/h				
Number of lanes adjustm	ent, fN	4.5	mi/h				
Free-flow speed, FFS		58.1	mi/h				
		Urban Freeway					
	LOS and Perform	ance Measures					
Flow rate, vp		1378	pc/h/ln				
Free-flow speed, FFS		58.1	mi/h				
Average passenger-car s	need. S	58.1	mi/h				
Number of lanes, N	peca, b	2	/ 11				
Density, D		23.7	pc/mi/ln				
Level of service, LOS		C C	,, -				

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	alysis	
Analyst:	BKA		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:	-		
Freeway/Direction:	BAY BRIDGE EASTE	ROLIND	
From/To:			
Jurisdiction:	Anne Arundel Cou	inty	
Analysis Year:	2001	000 ED ED3EETG	
Description: REVERSIBL	E OPERATION 2 LAN	IES 80% EB TRAFFIC	
	Flow Inputs and	l Adjustments	
Volume, V		2466	veh/h
Peak-hour factor, PHF		0.90	VeII/II
Peak 15-min volume, v15		685	V
Trucks and buses		6	v %
Recreational vehicles		0	%
Terrain type:		Grade	6
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, E	lT	1.5	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor		1.00	
Flow rate, vp		1411	pc/h/ln
	Speed Inputs ar	nd Adiustmonts	
	speed inputs an	a Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	£ T 7.7		
		0.0	mi/h
Lateral clearance adjus	tment, fLC	2.4	mi/h
Lateral clearance adjus Interchange density adj	tment, fLC ustment, fID	2.4	mi/h mi/h
Lateral clearance adjus Interchange density adj Number of lanes adjustm	tment, fLC ustment, fID	2.4 0.0 4.5	mi/h mi/h mi/h
Lateral clearance adjus Interchange density adj	tment, fLC ustment, fID	2.4 0.0 4.5 58.1	mi/h mi/h
Lateral clearance adjus Interchange density adj Number of lanes adjustm	tment, fLC ustment, fID	2.4 0.0 4.5	mi/h mi/h mi/h
Lateral clearance adjus Interchange density adj Number of lanes adjustm	tment, fLC ustment, fID	2.4 0.0 4.5 58.1 Urban Freeway	mi/h mi/h mi/h
Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS	etment, fLC ustment, fID ment, fN	2.4 0.0 4.5 58.1 Urban Freeway	mi/h mi/h mi/h
Lateral clearance adjus Interchange density adj Number of lanes adjustm	etment, fLC ustment, fID ment, fN	2.4 0.0 4.5 58.1 Urban Freeway	mi/h mi/h mi/h mi/h
Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp	etment, fLC ustment, fID ment, fN LOS and Perform	2.4 0.0 4.5 58.1 Urban Freeway mance Measures	mi/h mi/h mi/h mi/h mi/h
Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS	etment, fLC ustment, fID ment, fN LOS and Perform	2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1411 58.1	mi/h mi/h mi/h mi/h mi/h pc/h/ln mi/h
Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car so Number of lanes, N Density, D	etment, fLC ustment, fID ment, fN LOS and Perform	2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1411 58.1 58.1	mi/h mi/h mi/h mi/h mi/h pc/h/ln mi/h
Lateral clearance adjust Interchange density adj Number of lanes adjustm Free-flow speed, FFS Flow rate, vp Free-flow speed, FFS Average passenger-car so Number of lanes, N	etment, fLC ustment, fID ment, fN LOS and Perform	2.4 0.0 4.5 58.1 Urban Freeway mance Measures 1411 58.1 58.1 2	mi/h mi/h mi/h mi/h mi/h mi/h

HCS2000: Basic Freeway Segments Release 4.1a

	Operational An	alysis	
Analyst:	BKA		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
	BAY BRIDGE EAST	BOUND	
From/To:			
Jurisdiction:	Anne Arundel Co	unty	
Analysis Year:	2001		
Description: REVERSIBL	E OPERATION 2 LA	NES 80% EB TRAFFIC	
	Flow Inputs an	d Adjustments	
Volume, V		2883	veh/h
Peak-hour factor, PHF		0.90	V 311, 11
Peak 15-min volume, v15		801	V
Trucks and buses		6	8
Recreational vehicles		0	&
Terrain type:		Grade	
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, E	Т	1.5	
Recreational vehicle PC	E, ER	3.0	
Heavy vehicle adjustmen	t, fHV	0.971	
Driver population facto	r, vp	1.00	
Flow rate, vp		1650	pc/h/ln
	Speed Inputs a	nd Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	alearance	2.0	ft.
Interchange density	Clearance	0.50	interchange/mi
Number of lanes, N		2	incerenange/ mi
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Perfor	mance Measures	
			(1, /2
Flow rate, vp		1650	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peea, S	58.1	mi/h
Number of lanes, N		2	ng/mi/ln
Density, D		28.4	pc/mi/ln
Level of service, LOS		D	

HCS2000: Basic Freeway Segments Release 4.1a

	Operational And	alysis	
Analyst:	BKA		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EAST	BOUND	
From/To:			
Jurisdiction:	Anne Arundel Co	unty	
Analysis Year:	2001		
Description: REVERSIBL	E OPERATION 2 LA	NES 80% EB TRAFFIC	
	Flow Inputs and	d Adjustments	
Volume, V		2774	veh/h
Peak-hour factor, PHF		0.90	VEII/ II
Peak 15-min volume, v15		771	v
Trucks and buses		6	%
Recreational vehicles		0	ું જ
Terrain type:		Grade	·
Grade		3.00	୦
Segment length		0.70	mi
Trucks and buses PCE, E	ΙΤ	1.5	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor		1.00	
Flow rate, vp	, 1	1587	pc/h/ln
	Speed Inputs a	nd Adjustments	
	bpeca inpacb a	iid ridjubellielieb	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,		0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	•
	LOS and Perform	mance Measures	
Flow rate, vp		1587	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed, S	58.1	mi/h
Number of lanes, N	<u> </u>	2	•
Density, D		27.3	pc/mi/ln
Level of service, LOS		D	_

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ana	lysis	
Analyst:	BKA		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:		OUIND	
From/To:			
Jurisdiction:	Anne Arundel Cou	nty	
Analysis Year:	2001		
Description: REVERSIBI	E OPERATION 2 LAN	ES 80% EB TRAFFIC	
	Flow Inputs and	Adjustments	
Volume, V		1588	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15	I	441	V
Trucks and buses		6	%
Recreational vehicles		0	90
Terrain type:		Grade	
Grade		3.00	90
Segment length		0.70	mi
Trucks and buses PCE, E	!T	1.5	
Recreational vehicle PC		3.0	
Heavy vehicle adjustmen		0.971	
Driver population factor		1.00	
Flow rate, vp	71 / VP	909	pc/h/ln
rran race, v _F			F 0 / 11 / 111
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus	tment, fLC	2.4	mi/h
Interchange density adj	ustment, fID	0.0	mi/h
Number of lanes adjustm	ent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Perform	ance Measures	
Flow rate, vp		909	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
-	pood 9		·
Average passenger-car s	peea, s	58.1 2	mi/h
Number of lanes, N			ng/mi/ln
Density, D		15.6	pc/mi/ln
Level of service, LOS		В	

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Anal	lysis	
Analyst:	BKA		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
-	BAY BRIDGE EASTBO	NUND	
From/To:			
Jurisdiction:	Anne Arundel Cour	ity	
Analysis Year:	2001		
Description: REVERSIBL	E OPERATION 2 LANE	ES 80% EB TRAFFIC	
	Flow Inputs and	Adjustments	
Volume, V		1761	veh/h
Peak-hour factor, PHF		0.90	,
Peak 15-min volume, v15		489	V
Trucks and buses		6	%
Recreational vehicles		0	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		0.70	mi
Trucks and buses PCE, E	Т	1.5	
Recreational vehicle PC	E, ER	3.0	
Heavy vehicle adjustmen	t, fHV	0.971	
Driver population facto	r, vp	1.00	
Flow rate, vp		1008	pc/h/ln
	Speed Inputs and	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density	010010100	0.50	interchange/mi
Number of lanes, N		2	3 - ,
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Performa	ance Measures	
Flow rate, vp		1008	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	peed. S	58.1	mi/h
Number of lanes, N	<u> </u>	2	,
Density, D		17.3	pc/mi/ln
Density, D Level of service, LOS		17.3 B	pc/mi/ln



Maryland State Highway Administration Office of Traffic and Cafety - Traffic Sefety Analysis Division SMA 52.1 ADC Study Worksheet Output rev. 12/99-3 Name: TRRAKTON Date: 04/29/2003

Longth: USSO Oceanic Brive to MON Overpass Longth: 5.78

County: Cross County Period: Jan. 1, 1999 to approx. Oct. 31, 2002 Type Controls: 1R-1004 . Bignificantly Higher than Statewide STUDYBATE STWORATE 2001 2002 TOTAL YRAR . 2333 2000 FRIAL 1 1 1 3 0.5 0.5 Ma KILLED IMJURY 26 10 37 145 25.0 -16.2 ŢP. 59 270 _ NO. INJUNED 67_ 64 22.7 254 43.6 . 402 69.3 * 38.5 TOTAL ACC .04 105 88.1 58.7 75.6 RATE 79400 74100 65800 65500 ADT 167-5 136.8 117.0 509.1 VNT (millions) 156.8 Q.B OPPOSITE OIR 1 1 0.3 41.7 HEAR THE _ 54 ... 242 0.9 BIDESWIPE 19 3.3 3.6 FRAL LABOT AUCHE 0.3 8.3 PROSECULIAS2 1.2 -8.7 SINK OBTROL ... 16 11-TURNS PACKING ANIPAL HALLROAD EXPL /PIRE OVERTURA OTHER/UNK TROK BALL ACC 31 100 30.6 * 25 28 24 6.7 14 % 32 % MICHTS INC. 11 19 13 15 G S HET SURFACE 38 _ 9 9 _ _ 20 * ALCOHOL REL 19 INTERSEC REL 1 1 3 20+ 227 237 885 TOTAL TRUCKS 25 28 24 168 PERCENT TRAS 12.2 11.5 15.2 10.1

Note: Statewide Accident Rates shown in this table are for similar urban facilities. For the analysis of accidents on the Bay Bridge, accident rates in Anne Arundel County were compared to similar Urban Principal Arterials and accident rates in Queen Anne's County were compared to similar Rural Principal Arterials to be consistent with the classification of the roadway in each segment.

Maryland State Highway Administration Office of Traffic and Safety - Traffic Safety Analysis Division SHA 52.1 ADC Summary Output rev. 12/98-1 Hame: TERAXION Date: 04/29/2003

Note (s):

Location: UESO Oceanic Drive to MOS Overpase

County: Cross County Period: January 1, 1999 To December 11, 1999

Length: 5.78

EVRR I	**		1	atal		Inju	ĽΥ	P-De	mage	To	tal		Æ							HIE WEE				
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Maryland State Highway Administration Office of Traffic and Safety - Traffic Safety Analysis Division SHA 52.1 ADC Summary Output rev. 12/98-1. Name: TRRAKTOM: Date: 04/29/2003

Location: USSO Oceanic brive to HDM Overpass County: Cross County Period: January

Period: January 1, 2000 To December 31, 2006 Note (e):

Longth: 5.78

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Maryland State Highway Administration Office of Traffic and Satety - Traffic Malety Analysis Division SHA 52.1 ADC Susmary Output rev- 12/98-1

Name: TURALTON Date: 04/29/2003

Hote(s):

Location: USSO Oceanic Drive to MD8 Overpass Period: January 1, 2001 To December 31, 2001

County: Cross County

Longth: 5.78

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Haryland State Highway Administration Office of Traffic and Safety - Traffic Sefety Analysis Division SNA 52:1 ADC Summary Cutput rev. 12/98-1 Name: TBRAXTON Dato: 04/29/2003

Location: USSO Oceanic Drive to MDS Overpass
County: Cross County Period: Jan. 1, 2002 to approx. Oct. 31, 2002 Stote(s):

Length: 5.78

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Maryland State Highway Administration Office of Traffic and Safety - Traffic Safety Analysis Division mma 52:1 ADC Combined Susmary Output rev. 12/98-1 Name: TRUNKTON
Date: 04/29/2003

Location: USSO Oceanic Drive to NOE Overpass County: Cross County Period: Jan. 1, 1998 to approx. Oct. 31, 2002 Hote(s): Length: 5.78

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6	IMPEOE	er Lan	e Change			#h	oulde	es lo	w, \$0	Ec, A	9 0	K CUR			0			1	<u></u>	
1.	Improg	er Baci	ring									DLOVA	RORATE	BARRI	ER O	5		12	10	
2.	Improp	or Pesi	iing			41 OL	her c	r Unk	DON'H			1 20	Algoriza.	•	0	<u> </u>			1	
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Maryland State Righmay Administration
Office of Traffic and Safety - Traffic Safety Analysis Division
SNA 52.1 ADC Commind Logalle Mistory Output rev. 12/98-1

Name: TURATION Date: 04/30/2003

Length: 5.78

Location: USBG Occanic Drive to MDS Overpass

County: Gross County Period: Jan. 1, 1999 to approx. Occ. 31, 2002 Hote(s):

LOGHILE	ir: Date	SEVERITE	TIME	LIONT	SUR PACE	ALC	OG	TYPE CLEM	AT AS MOAE	PRODABLE CAUSE
JS0050				******						
Anne Ar	undel	2								
17.05	060299	1 Inj.	SP	DAY	DILY			KREND	RS ES	PAIL TO GIVE FULL TIME/ATTENT
17.05	110299	ı ınj.	9 A	DAY	DAY		05	PROBJ	WE na	PAIL TO CIVE FULL TIME/ATTENT
37.05	632999	1 Inj	129	DAY	DRY			PERMIT	EI ES	PAIL TO GIVE PULL TIME/ATTENT
17.05	670100	PROPERTY	112	DAT	DRY			MEND	ES 55	PAIL TO GIVE PULL TIME/ATTENT
17.05	040900	ı ınj.	EA	NIGHT	day			REEMD	NS MS	PAIL TO GIVE FULL TIME/ATTERT
17.05	090700	l Inj.	9A	DAY	DRY			edswp	M3 M9	IMPROPER TURK
17.05	101101	PROPERTY	-6₽	DAY	DRY			OTHER	es es	ANIMAL
17.05	112501	1 Inj.	86	HIGHT	WEI			RREND	es rs	PAIL TO GIVE FULL TIME/ATTENT
17.05	612403	PROPERTY	35.	NIGHT	WET			PARKD	AG GE	CHRESONN OR OTHER CAUSE
17.05	110602	PROPERTY	48	DAY	DXY			TREED	es es	POLICHED TOO CLOUBLY
17.06	072301	PROPERTY	3P	DAT	DAX		05	PADDJ	WS BA	ARHICTE DEAUCL
17.07	061999	PROPERTY	118	DAY	DRY			RREND	eg es	FAIL TO GIVE FULL TIMES/ATTENT
17.07	041201	PROPERTY	11F	MIGHT	DRY			SDSWP	WE WS	FAIL TO GIVE PULL TIME/ATTENT
17.07	041403	1 Inj.	38	DAY	DRY		95	FROM	MS nu	PAIL TO GIVE FULL TIME/ATTENT
17.09	052899	PROPERTY	116	MIGHT	DRY			REPRESE	es es	DEMONSHION OF OTHER CAUSE
17.11	062500	PROPERTY	511	DAY	DRY	₹.,		OTHER	uu es	UNDER IMPLUENCE OF ALCOHOL
17.14	052000	PROPERTY	12P	DAY	WRT			OTHER	ES na	TOO FAST FOR CONDITIONS
17.14	081500	1 Inj	111	DAY	DKY			RREDED	us es	FAIL TO GIVE FULL TIME/ATTENT
17.14	092802	1 Inj.	1 2 P	DAY	DRY			other	KE DA	UNICHONN OR OTHER CAUSE
17.14	072902	PROPURTY	12r	DAY	DRY			OTHER	94 UU	CHINOCOL CR OTHER CAUSE
17.14	062901	PROPERTY	27	DAY	DRY			RREED	es es	PAIL TO GIVE VULL TIME/ATTENT
17.15	111199	i Inj.	GA	DAY	DHI			REEND	MS NG	FAIL TO GIVE PULL TIME/ATTENT
17.16	070299	i inj.	127	DAY	DRY			RRRIP	NS NS	INTERIORIS OR OTHER CAUSE
17.15	061302	2K 01	5A.	DAY	DRY			PARKD	WE UP	PAIL TO GIVE PULL TIME/ATTENT
17.15	031602	2 Inj.	111	DAY	WET			BREND		PAIL TO GIVE PULL TIME/ATTENT
17.21	050799	3 [8]	.4P.	DAY.	DRY			OTHER	WS WS ES E9	PAIL TO GIVE FULL TIME/ATTENT
17.21	032599	PROPERTY	41	DAY	DRY			RREERD	ES ES	TOO PAST FOR CONDITIONS
17.21	070201	PROPERTY	5P		DAY		OR	PXOBJ	RS na	TAIL TO GIVE PULL TIME/ATTENT
37.24	000700	PROPERTY	JIV JIV	DAY	DRY		yn.	PARMO	ES 110	PAIL TO GIVE FULL TIME/ATTENT
17.24	062303	PROPERTY	11A	DAY	DRY		08	PXOB3	EC na	IMPROPER PASSING
17.26	110299	PROPERTY	42	DAY	WET		05	PKOBJ	MS na	PAIL TO GIVE FULL TIME/ATTENT
17.25 17.25	083001	1 inj.	108	DAY	WET			CTREE	WS UU	TOO PAST FOR COMDITIONS
17.29	051502	l Inj.	12P	DAT	DRY			RARESTO	RS BS	POLLOWED TOO CLOSELY
17.31	051701	PROPERTY	102	nicht	DAY			OTHER	KO ED	UNICHONN OR OTHER CAUSE
17.51	081702	PROPERTY	102	HIGHT	DRY	1		9DSWP	ES RE	UNDER INFLUENCE OF ALCOHOL
17.32	061999	PROPERTY	11A	DAY	DRY	·*:		REEMO	UD ES	PAIL TO GIVE FULL TIME/ATTEMY
17.32	061999 041900	PROPERTY	114	DAY	DRY	1		RREND	ES ES	UNDER IMPLUENCE OF ALCOHOL
17.33	090682	PROPERTY	42	DAY	DRY	₹.		OTHER	UU ES	PAIL TO YIELD RIGHT OF MAY
17.33	062102	PROPERTY	10P	NIGHT	WET			OTHER	OU ES	PAIL TO TIELD RIGHT OF MAY
17.34	012299	PROPERTY	23A	DAY	WET		00	PXORJ	ES Da	IMPOONE OR OTHER CAUSE
+(+4*	014499		yA.	'rwr.	into \$		40	: United	10-	
KOB (01) =8c1	oge (02)-Bui	lding (01)	-Culve	r/Ditch	(D4) i	Carb	(0:) =Gened:	mail/Burn	rier (06)-Embankment (07)-Pe

Continues ...

ADC Combined Logaile History Output Continued ...

LOCHILE	IR	DATE	SEVERITY	TIME	LIGHT	SUR FACE	ALC	DE DE	CLEN	MDAE	PRODABLE CAUSE
LEASTILLE	**	UM.15		4 5 (14)							
.17,-34		021699	PROPERTY	47	DAT	DRY			OTHER	BS DB	UNKNOWN OR CTHER CADER
27.34		050899	PROPERTY	114	DAY	DRY		65 .	PECEJ	85 na	PAIL TO GIVE FULL TIME/ATTENT
17.34		060699	PROPERTY	101	MICHT	DRY		ÖR	PECINI	E9 ne	PAIL TO GIVE PULL TIME/ATTENT
17.34		061799	PROPERTY	37	DAY	HET		88	LXOB1	ES DA	PAIL TO GIVE PULL TIME/ATTENT
17.34		080999	PROPERTY	73	DAY	DOX		02	PROBJ	ES GA	PAIL TO GIVE PULL TIME/ATTENT
17.34		052499	PROPERTY	127	DAT	DOLY		86.	PKOLJ	ES no	FAIL TO GIVE FULL TIME/ATTENT
27.34		082699	PROPERTY	93.	DAY	DRY			REESTO	88 E2	FULLOWED TOO CLOSELY
17.34		112400	PROPERTY	107	THOU	DRY		46	PXC93	es na	PAIL TO GIVE YOLK TIME/ATTEMP
17.34		062900	1 Inj.	#P	DAY	DRY			RREND	es es	PAIL TO GIVE FULL TIME/ATTENT
17.14		033000	l Ioj.	TOP	nicht	WHT			rrend	es es	PAIL TO GIVE PULL TIME/ATTEME
17.34		010100	l Inj.	6A	DAY	HEI		85	FECRI	BS na	TOO PAST FOR COMDITIONS
17.34		100300	PROPERTY	72	MICHT	DRY		99	FEORJ	ES na	PAIL TO GIVE FULL TIME/ATTENT
17.34		061400	PROPERTY	77	DAY	DILY		40	PKORJ	25 na	ENTL TO GIVE PULL TIME/ATTENT
17:34		081600	PROPERTY	105	DAY	PRY		**	FRODJ	55 ta	FAIL TO GIVE FULL TIME/ATTENT
17.34		120900	PROPERTY	3P.	DAY	DRY		9.0	LECORA	B9 na	PAIL TO GIVE FULL TIME/ATTENT
17.34		102200	PROPURTY	10P	MIGHT	DRY		86	PXOBJ	RS na	ASHICLE DEAECL
17.34		070600	PROPERTY	10F	MICHT	DRY			CTHEE	uu es	FAIL TO GIVE FULL TIME/ATTENT
17.34		111301	PROPERTY	TH	DAY	DRY			OTHER	MA EE	PAIL TO GIVE FULL TIME/ATTENT
17.34		012501	PROPERTY	72	DAY	ENCY		0.0	PEORI	68 na	PAIL TO GIVE FULL TIME/ATTENT
17.34		100801	PROPERTY	121	MICHT	DRY		9.0	PEOBL	RS na	PAIL TO GIVE PULL TIME/ATTENT
17.34		111201	PROPERTY	10A	DAY	DRY			OTHER	uu es	LIBITIONN OR OTHER CAUSE
17.34		102601	PROPERTY	10F	THOIM	DRY	1		rkend	es es	UNDER INPLUENCE OF ALCOHOL.
17.34		041701	PROPERTY	111	DAY	DRY		48	PXOBJ	ES na	PAIL TO GIVE FULL TIME/ATTENT
17.34		081401	Phoperty	1P	DAY	dry		88	FECGJ	es un	PAIL TO GIVE FULL TIME/ATTENT
17,34		111001	PROPRIET	18	NIGHT	WILL		QŹ	LHOX	RC na	PAIL TO GIVE FULL TIME/ATTENT
17.34		112201	PROPERTY	72	NICHT	DRY			CTHEA	UU ES	PAIL TO GIVE FULL TIME/ATTENT
17.14		841601	PROPERTY	121	MIGHT	4/57		68	PECIES	ES na	PAIL TO GIVE FULL TIME/ATTEMT
17.34		071301	6 inj	10A	DAY	DEX			RRENTO	es Rg	FAIL TO GIVE FULL TIME/ATTENT
17.34		062501	PROPERTY	:76	DAY	DRY		20	LECKY	an as	PAIL TO GIVE FULL TIME/ATTENT
17.34		120301	PROPERTY	4P	DAY	WET		03	PIOSJ	es na	PAIL TO GIVE PULL TIME/ATTENT
17.34		121101	PROPERTY	104	DAY	WILL		08	LYOP	RS 114	PAIL TO GIVE FULL TIME/ATTENT
17.34		121301	PROPERTY	7Þ	HIGHT	DRY		8.5	FXOBJ	R6 de	FAIL TO GIVE FULL TIME/ATTENT
17.34		121101	PROPERTY	114	DAY	DRY		99	PKOBJ	B6 n≠	PAIL TO GIVE PULL TIME/ATTENT
17.34		042901	PROPERTY	41	DAY	DRY		88:	FECD3	es na	INDOORN OR CITEER CAUSE
17.34		010501	PROPERTY	aa	DAY	DRY		99	PECRI	RG na	PAIL TO GIVE FULL TIME/ATTENT
17.34		072781	PROTEKTY	LOA	DAY	DAX		42	Leoka	RS DA	PAIL TO CIVE FULL TIME/ATTENT
17.34		111501	PROPERTY	50	DAY	DRY		80	PXOOJ	E9 na	PAIL TO GIVE PULL TIME/ATTENT
17.34		062501	PROPERTY	114	DAY	DRY		8.4	EUUX	E2 D3	VEHICLE DEFECT
17.34		101002	PROPERTY	47	NIGHT	DHY		80	FXCUJ	W na	PAIL TO GIVE PULL TIME/ATTENT
17.34		092702	PROPERTY	6A	DAY	DOX			OTHER	K3 na	VEHICLE DEFECT
17:34		090702	PHOPERTY	6A	DAY	DICY		86	PXONJ	KS na	UTICIONE OR OTHER CAUSE
17.34		081602	PROPERTY	10P	MIGHT	HEL			OTHER	nn Ra	IMPROPER LAWR CHARGE
17.34		061702	PROPERTY	72	DAY	HET			OTHER	w es	IMPROPER LANE CHANCE
17,34		051802	PROPERTY	δÝ	DAY	DRY		66.	PROBJ	RG na	PAIL TO GIVE FULL TIME/ATTENT
17.34		042702	Indierty	114	DAY	DRY			OTHER	טט טט	PAIL TO GIVE FULL TIME/AFTERT
37.34	-	033502	PROPERTY	6P	DAY	DAY			RRIEN	es es	PAIL TO GIVE FULL TIME/ATTENT
17.34		110902	PROPERTY	BA	DAY	DRY		数据	PKODJ	ES na	FAIL TO CIVE FULL TIME/ATTENT
17.35		111700	PROPERTY	127	DAY	DRY		02	Probj	E5 na	PAIL TO GIVE FULL TIME/ATTENT
17.36		063301	PROPERTY	42	DAY	DRY			OTHER	on es	UNICHONN OR OTHER CAUGH
						· · · · · · · · · · · · · · · · · · ·					
(01)-Bri	dge	(82) -Bu17	lding (D3)	-Culve	r/Ditch	(D4)#	Curb	(05)-Cuard	cail/Bar:	rier (06)=Embankment (07)=Pt

Págé: 2

ADC Combined Logalie History Output Continued.

LOGHILE	1k	DATE	SEVENITY	TIME	LIONT	BUR FACE	ALC	CD FX	CLSN TYPE	AT AS MOAE	PROBABLE CAUSE
17.36	سمست	650701	l Inj.	111	DAY	DRY		:13	PXOBJ	WS na	PELL AGLEEP, PAINTED, STC.
17.36		051401	PROPERTY	21	DAY	DRY			SDSWP	re re	IMPROPER LANE CHARGE
17.37		077800	PROPERTY	114	DAY	DRY			RREITO	es es	POLLOWED TOO CLOSELY
17.37		110402	l Inj.	ЭP	TUAY	DRY		05:	PROBJ	W6 05	PHYSICAL/MENTAL DIFFICULTY
17.38		032091	PROPERTY	10A	DAY	DRY			SDSWP	es ar	UNEMONE OR OTHER CAUSE
17.38		053902	з inj.	6.5	DAY	DRY			OTHER	RS UU	TOO PAST FOR CONDITIONS
17.41		080702	PROPERTY	12P	DAY	DRY			REEND	E5 E5	POLICHED TOO CLOSELY
17.41		081802	PROPERTY	4P	DAY	DRY			RHIMD	rs ko	TOO PAST FOR COMDITIONS
17,44		112999	l Inj.	82	DAY	DRY		0.4	FEODJ	MS Da	TOO PAST FOR COMDITIONS
17.44		062390	PROPERTY	38	MICHT	DRY		80	PXCUJ	25 na	FAIL TO GIVE FULL TIME/ATTEMY
17.44		030381	2 inj.	3P	DAY	PRT			RREND	115 89	PAIL TO GIVE FULL TIME/ATTENT
17.44		081001	PROPERTY	47	DAY	DRY			OTHER	00 KS	UNENOWN OR OTHER CAUSE
17.44		072202	PROPERTY	61	DAY	DRY		9.6	PXODJ	BB na	UNICHOWN ON OTHER CADEE
17.45		041499	1 Inj.	12	DAY	DRY			RREND	RS 53	PAIL TO GIVE PULL TIME/ATTENT
17.47		050401	PROPERTY	32	DAY	DAT			RREND	20 25	FAIL TO GIVE FULL TIME/ATTENT
17.47		092802	PROPERTY	17	DAY	DRY			RREND	es mu	UNIXMONN OR OTHER CAUSE
17.47		092802	PROPERTY	37	TMY	DAY			RREND	eg eg	DENOMIN OR OTHER CAUSE
17.49		080299	PROPRICTY	BA	DAY	DRY		8.6	FXODJ	UU na	FAIL TO GIVE FULL TIME/ATTENT
17.49		060999	PROPERTY	7 0	NIGHT	DRY		86:	PEODJ	MU na	PAIL TO GIVE FULL TIME/ATTENT
17.51		031402	PROPERTY	19	DAY	DRY			SDSWP	es es	PAIL TO DIVE FULL TIME/ATTEMT
17.56		072002	PROPERTY	5A	DAY	DHY			TURNE	E9 ES	TOO PAST FOR CONDITIONS
17.57		121500	PROPERTY	ðP	MIGHT	DRY			SDOWP	MG M9	UNDER IMPLIENCE OF ALCOHOL
17.57		033807	PROPERTY	42	DAY	DRY			SDSWP	25 ES	UNKNOSM OR OTHER CAUSE
17-57		082102	PROPERTY	47	DAY	DRY			OTHER	UU ES	TOO FAST FOR COMDITIONS
17.59		112700	PROPERTY	6P	NIGHT	DRY			OTHER	EU 29	IMPROPER BACKING
17.61		041299	PROPERTY	120	DAY	DRY			READID	RS RS	POLLOWED TOO CLOSKLY
17.61		030802	2 Inj.	52	DAY	DRY			AREND	RS BS	PAIL TO GIVE PULL TIME/ATTENT
17.61		090402	PROPERTY	78	DAY	DRY			RREND	NS MS	POLLOWED TOO CLOSELY
17.62		040299	2 1#1-	49	DAY	DAY			RRESTO	65 ES	TOO PAST FOR CONDITIONS
17.62		031301	PROPERTY	3P	DAY	WET			BDSWP	ES ES	UNKNOWN OR OTHER CAUSE
17.67		970900	ı raj	61 *	DAY	DRY			ARENO	ES EC	FAIL TO GIVE FULL TIME/ATTENT
17.67		092201	PROPERTY	118	DAY	DRY			RREND	ES ES	FAIL TO GIVE FULL TIME/ATTENT
17.67		041701	PROPERTY	SP.	DAY	DRY			ANGLE	28 RS	PAIL TO GIVE PULL TIME/ATTEMT
17.67		010101	PROPERTY	102	HIGHT	DRY			OTHER	WE DE	UNICHONE OR OTHER CAURE
17.67		092201	PROPERTY	11A	DAY	DRY			REESTO	ES ES	FAIL TO GIVE FULL TIME/ATTEMY
17.71		05209 9	1 Inj	38	DAY	DHY			RREND	12 R9	TOO PAST FOR CONDITIONS
17.71		050199	1 Ind.	3 P	DAY	DRY			RAKNO	us es	PAIL TO GIVE FULL TIME/ATTENT
17.71		051599	PROPERTY	2P	DAY	DRY			RREND	22 22	ACITOMED 100 CTORETA
17-71		051699	PROPERTY	Áð.	DAY	WET			OTHER	UU WG	TCY DR SHOW COVERED
17.71		051999	PROPERTY	104	DAY	DRY		05	FXCGJ	WS Au	PAIL TO GIVE PULL TIME/ATTENT
17.71		091499	PROPERTY	8A	DAY	DRY			RRIBID	22 22	PAIL TO GIVE FULL TIME/ATTEMT
17×71		101499	PROPERTY	4P	DAY	DRY			RHEND	no ne	PAIL TO GIVE FULL TIME/ATTENT
17.71		061599	PROPERTY	5A	DAY	DRY			OTHER	MS. pa	VEHICLE DEFECT
17.71		052099	1 Inj.	8 P	NIGHT	DAY			RREND	ES ES	POLLOWED TOO CLOSELY
17.71		102901	1 Inj.	LUA	DAY	DRY			HREND	RC BC	TOO FAST FOR CONDITIONS
17.71		062481	1 Ini	10	DAY	DRY			RIKEMD	es re	POLLOWED TOO CLOGGEY
37.71		061001	1 Inj.	111	DAY	DAY			RREND	ES ES	FAIL TO GIVE PULL TIME/ATTENT
17-71		060302	PROPERTY	118	DAY	DRY			HREED	es es	TOO FAST FOR CONDITIONS
17.71		090602	PROPERTY	10A	DAY	DRY			RREND	EP BS	FAIL TO GIVE FULL TIME/ATTERIT
		a de la comunicación de la comun			·			****			
8(01) -b ri	dge	(02) =Bull		5000	r/Ditch	(04)		- 7	4	ail/Borr	
)-Light P		(09) -Sign	. Hank 146	4. A.E.	r Pole	Dani. m.	4	ساند بالأنافات		Mary Mary	c. Barrier (1))-Crash Attenual

Page: 3

And Combined Logalle History Output Continued ...

OCHILLE OCHILLE	IR DATE	BEVERITY	TIME	Light	SUR PACE	ALC	PX OB	CLSH TYPE	NOVE V1 V2	PROBABLE CAUSE
						· · · · · · ·				
17.73	06129	9 PROPERTY	127	DAY	DRY			RREMO	ES RE	PAIL TO GIVE FULL TIME/ATTENT
17.77	09039	PROPERTY	10	DAY	DRA			RREID	E3 68	PAIL TO GIVE FULL TIME/ATTENT
17.77	06019	9 PROPERTY	93	DAY	DRY			OTHER	WS W3	VEHICLE DEFECT
17.77	09050	O PROPERTY	30	DAY	DRY			rnend	es es	TOO FAST FOR COMPLITIONS
17.77	10060	d PROPERTY	5 P	DAY	MEL			Burno	25 ES	PAIL TO GIVE FULL TIME/ATTENT
17.77	05110	ı 2 Inj.	2 P	DAY	DRY			EREM	es es	PAIL TO GIVE FULL TIME/ATTENT
17.77	05110	1 3 Inj.	22	DAY	DRY			RREND	es es	PAIL TO GIVE FULL TIME/ATTEST
17.77	05110	l linj.	27	DAY	DRY			OTHER	צאם טען	PAIL TO GIVE FULL TIME/ATTENT
17.78	03319	9 3 Inj.	47	DAY	DRY		05	PEOBJ	WE NA	PAIL TO GIVE FULL TIME/ATTENT
17,79	11010	O PROPERTY	7 7	MICKE	DRY			OTHER	NS DG	ANTHAL
17.81	06129	9 2 inj.	62	DAY	DAY			PREND	ns re	TAIL TO GIVE FULL TIME/ATTEMT
17.81	06140	1 PROFERTY	7P	DAY	DRY			RREND	es be	PAIL TO GIVE PULL TIME/ATTENT
17.07	03558		11A	DAY	DEX			RREID	es es	PAIL TO GIVE FULL TIME/ATTENT
17.67	08079	the second second	31	DAY	DRY			RRING	es es	PAIL TO GIVE FOLL TIME/ATTENT
17.67	08079		57	DAY	DRY			RRSKO CHISKR	ES ES	FAIL TO GIVE PULL TIME/ATTENT
17,67	08139		29	DAY	DRY			REEND	R6 126	PAIL TO GIVE PULL TIME/ATTENT
17.87	08219		3P.	DAY	DRY			RREND	es es	FAIL TO GIVE FULL TIME/RITEME
17.47	09120	5 5 5 5 5 5 5	ЯÈ	DAY	DRY			RREDED	es es	THE TO OTHER CAUSE
17.47	09220		57	DAY	DRY			RESERVE STREET	es es	FAIL TO GIVE FULL TIME/ATTENT
17.67	07110	- · · · -	42	DAY	DRY			RUZZIO	ES ES	PAIL TO GIVE FULL TIME/ATTENT
17.87	09050	1 1 T	129	DAY	DRY			RREND	ES ES	PAIL TO GIVE PULL TIME/ATTENT
17.87	03149	. · · · ·	17	DAY	DRY			RREND	es es	TAIL TO GIVE FULL TIME/ATTENT
17.87	97119	, . .	42	DAY	DRY			REEND	MS ES	POLICHED TOO CLOSELY
17 . 17	06100		11A 1P	DAY	DRY			RPHHO	ES BS	PAIL TO GIVE FULL TIME/ATTENT
17.87	06050	The Branch of the Control of the Con	29	DAT	DRY			2250C	RS BS	PAIL TO GIVE PULL TIME/ATTENT
17.89 17.90	10190 04169		4P	DAY	DRY			RREND	RE ES	PAIL TO GIVE PULL TIME/ATTENT
17,51	08279		32	DAY	DRY			RUBBED	E8 88	FAIL TO GIVE FULL TIME/ATTENT
17.91	87020	the state of the s	111	DAY	DRY			RREAD	ES ES	PAIL TO GIVE FULL TIME/ATTEMT
17.91	08120		10A	DAY	DRX			rreno	E8 E5	PAIL TO GIVE FULL TIME/ATTENT
17.91	12180		113	DAY	DRY			RREND	E9 58	PAIL TO GIVE PULL TIME/ATTENT
17.91	06030		132	DAY	DRY			RREID	ne ne	FAIL TO GIVE PULL TIME/ATTENT
17.91	06250	-	22	DAY	DRY			RREND	123 83	FAIL TO GIVE PULL TIME/ATTEMT
17.91	07980	. 7	71	DAY	DRY			RRELL	20 ES	PAIL TO GIVE YULL TIME/ATTENT
17.51	11170	7 747 873	98	DAY	DRY			RREND	RG ES	TOO PAST POR COMDITIONS
17.51	11190		9A	DAY	DRY			RENDED	EG ES	TOO FAST FOR CONDITIONS
17.91	09210		1.2	DAY	DRY			RREPAR	EE ES	TOO FAST FOR CONDITIONS
17.91	10190		29	DAY	DRY			RREND	EC ES	TOO PAST FOR COMPITIONS
17.91	10190	1 2 lnj.	22	DAY	DRY			HABND	rs re	TOO FAST FOR CONDITIONS
17.91	05230	ı i inj.	31	DAY	WET			Chang	ES ES	PAIL TO GIVE FULL TIME/ATTENT
17.91	06230	z i inj.	3 P	DAY	WET			見 戻だまれつ	es es	FAIL TO GIVE PULL TIME/ATTENT
17.95	09220	i i inj	12P	DRY	DRY			RREMO	es es	PAIL TO GIVE FULL TIME/ATTEMT
17.97	03269	9 PROPERTY	4P	DAY	DRY			rrend	es es	TOO PAST FOR COMDITIONS
17-97	11019	9 5 mj.	9A	DAY	DRY			rrend	rs re	POLLOWED TOO CLOSELY
17.97	83090	0 2 Inj.	113	DAY	DRY			OHERD	es es	PAIL TO GIVE FULL TIME/ATTENT
17.97	09120	PROPERTY	101	DAY	DRY			CTHER	URI WS	UNKNOWN OR OTHER CAUSE
17.97	09120	o 2 inj.	10A	DAY	CRY			rrend	M9 M6	PAIL TO GIVE FULL TIME/ATTENT
17.97	09120	D PROPERTY	101	DAY	DRY			RRIBED	WS WS	PAIL TO GIVE PULL TIME/ATTENT
17.97	ecico	PROPERTY	10A	DAY	DRY			CTHER	28 38	DEDRIS OR OSSTRUCTION
(01) «Brid		ullding (0)		r/Ditch	(04)-	COLP	(ni		rail/Bar	rier (06)-Bmbankment (07)-Fe

Page: 1

ADC Combined Logaila History Cutput Continued...

LOGHILE	18	DATE	CHARLITA	Time	LIGHT	FACE	ALC	PX 08	TYPE	AT AS	PROBABLE CAUSE
17.97		092801	PROPERTY	:2P	EAY	DRY			AZAZILE!	98 28	PAIL TO GIVE PULL TIME/ATTENT
17.97		051702	PROPERTY	1P	DAY	DRY			PREMO	ES ES	POLLOWED TOO CLOSELY
17.97		042002	PROPERTY	22	DAY	DRY			KREND	PE 125	PAIL TO GIVE PULL TIME/ATTENT
18.01		050299	PROPERTY	77	DAY	DRY			RREMO	as Re	PAIL TO GIVE FULL TIME/ATTENT
18.01		061299	PROPERTY	118	DAY	DRY			DE RIND	1213 R.S	PAIL TO GIVE FULL TIME/ATTENT
18.01		070601	2 Inj.	114	DAY	DRY			RALEME	es es	TOO FAST FOR CONDITIONS
18.06		051502	i Inj.	128	MICHT	DRY	₹	05	PERMIT	Sta UU	WALL TO GIVE PULL TIME/ATTEMT
18.07		012799	2 Inj.	ЭĖ	DAY	DRY			SCHOOL STATE	B8 88	PAIL TO GIVE FULL TIME/ATTENT
18.07		072999	PROPERTY	38	DAY	DRY			RESERVE	E9 BG	VEHICLE DEFECT
18.07		112499	PROPERTY	10	DAY	DRY			RESERVE	us es	PAIL TO GIVE FULL TIME/ATTENT
18.07		031700	PROPERTY	6P	HIGHT	DITY			REED CO	BS MS	PAIL TO GIVE FULL TIME/ATTENT
18.67		062000	PROPERTY	111	DAY	DAT			RENDE	M8 88	VALL TO GIVE PULL TIME/ATTENT
16.07		083200	PHOPERTY	118	DAT	DRY			RRYDE	RS RD	PAIL TO GIVE PULL TIME/ATTENT
16.07		970200	PROPERTY	118	DAY	DRY			RRAND	RC BC	FAIL TO GIVE PULL TIME/ATTENT
18.67		102700	PROPURTY	4P	DAY	DAY.			KREND	es ps	TOO PAST FOR COMPITIONS
10.07		091200	S Inj.	93	DAY	DRY			RREND	es es	PAIL TO GIVE FULL TIME/ATTENT
18.07		101901	PROPERTY	2P	DAY	DRY			PIPERIO)	65 BS	FAIL TO GIVE FULL TIME/AITENT
19.07		041301	PROPERTY	2P	DAY	DRY			PLEASE	rs es	ANIT TO GIAS ANIT TIME/SLIESL
18.07		061701	2 Inj.	128	DAY	DRY			REEND	ES 85	TOO FAST FOR CONDITIONS
18.07		091402	PROPERTY	9A.	DAY	PRY			RREND	re or	PAIL TO GIVE FULL TIME/ATTEMT
18.10		071699	1 Inj.	12P	DAY	DRY			RREND	us ka	PAIL TO GIVE FULL TIME/ATTENT
10.11		001399	1 Inj.	130	DAY	DRY			PREND	es es	FOLLOWED TOO CLORELY
10.16		011302	PROPERTY	87	MIGHT	DRY			OTHER	A0 168	LERECTORN OR OTHER CAUSE
18.16		061402	PROPERTY	22	DAY	WET			RREPER	es es	TOO FAST FOR COMMUTICARS
18.16		062602	PROPERTY	2P	DAY	WET			OTHER	uu es	TOO PAST FOR COMMITTONS
10.16		071802	PROPERTY	101	NIOHT	DRY			MULEND	RC RC	FOLLOWED TOO CLOSELY
18.17		080799	YTR29081	78	DAT	DRY			RRSED	ES ES	FAIL TO GIVE FULL TIME/ATTENT
18.17		110199	4 Inj.	114	DAY	DRY			RRENTO	RS ES	PAIL TO GIVE FULL TIME/ATTRIFT
18.17		111099	PROPERTY	10A	DAY	DRY			FREND	TE ES	TOO FAST FOR CONDITIONS
18.17		030900	PROPERTY	15	DAY	DRY			MEXIM	ES BC	FAIL TO GIVE PULL TIME/ATTEMP
18.17		041000	PROPERTY	17	DAY	DRT		05	PEDOJ	25 na	PAIL TO GIVE PULL TIME/ATTENT
18.17		062100	PROPERTY	78	DAY	DAY			RREND	es an	PAIL TO GIVE FULL TIME/ATTENT
18.19		082761	5 lnj.	11A	DAY	DRT			RREND	es us	PAIL TO GIVE FULL TIME/ATTENT
18.21		072100	PROPERTY	BA	DAY	DHY			RREND	es es	PAIL TO GIVE FULL TIME/ATTEME
10.21		081102	PROTERTY	12P	DAY	DRY			DREND	26 B2	FAIL TO GIVE PULL TIME/ATTENT
18.27		031600	PROPERTY	37	DAY	DRY			RREND	86 BE	PAIL TO GIVE FULL TIME/ATTENT
16.27		162000	5 Inj.	10A	DAY	DRY			rrend	29 RE	EXCREDED SPEED LIMIT
16.27		000501	PROPERTY	121	DAY	DRY			RREND	88 89	PAIL TO GIVE FULL TIME/ATTENT
15.31		040G99	2 Inj.	11P	THDIN	net	1		PARKO	ES 05	PAIL TO GIVE FULL TIME/ATTEMT
10.31		072186	PROPERTY	ex:	DAY	DRY			RRENTO	es es	FAIL TO GIVE FULL TIME/ATTENT
18.34		070300	2 Inj.	42	DAY	DRY			RREND	es es	PAIL TO GIVE PULL TIME/ATTENT
10.36		072702	PROPERTY	2₽	DAY	DRY			RREND	RC ES	POLICHED TOO CLOSELY
38.37		07 09 00	la laj.	10	DAY	DBA			RKEND	es es	FAIL TO GIVE FULL TIME/ATTENT
16.41		071700	Property	20	DAY	DRY			RRIND	ns ns	UNICHONNI OR OTHER CAUSE
18146		122600	a inf.	113	DAY	DRY			RREND	RC RE	POLLOWED TOO CLOSELY
18.46		050101	PROPERTY	22	DAY	DRY			OTIER	บบ บร	INDSOUGH LANE CHARGE
18.46		060802	PROPERTY	4P	CAY	DRY			RREND	ns es	TOO FAST FOR CONDITIONS
18.46		032702	PROPERTY	72	DAY	DREX			RICEND	WE WE	(MICHORN OR CTHER CAUSE
10.47		052877	1 inj.	96	MICHT	DRY		200	KNEWD	ES ES	PAIL TO GIVE PULL TIME/ATTENT
3 (01) -Bri	dige	(02) =5u1)	iding (03)	-Culva	r/Ditch	(04)=	Curb	(09)-Guardi	all/Bar	rier (06)=Embankment (07)=Fe
-Light F	17.	(09)=31gs									ic. barrier (13)-Crash Attenua

Page: 5

ADC Combined Logaile History Output Continued ...

LOGHILE:	ra	DATE	SEVERITY	TIME	LIOHT	Sur Face	ALC	(N)	CLS# TYPE	AT A3 MCAE	PROBABLE CAUSE
WALLEY .	***	<i>u</i> =+≥									
18.50		061802	PROPERTY	40	DAY	DRY		054	FECRJ	WS DA	VEHICLE INCHEST
18.56		071502	2 inj.	1.2 <i>p</i>	DAY	DRY			REIDIO	26 WG	POLLONED TOO CLOSELT
18.57		082001	PROPERTY	12P	DAY	DRT			OTHER	פב טט	TRECKING OR OTHER CAUSE
18.62		010499	1 Inj.	11	DAY	DRY			SDSWP	WE WS	IMPROPER LAME CHANGE
10.62		031401	L'HOPERTY	3P	DAT	DEX			RREND	es es	PAIL TO GIVE FULL THE /ATTENT
10.71		060600	2 Inj.	4.4	MICHE	DRA	· f		RREND	EC 59	IMPER INFLUENCE OF ALCOHOL.
16.71		022602	PROPERTY	164	DAY	DRY		13	PEODJ	MS na	PAIL TO GIVE FULL TIME/ATTEMT
18:76		122600	ı inj.	114	DAY	DKY			RHHHP	113 22	FOLLOWED TOO CLOSELY
18.76		122690	1 Inj.	118	DAY	DUY			RREHO	ES ES	POLLOWED TOO CLOSELY
18.76		060901	PROPERTY	2P	DAY	DRY			OPDIR	W5 25	PELL ASLEEP, PAINTED, STC.
18.75		101702	2 Inj.	28	DAY	DRY			OTHER	WE WE	SKCSSOED SPEED LIMIT
16.86		091202	PROPERTY	47	DAY	DRY			RESID	es as	FAIL TO GIVE FULL TIME/ATTENT
18.87		062599	PROPERTY	6P	DAY	DRY			DECEMBER	25 ES	PAIL TO GIVE FULL TIME/ATTENT
18.91		101300	PROPERTY	5.0	DAY	DRX			RREID	E9 E8	TOO PAST FOR CONDITIONS
18.37		062100	PROPERTY	LIP	MICHT	WET		05	PKODJ	WS ma	TOO PAST FOR COMMITTIONS
26.97		030202	PROPERTY	22	DAY	DRY		12	PKORJ	WS DA	VEHICLE DEFECT
19.06		102702	PROPERTY	J.P.	DAY	DRY			AREND	KO KS	MOLITIMED TOO CLOSELY
19.07		062799	PROPERTY	2F	DAY	DRY			REIDED	ne es	FAIL TO GIVE FULL TIME/ATTENT
19.17		033505	PROPERTY	3 P	DAY	DRI			RREND	RS RS	POLICHED TOO CLOSELY
29.17		102302	PROPERTY	ÐΛ	DAY	DRY			Chessus	EC 25	PAIL TO GIVE FULL TIME/ATTENT
19.17		033303	PROPERTY	37	DAY	DRY			REFERENCE	28 85 28 28	PAIL TO GIVE FULL TIME/ATTENT
19.17		032202	l Inj.	32	DAY	DRY			RRENT	RS ES	FOLLOHED TOO CLOSELY
19.18		070200	l Inj.	114	DAY	DRY			PRIMO	PA ES	PAIL TO GIVE FULL TIME/ATTENT
19:10		030200	PROPERTY	12P	DAY	DRY			RESERVE	E9 88	TOO PAST FOR COMDITIONS
13.10		083192	i inj.	2P	DAY	DRY			RREND	ES 89	TOO PAST FOR CONDITIONS
19.16		093102	PROPERTY PROPERTY	:2P :38	WIGHT	DRY		12	PAGBJ	NG DA	PAIL TO GIVE FULL TIME/ATTENT
19.16		021902 052799	PROPERTY	7P	DAY	PRY	1		EREND	119 BS	PAIL TO DIVE PULL TIME/ATTENT
19.27		032000	2 Inj	5A	BIGHT	WET	•	85	PEODJ	w9 ma	WRT
19.28		091900	i inj.	73	DAY	WET		85	PXODJ	WS na	TOO FAST FOR CONDITIONS
19.25		012000	PROPERTY	98	DAY	SMOW			RHEND	es es	PAIL TO GIVE FULL TIME/ATTERT
19.17		032202	1 Inj.	2D 2P	DAY	bay			RRESID	25 E8	UNDER INFLUENCE OF DRUGS
19.47		061601	PROPERTY	5P	DAY	WET			RREMO	ES 123	UNDER INFLUENCE OF ALCOHOL
19.47		090702	PROPERTY	12A	MIGHT	DRY	1		OTHER	45 HE	UNDER INFLUENCE OF ALCOPOL
15.47		081102	PROPERTY	1.5	DAY	DRY			RREED	E8 E9	POLLOWED TOO CLOSELY
15.47		062502	2 Inj.	22	DAY	DRY			RREWD	NS WB	INDUONN OR OTHER CAUGE
19.40		050201	1 Inj	101	DAY	DAY			CTUER	es no	PHYSICAL/MENTAL DIPPICULTY
19.40		060801	i inj	-2P	DAY	DRY			PREMIO	es es	PAIL TO GIVE PULL TIME/ATTENT
19.50		113099	PROPERTY	5P	DAY	DAX			CTHER	WS ma	UNIXECUST OF CTHES CAUSE
19.52		022300	i Inj.	34	MIGHT	DRY			OTHER	UU MB	UNKNOWN OR OTHER CAUSE
19.57		071902	m Ynj.	17	DAY	DRY			CFDIR	25 H9	VEHICLE DEFECT
19.50		061900	1 Inj.	#A	DAT	DAT			PREMO	ns as	PAIL TO GIVE FULL TIME/ATTENT
19.50		082303	PROPERTY	2P	DAY	DRY			OTHER	UU ES	UNICHONN OR OTHER CAUCE
19.60		022802	ı ınj.	ЭÄ	DAY	DRY			RREID	NS WS	FAIL TO GIVE PULL TIME/ATTEMY
19:68		022602	1 In1	9)	DAT	DIX			PREND	WE WS	FAIL TO GIVE FULL TIME/ATTEMP
19.65		022502	2 Inj.	91	DAY	DRY			arred	W3 W5	PAIL TO GIVE FULL TIME/ATTEMT
19.60		022502	2 laj.	91	DAY	DRA			RICEMID	WS WB	PAIL TO GIVE PULL TIME/ATTENT
19.68		080202	PROPERTY	13A	DAY	DRY			RREND	es es	TOO FART FOR CONDITIONS
19.68		082302	PROPERTY	3 P	DAY	DICY			OTHER	es w	TOO PAST FOR COMDITIONS
		iee,	722 IT 1				20 64 6				A Carry Makes and Carry Market
t (O1) =Bri	oda G	(02) =Bul7	ding (03)	"CITTAG	r/Ditch	(04)=	Curb	(05) =Guardi	ail/barr	ier (06)-Embankment (07)-Fe

Pago: 6

ADC Combined Logalle History Output Continued ...

POCHLER	IR	DATE	SEVENITY	TIME	FTGHL	SUR FACE	ALC	PZ OP	TYPE	V1 V2	PROBABLE CAUSE
19.12		011499	PROPERTY	114	DAY	ICE		,	205VP	NU MI	THEOLOGIA OR OTHER CAUSE
15.00		090299	ı inj.	4P	DAT	DRY			RREAD	RS #9	PAIL TO GIVE PULL TIME/ATTENT
19.68		031601	1 Inj	12P	DAY	DRY			rrend	es ed	FOLLOWED TOO CLUCKLY
19.10		070201	1 Inj.	:6P	DAY	DEX			REED	28 2 6	TOO PAST FOR COMPITIONS
19.10		111601	1 inj.	73.	DAY	DRY			rrewd	NC WS	FAIL TO GIVE FULL TIME/ATTENT
ieen A	nne '	, 5									
0.00		452699	a inj.	12A	HIGHT	dry	1		Parkb	WS UP	UNDER INPLUENCE OF ALCOHOL
0.00		192401	PROPURTY	7h	DAY	Dax			RITEND	WS WO	PAIL TO GIVE FULL TIME/ATTENT PAIL TO GIVE FULL TIME/ATTENT
0.00		102401	PROPERTY	7A	DAY	DRY			ARRIND	NO NO	
0.00		102401	PHOPERTY	7A.	DAY	DRY			PREND	WE WIT	FAIL TO GIVE FULL TIME/ATTENT
6.00		052202	Z Inj.	¢.	DVA	DAY			REND	2M 2M	
6.09		011902	PROPERTY	21:	DAY	SROW		05	PROBJ	AS DA	BAIL TO GIVE FULL TIME/ATTENT
0.10		041599	PROPERTY	32	DAY	DRY			CHRAC	WS WS	PAIL TO GIVE FULL TIME/ATTENT
0.10		033302	1 lmj.	107	DAY	WET			CTHEK	ng na Ra ka	PAIL TO GIVE FULL TIME/ATTENT
0.10		041202	l Inj.)P	DAY	DUA			randi Premi	NS MS	TOG FAST FOR COUDITIONS
0.20		112601	2 Inj.	1P	DAY	DEX			RREMD	WE WE	TOO PAST FOR COMPITIONS
0.20		030602	PROPERTY	7A	DAY	DRY	ı.		PREMO	NG NG	UNDER INPLUENCE OF ALCOHOL
0.30		101900	i Knj	11F	MICHT	DRY	₩:		RREND	ME ME	PAIL TO GIVE FULL TIME/ATTENT
0.30		030102	PROPERTY	7A 7P	DAY	DRY			RREND	MS WS	PAIL TO GIVE FULL TIME/ATTENT
0.40		080301	PROPERTY	118	DVA	DRX			OTTIER	UU WS	PAIL TO GIVE POLL TIME/ATTENT
0.40		061602	l Inj.	122	DAY	DRY			RREND	eg es	POLICHED TOO CLOSELY
0.40		032699	2 Inj.	42	DAY	DRY			RREND	ES ES	PAIL TO GIVE FULL TIME/ATTENT
0.60		072700	PROPERTY	12P	DAY	DRY			FARKD	ינו טע	INICHOMO CHE OTHER CAUSE
0.50 0.50		072700	PROPERTY	127	DAY	DRY			PARKO	טעט טעט	UNIONAL OR OTHER CAUSE
a .sc		041900	l Inj.	5P	DAY	DHA			RREND	82 83	PAIL TO GIVE FULL TIME/ATTENT
0.50		010701	2 Inj.	4.1	MIGHT	DRY		05	PXOBJ	ES na	FAIL TO GIVE FULL TIME/ATTERT
6.50		161002	7 Inj.	3F	DAY	WILT			RREND		PAIL TO GIVE FULL TIME/ATTENT
0.55		080699	PROPERTY	21	DAY	DEX			BD8wt	ME MS	IMPROPER PASSING
B.60		060999	PROPERTY	2F	DAY	DRY	1		RICEND	KB ES	INCER IMPLIANCE OF ALCOHOL
B . 60		092200	1 Inj.	8.P	DAY	DRY			REFERENCE	EU 59	FAIL TO GIVE FULL TIME/ATTENT
0.60		041202	2 701	CP	DAY	DET			RREND	RS RC	FAIL TO GIVE FULL TIME/ATTENT
0.70		100199	YTERTORY	9A	DAY	DRY			RREND	WS WE	FOLLOWED TOO CLOSELY
0.70		090402	PROPERTY	72	DAY	DRY			OTHER	UU WS	FAIL TO GIVE PULL TIME/ATTEMY
0.50		073099	PROPERTY	27	CAY	DICT			EREND	136 MO	PAIL TO GIVE PULL TIME/ATTENT
0.09		051999	PROPERTY	éΛ	DAY	DET			SDEWP	99 WE	IMPROPER LAME CHANGE
1.00		041600	PROPERTY	7P	DAY	DRY			KREND	MB MB	PAIL TO GIVE FULL TIME/ATTENT
1.09		110302	S Inj.	1 r	DAY	DRY			PREED	WS WS	POLLOWED TOO CLOSELY
1.09		119202	1 Inj.	17	DAY	DRY			RESERVE	WS WS	POLLOWED TOO CLOSELY
1.10		022199	1 701.	119	NIGHT	DRY			OTKER	WS na	PAIL TO DIVE FULL TIME/ATTENT
1.10		060901	1 Inj.	98	UAY	DRY			HEND	WG WS	PAIL TO GIVE FULL TIME/ATTENT
1.19		022601	PROPERTY	7A	DAY	DRY			AREND	WE WE	PAIL TO GIVE FULL TIME/ATTEMT
1.19		022601	PROPERTY	·7A	DAY	DRY			RREND	MS WS	PAIL TO GIVE FULL TIME/ATTEME
1.20		090601	PROPERTY	79	DAY	DRY		0.5	PXOBJ	MS sa	PAIL TO GIVE PULL TIME/ATTENT
1.26		060501	I Inj.	61	DAY	DKY			RREIT	es es	FAIL TO GIVE FULL THE ATTEST
2.20		061001	PROPERTY	100	MIGHT	DRY			TURESTO	20 ES	FOLLOWED TOO CLORELY
1.29		041900	PROPERTY	6P	DAY	DRY			rrind)	RE DO	PAIL TO GIVE FULL TIME/ATTENT
1.35		072180	I Inj.	8P	DAY	DRY			RREND	ne ne	PAIL TO GIVE PULL TIME/ATTENT
0 (01) - 8ri		(02) «Bui)	Alma (63)	سرادگ	r/Ditch	(04)-	Curh	/05	1 _ managed	all/Berr	ler (06)=Embankment (07)=Fe

Page: 7

and Combined Localle History Output Continued ...

DOMITE.	IR	DATE	SEVERITE	TIME	LIGHT	PACR PACR	NIC .	CB CB	TYPE TYPE	MOVE V1 V2	PROBABLE CAUSE
		040402	1 Inj.	118	NIGHT	DRY	1		RAENO	We WE	TOO PAST FOR COMPITIONS
1.40		092200	PROPERTY	Sr	DAT	DRY			RRENO	WS NS	PAIL TO GIVE FULL TIME/ATTEMT
1.49		111000	1K 61	-12	DAY	DRX			RREND	NS NS	TOO PAST FOR COMDITIONS
1.49		D81399	1 inj.	10	DAY	DRY			RREED	KS BR	FULLOWED TOO CLUSTELY
1.59		021400	l Inj.	104	DAY	DRY			PREMID	ES 59	TOO FAST FOR COMDITIONS
1.59		021402	a Inj	7A	DAY	DRY			RILEMD	HE WE	PAIL TO GIVE FULL TIME/ATTENT
1.60		102602	PROPERTY	11P	MICHT	DRY			BRIDED	ES 66	EXCEPDED SPESD LINIT
1.69		060102	PROPERTY	1P	DAY	DAY			UTHER	uu ws	PAIL TO YIELD RIGHT OF MAY
1.79		090200	PROPERTY	29	DAY	DRY			RREDED	22 EE	FAIL TO GIVE FULL TIME/ATTENT
1.79		061602	PROPERTY	ÍXA	DAY	DRY			RECORD	25 49	POLICHED TOO CLOSELY
1.00		111501	i inj.	401	DAT	DRY			MUEND	ME WS	TOO PAST FOR COMPUTIONS
1.65		110302	ı Inj.	32	DAY	CRY			RREND	MS WS	POLIONED TOO CLUSELY
1.89		021499	PROPERTY	3 P.	DAY	DRY			AREAR	WS WS	UNIXABANI OR CTHER CAUSE
1.89		071901	PROPERTY	SP.	DAY	DRY			RPEND	WS WS	PAIL TO GIVE PULL TIME/ATTENT
1.89		072401	l Inj.	6P	DAY	DRY			RREND	WS. WE	PAIL TO GIVE FULL TIME/ATTENT
1.09		000102	PROPERTY	BA	DYA	DRY			RREED	es es	UNKNOWN OR OTHER CAUGE
1.91		052199	2 Tpj.	5A	DAY	DRY			RESID	29 BB	PAIL TO GIVE WILL TIME/ATTENT
2.95		072399.	PROPERTY	11A	DAY	DRY			PDEMP	UD WS	UNICHONET CR. CTITIKE CAUSE
2.05		042100	PROPERTY	10A	DAY	DEX			RRESED	MC MB	FAIL TO GIVE FOIL TIME/ATTENT
2.09		110502	PROPERTY	12P	DAY	DRY		05	Probj	WE DA	TOO PAST FOR COMDITIONS
2.12		100501	PROPERTY	5P	DVA	DOY			REEND	es es	PAIL TO GIVE PULL TIME/ATTENT
2.19		070501	PROPERTY	42	DAY	WET			KHRMO	#S #3	PAIL TO GIVE FULL TIME/ATTEMT
2.22		041302	PROPERTY	10P	nicht	DRY			MEDIO	WE WE	PAIL TO GIVE FULL TIME/ATTENT
2.23		112191	1 Inj.	73.	DAY	DRY			rrend	WE WE	PAIL TO GIVE PULL TIME/ATTENT
2.23		112151	PROPERTY	78	DAY	DAY			RREND	W5 WS	PAIL TO GIVE FULL TIME/ATTENT PAIL TO GIVE FULL TIME/ATTENT
2.39		122399	PROPERTY	37	DAY	DAY			RHEND	NS NS	PAIL TO GIVE FULL TIME/ATTENT
2.29		030302	2 Inj.	ĮΑλ	DAY	bay			RRITED	WS WE	PAIL TO GIVE PULL TIME/ATTENT
\$.33		061601	l Inj.	2P	DXY	WET			PREND	WS NO	POLLOWED TOO CLOBELY
2.32		061001	PROPERTY	2r	DAY	DRY		05	PHOBI	WS na	PAIL TO GIVE FULL TIME/ATTENT
2.32		110901	PROPERTY	4.0	DAY	DRY		93	OTHER	WE DA	PAIL TO GIVE FULL TIME/ATTENT
2.32		062402	PROPERTY	64	DAY	DAY	1		RUEND	WS WS	UNDER IMPLURNCE OF ALCOHOL
2.33		062699	1 Ing.	11P 1P	DAY	DRY	:* T :		REEDED	NE NS	FOLLOWED TOO CLOSBLY
3.33		081602	l inj.	117	DAY	DRY			SDSWP	IN RE	IMPROPER LANE CHANGE
2.39		061799 110902	PROPERTY	12A	NIGHT	DAT			OTHER	85 na	MIMAL
2.42		080202	PROPERTY	1.F	DAY	DAY			OTHER	UU W5	INIXIONN OR CIVER CAUSE
2.42		070502	f inj.	12A	MIGHT	DRY		05	PXONJ	WE DA	VEHICLE DEFECT
2.42		000502	PROPERTY	111	DAY	DAY		- -	RIZEND	NS NS	TOO PAST FOR COMMITTIONS
2.43		022301	1 Inj.	45	DAY	BHON		05	PXODJ	WB ma	gleet, hall, preezing rain
2.44		090801	1K 11	78	DAY	DRY			SDEWP	ME WE	PAIL TO GIVE FULL TIME/ATTENT
2.49		061895	PROPERTY	68	DAY	DAY			RREND	28 28	TOO PAST FOR CONDITIONS
2.53		070300	PROPERTY	3P	DAY	DRY			OTTIME	WS no	PAIL TO GIVE FULL TIME/ATTENT
2.56		030501	ı Inj.	9A	DAY	WET			OTHER	HS UU	TOO FAST FOR COMDITIONS
2.61		110999	l Inj	57	NIGHT	DRY			RREND	NB NB	PAIL TO GIVE FULL TIME/ATTENT
2.63		071199	2 Inj	12P	DAY	DUT			RRETED	WS WL	POLLOWED TOO CLOSELY
2.63		010700	1 inj	98	DAY	DRY			ADSWP	es es	THE CAUSE
2.67	1	050899	PROPERTY	SP	DAY	WET		10	PRODJ	ES BA	BAIN, SHOW
2.70	-	071301	1 Inj.	121	MIGHT	DRY	. ↓		OTHER	WS na	UNDER INPLUENCE OF ALCOHOL
2.71		000799	PROPERTY	4P	DAY	DRY			RREMD	Ma M8	PAIL TO GIVE PULL TIME/ATTENT
				-							and the second s
8 (Q1) -Bric	ige	(02)=Bui	lding (03	-Chilve	r/Ditch	(04)	-Curb	(0:)-Guard	rail/Box	rier (06)=Embesikment (07)=7

Page: A

ADC Combined Logarie Distory Output Continued...

LOGHT LE	7R	DATE	SEVERITY	TIME	LIGHT	Sur Pace	ALC	PX DG	TYPE	NOVE V1 V2	PROBABLE CAUCE
2.71		650800	PROPERTY	99	#1GHT	DRY			OTHER	Z9 na	AMINAT
2.71		003600	PROPERTY	5A	DAT	DRY			RREND	es es	PAIL TO GIVE FULL TIME/ATTENT
2.71	,	082000	PROPERTY	42	DAY	DRY			OPOLR	ms sc	TRAFFIC CONTROL DEVICE INOF.
2.74	,	051400	PROPERTY	5A	DAY	DRY			OTHER	ES na	ANTHAL
2.76		121099	J Inj.	46	MIGHT	WEL			SDSWP	MG WS	WEET
2.65		040299	PROPERTY	104	DAY	DRY			EDSMP	ws wil	THPROPER LANE CHANGE
2.05		072499	PROPERTY	12P	DAY	DRY			RREND	MC MZ	PAIL TO GIVE FULL TIME/ATTENT
2.09		012999	PROPERTY	10A	DAT	DRY			OTHER	WS na	INDIONE OF OTHER CAUSE
2',94		021402	PROPERTY	éP.	HIGHT	DRY			KREND	BG EG	FAIL TO GIVE PULL TIME/ATTENT
2.95		032599	PROPERTY	35	DAY	DIEY			REEDIO	ng ng	FAIL TO CIVE PULL TIME/ATTEMY
2.35		071777	5 Inj	1.29	DAY	DRY			REMENTO	WS MB	FAIL TO GIVE FULL TIME/ATTENT
2.95		012700	PROPERTY	71	CHAY	DRY		Θđ	PROBJ	ES na	PAIL TO GIVE FULL TIME/ATTENT
2.95		920500	PROPERTY	8P	NIGHT	WET		03	PEODJ	us ca	ICY OR SHOW COVERED
2.95		101800	PROPERTY	114	DAY	OKY	4		REND	WE WE	IMDER INPLUENCE OF ALCOHOL
2.95		072300	g Xaj.	11	DAT	DRY			RRESKU)	NE NE	POLLOWED TOO CLOSELY
2.95		042680	PROPERTY	9P	RIGHT	WHIT			OTHER	WG BA	ANTHAL
2.55		071507	1 Inj.	SP	DAY	DRY		05	PXORJ	20 Da	PELL ASLESP, PAINTED, RTC.
2.95		070902	a inj.	7 P	DAY	DRY	4	11	PROM	UU ne	UNDER IMPLUENCE OF ALCOHOL
2.95		063202	PROPERTY	6P	DAY	DRY			OTHER	WS UU	UNITERONIS ON OTHER CAUSE
2.95		052602	PROPERTY	e P	DAY	WELL			RREND	WS WS	PAIL TO GIVE PULL TIME/ATZENT

PIOS (01) = Bridge (02) - Building (03) - Culver/Ditch (04) - Curb (05) - Guardrail/Barrier (06) - Buhankment (07) = Fence (08) - Light Pole (09) - Sign Pole (10) - Great Aftenuator (11) - Tree/Shrubbery (12) - Construct (13) - Creat Aftenuator

a Last Page of Report A

Page: 9



2025 CAPACITY ANALYSIS WORKSHEETS

Bay Bridge 2025 Summer Weekend Day Westbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 10 AM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and A	Adjustments	
	0.51.5	1 (1
Volume, V	2717	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	755	V
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Grade	_
Grade	3.50	8
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.943	
Driver population factor, vp	1.00	
Flow rate, vp	1067	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	,
LOS and Performan	nce Measures	
Flow rate are	1067	pc/h/ln
Flow rate, vp Free-flow speed, FFS	60.4	pc/n/in mi/h
<u>-</u>		
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	/
Density, D	17.7	pc/mi/ln
Level of service, LOS	В	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 11 AM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	3160	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	878	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	8	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1241	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	4.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	0.8	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	61.2	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	1241	pc/h/ln	
Free-flow speed, FFS	61.2	mi/h	
Average passenger-car speed, S	61.2	mi/h	
Number of lanes, N	3	,	
Density, D	20.3	pc/mi/ln	
Level of service, LOS	C	<u> </u>	
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HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 12 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	3474	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	965	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	96	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1364	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS Lane width adjustment, fLW	65.0 0.0	mi/h mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
rice flow speed, rib	Urban Freeway	1112/11	
LOS and Performance Measures			
Flow rate, vp	1364	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3		
Density, D	22.6	pc/mi/ln	
Level of service, LOS	C		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 1 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	3785	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1051	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1486	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performa	nce Measures		
Flow rate, vp	1486	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3	, -	
Density, D	24.6	pc/mi/ln	
Level of service, LOS	C	<u> </u>	
	-		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 2 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	3749	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1041	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1472	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performan	LOS and Performance Measures		
Flow rate, vp	1472	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3	•	
Density, D	24.4	pc/mi/ln	
Level of service, LOS	С	-	
•			

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 3 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	4341	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1206	v	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1704	pc/h/ln	
Speed Inputs and A	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	1704	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.3	mi/h	
Number of lanes, N	3		
Density, D	28.2	pc/mi/ln	
Level of service, LOS	D		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 4PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and	Adjustments	
	J	
Volume, V	4107	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1141	V
Trucks and buses	6	%
Recreational vehicles	0	90
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.943	
Driver population factor, vp	1.00	
Flow rate, vp	1612	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performa	nce Measures	
Flow rate, vp	1612	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	,
Density, D	26.7	pc/mi/ln
Level of service, LOS	D	F - //
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HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 5 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	3658	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1016	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	8	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1436	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	1436	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3	•	
Density, D	23.8	pc/mi/ln	
Level of service, LOS	С	<u>-</u>	

___Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 6 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	3475	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	965	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	1364	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performan	ce Measures		
Flow rate, vp	1364	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3	/ 	
Density, D	22.6	pc/mi/ln	
Level of service, LOS	C	F - // 222	
	-		

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 7 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and	Adjustments	
-	•	
Volume, V	2988	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	830	V
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.943	
Driver population factor, vp	1.00	
Flow rate, vp	1173	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
-	Urban Freeway	
LOS and Perform	ance Measures	
Flow rate, vp	1173	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	1111
Density, D	19.4	pc/mi/ln
Level of service, LOS	19.4 C	PC/1111
HENCT OF BETAICE, HOD		

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 8 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	2520	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	700	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	989	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	4.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	0.8	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	61.2	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	989	pc/h/ln	
Free-flow speed, FFS	61.2	mi/h	
Average passenger-car speed, S	61.2	mi/h	
Number of lanes, N	3		
Density, D	16.2	pc/mi/ln	
Level of service, LOS	В		

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 9 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 3 WB LANES

Flow Inputs and Adjustments			
Volume, V	2104	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	584	v	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.943		
Driver population factor, vp	1.00		
Flow rate, vp	826	pc/h/ln	
Speed Inputs and A	djustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	826	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3		
Density, D	13.7	pc/mi/ln	
Level of service, LOS	В		

Bay Bridge 2025 Summer Weekend Day Eastbound Analysis

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 10 AM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments		
Volume, V	4029	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1119	V
Trucks and buses	6	8
Recreational vehicles	0	8
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, vp	1.00	
Flow rate, vp	2305	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performance Measures		
Flow rate, vp	2305	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	2	
Density, D		pc/mi/ln
Level of service, LOS	F	_

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 11 AM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	4521	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1256	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00		
Flow rate, vp	2587	pc/h/ln	
Speed Inputs an	d Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	2587	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2		
Density, D		pc/mi/ln	
Level of service, LOS	F		

___Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 12 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Descripcion. Z no mayno		
Flow Inputs and A	djustments	
Volume, V	4784	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1329	V
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, vp	1.00	
Flow rate, vp	2738	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performance Measures		
Flow rate, vp	2738	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	2	
Density, D		pc/mi/ln
Level of service, LOS	F	_

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 1 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and	Adjustments		
Volume, V	4939	veh/h	
Peak-hour factor, PHF	0.90	VE11/11	
Peak 15-min volume, v15	1372	V	
Trucks and buses	6	00	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00		
Flow rate, vp	2826	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	2826	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2	•	
Density, D		pc/mi/ln	
Level of service, LOS	F	-	

___Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 2 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	5462	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1517	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00	4242	
Flow rate, vp	3125	pc/h/ln	
Speed Inputs and A	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	3125	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2	•	
Density, D		pc/mi/ln	
Level of service, LOS	F	_	

___Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 3 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	5762	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1601	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00	4242	
Flow rate, vp	3297	pc/h/ln	
Speed Inputs and A	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	3297	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S	- 	mi/h	
Number of lanes, N	2	•	
Density, D		pc/mi/ln	
Level of service, LOS	F	_	

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 4 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	5703	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1584	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00		
Flow rate, vp	3263	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	3263	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2		
Density, D		pc/mi/ln	
Level of service, LOS	F		

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 5 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and	Adjustments		
Volume, V	5759	veh/h	
Peak-hour factor, PHF	0.90	VeII/II	
Peak 15-min volume, v15	1600	V	
Trucks and buses	6	90	
Recreational vehicles	0	%	
Terrain type:	Grade	· ·	
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00		
Flow rate, vp	3295	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	3295	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2		
Density, D		pc/mi/ln	
Level of service, LOS	F		

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 6 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	4517	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1255	V	
Trucks and buses	6	8	
Recreational vehicles	0	8	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00		
Flow rate, vp	2585	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	2585	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2		
Density, D		pc/mi/ln	
Level of service, LOS	F		

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 7 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	4147	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	1152	V	
Trucks and buses	6	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.971		
Driver population factor, vp	1.00		
Flow rate, vp	2373	pc/h/ln	
Speed Inputs and	Adjustments		
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	2373	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S		mi/h	
Number of lanes, N	2		
Density, D		pc/mi/ln	
Level of service, LOS	F		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 8 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and	Adjustments	
_		
Volume, V	3983	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1106	V
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, vp	1.00	
Flow rate, vp	2279	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performa	ance Measures	
Flow rate, vp	2279	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	50.8	mi/h
Number of lanes, N	2	1111
Density, D	44.9	pc/mi/ln
Level of service, LOS	44.9 E	PC/11111
TEACT OF PETATCE, TOP	15	

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 9 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Description: 2 EB LANES

Flow Inputs and A	Adjustments	
Volume, V	4048	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1124	V
Trucks and buses	6	%
Recreational vehicles	0	8
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, vp	1.00	
Flow rate, vp	2316	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performan	nce Measures	
Flow rate, vp	2316	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	2	
Density, D		pc/mi/ln
Level of service, LOS	F	

Bay Bridge 2025 Average Weekday Westbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 10 AM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and A	djustments	
	<u></u>	
Volume, V	2216	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	616	v
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	936	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performan	ce Measures	
Flow rate, vp	936	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	
Density, D	15.5	pc/mi/ln
Level of service, LOS	В	<u>-</u> · · · · ·

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 11 AM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
Volume, V	2200	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	611	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	929	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performa	ance Measures	
Flow rate, vp	929	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	
Density, D	15.4	pc/mi/ln
Level of service, LOS	В	

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 12 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
Volume, V	2201	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	611	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	929	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performa	nce Measures	
Flow rate, vp	929	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	
Density, D	15.4	pc/mi/ln
Level of service, LOS	В	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 1 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
Volume, V	2166	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	602	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	915	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	_
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	,
LOS and Performa	ance Measures	
Elevante m	015	ng/h/ln
Flow rate, vp	915	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	(/ 1
Density, D	15.1	pc/mi/ln
Level of service, LOS	В	

__Operational Analysis_____

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 2 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and Ad	ljustments	
Volume, V	2370	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	658	v
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	1001	pc/h/ln
Speed Inputs and A	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performanc	ce Measures	
Flow rate, vp	1001	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	
Density, D	16.6	pc/mi/ln
Level of service, LOS	В	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 3 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
77-1 77	2404	1- /1-
Volume, V	2484	veh/h
Peak-hour factor, PHF Peak 15-min volume, v15	0.90 690	
Trucks and buses	14	V %
Recreational vehicles	0	6 6
	Grade	6
Terrain type: Grade	3.50	8
	0.60	•
Segment length Trucks and buses PCE, ET	2.0	mi
·	3.0	
Recreational vehicle PCE, ER	0.877	
Heavy vehicle adjustment, fHV		
Driver population factor, vp	1.00	/1- / 1
Flow rate, vp	1049	pc/h/ln
Speed Inputs an	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Perform	ance Measures	
Flow rate, vp	1049	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	/
Density, D	17.4	pc/mi/ln
Level of service, LOS	В	PO, m1, 111
TOVEL OF DELATED, TOD	D	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 4PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and A	Adjustments	
Volume, V	2471	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	686	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	1043	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performan	nce Measures	
Flow rate, vp	1043	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	•
Density, D	17.3	pc/mi/ln
Level of service, LOS	В	-

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 5 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
Volume, V	2393	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	665	V
Trucks and buses	14	8
Recreational vehicles	0	8
Terrain type:	Grade	96
Grade	3.50	•
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	4343
Flow rate, vp	1010	pc/h/ln
Speed Inputs an	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Perform	ance Measures	
Flow rate, vp	1010	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	/ 11
Density, D	16.7	pc/mi/ln
Level of service, LOS	В	PO, m1, 111
TOVEL OF DELATED, TOD	D	

__Operational Analysis_____

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 6 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
_		
Volume, V	1925	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	535	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	813	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	
LOS and Performa	ance Measures	
Flow rate, vp	813	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	1111
Density, D	13.5	pc/mi/ln
Level of service, LOS	13.5 B	PC/11111
HEACT OF PCTATCE, HOD	ם	

__Operational Analysis_____

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 7 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and	Adjustments	
_		
Volume, V	1418	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	394	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	599	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	_
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
	Urban Freeway	·
LOS and Perform	ance Measures	
Elevanote m	E00	ng/h/ln
Flow rate, vp	599	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	/ /
Density, D	9.9	pc/mi/ln
Level of service, LOS	A	

__Operational Analysis_____

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 8 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and A	djustments		
Volume, V	1073	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	298	V	
Trucks and buses	14	%	
Recreational vehicles	0	8	
Terrain type:	Grade		
Grade	3.50	%	
Segment length	0.60	mi	
Trucks and buses PCE, ET	2.0		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.877		
Driver population factor, vp	1.00		
Flow rate, vp	453	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	3		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	1.6	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	3.0	mi/h	
Free-flow speed, FFS	60.4	mi/h	
	Urban Freeway		
LOS and Performan	ce Measures		
Flow rate, vp	453	pc/h/ln	
Free-flow speed, FFS	60.4	mi/h	
Average passenger-car speed, S	60.4	mi/h	
Number of lanes, N	3		
Density, D	7.5	pc/mi/ln	
Level of service, LOS	A		

__Operational Analysis_____

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 9 PM

Freeway/Direction: BAY BRIDGE WESTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 3 WB LANES

Flow Inputs and A	Adjustments	
Volume, V	872	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	242	V
Trucks and buses	14	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.50	%
Segment length	0.60	mi
Trucks and buses PCE, ET	2.0	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.877	
Driver population factor, vp	1.00	
Flow rate, vp	368	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	1.6	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	60.4	mi/h
-	Urban Freeway	
LOS and Performan	nce Measures	
Flow rate, vp	368	pc/h/ln
Free-flow speed, FFS	60.4	mi/h
Average passenger-car speed, S	60.4	mi/h
Number of lanes, N	3	m±/11
Density, D	6.1	pc/mi/ln
Level of service, LOS	0.1 A	PC/1111
HEACT OF BETATOR' HOD	A	

Bay Bridge 2025 Average Weekday Eastbound Analysis

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 10 AM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	2136	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	593	V	
Trucks and buses	15	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.930		
Driver population factor, vp	1.00		
Flow rate, vp	1276	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performan	ce Measures		
Flow rate, vp	1276	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S	58.1	mi/h	
Number of lanes, N	2	/	
Density, D	22.0	pc/mi/ln	
Level of service, LOS	C	F - // 222	
	-		

___Operational Analysis______

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 11 AM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and Ad	ljustments	
Volume, V	2159	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	600	V
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	1289	pc/h/ln
Speed Inputs and A	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performanc	ce Measures	
Flow rate, vp	1289	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	58.1	mi/h
Number of lanes, N	2	
Density, D	22.2	pc/mi/ln
Level of service, LOS	C	

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 12 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and	Adjustments	
	<u>-</u>	
Volume, V	2263	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	629	V
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	1352	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
_	Urban Freeway	
LOS and Performa	ance Measures	
Flow rate, vp	1352	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	58.1	mi/h
Number of lanes, N	2	/ 11
Density, D	23.3	pc/mi/ln
Level of service, LOS	C C	PO, 1111

___Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 1 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	2210	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	614	V	
Trucks and buses	15	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.930		
Driver population factor, vp	1.00		
Flow rate, vp	1320	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performance Measures			
Flow rate, vp	1320	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S	58.1	mi/h	
Number of lanes, N	2	/	
Density, D	22.7	pc/mi/ln	
Level of service, LOS	C C	F - , ,	
	-		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 2 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and	Adjustments	
_		
Volume, V	2580	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	717	V
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	1541	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	3 .
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	,
LOS and Performa	ance Measures	
The water and	1 5 4 1	/1- /1
Flow rate, vp	1541	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	58.1	mi/h
Number of lanes, N	2	
Density, D	26.5	pc/mi/ln
Level of service, LOS	D	

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 3 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and	Adjustments	
Volume, V	3402	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	945	v
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	2032	pc/h/ln
Speed Inputs and	l Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performa	nce Measures	
Flow rate, vp	2032	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	56.1	mi/h
Number of lanes, N	2	
Density, D	36.2	pc/mi/ln
Level of service, LOS	E	

__Operational Analysis_____

Analyst: Bala Akundi
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 4 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and	Adjustments	
Volume, V	4170	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1158	V
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	2490	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performa	nce Measures	
Flow rate, vp	2490	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	2	
Density, D		pc/mi/ln
Level of service, LOS	F	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 5 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and	Adjustments	
	41.00	1. /1.
Volume, V	4189	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	1164	V •.
Trucks and buses	15	%
Recreational vehicles	0	8
Terrain type:	Grade 3.00	96
Grade		•
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	(1, (2,
Flow rate, vp	2502	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performa	ance Measures	
Flow rate, vp	2502	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	30.1	mi/h
Number of lanes, N	2	/ 11
Density, D	_	pc/mi/ln
Level of service, LOS	F	PC/ 1111
TOVEL OF DELATER! HOD	±	

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 6 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and Adjustments			
Volume, V	3520	veh/h	
Peak-hour factor, PHF	0.90		
Peak 15-min volume, v15	978	v	
Trucks and buses	15	%	
Recreational vehicles	0	%	
Terrain type:	Grade		
Grade	3.00	%	
Segment length	0.70	mi	
Trucks and buses PCE, ET	1.5		
Recreational vehicle PCE, ER	3.0		
Heavy vehicle adjustment, fHV	0.930		
Driver population factor, vp	1.00		
Flow rate, vp	2102	pc/h/ln	
Speed Inputs and Adjustments			
Lane width	12.0	ft	
Right-shoulder lateral clearance	2.0	ft	
Interchange density	0.50	interchange/mi	
Number of lanes, N	2		
Free-flow speed:	Ideal		
FFS or BFFS	65.0	mi/h	
Lane width adjustment, fLW	0.0	mi/h	
Lateral clearance adjustment, fLC	2.4	mi/h	
Interchange density adjustment, fID	0.0	mi/h	
Number of lanes adjustment, fN	4.5	mi/h	
Free-flow speed, FFS	58.1	mi/h	
	Urban Freeway		
LOS and Performan	nce Measures		
Flow rate, vp	2102	pc/h/ln	
Free-flow speed, FFS	58.1	mi/h	
Average passenger-car speed, S	55.0	mi/h	
Number of lanes, N	2		
Density, D	38.2	pc/mi/ln	
Level of service, LOS	E		

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 7 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Flow Inputs and I	Adjustments	
_		
Volume, V	2130	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	592	V
Trucks and buses	15	8
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	%
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	1272	pc/h/ln
Speed Inputs and	Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Performan	nce Measures	
Elevinote in	1 272	ng/h/ln
Flow rate, vp	1272	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	58.1	mi/h
Number of lanes, N	2	/
Density, D	21.9	pc/mi/ln
Level of service, LOS	С	

HCS2000: Basic Freeway Segments Release 4.1a

Operational Analysis______

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 8 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

Volume, V Peak-hour factor, PHF Peak-hour factor, PHF Peak 15-min volume, v15 Peak 15 Peak 15-min volume, v15 Peak 15-min volume, v15 Peak 15-min volu	Flow Inputs and	Adjustments	
Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 439 v Trucks and buses 15 % Recreational vehicles 0 % Terrain type: Grade 3.00 % Grade 3.00 % Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.930 Description of Particular PCE, ER 3.0 Heavy vehicle adjustment, FM 0.930 Description PCE, ER 3.0 Heavy vehicle adjustment, FM 0.00 Description PCE, ER 3.0 Heavy vehicle adjustment, FM 4.5 Minh Description PCE, ER 3.0 Heavy vehicle adjustment, FM 4.5 Description PCE, ER 3.0 Heavy vehicle adjustment, FM 4.2 FE Description PCE, ER 3.0 Heavy vehicle adjustment, FM 4.5 Minh Description PCE, ER 3.0 Heavy vehicle adjustment, FM 4.5 Minh Minh Number of Expression PCE, ER 3.0 Heavy vehicle adjustment, FM FS.1 Minh Minh Descr		J	
Peak 15-min volume, v15	Volume, V	1579	veh/h
Trucks and buses	Peak-hour factor, PHF	0.90	
Recreational vehicles	Peak 15-min volume, v15	439	V
Terrain type:	Trucks and buses	15	०
Segment length	Recreational vehicles	0	%
Segment length 0.70 mi Trucks and buses PCE, ET 1.5 Recreational vehicle PCE, ER 3.0 Heavy vehicle adjustment, fHV 0.930 Driver population factor, vp 1.00 Flow rate, vp 943 pc/h/ln Speed Inputs and Adjustments Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Free-flow speed, FFS 58.1 mi/h Free-flow speed, FFS 58.1 mi/h Pree-flow speed, FFS 58.1 mi/h	Terrain type:	Grade	
Trucks and buses PCE, ET Recreational vehicle PCE, ER Recreational vehicle place Lane Width adjustments Lane width adjustments Los applied Inputs and Adjustments Los applied Inputs	Grade	3.00	०
Recreational vehicle PCE, ER Heavy vehicle adjustment, fHV Driver population factor, vp 1.00 Flow rate, vp Speed Inputs and Adjustments Lane width Right-shoulder lateral clearance Interchange density Number of lanes, N Free-flow speed: Ideal FFS or BFFS Lane width adjustment, fLW Lane width adjustment, fLW Lane width adjustment, fLC Interchange density adjustment, fLC Interchange density adjustment, fLD Lane width adjustment, fLD Lane width adjustment, fLD Lateral clearance adjustment, fLD Interchange density adjustment, fID Number of lanes adjustment, fN Free-flow speed, FFS LOS and Performance Measures LOS and Performance Measures Flow rate, vp Free-flow speed, FFS Average passenger-car speed, S S8.1 mi/h Mi/h Pree-flow speed, FFS S8.1 mi/h Average passenger-car speed, S	Segment length	0.70	mi
Heavy vehicle adjustment, fHV Driver population factor, vp Flow rate, vp Speed Inputs and Adjustments Lane width Right-shoulder lateral clearance Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC Interchange density 0.0 FFS or BFFS FFS	Trucks and buses PCE, ET	1.5	
Driver population factor, vp 943 pc/h/ln Speed Inputs and Adjustments Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Recreational vehicle PCE, ER	3.0	
Flow rate, vp 943 pc/h/ln Speed Inputs and Adjustments Lane width 12.0 ft Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Heavy vehicle adjustment, fHV	0.930	
Speed Inputs and Adjustments Lane width Right-shoulder lateral clearance Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Ideal FFS or BFFS Ideal FFS or BFFS Ideal FFS or BFFS Interchange density Interchange density adjustment, fLC Interchange density adjustment, fID Interchange density adjustment, fID Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fN Interchange density adjustment, fLC Interchange/mi I	Driver population factor, vp	1.00	
Lane width Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N Free-flow speed: FFS or BFFS 65.0 mi/h Lane width adjustment, fLW Lane width adjustment, fLC Interchange density adjustment, fLC Interchange density adjustment, fLD Interchange density adjustment, fID Number of lanes adjustment, fN Free-flow speed, FFS LOS and Performance Measures LOS and Performance Measures Flow rate, VP P43 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Flow rate, vp	943	pc/h/ln
Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Speed Inputs an	d Adjustments	
Interchange density Number of lanes, N Free-flow speed: FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC Interchange density adjustment, fID Number of lanes adjustment, fN Free-flow speed, FFS LOS and Performance Measures Flow rate, vp Flow rate, vp Free-flow speed, FFS LOS and Performance Measures Flow rate, vp Free-flow speed, FFS S8.1 mi/h Average passenger-car speed, S Ideal Co. mi/h 0.0 mi/h 4.5 mi/h Wibh Pree-flow speed, FFS S8.1 mi/h Number of lanes adjustment, fN Free-flow speed, FFS S8.1 mi/h Mi/h Number of lanes adjustment, fN S8.1 Mi/h Free-flow speed, FFS S8.1 Mi/h Average passenger-car speed, S	Lane width	12.0	ft
Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Right-shoulder lateral clearance	2.0	ft
Free-flow speed: FFS or BFFS G5.0 mi/h Lane width adjustment, fLW Lateral clearance adjustment, fLC Interchange density adjustment, fID Number of lanes adjustment, fN Free-flow speed, FFS LOS and Performance Measures LOS and Performance Measures Flow rate, vp Free-flow speed, FFS Average passenger-car speed, S Ideal 65.0 mi/h 0.0 mi/h 74.5 mi/h 4.5 mi/h 78.1	Interchange density	0.50	interchange/mi
FFS or BFFS Lane width adjustment, fLW Lateral clearance adjustment, fLC L	Number of lanes, N	2	
Lane width adjustment, fLW Lateral clearance adjustment, fLC Interchange density adjustment, fID Number of lanes adjustment, fN Free-flow speed, FFS LOS and Performance Measures LOS and Performance Measures Flow rate, vp Free-flow speed, FFS Average passenger-car speed, S DO mi/h 4.5 mi/h Urban Freeway PC/h/ln mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 4.5 mi/h Number of lanes adjustment, fN 58.1 mi/h Number of lanes adjustment, fN S8.1 mi/h	Free-flow speed:	Ideal	
Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	FFS or BFFS	65.0	mi/h
Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Lane width adjustment, fLW	0.0	mi/h
Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Lateral clearance adjustment, fLC	2.4	mi/h
Free-flow speed, FFS LOS and Performance Measures LOS and Performance Measures Flow rate, vp Free-flow speed, FFS Average passenger-car speed, S 58.1 mi/h mi/h mi/h 58.1 mi/h	Interchange density adjustment, fID	0.0	mi/h
LOS and Performance Measures	Number of lanes adjustment, fN	4.5	mi/h
LOS and Performance Measures Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Free-flow speed, FFS	58.1	mi/h
Flow rate, vp 943 pc/h/ln Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h		Urban Freeway	
Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	LOS and Perform	ance Measures	
Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 58.1 mi/h	Flow rate, vp	943	pc/h/ln
Average passenger-car speed, S 58.1 mi/h	· -		-
	<u>-</u>		
			•
Density, D 16.2 pc/mi/ln			pc/mi/ln
Level of service, LOS B	-		<u> </u>

HCS2000: Basic Freeway Segments Release 4.1a

Analyst: BKA
Agency or Company: Parsons
Date Performed: 8/13/02
Analysis Time Period: 9 PM

Freeway/Direction: BAY BRIDGE EASTBOUND SPAN

From/To:

Jurisdiction:

Analysis Year: 2025 WEEKDAY

Description: 2 EB LANES

1		
Flow Inputs and	Adjustments	
Volume, V	1437	veh/h
Peak-hour factor, PHF	0.90	
Peak 15-min volume, v15	399	V
Trucks and buses	15	%
Recreational vehicles	0	%
Terrain type:	Grade	
Grade	3.00	8
Segment length	0.70	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	3.0	
Heavy vehicle adjustment, fHV	0.930	
Driver population factor, vp	1.00	
Flow rate, vp	858	pc/h/ln
Speed Inputs and	d Adjustments	
Lane width	12.0	ft
Right-shoulder lateral clearance	2.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	2	
Free-flow speed:	Ideal	
FFS or BFFS	65.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	2.4	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	4.5	mi/h
Free-flow speed, FFS	58.1	mi/h
	Urban Freeway	
LOS and Perform	ance Measures	
Flow rate, vp	858	pc/h/ln
Free-flow speed, FFS	58.1	mi/h
Average passenger-car speed, S	58.1	mi/h
Number of lanes, N	2	
Density, D	14.8	pc/mi/ln
Level of service, LOS	В	

Bay Bridge 2025 Summer Weekend Day Reversible Lane Operation Westbound Analysis

___OPERATIONAL ANALYSIS____

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 10 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	2.0	ft		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft		
Access points per mile	0		0			
Median type	Undivided					
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
-		_		-		
	_VOLUME					
	_		_			
Direction	1	_	2	_		
Volume, V	2717	vph	0	vph		
Peak-hour factor, PHF	0.90		0.90			
Peak 15-minute volume, v15	755	_	0			
Trucks and buses	6	%	6	%		
Recreational vehicles	0	%	0	%		
Terrain type	Grade		Grade			
Grade	3.50	8	3.00	8		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		3.0			
Heavy vehicle adjustment, fHV	0.943		0.971			
Flow rate, vp	1600	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	1600	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	56.8	mph	60.0	mph		
Level of service, LOS	D D	DII	A	L.		
Density, D	28.2	pc/mi/ln		pc/mi/ln		
DCIIDICY, D	20.2	PC/1111	0.0	PC/11111		

___OPERATIONAL ANALYSIS____

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 11 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	2.0	ft		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft		
Access points per mile	0		0			
Median type	Undivided					
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
	_VOLUME					
			_			
Direction	1		2			
Volume, V	3160	vph	0	vph		
Peak-hour factor, PHF	0.90		0.90			
Peak 15-minute volume, v15	878	_	0			
Trucks and buses	6	%	6	%		
Recreational vehicles	0	%	0	%		
Terrain type	Grade	•	Grade	•		
Grade	3.50	8	3.00	8		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		3.0			
Heavy vehicle adjustment, fHV	0.943		0.971			
Flow rate, vp	1860	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	1860	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	55.4	mph	60.0	mph		
Level of service, LOS	D		Α	···T		
Density, D	33.6	pc/mi/ln		pc/mi/ln		

__OPERATIONAL ANALYSIS___

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 12 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft.	12.0	ft.		
Lateral clearance:						
Right edge	2.0	ft	2.0	ft		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft		
Access points per mile	0		0			
Median type	Undivided	l				
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
	_VOLUME					
Direction	1		2			
Volume, V	3474	vph	0	vph		
Peak-hour factor, PHF	0.90		0.90			
Peak 15-minute volume, v15	965		0	_		
Trucks and buses	6	%	6	%		
Recreational vehicles	0	&	0	%		
Terrain type	Grade	0	Grade	٥		
Grade	3.50	8	3.00	% .		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		3.0			
Heavy vehicle adjustment, fHV	0.943		0.971			
Flow rate, vp	2045	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	2045	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	54.3	mph	60.0	mph		
Level of service, LOS	E	-	A	-		
Density, D	37.7	pc/mi/ln	0.0	pc/mi/ln		

__OPERATIONAL ANALYSIS___

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 1 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft.	12.0	ft.		
Lateral clearance:	12.0	10	12.0	10		
Right edge	2.0	ft	2.0	ft		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft		
Access points per mile	0		0			
Median type	Undivided	l				
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
	_VOLUME					
Direction	1		2			
Volume, V	3785	vph	0	vph		
Peak-hour factor, PHF	0.90	v P11	0.90	V P11		
Peak 15-minute volume, v15	1051		0			
Trucks and buses	6	%	6	00		
Recreational vehicles	0	%	0	%		
Terrain type	Grade		Grade			
Grade	3.50	%	3.00	%		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		3.0			
Heavy vehicle adjustment, fHV	0.943		0.971			
Flow rate, vp	2228	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	2228	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	- · ·	mph	60.0	mph		
Level of service, LOS	F	T. ==	Α	£		
Density, D		pc/mi/ln		pc/mi/ln		

__OPERATIONAL ANALYSIS___

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 2 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE	-FLOW SPEED)				
Direction	1		2			
Lane width	12.0	ft.	12.0	ft.		
Lateral clearance:	12.0		12.0	10		
Right edge	2.0	ft	2.0	ft.		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft.		
Access points per mile	0		0			
Median type	Undivided	[
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
		1		1		
	_VOLUME					
Direction	1		2			
Volume, V	3749	vph	0	vph		
Peak-hour factor, PHF	0.90	1 P11	0.90	V P11		
Peak 15-minute volume, v15	1041		0			
Trucks and buses	6	%	6	%		
Recreational vehicles	0	%	0	%		
Terrain type	Grade	Ů	Grade	·		
Grade	3.50	%	3.00	%		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		3.0			
Heavy vehicle adjustment, fHV	0.943		0.971			
Flow rate, vp	2207	pcphpl	0.571	pcphpl		
Tion Tage, VF	220.	P OF TIP T		P OPTIP I		
RESULTS						
Direction	1		2			
Flow rate, vp	2207	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S		mph	60.0	mph		
Level of service, LOS	F	T	Α	T		
Density, D	-	pc/mi/ln	==	pc/mi/ln		
		F0/ m1/ 111		F 0, 1111		

___OPERATIONAL ANALYSIS____

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 3 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	2.0	ft		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft		
Access points per mile	0		0			
Median type	Undivided					
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
	VOLUME					
Direction	1		2			
Volume, V	4341	vph	0	vph		
Peak-hour factor, PHF	0.90	_	0.90	_		
Peak 15-minute volume, v15	1206		0			
Trucks and buses	6	%	0	%		
Recreational vehicles	0	%	0	%		
Terrain type	Grade		Level			
Grade	3.50	%	3.00	%		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		1.2			
Heavy vehicle adjustment, fHV	0.943		1.000			
Flow rate, vp	2556	pcphpl	0	pcphpl		
	RESULTS					
Direction	1		2			
Flow rate, vp	2556	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S		mph	60.0	mph		
Level of service, LOS	F		Α			
Density, D						

__OPERATIONAL ANALYSIS___

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 4 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE	-FLOW SPE	ED			
Direction	1		2		
Lane width	12.0	ft	12.0	ft	
Lateral clearance:					
Right edge	2.0	ft	2.0	ft	
Left edge	6.0	ft	2.0	ft	
Total lateral clearance	8.0	ft	4.0	ft	
Access points per mile	0		0		
Median type	Undivide	ed			
Free-flow speed:	Base		Measure	d	
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustment, FLW	0.0	mph	0.0	mph	
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph	
Median type adjustment, FM	1.6	mph	0.0	mph	
Access points adjustment, FA	0.0	mph	0.0	mph	
Free-flow speed	57.5	mph	60.0	mph	
Tree from Speed	37.03	[-11		[-22	
	_VOLUME				
Direction	1		2		
Volume, V	4107	vph	0	vph	
Peak-hour factor, PHF	0.90		0.90		
Peak 15-minute volume, v15	1141		0		
Trucks and buses	6	%	0	8	
Recreational vehicles	0	%	0	%	
Terrain type	Grade		Level		
Grade	3.50	%	3.00	%	
Segment length	0.60	mi	0.70	mi	
Number of lanes	2		2		
Driver population adjustment, fP	1.00		1.00		
Trucks and buses PCE, ET	2.0		1.5		
Recreational vehicles PCE, ER	3.0		1.2		
Heavy vehicle adjustment, fHV	0.943		1.000		
Flow rate, vp	2418	pcphpl	0	pcphpl	
	RESULTS				
Direction	1		2		
Flow rate, vp	2418	pcphpl	0	pcphpl	
Free-flow speed, FFS	57.5	mph	60.0	mph	
Avg. passenger-car travel speed, S		mph	60.0	mph	
Level of service, LOS	F	· <u>T</u>	A	£	
Density, D	-	pc/mi/ln		pc/mi/ln	

___OPERATIONAL ANALYSIS____

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 5 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED					
Direction	1		2		
Lane width	12.0	ft	12.0	ft	
Lateral clearance:					
Right edge	2.0	ft	2.0	ft	
Left edge	6.0	ft	2.0	ft	
Total lateral clearance	8.0	ft	4.0	ft	
Access points per mile	0		0		
Median type	Undivided				
Free-flow speed:	Base		Measured		
FFS or BFFS	60.0	mph	60.0	mph	
Lane width adjustment, FLW	0.0	mph	0.0	mph	
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph	
Median type adjustment, FM	1.6	mph	0.0	mph	
Access points adjustment, FA	0.0	mph	0.0	mph	
Free-flow speed	57.5	mph	60.0	mph	
-		-		-	
	_VOLUME				
Direction	1		2		
Volume, V	3658	vph	0	vph	
Peak-hour factor, PHF	0.90		0.90		
Peak 15-minute volume, v15	1016		0		
Trucks and buses	6	%	0	%	
Recreational vehicles	0	%	0	%	
Terrain type	Grade		Level		
Grade	3.50	%	3.00	%	
Segment length	0.60	mi	0.70	mi	
Number of lanes	2		2		
Driver population adjustment, fP	1.00		1.00		
Trucks and buses PCE, ET	2.0		1.5		
Recreational vehicles PCE, ER	3.0		1.2		
Heavy vehicle adjustment, fHV	0.943		1.000		
Flow rate, vp	2154	pcphpl	0	pcphpl	
RESULTS					
Direction	1		2		
Elemente m	2154	nanhn1	0	n anha l	
Flow rate, vp	2154	pcphpl	0	pcphpl	
Free-flow speed, FFS	57.5	mph	60.0	mph	
Avg. passenger-car travel speed, S	_	mph	60.0	mph	
Level of service, LOS	F	/ ' /3	A	/ /	
Density, D		pc/mi/ln	0.0	pc/mi/ln	

__OPERATIONAL ANALYSIS___

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 6 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE	-FLOW SPEED)		
Direction	1		2	
Lane width	12.0	ft.	12.0	ft.
Lateral clearance:	12.0	10	12.0	
Right edge	2.0	ft	2.0	ft.
Left edge	6.0	ft	2.0	ft
Total lateral clearance	8.0	ft	4.0	ft
Access points per mile	0		0	
Median type	Undivided			
Free-flow speed:	Base	-	Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
Tree rrem speed	37.0			<u>F</u>
	_VOLUME			
Direction	1		2	
Volume, V	3475	rmh	0	rmh
Peak-hour factor, PHF	0.90	vph	0.90	vph
Peak 15-minute volume, v15	965		0.90	
Trucks and buses	6	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade	0	Level	0
Grade	3.50	%	3.00	%
Segment length	0.60	mi	0.70	mi
Number of lanes	2	шт	2	шт
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.943		1.000	
Flow rate, vp	2046	pcphpl	0	pcphpl
riow race, vp	2040	pcpiipi	O	рсрирт
	_RESULTS			
Direction	1		2	
Flow rate, vp	2046	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	54.3	mph	60.0	mph
Level of service, LOS	E	T	Α	
Density, D	37.7	pc/mi/ln	==	pc/mi/ln

___OPERATIONAL ANALYSIS___

Analyst: BA

Agency/Co:

Date: 8/18/02 Analsis Period: 7 AM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2001 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION

FREE	-FLOW SPEE	D		
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	4.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	10.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Undivide	f		
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.4	mph	0.0	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	58.0	mph	60.0	mph
Tice flow byced	30.0	mpii	00.0	mp11
	VOLUME			
Direction	1		2	
Volume, V	1019	vph	0	vph
Peak-hour factor, PHF	0.90		0.90	
Peak 15-minute volume, v15	283		0	
Trucks and buses	6	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.00	%	0.00	%
Segment length	0.70	mi	0.00	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.971		1.000	
Flow rate, vp	583	pcphpl	0	pcphpl
				1 1 1
	_RESULTS			
Direction	1		2	
Flow rate, vp	583	pcphpl	0	pcphpl
Free-flow speed, FFS	58.0	mph	60.0	mph
Avg. passenger-car travel speed, S	58.0	mph	60.0	mph
Level of service, LOS	38.0 A	шБш	A	m511
Density, D	10.1	pc/mi/ln		pc/mi/ln
Demotoj, D	10.1	PC/ III / 111	J. U	P = / 1111

___OPERATIONAL ANALYSIS____

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 8 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED				
Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	2.0	ft	2.0	ft
Left edge	6.0	ft	2.0	ft
Total lateral clearance	8.0	ft	4.0	ft
Access points per mile	0		0	
Median type	Undivided			
Free-flow speed:	Base		Measured	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph
Median type adjustment, FM	1.6	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	57.5	mph	60.0	mph
	MOT LIME			
	_VOLUME			
Direction	1		2	
Volume, V	2520	vph	0	vph
Peak-hour factor, PHF	0.90	_	0.90	_
Peak 15-minute volume, v15	700		0	
Trucks and buses	6	%	0	%
Recreational vehicles	0	%	0	%
Terrain type	Grade		Level	
Grade	3.50	%	3.00	%
Segment length	0.60	mi	0.70	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	2.0		1.5	
Recreational vehicles PCE, ER	3.0		1.2	
Heavy vehicle adjustment, fHV	0.943		1.000	
Flow rate, vp	1484	pcphpl	0	pcphpl
	_RESULTS			
Direction	1		2	
Flow rate, vp	1484	pcphpl	0	pcphpl
Free-flow speed, FFS	57.5	mph	60.0	mph
Avg. passenger-car travel speed, S	57.3	mph	60.0	mph
Level of service, LOS	C		A	
Density, D	25.9	pc/mi/ln	0.0	pc/mi/ln

__OPERATIONAL ANALYSIS___

Analyst: BA
Agency/Co: Parsons
Date: 8/18/02
Analsis Period: 9 PM

Highway: BAY BRIDGE WESTBOUND SPAN

From/To:
Jurisdiction:

Analysis Year: 2025 SUMMER WEEKEND

Project ID: REVERSIBLE LANE OPERATION - 2 WB Lanes

FREE-FLOW SPEED						
Direction	1		2			
Lane width	12.0	ft	12.0	ft		
Lateral clearance:						
Right edge	2.0	ft	2.0	ft		
Left edge	6.0	ft	2.0	ft		
Total lateral clearance	8.0	ft	4.0	ft		
Access points per mile	0		0			
Median type	Undivided	Į.				
Free-flow speed:	Base		Measured			
FFS or BFFS	60.0	mph	60.0	mph		
Lane width adjustment, FLW	0.0	mph	0.0	mph		
Lateral clearance adjustment, FLC	0.9	mph	1.8	mph		
Median type adjustment, FM	1.6	mph	0.0	mph		
Access points adjustment, FA	0.0	mph	0.0	mph		
Free-flow speed	57.5	mph	60.0	mph		
	_VOLUME					
Direction	1		2			
Volume, V	2104	vph	0	vph		
Peak-hour factor, PHF	0.90		0.90			
Peak 15-minute volume, v15	584		0			
Trucks and buses	6	%	0	%		
Recreational vehicles	0	%	0	%		
Terrain type	Grade		Level			
Grade	3.50	%	3.00	%		
Segment length	0.60	mi	0.70	mi		
Number of lanes	2		2			
Driver population adjustment, fP	1.00		1.00			
Trucks and buses PCE, ET	2.0		1.5			
Recreational vehicles PCE, ER	3.0		1.2			
Heavy vehicle adjustment, fHV	0.943		1.000			
Flow rate, vp	1239	pcphpl	0	pcphpl		
RESULTS						
Direction	1		2			
Flow rate, vp	1239	pcphpl	0	pcphpl		
Free-flow speed, FFS	57.5	mph	60.0	mph		
Avg. passenger-car travel speed, S	57.5	mph	60.0	mph		
Level of service, LOS	C C	шЪп	A	P11		
Density, D	21.5	pc/mi/ln	==	pc/mi/ln		

Bay Bridge 2025 Summer Weekend Day Reversible Lane Operation Eastbound Analysis (2 Lanes, 80 Percent Traffic)

HCS2000: Basic Freeway Segments Release 4.1a

·	Operational Ana	lysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:	10 AM		
Freeway/Direction: From/To:		OUND	
Jurisdiction:	Anne Arundel Cou	nty	
Analysis Year:	2025		
Description: REVERSIBI	E OPERATION 2 LAN	ES 80% EB TRAFFIC	
	Flow Inputs and	Adjustments	
Volume, V		3223	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		895	V
Trucks and buses		10	%
Recreational vehicles		4	%
Terrain type:		Grade	
Grade		3.00	8
Segment length		4.00	mi
Trucks and buses PCE, E	T	2.0	
Recreational vehicle PC	E, ER	1.5	
Heavy vehicle adjustmen		0.893	
Driver population factor	or, vp	1.00	
Flow rate, vp		2005	pc/h/ln
	Speed Inputs an	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	nent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Perform	ance Measures	
Flow rate, vp		2005	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	speed, S	56.5	mi/h
Number of lanes, N		2	
Density, D		35.5	pc/mi/ln
Level of service, LOS		E	

HCS2000: Basic Freeway Segments Release 4.1a

_____Operational Analysis_____ Bala Aku Parsons Date Performed: 8/12/00 Analysis Time Analyst: Bala Akundi Freeway/Direction: BAY BRIDGE EASTBOUND From/To: Jurisdiction: Anne Arundel County Analysis Year: 2025 Description: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC ____Flow Inputs and Adjustments___ Volume, V 3617 veh/h Peak-hour factor, PHF 0.90 Peak 15-min volume, v15 1005 Trucks and buses 10 Recreational vehicles 4 Terrain type: Grade 3.00 용 Grade Segment length 4.00 Trucks and buses PCE, ET 2.0 Recreational vehicle PCE, ER 1.5 Heavy vehicle adjustment, fHV 0.893 Driver population factor, vp 1.00 Flow rate, vp 2251 pc/h/ln _____Speed Inputs and Adjustments____ Lane width 12.0 £t. Right-shoulder lateral clearance 2.0 ft Interchange density 0.50 interchange/mi Number of lanes, N 2 Free-flow speed: Ideal FFS or BFFS 65.0 mi/h Lane width adjustment, fLW 0.0 mi/h Lateral clearance adjustment, fLC 2.4 mi/h Interchange density adjustment, fID 0.0 mi/h Number of lanes adjustment, fN 4.5 mi/h Free-flow speed, FFS 58.1 mi/h Urban Freeway LOS and Performance Measures_____ pc/h/ln Flow rate, vp 2251 Free-flow speed, FFS 58.1 mi/h Average passenger-car speed, S 51.6 mi/h Number of lanes, N 2 Density, D 43.6 pc/mi/ln Level of service, LOS

HCS2000: Basic Freeway Segments Release 4.1a

	Operational A	Analysis			
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
Date Performed:	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE EAS	STROIND			
From/To:					
Jurisdiction:	Anne Arundel	County			
Analysis Year:	2025				
Description: REVERSIBL	E OPERATION 2	LANES 80% EB TRAFFIC			
	Flow Inputs a	and Adjustments			
Volume, V		3827	veh/h		
Peak-hour factor, PHF		0.90	, 555, 55		
Peak 15-min volume, v15		1063	V		
Trucks and buses		10	ତ୍ୱ		
Recreational vehicles		4	0/0		
Terrain type:		Grade	0		
Grade		3.00	%		
Segment length		4.00	mi		
Trucks and buses PCE, E	т	2.0			
Recreational vehicle PC		1.5			
Heavy vehicle adjustmen		0.893			
Driver population factor		1.00			
Flow rate, vp	1, VP	2381	pc/h/ln		
Tiow race, vp		2301	PC/11/111		
	Speed Inputs	and Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral	clearance	2.0	ft		
Interchange density		0.50	interchange/mi		
Number of lanes, N		2			
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment,	fLW	0.0	mi/h		
Lateral clearance adjus	tment, fLC	2.4	mi/h		
Interchange density adj	ustment, fID	0.0	mi/h		
Number of lanes adjustm	ent, fN	4.5	mi/h		
Free-flow speed, FFS		58.1	mi/h		
		Urban Freeway			
LOS and Performance Measures					
Flow rate		2201	ng/h/ln		
Flow rate, vp		2381	pc/h/ln		
Free-flow speed, FFS	O	58.1	mi/h		
Average passenger-car s	peea, S	2	mi/h		
Number of lanes, N		2	(/ 1		
Density, D		-	pc/mi/ln		
Level of service, LOS		F			

HCS2000: Basic Freeway Segments Release 4.1a

	Operational An	alysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:			
Freeway/Direction:	BAY BRIDGE EAST	BOUND	
From/To:			
Jurisdiction:	Anne Arundel Co	unty	
Analysis Year:	2025		
Description: REVERSIBI	E OPERATION 2 LA	NES 80% EB TRAFFIC	
	Flow Inputs an	d Adjustments	
Volume, V		3951	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15	1	1098	V
Trucks and buses		10	8
Recreational vehicles		4	90
Terrain type:		Grade	•
Grade		3.00	90
Segment length		4.00	mi
Trucks and buses PCE, E	lT	2.0	
Recreational vehicle PC		1.5	
Heavy vehicle adjustmer		0.893	
Driver population factor		1.00	
Flow rate, vp	, 1	2458	pc/h/ln
	Speed Inputs a	nd Adjustments	
I and width		12.0	£
Lane width	-1	12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50 2	interchange/mi
Number of lanes, N		z Ideal	
Free-flow speed: FFS or BFFS		65.0	mi/h
Lane width adjustment,	ft W	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS	ielic, in	58.1	mi/h
riee ilow speed, rrs		Urban Freeway	1111/11
		Olban Fleeway	
	LOS and Perfor	mance Measures	
		2458	pc/h/ln
Flow rate, vp			
Flow rate, vp Free-flow speed, FFS		58.1	mi/h
	speed, S	58.1	mi/h mi/h
Free-flow speed, FFS	speed, S	58.1 2	•
Free-flow speed, FFS Average passenger-car s	speed, S		•
Free-flow speed, FFS Average passenger-car s Number of lanes, N	speed, S		mi/h

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Anal	lysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:		NUND	
From/To:			
Jurisdiction:	Anne Arundel Cour	ıty	
Analysis Year:	2025		
Description: REVERSIBL	E OPERATION 2 LANE	ES 80% EB TRAFFIC	
	Flow Inputs and	Adjustments	
Volume, V		4370	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		1214	V
Trucks and buses		10	%
Recreational vehicles		4	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		4.00	mi
Trucks and buses PCE, E	Т	2.0	
Recreational vehicle PC	E, ER	1.5	
Heavy vehicle adjustmen	t, fHV	0.893	
Driver population facto	r, vp	1.00	
Flow rate, vp		2719	pc/h/ln
	Speed Inputs and	d Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density	0100101100	0.50	interchange/mi
Number of lanes, N		2	3 - ,
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Performa	ance Measures	
Flow rate, vp		2719	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
TICC TIOW DPCCG, TID		JU. 1	•
Average passenger-car s	peed. S		mi/h
Average passenger-car s Number of lanes, N	peed, S	2	mi/h
Number of lanes, N	peed, S	2	
	peed, S	2 F	mi/h pc/mi/ln

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Anal	ysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:		DUND	
From/To:			
Jurisdiction:	Anne Arundel Cour	ity	
Analysis Year:	2025		
Description: REVERSIBL	E OPERATION 2 LANE	S 80% EB TRAFFIC	
	Flow Inputs and	Adjustments	
Volume, V		4610	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		1281	V
Trucks and buses		10	%
Recreational vehicles		4	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		4.00	mi
Trucks and buses PCE, E	Т	2.0	
Recreational vehicle PC	E, ER	1.5	
Heavy vehicle adjustmen	t, fHV	0.893	
Driver population facto	r, vp	1.00	
Flow rate, vp		2868	pc/h/ln
	Speed Inputs and	l Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	_
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus	tment, fLC	2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm	ent, fN	4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		30.1	1111 / 11
		Urban Freeway	1117 11
	LOS and Performa	Urban Freeway	
Flow rate, vp	LOS and Performa	Urban Freeway	
Flow rate, vp Free-flow speed, FFS	LOS and Performa	Urban Freeway ince Measures 2868	pc/h/ln
Free-flow speed, FFS		Urban Freeway	
Free-flow speed, FFS Average passenger-car s		Urban Freeway ince Measures 2868	pc/h/ln mi/h
Free-flow speed, FFS		Urban Freeway ince Measures 2868 58.1	pc/h/ln mi/h
Free-flow speed, FFS Average passenger-car s Number of lanes, N		Urban Freeway ince Measures 2868 58.1	pc/h/ln mi/h mi/h

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	Operational Anal	ysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:		UND	
From/To:			
Jurisdiction:	Anne Arundel Coun	ity	
Analysis Year:	2025	10 000 ED EDITETO	
Description: REVERSIBL	E OPERATION 2 LANE	S 80% EB TRAFFIC	
	Flow Inputs and	Adjustments	
Volume, V		4562	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15		1267	V
Trucks and buses		10	%
Recreational vehicles		4	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		4.00	mi
Trucks and buses PCE, E	T	2.0	
Recreational vehicle PC	E, ER	1.5	
Heavy vehicle adjustmen	t, fHV	0.893	
Driver population facto	er, vp	1.00	
Flow rate, vp		2839	pc/h/ln
	Speed Inputs and	Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density	0100101100	0.50	interchange/mi
Number of lanes, N		2	5 5 5 5 5
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS		58.1	mi/h
		Urban Freeway	
	LOS and Performa	nce Measures	
Flow rate, vp		2839	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	meed. S	50.1	mi/h
Number of lanes, N	-F	2	/ 44
Density, D		=	
Delibity, D			pc/mi/ln
Level of service, LOS		F	pc/mi/ln

HCS2000: Basic Freeway Segments Release 4.1a

	Operational	Analysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
	8/13/02		
Analysis Time Period:			
Freeway/Direction:		STBOUND	
From/To:			
Jurisdiction:	Anne Arundel	County	
Analysis Year:	2025		
Description: REVERSIBE	E OPERATION 2	LANES 80% EB TRAFFIC	
	Flow Inputs	and Adjustments	
Volume, V		4607	veh/h
Peak-hour factor, PHF		0.90	V C11/ 11
Peak 15-min volume, v15		1280	V
Trucks and buses		10	%
Recreational vehicles		4	00
Terrain type:		Grade	•
Grade		3.00	ે
Segment length		4.00	mi
Trucks and buses PCE, E	T	2.0	
Recreational vehicle PC		1.5	
Heavy vehicle adjustmen	t, fHV	0.893	
Driver population facto	or, vp	1.00	
Flow rate, vp		2867	pc/h/ln
	Speed Inputs	and Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density	CICALATICC	0.50	interchange/mi
Number of lanes, N		2	incer enange, mi
Free-flow speed:		Ideal	
FFS or BFFS		65.0	mi/h
Lane width adjustment,	fLW	0.0	mi/h
Lateral clearance adjus		2.4	mi/h
Interchange density adj		0.0	mi/h
Number of lanes adjustm		4.5	mi/h
Free-flow speed, FFS	•	58.1	mi/h
<u>.</u>		Urban Freeway	
	LOS and Perf	ormance Measures	
Til		2067	/b /l
Flow rate, vp		2867	pc/h/ln
Free-flow speed, FFS	D boom	58.1	mi/h
Average passenger-car s	peea, s	2	mi/h
Number of lanes, N Density, D		۷	ng/mi/ln
Level of service, LOS		F	pc/mi/ln
TEACT OF SCIATCE, TOP		P	

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	Operational Ana	lysis					
Analyst:	Bala Akundi						
Agency or Company:	Parsons						
	8/13/02						
Analysis Time Period:							
Freeway/Direction:		DUND					
From/To:							
Jurisdiction:	Anne Arundel Cour	nty					
Analysis Year:	2025						
Description: REVERSIBL	E OPERATION 2 LAN	ES 80% EB TRAFFIC					
Flow Inputs and Adjustments							
Volume, V		3614	veh/h				
Peak-hour factor, PHF		0.90					
Peak 15-min volume, v15		1004	V				
Trucks and buses		10	%				
Recreational vehicles		4	%				
Terrain type:		Grade					
Grade		3.00	%				
Segment length		4.00	mi				
Trucks and buses PCE, E	Т	2.0					
Recreational vehicle PC	E, ER	1.5					
Heavy vehicle adjustmen	t, fHV	0.893					
Driver population factor	r, vp	1.00					
Flow rate, vp		2249	pc/h/ln				
	Speed Inputs and	d Adjustments					
Lane width		12.0	ft				
Right-shoulder lateral	clearance	2.0	ft				
Interchange density	orcar arroc	0.50	interchange/mi				
Number of lanes, N		2	111001 011011130,				
Free-flow speed:		Ideal					
FFS or BFFS		65.0	mi/h				
Lane width adjustment, fLW		0.0	mi/h				
Lateral clearance adjustment, fLC		2.4	mi/h				
Interchange density adj		0.0	mi/h				
Number of lanes adjustment, fN		4.5	mi/h				
Free-flow speed, FFS		58.1	mi/h				
		Urban Freeway					
	LOS and Performa	ance Measures					
Flow rate, vp		2249	pc/h/ln				
Free-flow speed, FFS		58.1	mi/h				
Average passenger-car speed, S		51.6	mi/h				
Number of lanes, N	F	2	/ 44				
Density, D			4 1 43				
		43.6	pc/m1/ln				
Level of service, LOS		43.6 E	pc/mi/ln				

HCS2000: Basic Freeway Segments Release 4.1a

	Operational Ar	nalysis		
Analyst:	Bala Akundi			
Agency or Company:	Parsons			
Date Performed:	8/13/02			
Analysis Time Period:				
Freeway/Direction:	Freeway/Direction: BAY BRIDGE EASTBOUND			
From/To:				
Jurisdiction:	Anne Arundel Co	ounty		
Analysis Year:				
Description: REVERSIBI	JE OPERATION 2 LA	ANES 80% EB TRAFFIC		
	Flow Inputs ar	nd Adjustments		
Volume, V		3317	veh/h	
Peak-hour factor, PHF		0.90		
Peak 15-min volume, v15		921	V	
Trucks and buses		10	%	
Recreational vehicles		4	%	
Terrain type:		Grade		
Grade		3.00	%	
Segment length		4.00	mi	
Trucks and buses PCE, I	ET	2.0		
Recreational vehicle PO	CE, ER	1.5		
Heavy vehicle adjustmen	nt, fHV	0.893		
Driver population factor	or, vp	1.00		
Flow rate, vp		2064	pc/h/ln	
	Speed Inputs a	and Adjustments		
Lane width		12.0	ft	
Right-shoulder lateral	clearance	2.0	ft	
Interchange density		0.50	interchange/mi	
Number of lanes, N		2		
Free-flow speed:		Ideal		
FFS or BFFS		65.0	mi/h	
Lane width adjustment, fLW		0.0	mi/h	
Lateral clearance adjus	stment, fLC	2.4	mi/h	
Interchange density adjustment, fID		0.0	mi/h	
Number of lanes adjustment, fN		4.5	mi/h	
Free-flow speed, FFS		58.1	mi/h	
		Urban Freeway		
	LOS and Perfor	rmance Measures		
Flow rate, vp		2064	pc/h/ln	
Free-flow speed, FFS		58.1	mi/h	
Average passenger-car s	speed, S	55.7	mi/h	
Number of lanes, N	<u>.</u> ,	2	•	
Density, D		37.1	pc/mi/ln	
Level of service, LOS		E		

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	Operational Ana	alysis			
Analyst:	Bala Akundi				
Agency or Company:	Parsons				
	8/13/02				
Analysis Time Period:					
Freeway/Direction:	BAY BRIDGE EASTE	BOUND			
From/To:					
Jurisdiction:	Anne Arundel Cou				
Analysis Year:	Tear: 2025 on: REVERSIBLE OPERATION 2 LANES 80% EB TRAFFIC				
Description: REVERSIBL	E OPERATION 2 LAD	NES 80% EB TRAFFIC			
	Flow Inputs and	d Adjustments			
Volume, V		3186	veh/h		
Peak-hour factor, PHF		0.90	V 322, 22		
Peak 15-min volume, v15		885	V		
Trucks and buses		10	8		
Recreational vehicles		4	%		
Terrain type:		Grade			
Grade		3.00	%		
Segment length		4.00	mi		
Trucks and buses PCE, E	T	2.0			
Recreational vehicle PC	E, ER	1.5			
Heavy vehicle adjustmen	it, fHV	0.893			
Driver population facto	or, vp	1.00			
Flow rate, vp		1982	pc/h/ln		
	Speed Inputs ar	nd Adjustments			
Lane width		12.0	ft		
Right-shoulder lateral clearance		2.0	ft		
Interchange density	Clearance	0.50	interchange/mi		
Number of lanes, N		2	incerchange/ mi		
Free-flow speed:		Ideal			
FFS or BFFS		65.0	mi/h		
Lane width adjustment, fLW		0.0	mi/h		
Lateral clearance adjus		2.4	mi/h		
Interchange density adjustment, fID		0.0	mi/h		
Number of lanes adjustm		4.5	mi/h		
Free-flow speed, FFS		58.1	mi/h		
		Urban Freeway			
	LOS and Perform	nance Measures			
T1		1000	/1- /1		
Flow rate, vp		1982	pc/h/ln		
Free-flow speed, FFS		58.1	mi/h		
Average passenger-car s	peea, S	56.7	mi/h		
Number of lanes, N		2 34.9	ng/mi/ln		
Density, D Level of service, LOS		34.9 D	pc/mi/ln		
TOVEL OF BELVICE, TOP		D			

HCS2000: Basic Freeway Segments Release 4.1a

·	Operational Anal	ysis	
Analyst:	Bala Akundi		
Agency or Company:	Parsons		
Date Performed:	8/13/02		
Analysis Time Period:	9 PM		
Freeway/Direction: From/To:	Freeway/Direction: BAY BRIDGE EASTBOUND		
Jurisdiction:			
Analysis Year:	2025		
Description: REVERSIBI	E OPERATION 2 LANE	S 80% EB TRAFFIC	
-	Flow Inputs and	Adjustments	
Volume, V		3238	veh/h
Peak-hour factor, PHF		0.90	
Peak 15-min volume, v15	5	899	V
Trucks and buses		10	%
Recreational vehicles		4	%
Terrain type:		Grade	
Grade		3.00	%
Segment length		4.00	mi
Trucks and buses PCE, E		2.0	
Recreational vehicle PC		1.5	
Heavy vehicle adjustmer		0.893	
Driver population facto	or, vp	1.00 2015	/lo /ll
Flow rate, vp		2015	pc/h/ln
	Speed Inputs and	l Adjustments	
Lane width		12.0	ft
Right-shoulder lateral	clearance	2.0	ft
Interchange density		0.50	interchange/mi
Number of lanes, N		2	
Free-flow speed:		Ideal	
FFS or BFFS	C	65.0	mi/h
Lane width adjustment, fLW		0.0	mi/h
Lateral clearance adjustment, fLC		2.4	mi/h
Interchange density adjustment, fID		0.0	mi/h
Number of lanes adjustm Free-flow speed, FFS	lent, in	4.5 58.1	mi/h mi/h
riee-liow speed, rrs		Urban Freeway	1111/11
	LOS and Performa	nce Measures	
Flow rate, vp		2015	pc/h/ln
Free-flow speed, FFS		58.1	mi/h
Average passenger-car s	speed, S	56.4	mi/h
Number of lanes, N		2	4 1 45
Density, D		3 E ()	
Level of service, LOS		35.8 E	pc/mi/ln

