

**Mid-City/Exposition
Final EIS/EIR**

**Traffic Technical Memorandum &
Technical Analysis Worksheets**

Prepared by:
Korve Engineering, Inc.

December 2004

Technical analysis sheets

The intersection Level of Service (LOS) analysis sheets presented in this document were prepared to support Section 3.2 of the Final EIS/EIR, and were conducted using Highway Capacity Manual (HCM) Operation Method performed by TRAFFIX and SYNCHRO software.

The tables below indicate the source and the software used to calculate the LOS for each intersection and scenario:

	Intersection	Existing Year 2000	Year 2020 No Project	Year 2020 With Project (LPA) & Mitigation
1	12th St /Flower St	Kaku Associates ¹	Kaku Associates ¹	Kaku Associates ¹
2	Flower St /Pico Blvd	Kaku Associates ¹	Kaku Associates ¹	Kaku Associates ¹
3	Flower St/Venice Blvd	Kaku Associates ¹	Kaku Associates ¹	Kaku Associates ¹
4	Flower St/Washington Blvd	Kaku Associates ¹	Kaku Associates ¹	Kaku Associates ¹
5	Hill St /Washington Blvd	DEIS/R ²	Synchro	Synchro
6	Hill St /Adams Blvd	DEIS/R ²	Synchro	Synchro
7	Hill St /30th St	DEIS/R ²	Synchro	Synchro
8	Hill St /Jefferson Blvd	DEIS/R ²	Synchro	Synchro
9	Flower St/Exposition Blvd	Synchro	Synchro	Synchro
10	Figueroa St/Exposition Blvd	Synchro	Synchro	Synchro
11	Vermont Ave/Exposition Blvd	Synchro	Synchro	Synchro
12	Normandie Ave/Exposition Blvd	Synchro	Synchro	Synchro
13	Western Ave/Exposition Blvd	Synchro	Synchro	Synchro
14	Arlington Ave/Exposition Blvd	Synchro	Synchro	Synchro
15	Crenshaw Blvd/36th St	N/A	Traffix	Traffix
16	Crenshaw Blvd/Exposition Blvd	Synchro	Traffix	Traffix
17	Crenshaw Blvd/Rodeo Rd	N/A	Traffix	Traffix
18	La Brea Ave/Exposition Blvd	Synchro	Synchro	Synchro
19	La Brea Ave/Jefferson Blvd	Synchro	Synchro	Synchro
20	La Cienega Blvd/Jefferson Blvd	Synchro	Traffix	Traffix
21	Jefferson Blvd /National Blvd	Synchro	Traffix	Traffix
22	National Blvd /Washington Blvd	Synchro	See Wash/Nat Memo ³	See Wash/Nat Memo ³
23	Washington Blvd/Robertson Blvd	N/A	Traffix	Traffix
24	Washington Blvd/Culver Blvd	N/A	Traffix	Traffix
25	Venice Blvd/Bagley Ave	N/A	Traffix	Traffix
26	Venice Blvd/Culver Blvd	N/A	Traffix	Traffix
27	Venice Blvd/Robertson Blvd	N/A	Traffix	Traffix
28	Venice Blvd/National Blvd	N/A	Traffix	Traffix
29	National Blvd/Bagley Ave	N/A	Traffix	Traffix

- 1 Memorandum by Kaku Associates; Flower Street Grade Crossing Analysis, November 5, 2004.
 - 2 DEIR/EIS Mid-City Westside Corridor Technical Appendix F-J Intersection Traffic Analysis Worksheets, Meyer Mohaddes Associates, 2000.
 - 3 Memorandum by Korve Engineering; Traffic and Rail Operations at Washington/National Intersection, December 6, 2004.
- N/A Not Applicable

Also, SYNCHRO was used to conduct the analysis for the Hill Couplet, Flower Westside and Flower Eastside with Grade Separation conditions.

**Level of Service Analysis
Existing Year 1999
AM Peak**

AM Existing Mon Nov 20, 2000 11:51:53 Page 154-1
Mid-City West Side
AM Existing Conditions

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)
Intersection #151 Hills Street /Washington Blvd

Cycle (sec): 90 Critical Vol./Cap. (X): 0.431
Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 19.1
Optimal Cycle: 77 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 23 23 23 23 11 43 43 11 43 43
Lanes: 1 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 81 349 87 44 449 75 51 571 131 95 812 48
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 81 349 87 44 449 75 51 571 131 95 812 48
User Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 88 378 94 48 487 81 55 619 142 103 880 52
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 88 378 94 48 487 81 55 619 142 103 880 52
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 88 378 94 48 487 81 55 619 142 103 880 52

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.29 0.99 0.99 0.99 1.00 1.00 1.02 0.99 0.99 1.02 1.01 1.01
Lanes: 1.00 1.60 0.40 1.00 1.71 0.29 1.00 1.63 0.37 1.00 1.89 0.11
Final Sat.: 553 3001 746 679 3242 539 1931 3054 701 1931 3618 214

Capacity Analysis Module:
Vol/Sat: 0.16 0.13 0.13 0.07 0.15 0.15 0.03 0.20 0.20 0.05 0.24 0.24
Crit Moves: ****
Green/Cycle: 0.35 0.35 0.35 0.35 0.35 0.35 0.12 0.52 0.52 0.13 0.53 0.53
Volume/Cap: 0.46 0.36 0.36 0.20 0.43 0.43 0.23 0.39 0.39 0.40 0.46 0.46
Delay/Veh: 24.5 22.1 22.1 21.1 22.8 22.8 36.2 13.1 13.1 36.8 13.3 13.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 24.5 22.1 22.1 21.1 22.8 22.8 36.2 13.1 13.1 36.8 13.3 13.3
DesignQueue: 3 13 3 2 17 3 2 16 4 5 22 1

AM Existing Mon Nov 20, 2000 11:51:53 Page 155-1
Mid-City West Side
AM Existing Conditions

Level Of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)
Intersection #152 Hill Street /Adams Blvd

Cycle (sec): 90 Critical Vol./Cap. (X): 0.393
Loss Time (sec): 0 (Y+R = 7 sec) Average Delay (sec/veh): 13.2
Optimal Cycle: 83 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 25 25 25 25 25 25 25 25 58 58 58 58
Lanes: 0 1 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0

Volume Module:
Base Vol: 53 634 72 28 176 41 116 519 53 41 615 67
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 53 634 72 28 176 41 116 519 53 41 615 67
User Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 57 687 78 30 191 44 126 563 57 44 667 73
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 57 687 78 30 191 44 126 563 57 44 667 73
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 57 687 78 30 191 44 126 563 57 44 667 73

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.86 0.86 0.86 0.79 0.79 0.79 0.79 0.30 0.96 0.96 0.84 0.84
Lanes: 0.21 2.51 0.28 0.34 2.16 0.50 1.00 1.82 0.18 0.17 2.55 0.28
Final Sat.: 340 4093 465 511 3253 749 561 3313 335 269 4083 447

Capacity Analysis Module:
Vol/Sat: 0.17 0.17 0.17 0.06 0.06 0.06 0.22 0.17 0.17 0.16 0.16 0.16
Crit Moves: ****
Green/Cycle: 0.36 0.36 0.36 0.36 0.36 0.36 0.64 0.64 0.64 0.64 0.64 0.64
Volume/Cap: 0.47 0.47 0.47 0.17 0.17 0.17 0.35 0.26 0.26 0.25 0.25 0.25
Delay/Veh: 22.7 22.7 22.7 19.9 19.9 19.9 7.4 6.9 6.9 6.8 6.8 6.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 22.7 22.7 22.7 19.9 19.9 19.9 7.4 6.9 6.9 6.8 6.8 6.8
DesignQueue: 2 23 3 1 6 1 2 10 1 12 1 1

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)
 Intersection #153 Hills Street /30th Street
 Cycle (sec): 90 Critical Vol./Cap. (X): 0.359
 Loss time (sec): 0 (Y+R = 7 sec) Average Delay (sec/veh): 12.4
 Optimal Cycle: 92 Level Of Service: B
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include
 Min. Green: 51 51 51 51 41 41 41 41 41 41 41 41
 Lanes: 0 1 0 1 0 0 1 0 1 0 0 1 0 0 0 1 0 0 0 1 0 0

Volume Module:
 Base Vol: 19 647 41 30 184 19 11 32 14 48 44 119
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 19 647 41 30 184 19 11 32 14 48 44 119
 User Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 21 701 44 33 199 21 12 35 15 52 48 129
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 21 701 44 33 199 21 12 35 15 52 48 129
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 21 701 44 33 199 21 12 35 15 52 48 129

Level Of Service Computation Report
 1997 HCM Operations Method (Base Volume Alternative)
 Intersection #154 Hills Street /Jefferson Blvd
 Cycle (sec): 90 Critical Vol./Cap. (X): 0.497
 Loss time (sec): 0 (Y+R = 9 sec) Average Delay (sec/veh): 13.2
 Optimal Cycle: 81 Level Of Service: B
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Permitted Permitted Permitted
 Rights: Include Include Include Include Include
 Min. Green: 24 24 24 24 24 24 24 24 24 24 24 24
 Lanes: 1 0 1 0 1 0 1 0 1 0 1 0 0 1 0 1 0 0 1 0 1 0

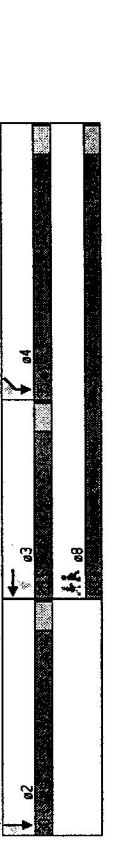
Volume Module:
 Base Vol: 74 624 23 38 139 22 89 673 63 19 742 84
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 74 624 23 38 139 22 89 673 63 19 742 84
 User Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 80 677 25 41 151 24 96 730 68 21 804 91
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 80 677 25 41 151 24 96 730 68 21 804 91
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 80 677 25 41 151 24 96 730 68 21 804 91

Exposition LRT
9: Exposition Blvd & Harbor Fwy Off-Ramp

Existing 1999 - AM
12/9/2004

Lane Group	EBL	WBL	WBT	NBT	SBT	SBR	SWL	SWR	EB
Lane Configurations	1900	1750	1800	1900	1800	1750	1800	1800	
Ideal Flow (vphpl)	12	12	12	12	11	12	12	12	
Lane Width (ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Total Lost Time (s)	90	90	254	254	205	205	205	205	
Leading Detector (ft)	6	6	248	248	10	10	10	10	
Trailing Detector (ft)	15	15	9	9	15	9	9	9	
Turning Speed (mph)	0	0	3009	0	5834	997	2751	1229	
Satd. Flow (prot)	0	0	0.997	0	0.997	0.997	0.997	0.997	
Flt Permitted	0	0	3009	0	5834	997	2751	1229	
Satd. Flow (perm)	Yes	Yes	79	Yes	79	Yes	79	Yes	
Right Turn on Red	35	35	35	35	35	35	35	35	
Satd. Flow (RTOR)	582	527	1097	2238	301	301	301	301	
Link Speed (mph)	11.3	10.3	21.4	43.6	4.6	4.6	4.6	4.6	
Link Distance (ft)	0	18	317	0	422	75	190	550	
Travel Time (s)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Volume (vph)	0	0	353	0	444	79	489	290	
Peak Hour Factor	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	
Lane Group Flow (vph)	3	3	2	2	4	4	4	8	
Turn Type	3	3	2	2	4	4	4	8	
Protected Phases	3	3	2	2	4	4	4	8	
Permitted Phases	0.0	25.0	25.0	0.0	30.0	30.0	35.0	35.0	
Total Split (s)	11.3	11.2	11.2	19.5	19.5	0.36	0.36	0.36	
Act Effct Green (s)	0.21	0.20	0.20	0.20	0.36	0.36	0.36	0.36	
Activated g/C Ratio	0.56	0.37	0.30	0.50	0.66	0.66	0.66	0.66	
v/c Ratio	18.9	18.5	0.0	13.3	14.3	14.3	14.3	14.3	
Uniform Delay, d1	20.7	21.3	7.5	13.8	15.6	15.6	15.6	15.6	
Delay	C	C	A	B	B	B	B	B	
LOS	C	C	A	B	B	B	B	B	
Approach Delay	20.7	19.2	14.5	14.5	14.5	14.5	14.5	14.5	
Approach LOS	C	B	B	B	B	B	B	B	

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 54.7
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 17.3
 Intersection Capacity Utilization: 57.8%
 Intersection LOS: B
 ICU Level of Service A



Spplits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp
 Korve Eng.
 KORVELOSL4-FF51
 Synchro 5 Report

Exposition LRT
10: Exposition Blvd & Figueroa St.

Existing 1999 - AM
12/9/2004

Lane Group	EBL	WBL	WBT	NBT	SBT	SBR	SWL	SWR	EB
Lane Configurations	1750	1900	1900	1800	1900	1800	1750	1900	
Ideal Flow (vphpl)	10	12	12	12	10	12	10	12	
Lane Width (ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Total Lost Time (s)	200	200	150	150	200	200	200	200	
Leading Detector (ft)	0	0	0	0	0	0	0	0	
Trailing Detector (ft)	15	15	15	15	15	15	15	15	
Turning Speed (mph)	2656	5767	0	1320	5094	0	1593	2625	
Satd. Flow (prot)	0.950	0.487	0	0.114	0.114	0	0.114	0.114	
Flt Permitted	2656	5767	0	677	5094	0	191	2625	
Satd. Flow (perm)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Right Turn on Red	1	31	35	35	35	35	35	35	
Satd. Flow (RTOR)	1277	182	334	2469	582	582	582	582	
Link Speed (mph)	24.9	3.5	6.5	48.1	11.3	11.3	11.3	11.3	
Link Distance (ft)	509	1137	0	254	1773	9	79	280	
Travel Time (s)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Volume (vph)	536	1197	0	267	1875	0	83	359	
Peak Hour Factor	custom:custom	Perm	Perm	Perm	Perm	Perm	Perm	Perm	
Lane Group Flow (vph)	3	8	8	6	6	2	2	3	
Turn Type	3	8	8	6	6	2	2	3	
Protected Phases	3	8	8	6	6	2	2	3	
Permitted Phases	15.0	51.0	0.0	39.0	39.0	0.0	39.0	15.0	
Total Split (s)	11.0	44.2	35.1	35.1	35.1	11.0	11.0	11.0	
Act Effct Green (s)	0.13	0.51	0.40	0.40	0.40	0.13	0.13	0.13	
Activated g/C Ratio	1.60	0.41	0.98	0.92	1.08	0.33	0.33	0.33	
v/c Ratio	38.2	13.4	25.7	24.7	26.1	16.3	0.0	24.0	
Uniform Delay, d1	226.1	13.4	74.6	31.4	142.2	17.3	9.6	24.0	
Delay	F	B	B	E	C	F	B	A	
LOS	F	B	B	E	C	F	B	A	
Approach Delay	79.2	36.8	36.1	36.1	24.7	36.1	36.1	24.7	
Approach LOS	E	D	D	D	D	D	D	C	

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 87.3
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 1.60
 Intersection Signal Delay: 48.5
 Intersection Capacity Utilization: 87.8%
 Intersection LOS: D
 ICU Level of Service D



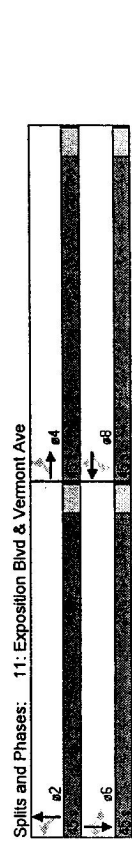
Spplits and Phases: 10: Exposition Blvd & Figueroa St.
 Korve Eng.
 KORVELOSL4-FF51
 Synchro 5 Report

Exposition LRT
11: Exposition Blvd & Vermont Ave

Existing 1999 - AM
12: Exposition Blvd & Normandie Ave

EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
50	50	50	50	50	50	50	50	50	50	50	50
0	0	0	0	0	0	0	0	0	0	0	0
15	15	15	15	15	15	15	15	15	15	15	15
0	4837	0	0	4906	1531	1711	3384	0	1711	3421	1531
0	0.791	0	0	0.819	0.297	0.105	0.114	0	0.244	0.114	0.252
0	3846	0	0	4026	1531	535	3384	0	189	3421	1531
18	35	35	35	35	35	35	35	35	35	35	35
5575	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575
108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6
159	1374	117	25	501	327	122	1116	87	129	715	79
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
0	1650	0	0	526	327	122	1203	0	129	715	79
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
4	4	8	8	8	8	8	8	2	6	6	6
45.0	45.0	0.0	45.0	45.0	45.0	45.0	45.0	0.0	45.0	45.0	45.0
41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
0.94	0.29	0.45	0.50	0.78	1.50	0.46	0.11	1.50	0.46	0.11	1.50
23.0	15.3	14.5	17.3	20.4	24.5	16.9	0.0	204.7	17.1	3.6	0.0
14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
B	B	B	B	B	B	B	B	C	F	B	A
14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
B	B	B	B	B	B	B	B	C	F	B	A
B	B	B	B	B	B	B	B	C	F	B	A
B	B	B	B	B	B	B	B	C	F	B	A

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 20 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.50
Intersection Signal Delay: 21.7
Intersection Capacity Utilization 96.7%
Intersection LOS: C
ICU Level of Service E



Splits and Phases: 11: Exposition Blvd & Vermont Ave
Konve Eng.
KORVELOSL4-FF51

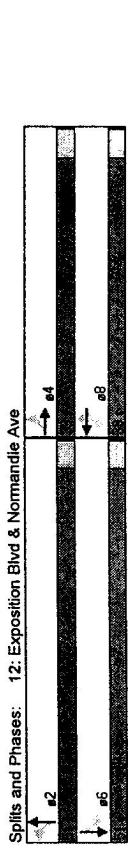
Splits and Phases: 12: Exposition Blvd & Normandie Ave
Konve Eng.
KORVELOSL4-FF51

Exposition LRT
12: Exposition Blvd & Normandie Ave

Existing 1999 - AM
12: Exposition Blvd & Normandie Ave

EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
50	50	50	50	50	50	50	50	50	50	50	50
0	0	0	0	0	0	0	0	0	0	0	0
15	15	15	15	15	15	15	15	15	15	15	15
0	1711	3384	0	1711	3421	1531	1711	3397	0	1711	3380
0.244	0.114	0.114	0	0.205	0.421	1531	454	3397	0	0.197	3380
439	3384	3384	0	205	3421	1531	454	3397	0	355	3380
10	35	35	35	35	35	35	35	35	35	35	35
5452	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452
106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
12	1246	95	2	756	65	111	968	48	113	800	71
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12	1341	0	2	756	65	111	1016	0	113	871	0
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
4	4	8	8	8	8	8	8	2	6	6	6
39.0	39.0	0.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39	0.39
0.07	1.01	0.03	0.57	0.10	0.47	0.57	0.57	0.57	0.57	0.57	0.57
17.2	27.3	17.0	21.6	0.0	13.6	14.5	14.5	14.5	14.5	14.5	14.5
15.0	39.7	13.5	16.0	2.2	15.3	14.8	14.8	14.8	14.8	14.8	14.8
B	D	B	B	B	A	B	B	B	B	C	B
14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B
B	B	B	B	B	B	B	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 22.6
Intersection Capacity Utilization 92.0%
Intersection LOS: C
ICU Level of Service D



Splits and Phases: 12: Exposition Blvd & Normandie Ave
Konve Eng.
KORVELOSL4-FF51

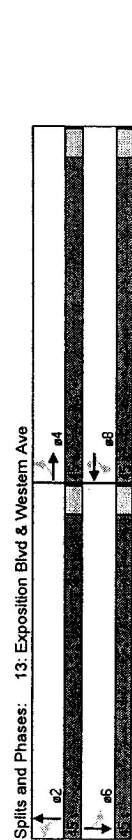
Synchro 5 Report

Exposition LRT
13: Exposition Blvd & Western Ave

Existing 1999 - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	1711	3397	0	1711	3421	1531	0	3373	0	3367	0	0.754
Flt Permitted	0.210	0.098	0	0.098	0	0.883	0	0.883	0	0.754	0	0
Satd. Flow (perm)	378	3397	0	176	3421	1531	0	2985	0	0	2546	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	8	35	45	13	35	45	14	35	14	35	45	14
Link Speed (mph)	5604	5604	5452	1122	5604	5452	1278	5604	1278	5604	5452	1278
Link Distance (ft)	109.2	109.2	106.2	21.9	109.2	106.2	24.9	109.2	24.9	109.2	106.2	24.9
Travel Time (s)	3	1336	70	3	905	171	57	1082	96	37	590	59
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	3	1406	0	3	905	171	0	1235	0	0	686	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	8	8	8	2	2	6	6	6	6	6
Permitted Phases	4	4	8	8	8	2	2	6	6	6	6	6
Total Split (s)	45.0	45.0	0.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Act Effect Green (s)	41.0	41.0	0.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
Actuated g/C Ratio	0.46	0.46	0.00	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
v/c Ratio	0.02	0.91	0.00	0.04	0.58	0.24	0.90	0.59	0.59	0.59	0.59	0.59
Uniform Delay, d1	13.3	22.6	0.00	13.7	18.1	10.7	22.4	17.8	17.8	17.8	17.8	17.8
Delay	14.0	24.0	0.00	16.0	19.6	13.3	27.5	18.2	18.2	18.2	18.2	18.2
LOS	B	C	B	B	B	B	C	B	B	B	B	B
Approach Delay	23.9	23.9	0.00	18.6	18.6	18.6	27.5	18.2	18.2	18.2	18.2	18.2
Approach LOS	C	C	B	B	B	B	C	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.91
Intersection Signal Delay: 22.7
Intersection Capacity Utilization: 103.0%



Korve Eng.
KORVELOSL4-FF51

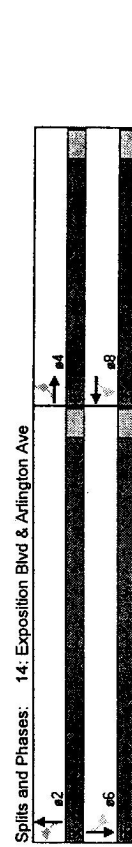
Synchro 5 Report

Exposition LRT
14: Exposition Blvd & Arlington Ave

Existing 1999 - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	3363	0	0	3387	0	0	3401	0	0	3397	0
Flt Permitted	0	0.837	0	0	0.938	0	0	0.868	0	0	0.901	0
Satd. Flow (perm)	0	2829	0	0	3183	0	0	2981	0	0	3067	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	11	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	6666	6666	6666	6666	6666	6666	6666	6666	6666	6666	6666	6666
Link Distance (ft)	129.9	129.9	129.9	129.9	129.9	129.9	129.9	129.9	129.9	129.9	129.9	129.9
Travel Time (s)	41	301	29	19	570	31	56	910	17	25	666	26
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	0	371	0	0	620	0	0	983	0	0	717	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	8	8	8	2	2	6	6	6	6	6
Permitted Phases	4	4	8	8	8	2	2	6	6	6	6	6
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	55.0	55.0	0.0	55.0	55.0	0.0
Act Effect Green (s)	26.1	26.1	0.00	26.1	26.1	0.00	55.9	55.9	0.00	55.9	55.9	0.00
Actuated g/C Ratio	0.29	0.29	0.00	0.29	0.29	0.00	0.62	0.62	0.00	0.62	0.62	0.00
v/c Ratio	0.45	0.45	0.00	0.67	0.67	0.00	0.53	0.53	0.00	0.53	0.53	0.00
Uniform Delay, d1	25.2	27.8	0.00	27.8	27.8	0.00	9.6	9.6	0.00	9.6	9.6	0.00
Delay	16.6	16.6	0.00	22.9	22.9	0.00	10.4	10.4	0.00	10.4	10.4	0.00
LOS	B	B	B	C	C	B	B	B	B	B	B	B
Approach Delay	16.6	16.6	0.00	22.9	22.9	0.00	10.4	10.4	0.00	10.4	10.4	0.00
Approach LOS	B	B	B	C	C	B	B	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 13.7
Intersection Capacity Utilization: 74.7%



Korve Eng.
KORVELOSL4-FF51

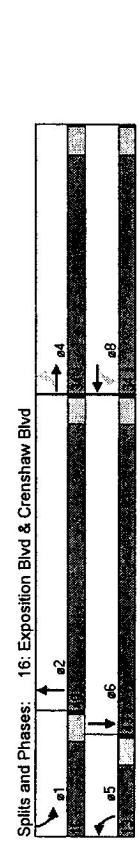
Synchro 5 Report

Exposition LRT
16: Exposition Blvd & Crenshaw Blvd

Existing 1999 - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	3346	0	0	3267	0	1711	4906	0	1711	4896	0
Flt Permitted	0	0.816	0	0	0.942	0	0.950	0	0.950	0	0.950	0
Right Turn on Red	0	2750	0	0	3081	0	1711	4906	0	1711	4896	0
Satd. Flow (perm)	14	74	Yes	Yes	74	2	5	2	Yes	5	5	Yes
Right Turn on Red	35	35			35	35	35	35		35	35	
Link Speed (mph)	8250	6666			6666	1061	1117	1061		1117	1061	
Link Distance (ft)	160.7	129.9			129.9	20.7	21.8	20.7		21.8	20.7	
Travel Time (s)	31	180	23	19	444	190	43	1408	16	64	869	22
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	246	0	0	687	0	45	1499	0	67	938	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	4	4	8	8	5	2	1	6	2	1	6	6
Protected Phases	4	4	8	8	5	2	1	6	2	1	6	6
Permitted Phases	4	4	8	8	5	2	1	6	2	1	6	6
Total Split (s)	34.0	34.0	0.0	34.0	13.0	40.0	0.0	16.0	43.0	0.0	0.0	0.0
Act Effct Green (s)	30.0	30.0	0.0	30.0	7.5	41.2	0.0	8.7	44.5	0.0	0.0	0.0
Actuated g/C Ratio	0.33	0.33	0.08	0.46	0.08	0.46	0.10	0.49	0.10	0.49	0.10	0.49
v/c Ratio	0.27	0.64	0.32	0.67	0.32	0.67	0.40	0.39	0.40	0.39	0.40	0.39
Uniform Delay, d1	20.6	22.4	41.1	19.6	39.2	15.1	38.6	20.3	37.5	15.3	15.3	15.3
Delay	B	A	D	D	D	D	D	D	D	D	D	D
LOS	B	A	D	D	D	D	D	D	D	D	D	D
Approach Delay	20.0	4.1	20.8	20.8	20.8	20.8	20.8	20.8	16.7	20.8	16.7	16.7
Approach LOS	B	A	C	C	C	C	C	C	B	C	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 56 (62%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 16.3
Intersection LOS: B
Intersection Capacity Utilization 65.9%
ICU Level of Service B

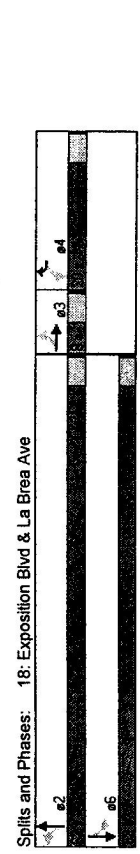


Exposition LRT
18: Exposition Blvd & La Brea Ave

Existing 1999 - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1592	0	1711	0	1531	1711	4906	0	1711	4911	0
Flt Permitted	0	0.990	0	0.745	0	0.090	0.090	0	0.090	0	0.938	0
Right Turn on Red	0	1592	0	1341	0	1531	162	4906	0	1531	4606	0
Satd. Flow (perm)	15	65	Yes	Yes	65	5	5	5	Yes	5	5	Yes
Right Turn on Red	35	35			35	45	45	45		45	45	
Link Speed (mph)	7230	8250			8250	1035	1035	1035		1035	1415	
Link Distance (ft)	140.8	166.7			166.7	15.7	15.7	15.7		15.7	21.4	
Travel Time (s)	4	0	15	1	0	65	10	2922	42	1	1779	6
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	0	19	0	1	0	65	10	2964	0	0	1786	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	3	3	4	4	4	2	2	2	4	4	6	6
Protected Phases	3	3	4	4	4	2	2	2	4	4	6	6
Permitted Phases	3	3	4	4	4	2	2	2	4	4	6	6
Total Split (s)	8.0	8.0	0.0	20.0	0.0	20.0	62.0	62.0	0.0	62.0	62.0	0.0
Act Effct Green (s)	4.0	4.0	0.0	6.0	0.0	6.0	78.2	78.2	0.0	78.2	78.2	0.0
Actuated g/C Ratio	0.04	0.04	0.07	0.07	0.07	0.07	0.87	0.87	0.07	0.87	0.87	0.07
v/c Ratio	0.22	0.22	0.01	0.01	0.01	0.40	0.07	0.70	0.40	0.07	0.45	0.45
Uniform Delay, d1	9.2	9.2	41.0	41.0	41.0	1.8	4.2	4.2	1.8	4.2	2.7	2.7
Delay	C	C	E	E	E	C	C	C	C	C	A	A
LOS	C	C	E	E	E	C	C	C	C	C	A	A
Approach Delay	23.0	31.3	31.3	31.3	31.3	4.4	4.4	4.4	4.4	4.4	1.7	1.7
Approach LOS	C	C	C	C	C	A	A	A	A	A	A	A

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 3.9
Intersection LOS: A
Intersection Capacity Utilization 74.7%
ICU Level of Service C



Exposition LRT
19: Jefferson Blvd & La Brea Ave
Existing 1999 - AM
12/8/2004

EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
50	50	50	50	50	50	50	50	50	50	50	50
0	0	0	0	0	0	0	0	0	0	0	0
15	15	15	15	15	15	15	15	15	15	15	15
1711	3421	1531	1711	3397	0	1711	4901	0	1711	4817	0
0.154	0.348	0.348	0.108	0.071	0	0.071	0	0	0.071	0	0
277	3421	1531	627	3397	0	194	4901	0	128	4817	0
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
51	35	35	35	35	35	35	35	35	35	35	35
9390	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9
73	494	229	110	1022	51	180	2641	60	72	1417	218
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
73	494	229	110	1073	0	180	2701	0	72	1635	0
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
8	8	8	4	4	2	2	2	2	6	6	6
30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
0.91	0.50	0.48	0.61	1.09	1.49	0.88	0.90	0.95	0.90	0.95	0.95
30.9	28.6	20.1	27.6	31.9	17.1	14.2	14.7	9.6	14.7	9.6	9.8
63.9	14.6	8.4	32.9	81.0	190.9	12.9	84.4	9.8	84.4	9.8	9.8
E	B	A	C	F	F	B	F	A	F	A	A
17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
B	B	B	E	E	E	E	E	E	E	E	E

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 29.8
Intersection Capacity Utilization 103.6%
Intersection LOS: C
ICU Level of Service F



Spills and Phases: 19: Jefferson Blvd & La Brea Ave
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
20: Jefferson Blvd & La Cienega Blvd
Existing 1999 - AM
12/8/2004

EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
12	12	12	12	12	12	12	12	12	12	12	12
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
50	50	50	50	50	50	50	50	50	50	50	50
0	0	0	0	0	0	0	0	0	0	0	0
15	15	15	15	15	15	15	15	15	15	15	15
3433	3447	3433	3433	3539	1583	1770	5050	0	1770	5085	1583
0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
3433	3447	3433	3447	3539	1583	149	5050	0	149	5085	1583
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13	35	35	35	35	35	35	35	35	35	35	35
9390	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9	182.9
73	494	229	110	1022	51	180	2614	60	72	1417	218
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
73	494	229	110	1073	0	180	2701	0	72	1635	0
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
8	8	8	4	4	2	2	2	2	6	6	6
30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29	0.29
0.91	0.50	0.48	0.61	1.09	1.49	0.88	0.90	0.95	0.90	0.95	0.95
30.9	28.6	20.1	27.6	31.9	17.1	14.2	14.7	9.6	14.7	9.6	9.8
63.9	14.6	8.4	32.9	81.0	190.9	12.9	84.4	9.8	84.4	9.8	9.8
E	B	A	C	F	F	B	F	A	F	A	A
17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3
B	B	B	E	E	E	E	E	E	E	E	E

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.13
Intersection Signal Delay: 30.1
Intersection Capacity Utilization 106.7%
Intersection LOS: C
ICU Level of Service F



Spills and Phases: 20: Jefferson Blvd & La Cienega Blvd
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
20: Jefferson Blvd & La Cienega Blvd

Existing 1999 - AM
12/8/2004



Splits and Phases: 20: Jefferson Blvd & La Cienega Blvd

Korve Eng.
KORVELOSL4-FF51

Synchro 5 Report

Exposition LRT
21: National Blvd & Jefferson Blvd

Existing 1999 - AM
12/8/2004

Lane Group	EBL	EBR	NBL	NBR	SBT	SBR
Lane Configurations	TV	TV	TV	TV	TV	TV
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	15	9	9
Satd. Flow (prot)	3212	0	0	3421	3421	2694
Flt. Permitted	0.967					
Satd. Flow (perm)	3212	0	0	3421	3421	2694
Right Turn on Red	Yes					No
Satd. Flow (RTOR)	109					
Link Speed (mph)	35			35	35	
Link Distance (ft)	3564			3072	382	
Travel Time (s)	69.4			59.8	7.4	
Volume (vph)	318	154	0	565	772	782
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	472	0	0	565	772	782
Turn Type					Perm	
Protected Phases	3			2	6	
Permitted Phases				2	6	
Total Split (s)	37.0	0.0	0.0	53.0	53.0	6
Act Effct Green (s)	14.9			67.1	67.1	67.1
Actuated g/C Ratio	0.17			0.75	0.75	0.75
v/c Ratio	0.76			0.22	0.30	0.39
Uniform Delay, d1	27.3			3.5	3.8	4.1
Delay	26.9	C		3.9	2.9	3.1
LOS	C			A	A	A
Approach Delay	26.9			3.9	3.0	
Approach LOS	C			A	A	

Intersection Summary

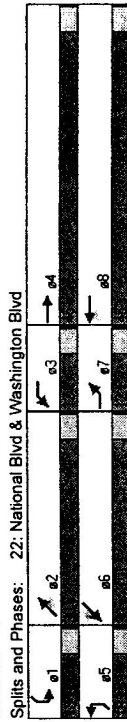
Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 7.6
 Intersection Capacity Utilization: 41.9%
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 21: National Blvd & Jefferson Blvd



Korve Eng.
KORVELOSL4-FF51

Synchro 5 Report



	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vohpl)	10	11	10	11	11	11	11	11	11	11	11	11
Lane Width (ft)	150	200	0	100	0	0	0	0	0	0	0	100
Storage Length (ft)	2	0	2	0	1	0	0	0	0	0	0	1
Storage Lanes	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	200	200	200	200	200	200	200	200	200	200	200	50
Leading Detector (ft)	20	20	20	20	20	20	20	20	20	20	20	0
Trailing Detector (ft)	15	9	15	9	15	9	15	9	15	9	15	9
Turning Speed (mph)	3268	3451	0	3268	3462	0	1745	3490	1561	1745	3490	1561
Satd. Flow (prot)	0.950	0.417	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flt Permitted	3268	3451	0	1435	3462	0	1745	3490	1561	1745	3490	1561
Satd. Flow (perm)	10	Yes	7	Yes	35	Yes	119	Yes	254	Yes	35	254
Right Turn on Red	35	35	35	35	35	35	35	35	35	35	35	35
Satd. Flow (RTOR)	2490	2490	2063	2063	2454	2454	1948	1948	1948	1948	1948	1948
Link Speed (mph)	48.5	48.5	40.2	40.2	47.8	47.8	37.9	37.9	37.9	37.9	37.9	37.9
Link Distance (ft)	68	438	35	216	935	51	36	599	119	40	190	254
Travel Time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	68	473	0	216	986	0	36	599	119	40	190	254
Heavy Vehicles (%)	Prot	pm+pt	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Lane Group Flow (vph)	7	4	3	8	8	5	2	2	1	6	6	6
Turn Type	12.0	45.0	0.0	12.0	45.0	0.0	13.0	30.0	30.0	13.0	30.0	30.0
Protected Phases	6.9	41.0	50.0	43.6	7.0	32.0	7.1	32.1	32.1	7.1	32.1	32.1
Permitted Phases	0.07	0.41	0.50	0.44	0.07	0.32	0.32	0.07	0.32	0.32	0.07	0.32
Total Split (s)	0.30	0.33	0.25	0.65	0.30	0.54	0.20	0.32	0.17	0.38	0.17	0.38
Act Effct Green (s)	45.3	19.2	11.6	22.0	46.3	29.8	0.0	46.3	26.0	0.0	46.3	26.0
Actuated g/C Ratio	44.0	19.9	12.1	23.0	43.7	29.6	5.7	43.8	26.4	4.0	43.8	26.4
w/C Ratio	D	B	B	C	D	C	A	D	C	A	D	C
Uniform Delay, d1	22.9	21.1	21.1	26.5	26.5	26.5	16.1	26.5	16.1	26.5	16.1	16.1
Delay	C	C	C	C	C	C	B	C	C	C	C	B
LOS	C	C	C	C	C	C	B	C	C	C	C	B
Approach Delay												
Approach LOS												

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 5 (5%), Referenced to phase 2:NET and 6:SWT, Start of Green

Control Type: Actuated-Coordinated

Maximum w/C Ratio: 0.65

Intersection Signal Delay: 22.0

Intersection LOS: C

Intersection Capacity Utilization 57.4%

ICU Level of Service A

**Level of Service Analysis
Existing Year 1999
PM Peak**

PM Existing Mon Nov 20, 2000 11:54:43 Page 155-1
Mid-City West Side
PM Existing Alternative

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #152 Hill Street / Adams Blvd
Cycle (sec): 90 Critical Vol./Cap. (X): 0.349
Loss Time (sec): 0 (Y+R = 7 sec) Average Delay (sec/veh): 13.6
Optimal Cycle: 83 Level of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R L T R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 25 25 25 25 25 25 25 25 58 58 58 58 58 58 58 58

Lanes: 0 1 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1 0 0

Volume Module:
Base Vol: 45 446 44 47 570 67 68 695 28 28 707 42
Growth Adj: 1.00

Initial Bse: 45 446 44 47 570 67 68 695 28 28 707 42
User Adj: 1.03

PHF Adj: 0.95

PHF Volume: 49 484 48 51 618 73 74 754 30 30 767 46
Reduced Vol: 0

Reduced Vol: 49 484 48 51 618 73 74 754 30 30 767 46
PCE Adj: 1.00

MLF Adj: 1.00

Final Vol.: 49 484 48 51 618 73 74 754 30 30 767 46
Saturation Flow Module:
Sat/Lane: 1900

Adjustment: 0.80 0.80 0.80 0.80 0.83 0.83 0.83 0.83 0.78 0.78 0.78 0.78 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86 0.86

Lanes: 0.25 2.50 0.25 0.25 2.50 0.29 0.29 2.64 0.10 0.11 2.73 0.16
Final Sat.: 384 3791 376 325 3943 466 385 3921 156 174 4458 267

Capacity Analysis Module:
Vol/Sat: 0.13 0.13 0.13 0.16 0.16 0.16 0.19 0.19 0.19 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17 0.17

Crit Moves: ****
Green/Cycle: 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.36 0.64

Volume/Cap: 0.36 0.36 0.36 0.44 0.44 0.44 0.44 0.30 0.30 0.30 0.30 0.30 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27 0.27

Delay/Veh: 21.6 21.6 21.6 22.3 22.3 22.3 22.3 7.1 7.1 7.1 7.1 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9

User DelAdj: 1.00

AdjDel/Veh: 21.6 21.6 21.6 22.3 22.3 22.3 22.3 7.1 7.1 7.1 7.1 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9 6.9

DesignQueue: 2 16 2 2 21 2 2 1 14 1 14 1 14 1 14 1 14 1 14 1 14 1 14 1 14 1 14 1 14

PM Existing Mon Nov 20, 2000 11:54:43 Page 154-1
Mid-City West Side
PM Existing Alternative

Level of Service Computation Report
1997 HCM Operations Method (Base Volume Alternative)

Intersection #151 Hills Street / Washington Blvd
Cycle (sec): 90 Critical Vol./Cap. (X): 0.536
Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 77 Level of Service: B

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R L T R

Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 23 23 23 23 11 43 43 11 43 43 11 43 43

Lanes: 1 0 1 1 0 1 0 1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 66 282 115 86 585 104 31 910 24 37 1102 34
Growth Adj: 1.00

Initial Bse: 66 282 115 86 585 104 31 910 24 37 1102 34
User Adj: 1.03

PHF Adj: 0.95

PHF Volume: 72 306 125 93 634 113 34 987 26 40 1195 37
Reduced Vol: 0

Reduced Vol: 72 306 125 93 634 113 34 987 26 40 1195 37
PCE Adj: 1.00

MLF Adj: 1.00

Final Vol.: 72 306 125 93 634 113 34 987 26 40 1195 37
Saturation Flow Module:
Sat/Lane: 1900

Adjustment: 0.19 0.97 0.97 0.39 0.99 0.99 1.02 1.01 1.01 1.02 1.01 1.01 1.02 1.01 1.01 1.02 1.01 1.01 1.02 1.01 1.01 1.02 1.01 1.01 1.02 1.01 1.01 1.01

Lanes: 1.00 1.42 0.58 1.00 1.70 0.30 1.00 1.95 0.05 1.00 1.94 0.06
Final Sat.: 366 2625 1072 750 3203 571 1931 3749 99 1931 3732 116

Capacity Analysis Module:
Vol/Sat: 0.20 0.12 0.12 0.12 0.20 0.20 0.02 0.26 0.26 0.02 0.32 0.32 0.02 0.32 0.32 0.02 0.32 0.32 0.02 0.32 0.32 0.02 0.32 0.32 0.02 0.32 0.32 0.02 0.32

Crit Moves: ****
Green/Cycle: 0.34 0.34 0.34 0.34 0.34 0.34 0.12 0.53 0.53 0.14 0.54 0.54 0.14 0.54 0.54 0.14 0.54 0.54 0.14 0.54 0.54 0.14 0.54 0.54 0.14 0.54 0.54 0.14 0.54

Volume/Cap: 0.59 0.35 0.35 0.37 0.59 0.59 0.14 0.50 0.50 0.15 0.59 0.59 0.15 0.59 0.59 0.15 0.59 0.59 0.15 0.59 0.59 0.15 0.59 0.59 0.15 0.59 0.59 0.15 0.59

Delay/Veh: 31.9 22.7 22.7 23.6 25.5 25.5 35.6 13.7 13.7 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3

User DelAdj: 1.00

AdjDel/Veh: 31.9 22.7 22.7 23.6 25.5 25.5 35.6 13.7 13.7 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3 14.3 34.6 14.3

DesignQueue: 2 10 4 3 22 4 1 25 1 2 30 1

PM Existing Mon Nov 20, 2000 11:54:43 Page 157-1

Mid-City West Side PM Existing Alternative

Level of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #154 Hills Street /Jefferson Blvd Critical Vol./Cap. (X): 0.464 Loss Time (sec): 0 (Y+R = 9 sec) Average Delay (sec/veh): 12.9 Optimal Cycle: 81 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Permitted, Include, and Rights. Values include 24, 24, 24, 24, 57, 57, 57, 57.

Volume Module: Base Vol: 69 299 33 58 450 73 43 856 72 26 748 20 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 69 299 33 58 450 73 43 856 72 26 748 20 User Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 PHF Volume: 75 324 36 63 488 79 47 928 78 28 811 22 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 75 324 36 63 488 79 47 928 78 28 811 22 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Final Vol.: 75 324 36 63 488 79 47 928 78 28 811 22

Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 Adjustment: 0.27 1.00 1.00 0.43 1.00 1.00 0.88 0.88 0.88 0.91 0.91 0.91 Lanes: 1.00 1.80 0.20 1.00 1.72 0.28 0.09 1.76 0.15 0.07 1.88 0.05 Final Sat.: 518 3424 380 819 3255 527 150 2956 248 112 3254 88

Capacity Analysis Module: Vol/Sat: 0.14 0.09 0.09 0.08 0.15 0.15 0.31 0.31 0.31 0.25 0.25 0.25 Crit Moves: Green/Cycle: 0.32 0.32 0.32 0.32 0.32 0.32 0.68 0.68 0.68 0.68 0.68 0.68 Volume/Cap: 0.45 0.29 0.29 0.24 0.46 0.45 0.46 0.46 0.46 0.37 0.37 0.37 Delay/Veh: 26.0 22.9 22.9 22.8 24.5 24.5 7.0 7.0 7.0 6.4 6.4 6.4 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 26.0 22.9 22.9 22.8 24.5 24.5 7.0 7.0 7.0 6.4 6.4 6.4 DesignQueue: 3 11 1 2 17 3 1 16 1 0 14 0

PM Existing Mon Nov 20, 2000 11:54:43 Page 156-1

Mid-City West Side PM Existing Alternative

Level of Service Computation Report 1997 HCM Operations Method (Base Volume Alternative)

Intersection #153 Hills Street /30th Street Critical Vol./Cap. (X): 0.240 Loss Time (sec): 0 (Y+R = 7 sec) Average Delay (sec/veh): 11.5 Optimal Cycle: 92 Level Of Service: B

Table with columns for Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Permitted, Include, and Rights. Values include 51, 51, 51, 51, 41, 41, 41, 41.

Volume Module: Base Vol: 16 464 29 13 569 12 6 82 14 3 42 7 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Initial Bse: 16 464 29 13 569 12 6 82 14 3 42 7 User Adj: 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 PHF Volume: 17 503 31 14 617 13 7 89 15 3 46 8 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 Reduced Vol: 17 503 31 14 617 13 7 89 15 3 46 8 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Final Vol.: 17 503 31 14 617 13 7 89 15 3 46 8

Saturation Flow Module: Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 Adjustment: 0.94 0.94 0.94 0.95 0.95 0.95 0.93 0.93 0.93 0.93 0.93 0.93 Lanes: 0.06 1.83 0.11 0.04 1.92 0.04 0.06 0.80 0.14 0.05 0.81 0.14 Final Sat.: 110 3253 200 79 3468 73 112 1422 240 93 1432 249

Capacity Analysis Module: Vol/Sat: 0.15 0.15 0.15 0.18 0.18 0.18 0.06 0.06 0.06 0.03 0.03 0.03 Crit Moves: Green/Cycle: 0.55 0.55 0.55 0.55 0.55 0.55 0.45 0.45 0.45 0.45 0.45 0.45 Volume/Cap: 0.28 0.28 0.28 0.32 0.32 0.32 0.14 0.14 0.14 0.07 0.07 0.07 Delay/Veh: 10.9 10.9 10.9 11.2 11.2 11.2 15.2 15.2 15.2 14.6 14.6 14.6 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 AdjDel/Veh: 10.9 10.9 10.9 11.2 11.2 11.2 15.2 15.2 15.2 14.6 14.6 14.6 DesignQueue: 0 12 1 0 15 0 3 0 0 1 0 0

Exposition LRT
9: Exposition Blvd & Harbor Fwy Off-Ramp

Existing 1999 - PM
12/9/2004

Lane Group	EBT	WBT	NBT	SBT	SBR	SWL	SWR	SB
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1750	1800	1800	1750	1800	1800	1800
Lane Width (ft)	12	12	12	11	12	12	12	12
Storage Length (ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	90	90	254	254	205	205	205	205
Leading Detector (ft)	6	6	248	248	10	10	10	10
Trailing Detector (ft)	15	15	9	9	15	9	9	9
Turning Speed (mph)	0	0	3012	0	5834	997	2710	1229
Satd. Flow (prot)	0	0.998	0	0.998	0.986	0.986	0.986	0.986
Fit Permitted	0	0	3012	0	5834	997	2710	1229
Satd. Flow (perm)	0	Yes	0	Yes	Yes	Yes	Yes	Yes
Right Turn on Red	3	3	3	3	3	3	3	3
Satd. Flow (RTOR)	35	35	35	35	35	35	35	35
Link Speed (mph)	582	527	1097	2238	301	301	301	301
Link Distance (ft)	11.3	10.3	21.4	43.6	4.6	4.6	4.6	4.6
Travel Time (s)	0	19	564	0	992	185	49	255
Volume (vph)	0	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	0	614	0	1044	195	186	134
Lane Group Flow (vph)	0	Perm	0	Perm	Perm	Perm	Perm	Perm
Turn Type	3	3	3	2	2	4	4	8
Protected Phases	3	3	3	2	2	4	4	8
Permitted Phases	0.0	20.0	20.0	0.0	40.0	30.0	30.0	50.0
Total Split (s)	17.6	21.3	21.3	13.6	13.6	0.21	0.21	0.21
Act Effect Green (s)	0.29	0.35	0.35	0.21	0.21	0.21	0.21	0.21
Actuated g/C Ratio	0.71	0.51	0.41	0.32	0.32	0.51	0.51	0.51
v/c Ratio	19.5	15.9	0.0	22.7	23.7	23.7	23.7	23.7
Uniform Delay, d1	37.1	37.1	16.0	3.0	23.1	25.1	25.1	25.1
Delay	D	D	B	A	C	C	C	C
LOS	D	D	B	A	C	C	C	C
Approach Delay	37.1	37.1	13.9	24.0	24.0	24.0	24.0	24.0
Approach LOS	D	D	B	A	C	C	C	C

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 61.2
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 21.9
 Intersection Capacity Utilization 58.1%

Spillover and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp



Korve Eng.
KORVELOSL4-FF51

Synchro 5 Report

Exposition LRT
10: Exposition Blvd & Figueroa St.

Existing 1999 - PM
12/9/2004

Lane Group	EB1,2	EBT	WBT	NBT	SBT	SBR	SWL	SWR	SB
Lane Configurations	1T	1T	1T	1T	1T	1T	1T	1T	1T
Ideal Flow (vphpl)	1750	1900	1900	1800	1900	1800	1750	1900	1800
Lane Width (ft)	10	12	12	9	10	12	10	12	11
Storage Length (ft)	10	12	12	102	200	200	0	0	150
Storage Lanes	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	200	200	150	150	200	200	200	150	150
Leading Detector (ft)	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	2656	5767	0	1320	5079	0	1593	2698	1314
Satd. Flow (prot)	0.950	0.121	0.309	0.121	0.309	0.309	0.309	0.309	0.309
Fit Permitted	2656	5767	0	168	5079	0	518	2698	1314
Satd. Flow (perm)	0	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Right Turn on Red	35	35	35	35	35	35	35	35	35
Satd. Flow (RTOR)	1277	182	334	2469	582	582	582	582	582
Link Speed (mph)	24.9	3.5	6.5	48.1	11.3	11.3	11.3	11.3	11.3
Travel Time (s)	280	593	0	141	685	18	125	939	238
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	295	624	0	148	740	0	132	988	251
Lane Group Flow (vph)	custom	custom	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	3	8	6	6	2	3	4	4	4
Protected Phases	15.0	51.0	0.0	39.0	0.0	39.0	15.0	0.0	36.0
Permitted Phases	11.0	46.9	35.1	35.1	35.1	11.0	32.0	32.0	32.0
Total Split (s)	0.12	0.52	0.39	0.39	0.39	0.12	0.36	0.36	0.36
Act Effect Green (s)	0.91	0.21	2.28	0.37	0.66	0.94	0.69	0.83	0.44
Actuated g/C Ratio	39.0	11.6	27.6	19.4	22.4	26.4	2.7	26.6	14.2
Uniform Delay, d1	61.3	11.6	304.4	19.6	29.9	37.9	8.9	28.9	14.8
Delay	E	B	F	B	C	D	A	C	B
LOS	E	B	F	B	C	D	A	C	B
Approach Delay	27.5	27.5	67.1	67.1	31.8	25.8	25.8	25.8	25.8
Approach LOS	C	C	E	E	C	C	C	C	C

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 64 (71%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.28
 Intersection Signal Delay: 36.6
 Intersection Capacity Utilization 92.5%

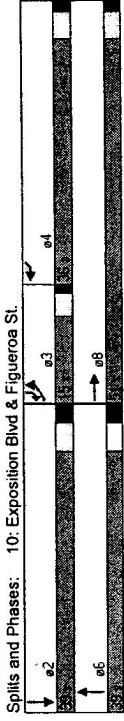
Spillover and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp



Korve Eng.
KORVELOSL4-FF51

Synchro 5 Report

Exposition LRT
10: Exposition Blvd & Figueroa St. Existing 1999 - PM
12/9/2004



Korve Eng.
KORVELOSL4-FF51

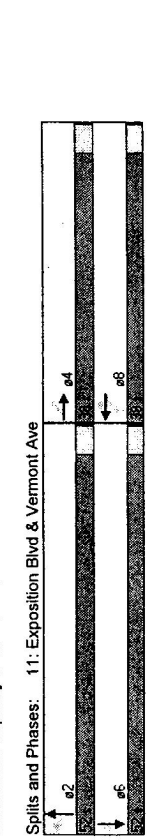
Synchro 5 Report

Exposition LRT
11: Exposition Blvd & Vermont Ave

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←←←	←←	←	←←←	←←	←	←	←	←	←	←	←
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	4793	0	0	4906	1531	1711	3387	0	1711	3421	1531
Flt Permitted	0	0.716	0	0	0.870	0.126	0.227	0.332	0	0.332	0.598	0.332
Right Turn on Red	0	3446	0	0	4277	1531	227	3387	0	598	3421	1531
Satd. Flow (RTOR)	39	35	35	35	221	221	13	35	Yes	35	35	22
Link Speed (mph)	35	1320	35	1320	1228	1228	1228	1280	Yes	1280	1280	1280
Link Distance (ft)	575	575	575	575	25.7	25.7	23.9	24.9	Yes	24.9	24.9	24.9
Travel Time (s)	108.6	108.6	108.6	108.6	651	651	47	159	1263	159	1263	159
Volume (vph)	79	693	124	41	1080	360	56	651	47	159	1263	159
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	0	896	0	0	1121	360	56	698	0	159	1263	159
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	8	2	6	2	6	6	6
Permitted Phases	4	4	4	8	8	8	2	6	2	6	6	6
Total Split (s)	38.0	38.0	38.0	38.0	38.0	38.0	52.0	52.0	0.0	52.0	52.0	52.0
Act Effct Green (s)	34.0	34.0	34.0	34.0	34.0	34.0	48.0	48.0	0.0	48.0	48.0	48.0
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.38	0.53	0.53	0.53	0.53	0.53	0.53
v/c Ratio	0.68	0.68	0.68	0.69	0.50	0.46	0.39	0.50	0.69	0.19	0.69	0.19
Uniform Delay, d1	22.3	23.6	7.5	13.0	12.0	13.3	15.5	9.3	13.3	15.5	9.3	9.3
Delay	10.2	23.9	8.2	16.4	12.2	14.7	15.9	9.5	14.7	15.9	9.5	9.5
LOS	B	C	A	B	B	B	B	A	B	B	B	A
Approach Delay	10.2	20.1	20.1	20.1	20.1	20.1	12.5	15.1	20.1	15.1	15.1	15.1
Approach LOS	B	C	C	C	C	C	B	B	C	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 20 (22%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 15.3
Intersection Capacity Utilization 91.0%

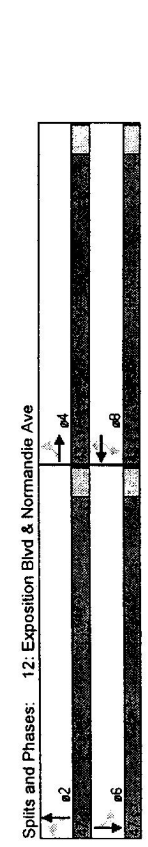


Exposition LRT
12: Exposition Blvd & Normandie Ave

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	←←←	←←	←	←←←	←←	←	←	←	←	←	←	←
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1711	3319	0	1711	3421	1531	1711	3408	0	1711	3384	0
Flt Permitted	0.103	0.239	0	0.239	0.093	0.093	0.093	0.298	0	0.298	0.298	0
Right Turn on Red	185	3319	0	430	3421	1531	167	3408	0	537	3384	0
Satd. Flow (RTOR)	28	35	35	132	132	132	4	4	Yes	12	12	12
Link Speed (mph)	35	5575	35	35	5575	5575	1245	1245	Yes	35	35	35
Link Distance (ft)	5452	5452	5452	108.6	108.6	108.6	24.3	24.3	Yes	1299	1299	1299
Travel Time (s)	106.2	106.2	106.2	7	1271	132	82	711	20	70	1290	101
Volume (vph)	12	653	161	7	1271	132	82	711	20	70	1290	101
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	12	814	0	7	1271	132	82	731	0	70	1391	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	8	2	2	2	6	6	6
Permitted Phases	4	4	4	8	8	8	2	2	2	6	6	6
Total Split (s)	43.0	43.0	0.0	43.0	43.0	43.0	47.0	47.0	0.0	47.0	47.0	0.0
Act Effct Green (s)	38.3	38.3	0.0	38.3	38.3	38.3	43.7	43.7	0.0	43.7	43.7	0.0
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.43	0.49	0.49	0.49	0.49	0.49	0.49
v/c Ratio	0.15	0.57	0.04	0.04	0.87	0.18	1.01	0.44	0.27	0.84	0.27	0.84
Uniform Delay, d1	15.8	18.8	15.1	23.6	0.0	23.1	15.0	13.7	20.0	13.7	20.0	20.0
Delay	18.3	17.0	17.0	28.4	41.4	14.1	115.3	15.4	15.2	22.1	22.1	22.1
LOS	B	B	B	C	D	B	F	B	B	C	C	C
Approach Delay	17.0	38.8	38.8	38.8	38.8	38.8	25.5	25.5	38.8	21.7	21.7	21.7
Approach LOS	B	D	D	D	D	D	C	C	D	C	C	C

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 26.9
Intersection Capacity Utilization 88.6%

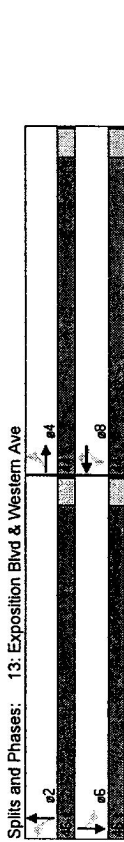


Exposition LRT
13: Exposition Blvd & Western Ave

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15
Satd. Flow (prot)	1711	3370	0	1711	3421	1531	0	3394	0	3390	0
Fit Permitted	0:188	339	3370	0	391	3421	1531	0	3228	0	3197
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	17	35	35	1122	35	1278	35	1122	35	1278	35
Link Speed (mph)	35	35	35	5604	35	5604	35	5604	35	5604	35
Link Distance (ft)	5604	5604	5604	109.2	5604	109.2	5604	109.2	5604	109.2	5604
Travel Time (s)	109.2	109.2	109.2	21.9	109.2	21.9	109.2	21.9	109.2	21.9	109.2
Volume (vph)	4	789	88	10	947	128	4	829	46	14	1113
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	4	877	0	10	947	128	0	879	0	0	1190
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	8	8	2	8	2	4	8	2	8	6
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	44.0	44.0	44.0	44.0	44.0	44.0	46.0	46.0	46.0	46.0	46.0
Act Effct Green (s)	36.8	36.8	36.8	36.8	36.8	36.8	45.3	45.3	45.3	45.3	45.3
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41	0.41	0.50	0.50	0.50	0.50	0.50
v/c Ratio	0.03	0.63	0.06	0.68	0.19	0.54	0.74	0.74	0.74	0.74	0.74
Uniform Delay, d1	16.0	20.7	16.1	21.7	3.0	15.1	17.6	17.6	17.6	17.6	17.6
Delay	13.2	19.3	13.2	19.3	8.2	16.4	19.2	19.2	19.2	19.2	19.2
LOS	B	B	B	C	A	A	B	B	B	B	B
Approach Delay	19.3	19.3	19.3	23.2	16.4	16.4	19.2	19.2	19.2	19.2	19.2
Approach LOS	B	B	B	C	A	A	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 19.7
Intersection LOS: B
Intersection Capacity Utilization 69.9%
ICU Level of Service B



Kovve Eng.
KORVELOSL4-FF51

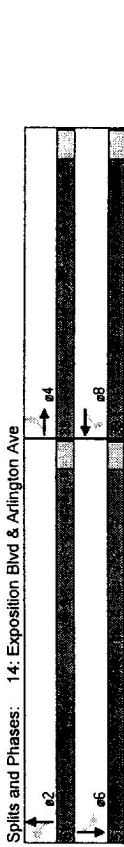
Synchro 5 Report

Exposition LRT
14: Exposition Blvd & Arlington Ave

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15
Satd. Flow (prot)	1711	3370	0	1711	3421	1531	0	3394	0	3390	0
Fit Permitted	0:188	339	3370	0	391	3421	1531	0	3228	0	3197
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	17	35	35	1122	35	1278	35	1122	35	1278	35
Link Speed (mph)	35	35	35	5604	35	5604	35	5604	35	5604	35
Link Distance (ft)	5604	5604	5604	109.2	5604	109.2	5604	109.2	5604	109.2	5604
Travel Time (s)	109.2	109.2	109.2	21.9	109.2	21.9	109.2	21.9	109.2	21.9	109.2
Volume (vph)	4	789	88	10	947	128	4	829	46	14	1113
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	4	877	0	10	947	128	0	879	0	0	1190
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	8	8	2	8	2	4	8	2	8	6
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	44.0	44.0	44.0	44.0	44.0	44.0	46.0	46.0	46.0	46.0	46.0
Act Effct Green (s)	36.8	36.8	36.8	36.8	36.8	36.8	45.3	45.3	45.3	45.3	45.3
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41	0.41	0.50	0.50	0.50	0.50	0.50
v/c Ratio	0.03	0.63	0.06	0.68	0.19	0.54	0.74	0.74	0.74	0.74	0.74
Uniform Delay, d1	16.0	20.7	16.1	21.7	3.0	15.1	17.6	17.6	17.6	17.6	17.6
Delay	13.2	19.3	13.2	19.3	8.2	16.4	19.2	19.2	19.2	19.2	19.2
LOS	B	B	B	C	A	A	B	B	B	B	B
Approach Delay	19.3	19.3	19.3	23.2	16.4	16.4	19.2	19.2	19.2	19.2	19.2
Approach LOS	B	B	B	C	A	A	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 8 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 15.1
Intersection LOS: B
Intersection Capacity Utilization 62.4%
ICU Level of Service B



Kovve Eng.
KORVELOSL4-FF51

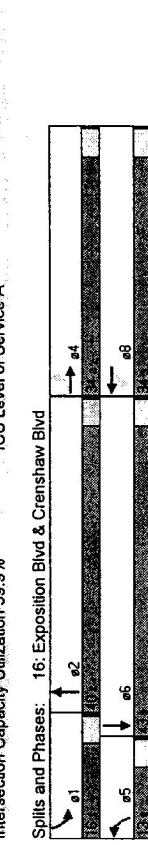
Synchro 5 Report

Exposition LRT
16: Exposition Blvd & Crenshaw Blvd

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	3360	0	0	3268	0	1711	4906	0	1711	4906	0
Flt Permitted	0	0.889	0	0	0.886	0	0.950	0.950	0	0.950	0.950	0
Satd. Flow (perm)	0	3033	0	0	2910	0	1711	4906	0	1711	4906	0
Right Turn on Red		Yes		Yes		Yes			Yes			Yes
Satd. Flow (RTOR)		13		61		3		3			3	
Link Speed (mph)		35		35		35		35			35	
Link Distance (ft)		8250		6666		1061		1117			1117	
Travel Time (s)		160.7		129.9		20.7		21.8			21.8	
Volume (vph)		32	301	35	33	207	87	40	1166	17	105	1582
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)		0	388	0	345	0	42	1245	0	111	1693	0
Turn Type		Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases		4	8	5	2	2	6	6	6	6	6	6
Permitted Phases		4	8	5	2	2	6	6	6	6	6	6
Total Split (s)		34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Act Effct Green (s)		24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3
Actual g/C Ratio		0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27	0.27
v/c Ratio		0.47	0.42	0.42	0.30	0.50	0.30	0.50	0.30	0.50	0.30	0.50
Uniform Delay, d1		26.5	21.9	21.9	41.0	15.1	39.2	14.5	37.6	15.9	37.6	15.9
Delay		C	A	A	D	B	D	B	D	B	D	B
LOS		C	A	A	D	B	D	B	D	B	D	B
Approach Delay		25.3	25.3	4.9	17.5	17.2	17.2	17.2	17.2	17.2	17.2	17.2
Approach LOS		C	A	A	B	B	B	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 66 (62%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.62
Intersection Signal Delay: 17.0
Intersection Capacity Utilization 59.9%



Splits and Phases: 16: Exposition Blvd & Crenshaw Blvd
Korve Eng.
KORVELOSL4-FF51

Synchro 5 Report

Exposition LRT
18: Exposition Blvd & La Brea Ave

Existing 1999 - PM
12/6/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1607	0	1711	0	1531	1711	4901	0	1711	4901	0
Flt Permitted	0	0.985	0	0.751	0	0.751	0.069	0.069	0	0.927	0.927	0
Satd. Flow (perm)	0	1607	0	1352	0	1531	124	4901	0	1531	4557	0
Right Turn on Red		Yes		Yes		Yes			Yes			Yes
Satd. Flow (RTOR)		7		42		42		7			7	
Link Speed (mph)		35		35		35		45			45	
Link Distance (ft)		7230		8250		1035		1035			1415	
Travel Time (s)		140.8		160.7		15.7		15.7			21.4	
Volume (vph)		3	0	7	3	0	42	8	2388	50	7	2877
Peak Hour Factor		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)		0	10	0	3	0	42	8	2448	0	0	2891
Turn Type		Perm	Perm	custom	custom	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases		3	3	4	4	2	2	2	2	6	6	6
Permitted Phases		3	3	4	4	2	2	2	2	6	6	6
Total Split (s)		8.0	8.0	20.0	20.0	62.0	62.0	62.0	62.0	62.0	62.0	62.0
Act Effct Green (s)		4.0	4.0	5.8	5.8	82.7	82.7	82.7	82.7	82.7	82.7	82.7
Actual g/C Ratio		0.04	0.06	0.06	0.06	0.92	0.92	0.92	0.92	0.92	0.92	0.92
v/c Ratio		0.13	0.03	0.30	0.07	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Uniform Delay, d1		13.3	42.7	0.0	1.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6
Delay		28.4	28.4	47.3	21.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
LOS		C	C	D	C	A	A	A	A	A	A	A
Approach Delay		28.4	28.4	22.9	22.9	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Approach LOS		C	C	C	C	A	A	A	A	A	A	A

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 2.2
Intersection Capacity Utilization 68.0%



Splits and Phases: 18: Exposition Blvd & La Brea Ave
Korve Eng.
KORVELOSL4-FF51

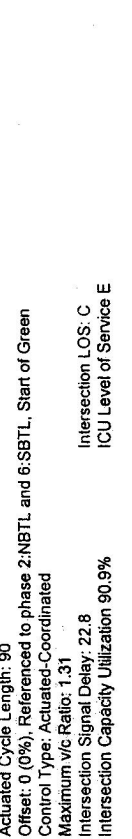
Synchro 5 Report

Exposition LRT
19: Jefferson Blvd & La Brea Ave

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Width (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1711	3421	1531	1711	3363	0	1711	4876	0	1711	4876	0
Fit Permitted	0.217	3421	1531	0.154	277	3363	0	128	4876	0	131	4876
Satd. Flow (perm)	35	35	35	35	35	35	35	35	35	35	35	35
Right Turn on Red	9390	1829	1829	9390	1829	1829	9390	1829	1829	9390	1829	1829
Satd. Flow (RTOR)	132	820	441	105	599	76	87	1793	107	86	2153	120
Link Speed (mph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Travel Time (s)	132	820	441	105	599	76	87	1793	107	86	2153	120
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	132	820	441	105	599	76	87	1793	107	86	2153	120
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	8	8	4	4	4	4	2	2	2	6	6	6
Permitted Phases	30.0	30.0	30.0	30.0	30.0	30.0	60.0	60.0	0.0	60.0	60.0	0.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	56.0	56.0	0.0	56.0	56.0	0.0
Act Effct Green (s)	0.29	0.29	0.29	0.29	0.29	0.29	0.62	0.62	0.0	0.62	0.62	0.0
Actuated g/C Ratio	1.17	0.83	0.98	1.31	0.69	1.09	0.62	0.62	0.0	0.62	0.62	0.0
v/c Ratio	32.0	29.9	31.1	32.0	27.7	17.1	10.4	10.4	0.0	10.4	10.4	0.0
Uniform Delay, d1	106.2	20.4	32.3	176.7	28.1	122.5	9.4	9.4	0.0	9.4	9.4	0.0
Delay	F	C	C	F	C	C	A	A	0.0	F	F	0.0
Approach Delay	32.3	32.3	32.3	32.3	32.3	32.3	48.1	48.1	0.0	48.1	48.1	0.0
Approach LOS	C	C	C	C	C	C	D	D	0.0	D	D	0.0

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay: 22.8
Intersection LOS: C
Intersection Capacity Utilization 90.9%
ICU Level of Service E



Splits and Phases: 19: Jefferson Blvd & La Brea Ave

Korve Eng.
KORVELOSL4-FF51

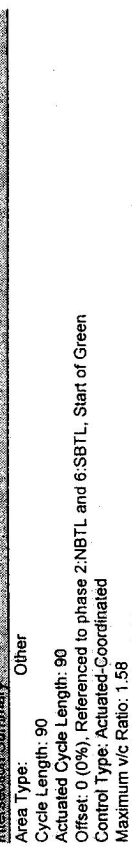
Synchro 5 Report

Exposition LRT
20: Jefferson Blvd & La Cienega Blvd

Existing 1999 - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Width (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	3433	3398	0	3433	3539	1583	1770	5019	0	1770	5085	1583
Fit Permitted	0.950	3433	3398	0	0.950	3433	3539	1583	0	162	5085	1583
Satd. Flow (perm)	2	2	2	2	2	2	2	2	2	2	2	2
Right Turn on Red	35	35	35	35	35	35	35	35	35	35	35	35
Satd. Flow (RTOR)	132.5	755	276	361	409	111	62	2327	215	43	2279	267
Link Speed (mph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Travel Time (s)	132.5	755	276	361	409	111	62	2327	215	43	2279	267
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	132.5	755	276	361	409	111	62	2327	215	43	2279	267
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	3	8	7	4	4	2	2	2	6	6	6
Permitted Phases	13.0	30.0	0.0	10.0	27.0	27.0	50.0	50.0	0.0	50.0	50.0	50.0
Total Split (s)	16.5	26.0	0.0	6.0	15.5	15.5	46.0	46.0	0.0	46.0	46.0	46.0
Act Effct Green (s)	0.18	0.29	0.00	0.07	0.17	0.17	0.51	0.51	0.00	0.51	0.51	0.51
Actuated g/C Ratio	0.93	1.05	0.00	0.33	0.67	0.67	1.74	1.74	0.00	1.74	1.74	1.74
v/c Ratio	36.1	31.9	0.00	12.0	34.8	32.5	17.4	21.5	0.00	17.4	19.5	5.8
Uniform Delay, d1	78.7	56.8	0.00	209.1	46.7	42.5	55.6	33.3	0.00	27.9	20.7	6.1
Delay	E	E	F	F	D	D	E	C	0.00	C	C	A
Approach Delay	64.7	64.7	64.7	64.7	64.7	64.7	112.7	33.9	0.00	19.3	19.3	19.3
Approach LOS	E	E	F	F	D	D	E	C	0.00	C	C	B

Intersection Summary
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 44.5
Intersection Capacity Utilization 111.4%
ICU Level of Service G



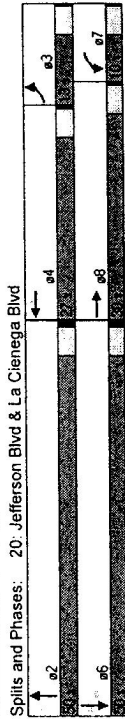
Splits and Phases: 19: Jefferson Blvd & La Brea Ave

Korve Eng.
KORVELOSL4-FF51

Synchro 5 Report

Exposition LRT
20: Jefferson Blvd & La Cienega Blvd

Existing 1999 - PM
12/8/2004



Exposition LRT
21: National Blvd & Jefferson Blvd

Existing 1999 - PM
12/9/2004



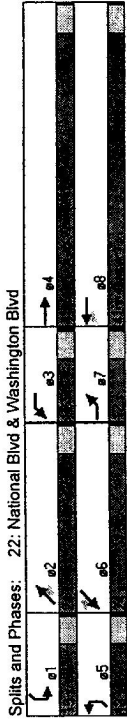
Lane Group	EBL	EBR	NBL	NBT	SBT	SBF
Lane Configurations	TY		TT	TT	TT	TT
Ideal Flow (vehpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	3216	0	0	3421	3421	2694
Flt. Permitted	0.967					
Satd. Flow (perm)	3216	0	0	3421	3421	2694
Right Turn on Red	Yes					No
Satd. Flow (RTOR)	107					
Link Speed (mph)	35		35			35
Link Distance (ft)	3564		3072			382
Travel Time (s)	69.4		59.8			7.4
Volume (vph)	850	403	0	954	495	352
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	1253	0	0	954	495	352
Turn Type						Perm
Protected Phases	3		2		6	
Permitted Phases			2			6
Total Split (s)	38.0	0.0	0.0	52.0	52.0	52.0
Act Effct Green (s)	34.0		48.0	48.0	48.0	48.0
v/c Ratio	0.38		0.53	0.53	0.53	0.53
Uniform Delay, d1	0.98		0.52	0.27	0.24	
Delay	25.2		13.6	11.5	11.3	
LOS	C		B	A	A	
Approach Delay	29.2		13.8	9.5	9.5	
Approach LOS	C		B	A	A	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 18.9
 Intersection Capacity Utilization: 70.0%
 Intersection LOS: B
 ICU Level of Service: B

Splits and Phases: 21: National Blvd & Jefferson Blvd





Item	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SM	SWT	SWR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	10	11	11	10	11	11	11	11	11	11	11	11
Lane Width (ft)	150	200	200	150	200	200	200	200	200	200	200	200
Storage Length (ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Storage Lanes	2	2	2	2	2	2	2	2	2	2	2	2
Total Lost Time (s)	200	200	200	200	200	200	200	200	200	200	200	200
Leading Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Trailing Detector (ft)	3268	3458	3268	3427	3268	3427	3490	3490	3490	1745	1745	3490
Turning Speed (mph)	0.950	0.113	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Satd. Flow (prot)	3268	3458	0	389	3427	0	1745	3490	1561	1745	3490	1561
Fill Permitted	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (perm)	9	35	20	35	20	35	258	35	258	35	258	35
Right Turn on Red	35	35	35	35	35	35	35	35	35	35	35	35
Satd. Flow (RTOR)	2490	2063	2063	2063	2063	2063	2454	2454	2454	1948	1948	2454
Link Speed (mph)	48.5	47.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	37.9	37.9	47.8
Travel Time (s)	142	1030	65	142	594	80	58	852	273	73	661	132
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Lane Group Flow (vph)	142	1095	0	142	674	0	58	852	273	73	661	132
Turn Type	Prot	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	Prot	Prot	Prot	Prot	Prot	Perm
Protected Phases	7	4	3	8	8	5	2	2	1	1	6	6
Permitted Phases	12.0	41.0	0.0	12.0	41.0	0.0	13.0	24.0	24.0	13.0	24.0	24.0
Total Split (s)	7.6	37.8	43.8	37.0	43.8	37.0	7.5	23.4	23.4	7.8	23.7	23.7
Act Effct Green (s)	0.08	0.42	0.49	0.41	0.49	0.41	0.08	0.25	0.26	0.09	0.26	0.26
Actuated g/C Ratio	0.51	0.75	0.35	0.47	0.35	0.47	0.40	0.94	0.46	0.48	0.72	0.27
v/c Ratio	39.4	21.9	10.1	18.7	10.1	18.7	40.0	33.4	1.4	40.1	30.8	6.6
Uniform Delay, d1	39.6	22.4	7.2	17.7	7.2	17.7	38.8	71.8	5.1	39.0	36.2	10.2
Delay	D	C	C	A	B	D	D	E	A	D	D	B
Approach Delay	24.4	15.9	15.9	24.4	15.9	15.9	24.4	15.9	24.4	15.9	24.4	15.9
Approach LOS	C	C	C	B	B	B	D	D	D	D	D	C

Intersection Summary
 Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 5 (6%), Referenced to phase 2:NET and 6:SWT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 33.2
 Intersection Capacity Utilization 75.5%

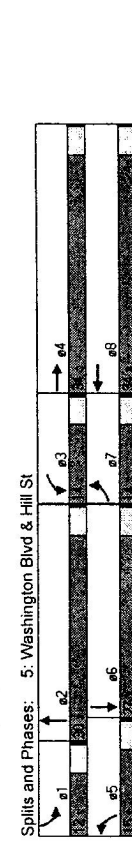
**Level of Service Analysis
Year 2020 No LRT
AM Peak**

Exposition LRT
5: Washington Blvd & Hill St

2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3096	0	1593	3160	0	1593	3090	0	1593	3115
Satd. Flow (prot)	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0	0.950	0.950
Fit Permitted	1593	3096	0	1593	3160	0	1593	3090	0	1593	3115
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	33	35	7	34	35	7	34	35	7	34	35
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	842	849	849	2083	2083	849	2083	2083	849	2083	2083
Travel Time (s)	16.4	16.5	16.5	40.6	40.6	16.5	40.6	40.6	16.5	40.6	40.6
Volume (vph)	48	539	124	90	766	45	76	329	82	42	423
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	51	698	0	95	853	0	80	432	0	44	520
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	4	3	8	5	2	6	1	6	6
Permitted Phases	14.0	34.0	0.0	14.0	34.0	0.0	15.0	30.0	0.0	12.0	27.0
Total Split (s)	7.9	26.1	9.0	9.0	29.1	9.2	37.7	7.1	33.7	0.8	33.7
Act Effect Green (s)	0.09	0.29	0.10	0.10	0.32	0.10	0.42	0.08	0.37	0.35	0.44
Actuated g/C Ratio	0.36	0.76	0.60	0.60	0.83	0.49	0.33	0.35	0.44	0.41	0.51
v/c Ratio	40.9	27.0	39.9	27.9	39.3	18.0	41.5	21.9	39.3	24.1	25.3
Uniform Delay, d1	38.2	27.3	38.9	29.1	56.5	7.9	39.3	24.1	39.3	24.1	25.3
Delay	D	C	C	D	C	E	A	D	C	D	C
LOS	D	C	C	D	C	E	A	D	C	D	C
Approach Delay	28.1	30.1	30.1	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
Approach LOS	C	C	C	B	B	B	B	B	B	B	B

Intersection Summary
Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 48 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 25.9
Intersection Capacity Utilization 64.4%



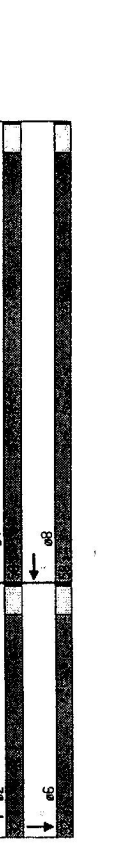
Splits and Phases: 5: Washington Blvd & Hill St
Intersection LOS: C
ICU Level of Service B

Exposition LRT
6: Adams Blvd & Hill St

2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	15	15	15	15	15	15	15	15	15	15	15
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3141	0	1593	3138	0	1593	3138	0	1593	3093
Satd. Flow (prot)	0.344	0.344	0	0.399	0.399	0	0.399	0.399	0	0.399	0.399
Fit Permitted	577	3141	0	669	3138	0	1009	3138	0	335	3093
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	21	35	23	35	35	23	35	35	23	35	35
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	968	932	932	1055	1055	932	1055	1055	932	1055	1055
Travel Time (s)	18.9	18.2	18.2	20.6	20.6	18.2	20.6	20.6	18.2	20.6	20.6
Volume (vph)	115	513	52	41	608	66	52	627	71	28	174
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	121	595	0	43	709	0	55	735	0	29	226
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	8	8	2	2	6	6	6	6
Permitted Phases	58.0	58.0	0.0	58.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0
Total Split (s)	54.0	54.0	54.0	54.0	54.0	54.0	28.0	28.0	28.0	28.0	28.0
Act Effect Green (s)	0.60	0.60	0.60	0.60	0.60	0.60	0.31	0.31	0.31	0.31	0.31
Actuated g/C Ratio	0.35	0.31	0.11	0.37	0.18	0.18	0.18	0.18	0.18	0.18	0.18
v/c Ratio	9.1	8.5	7.7	8.9	22.6	27.2	23.3	19.4	23.3	19.4	19.4
Uniform Delay, d1	9.9	8.6	8.0	9.1	28.1	32.5	16.1	12.0	16.1	12.0	12.0
Delay	A	A	A	A	A	C	C	B	C	B	B
LOS	A	A	A	A	A	C	C	B	C	B	B
Approach Delay	8.8	9.0	9.0	32.2	32.2	32.2	32.2	32.2	32.2	32.2	32.2
Approach LOS	A	A	A	C	C	C	C	B	C	B	B

Intersection Summary
Area Type: CBD
Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Pre-timed
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 16.6
Intersection Capacity Utilization 62.5%

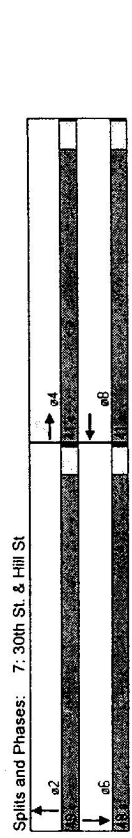


Splits and Phases: 6: Adams Blvd & Hill St
Intersection LOS: B
ICU Level of Service B

Exposition LRT
7: 30th St. & Hill St
2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1605	0	0	1532	0	0	3153	0	0	3128	0
Flt Permitted	0	0.944	0	0	0.928	0	0	0.944	0	0	0.833	0
Satd. Flow (perm)	0	1530	0	0	1438	0	0	2980	0	0	2622	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	15	87	14	10	35	14	10	35	14	10	35	14
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	885	980	1055	1115	1055	1055	1115	1055	1055	1055	1115	1055
Travel Time (s)	17.2	19.1	20.6	21.7	20.6	20.6	21.7	20.6	20.6	20.6	21.7	20.6
Volume (vph)	11	32	14	49	45	121	19	657	42	30	187	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	0	61	0	0	226	0	0	756	0	0	249	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	8	8	2	8	8	2	8	8	8	6	6
Permitted Phases	4	41.0	0.0	41.0	41.0	0.0	49.0	49.0	0.0	49.0	49.0	0.0
Total Split (s)	37.0	37.0	37.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0	45.0
Act Effct Green (s)	0.41	0.41	0.41	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
Actuated g/C Ratio	0.10	0.10	0.35	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
v/c Ratio	12.1	10.7	11.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
Uniform Delay, d1	13.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Delay	B	B	B	A	A	A	A	A	A	A	A	A
Approach Delay	13.3	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Approach LOS	B	B	B	A	A	A	A	A	A	A	A	A

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Prelimed
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 8.6
 Intersection Capacity Utilization 55.3%
 Intersection LOS: A
 ICU Level of Service A



Exposition LRT
8: Jefferson Blvd & Hill St
2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	3135	0	0	3134	0	1593	3169	0	1593	3122	0
Flt Permitted	0	0.709	0	0	0.924	0	0.940	0.940	0	0.241	0.241	0
Satd. Flow (perm)	0	2234	0	0	2899	0	1073	3169	0	404	3122	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	16	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	828	902	1244	1244	1244	1244	1244	1244	1244	1244	1244	1244
Link Distance (ft)	16.1	17.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2	24.2
Travel Time (s)	93	701	66	20	773	88	77	650	24	40	145	23
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	905	0	0	928	0	81	709	0	42	177	0
Lane Group Flow (vph)	0	905	0	0	928	0	81	709	0	42	177	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	8	8	2	8	8	2	8	8	8	6	6
Permitted Phases	4	55.0	0.0	55.0	55.0	0.0	35.0	35.0	0.0	35.0	35.0	0.0
Total Split (s)	51.0	51.0	51.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
Act Effct Green (s)	0.57	0.57	0.57	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34	0.34
Actuated g/C Ratio	0.71	0.71	0.56	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	13.8	12.0	12.0	20.9	24.7	21.6	17.9	17.9	21.6	17.9	17.9	21.6
Uniform Delay, d1	14.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
Delay	B	B	B	C	C	C	C	C	C	C	C	C
Approach Delay	14.4	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3	12.3
Approach LOS	B	B	B	C	C	C	C	C	C	C	C	C

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Prelimed
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 17.2
 Intersection Capacity Utilization 95.8%
 Intersection LOS: B
 ICU Level of Service E



Exposition LRT
9: Exposition Blvd & Harbor Fwy Off-Ramp

2020 No LRT - AM
12/8/2004

EBT	WBL	WBT	NBT	SBT	SBR	SML	SMR	#B
1900	1750	1800	1900	1800	1750	1800	1800	
12	12	12	12	11	12	12	12	
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
6	6	6	6	254	254	205	205	
15	15	15	15	248	248	10	10	
0	0	3009	0	5834	997	2751	1229	
0	0	0.997	0	5834	997	2751	1229	
35	35	35	35	35	35	45	45	
582	527	1097	2238	301	301	4.6	4.6	
11.3	10.3	21.4	43.6	4.6	4.6	649	649	
0	18	325	0	433	77	224	224	
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
0	0	361	0	456	81	577	342	
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	
3	3	3	2	2	4	4	8	
0.0	25.0	25.0	0.0	30.0	30.0	35.0	35.0	
11.9	11.9	11.4	11.4	11.4	11.4	22.7	22.7	
0.20	0.19	0.19	0.19	0.19	0.19	0.39	0.39	
0.59	0.40	0.31	0.54	0.72	0.72	14.8	14.8	
20.6	20.4	0.0	13.5	14.8	14.8	16.3	16.3	
22.4	22.4	C	C	A	B	B	B	
C	C	C	C	C	C	C	C	
22.4	22.4	20.9	20.9	14.9	14.9	B	B	

Intersection Summary
Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 58.8
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 18.2
Intersection Capacity Utilization 63.1%

Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp
Intersection LOS: B
ICU Level of Service B



Exposition LRT
10: Exposition Blvd & Figueroa St.

2020 No LRT - AM
12/8/2004

EBL2	EBT	WBT	NBL	NBT	NBR2	SBL	SBR	SWM	SWR2	#B
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
10	12	9	10	12	10	15	12	11	14	
102	102	102	102	102	102	0	0	0	150	
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
200	200	150	150	200	200	200	200	150	150	
0	0	0	0	0	0	0	0	0	0	
15	15	15	15	15	15	9	15	9	9	
2884	5767	0	1433	5377	0	1593	2771	1426	0	
0.950	0.950	0.481	0.114	0.114	0.114	0.114	0.114	0.114	0.114	
2884	5767	0	726	5377	0	191	2771	1426	0	
1	1	1	1	1	1	31	31	79	1	
35	35	35	35	35	35	35	35	35	35	
1277	182	334	2469	582	582	11.3	11.3	11.3	11.3	
24.9	3.5	6.5	48.1	48.1	48.1	81	287	137	0	
522	1166	0	281	1818	9	81	287	137	0	
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
549	1227	0	275	1923	0	85	367	79	0	
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	
3	3	8	6	6	2	3	3	4	4	
15.0	51.0	0.0	39.0	39.0	0.0	39.0	39.0	15.0	0.0	
11.0	43.9	35.1	35.1	35.1	11.0	11.0	11.0	28.9	28.9	
0.13	0.50	0.40	0.40	0.40	0.13	0.13	0.13	0.33	0.33	
1.50	0.42	0.94	0.89	1.10	0.32	0.32	0.32	0.57	0.68	
38.0	13.5	24.9	24.1	25.9	16.1	0.0	23.9	25.0	25.4	
207.9	13.5	63.1	28.1	148.1	17.1	9.5	23.9	25.4	25.4	
F	B	E	C	F	B	A	C	C	C	
73.6	E	32.5	C	37.0	D	24.4	C	C	C	

Intersection Summary
Area Type: CBD
Cycle Length: 90
Actuated Cycle Length: 87.1
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 1.60
Intersection Signal Delay: 44.9
Intersection Capacity Utilization 85.4%

Splits and Phases: 10: Exposition Blvd & Figueroa St.
Intersection LOS: D
ICU Level of Service D



Exposition LRT
11: Exposition Blvd & Vermont Ave
2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	4837	0	0	4906	1531	1711	3384	0	1711	3421	1531
Flt Permitted	0	0.784	0	0	0.817	0.257	0.098	0.098	0	0.098	0.098	0.098
Right Turn on Red	0	3812	0	0	4016	1531	463	3384	0	176	3421	1531
Satd. Flow (perm)	18	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575
Link Distance (ft)	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6
Travel Time (s)	166	1432	122	26	522	341	127	1163	91	134	745	82
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	0	1720	0	0	548	341	127	1254	0	134	745	82
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	4	55.0	55.0	55.0	55.0	55.0	45.0	45.0	0.0	45.0	45.0	45.0
Total Split (s)	51.0	51.0	51.0	51.0	51.0	51.0	41.0	41.0	0.0	41.0	41.0	41.0
Act Effect Green (s)	0.51	0.51	0.51	0.51	0.51	0.51	0.41	0.41	0.0	0.41	0.41	0.41
Actuated g/C Ratio	0.88	0.27	0.43	0.67	0.90	1.86	0.53	0.12	0.0	0.53	0.12	0.12
v/c Ratio	21.5	13.9	14.2	24.0	27.3	29.4	22.2	0.0	0.0	24.9	22.5	4.4
Uniform Delay, d1	4.7	14.0	14.6	31.8	31.3	31.3	31.4	31.4	31.4	31.4	31.4	31.4
Delay	A	B	B	C	C	C	C	C	C	F	C	A
LOS	A	B	B	C	C	C	C	C	C	F	C	A
Approach Delay	4.7	14.3	14.3	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4
Approach LOS	A	B	B	C	C	C	C	C	C	F	C	A

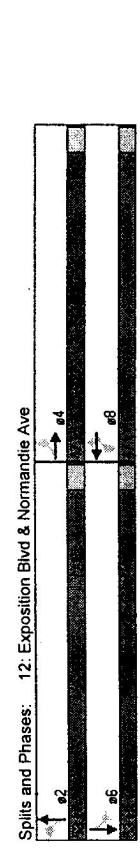
Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 20 (20%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.86
Intersection Signal Delay: 23.2
Intersection LOS: C
Intersection Capacity Utilization 100.2%



Exposition LRT
12: Exposition Blvd & Normandie Ave
2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	1711	3384	0	1711	3421	1531	1711	3397	0	1711	3380
Flt Permitted	0.214	0.093	0.093	0	0.093	0.093	0.190	0.190	0.138	0	0.138	0
Right Turn on Red	385	3384	0	167	3421	1531	342	3397	0	245	3380	0
Satd. Flow (perm)	10	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452
Link Distance (ft)	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
Travel Time (s)	14	1415	108	2	859	74	126	1099	55	128	909	81
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	14	1523	0	2	859	74	126	1154	0	128	990	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	4	47.0	47.0	47.0	47.0	47.0	53.0	53.0	0.0	53.0	53.0	0.0
Total Split (s)	43.0	43.0	43.0	43.0	43.0	43.0	49.0	49.0	0.0	49.0	49.0	0.0
Act Effect Green (s)	0.43	0.43	0.43	0.43	0.43	0.43	0.49	0.49	0.0	0.49	0.49	0.0
Actuated g/C Ratio	0.08	1.04	0.03	0.58	0.11	0.75	0.69	0.69	0.07	0.69	0.69	0.07
v/c Ratio	16.9	28.3	16.5	21.7	4.4	20.6	19.5	19.5	25.5	18.1	18.1	25.5
Uniform Delay, d1	5.1	34.4	13.0	15.8	3.5	36.0	19.9	19.9	105.5	18.4	18.4	105.5
Delay	A	C	B	B	A	A	D	D	F	B	B	F
LOS	A	C	B	B	A	A	D	D	F	B	B	F
Approach Delay	34.1	34.1	14.8	14.8	21.5	21.5	21.5	21.5	28.3	21.5	21.5	28.3
Approach LOS	C	C	B	B	C	C	C	C	C	C	C	C

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 10 (10%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.07
Intersection Signal Delay: 25.8
Intersection LOS: C
Intersection Capacity Utilization 91.8%



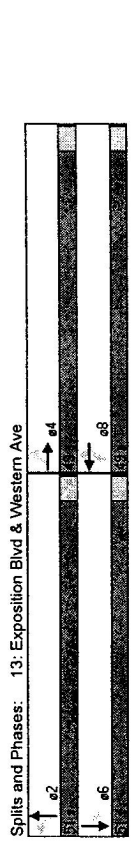
Exposition LRT
13: Exposition Blvd & Western Ave

2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBS	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1711	3397	0	1711	3421	1531	0	3373	0	3367
Fit Permitted	0:193	0:089	0	0:160	0:421	1531	0	0:872	0	0:736
Satd. Flow (perm)	348	3397	0	160	3421	1531	0	2948	0	2485
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	7	35	45	35	35	12	35	13	35	13
Link Speed (mph)	5604	5604	5452	5604	5604	1122	5452	1278	5604	1278
Link Distance (ft)	109.2	109.2	106.2	109.2	109.2	21.9	106.2	24.9	109.2	24.9
Travel Time (s)	3	1377	72	3	933	176	59	1115	99	38
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	3	1449	0	3	933	176	0	1273	0	707
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	8	8	8	2	2	6	6	6
Protected Phases	4	4	8	8	8	2	2	6	6	6
Permitted Phases	4	4	8	8	8	2	2	6	6	6
Total Split (s)	49.0	49.0	49.0	49.0	49.0	51.0	51.0	51.0	51.0	51.0
Act Effct Green (s)	44.3	44.3	44.3	44.3	44.3	47.7	47.7	47.7	47.7	47.7
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.48	0.48	0.48	0.48	0.48
v/c Ratio	0.02	0.96	0.04	0.62	0.25	0.90	0.90	0.59	0.59	0.59
Uniform Delay, d1	15.7	26.9	15.7	21.3	12.6	23.7	23.7	18.7	18.7	18.7
Delay	12.7	28.1	7.7	9.3	4.3	29.0	29.0	19.3	19.3	19.3
LOS	B	C	A	A	A	C	C	B	B	B
Approach Delay	28.1	28.1	8.5	8.5	8.5	29.0	29.0	19.3	19.3	19.3
Approach LOS	C	C	A	A	A	C	C	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 6 (6%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 22.2
Intersection Capacity Utilization 105.9%

Intersection LOS: C
ICU Level of Service F



Splits and Phases: 13: Exposition Blvd & Western Ave

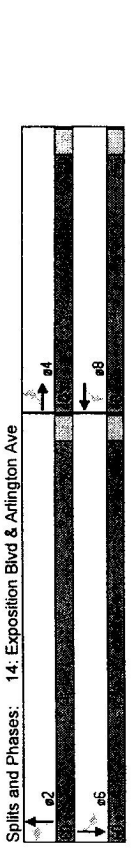
Exposition LRT
14: Exposition Blvd & Arlington Ave

2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBS	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	3363	0	0	3387	0	0	3401	0	3397
Fit Permitted	0	0:772	0	0	0:933	0	0	0:841	0	0:881
Satd. Flow (perm)	0	2610	0	0	3166	0	0	2869	0	2989
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	10	35	35	35	35	3	35	6	35	6
Link Speed (mph)	5604	5604	5604	5604	5604	1201	5604	1207	5604	1207
Link Distance (ft)	109.2	109.2	109.2	109.2	109.2	23.4	109.2	23.5	109.2	23.5
Travel Time (s)	47	348	34	22	660	36	65	1053	20	29
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	0	429	0	0	718	0	0	1138	0	830
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	8	8	8	2	2	6	6	6
Protected Phases	4	4	8	8	8	2	2	6	6	6
Permitted Phases	4	4	8	8	8	2	2	6	6	6
Total Split (s)	40.0	40.0	40.0	40.0	40.0	60.0	60.0	60.0	60.0	60.0
Act Effct Green (s)	34.9	34.9	34.9	34.9	34.9	57.1	57.1	57.1	57.1	57.1
Actuated g/C Ratio	0.35	0.35	0.35	0.35	0.35	0.57	0.57	0.57	0.57	0.57
v/c Ratio	0.47	0.47	0.47	0.47	0.47	0.69	0.69	0.69	0.69	0.69
Uniform Delay, d1	24.7	24.7	24.7	24.7	24.7	15.2	15.2	12.6	12.6	12.6
Delay	26.5	26.5	26.5	26.5	26.5	15.9	15.9	13.0	13.0	13.0
LOS	C	C	A	A	A	B	B	B	B	B
Approach Delay	26.5	26.5	8.6	8.6	8.6	15.9	15.9	13.0	13.0	13.0
Approach LOS	C	C	A	A	A	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 14.9
Intersection Capacity Utilization 88.5%

Intersection LOS: B
ICU Level of Service D



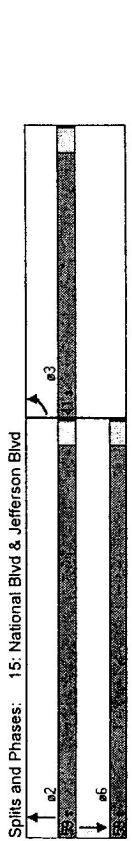
Splits and Phases: 14: Exposition Blvd & Arlington Ave

Exposition LRT
15: National Blvd & Jefferson Blvd

2020 No LRT - AM
12/13/2004

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50		50	50	50	50
Trailing Detector (ft)	0		0	0	0	0
Turning Speed (mph)	15	9	15			9
Satd. Flow (prot)	3212	0	3421	3421	2694	
Flt Permitted	0.967					
Satd. Flow (perm)	3212	0	3421	3421	2694	
Right Turn on Red		Yes				No
Satd. Flow (RTOR)	99					
Link Speed (mph)	35		35			35
Link Distance (ft)	3564		3072			382
Travel Time (s)	69.4		59.8			7.4
Volume (vph)	328	159	0	584	797	808
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	487	0	584	797	808	
Turn Type			Perm			
Protected Phases	3		2	6		
Permitted Phases			2		6	
Total Split (s)	41.0	0.0	59.0	59.0	59.0	
Act Effct Green (s)	15.5		76.5	76.5	76.5	
Actuated g/C Ratio	0.16		0.77	0.77	0.77	
v/c Ratio	0.84		0.22	0.30	0.39	
Uniform Delay, d1	32.5		3.3	3.6	3.9	
Delay	18.0		3.7	1.8	1.9	
LOS	B		A	A	A	
Approach Delay	18.0		3.7	1.9		
Approach LOS	B		A	A		

Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization: 43.1%
 Intersection LOS: A
 ICU Level of Service A



Exposition LRT
18: Exposition Blvd & La Brea Ave
2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1590	0	1711	0	1531	1711	4906	0	0	4916	0
File Permitted	0	0.990	0	0.744	0	0.1340	0.084	0.084	0	0	0.938	0
Satd. Flow (perm)	0	1590	0	1340	0	1531	151	4906	0	0	4611	0
Right Turn on Red		Yes		Yes		Yes		Yes			Yes	
Satd. Flow (RTOR)		16		35		55		5			1	
Link Speed (mph)		35		8250		35		45			45	
Link Distance (ft)		7230		160.7		1035		1415			1415	
Travel Time (s)		4		140.8		15.7		21.4			21.4	
Volume (vph)	4	0	16	1	0	68	10	3058	44	1	1862	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	0	20	0	1	0	68	10	3102	0	0	1869	0
Turn Type	Perm	3	custom	custom	Perm	4	Perm	2	Perm	6	6	6
Protected Phases												
Permitted Phases	3	8.0	0.0	20.0	0.0	20.0	72.0	72.0	0.0	72.0	72.0	0.0
Total Split (s)	8.0	4.0	8.0	8.7	8.7	82.8	82.8	82.8	0.83	0.83	82.8	0.83
Act Effect Green (s)	0.04	0.09	0.09	0.09	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Actuated g/C Ratio	0.25	0.01	0.01	0.37	0.08	0.76	0.76	0.76	0.49	0.49	0.49	0.49
v/c Ratio	9.7	43.0	8.2	2.4	6.1	3.8	3.8	3.8	2.2	2.2	2.2	2.2
Uniform Delay, d1	24.7	15.0	8.4	4.2	6.6	6.6	6.6	6.6	2.2	2.2	2.2	2.2
Delay	C	B	A	A	A	A	A	A	A	A	A	A
LOS	C	B	A	A	A	A	A	A	A	A	A	A
Approach Delay	24.7	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5
Approach LOS	C	A	A	A	A	A	A	A	A	A	A	A

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 6 (6%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 5.1
Intersection Capacity Utilization 77.6%
Intersection LOS: A
ICU Level of Service C

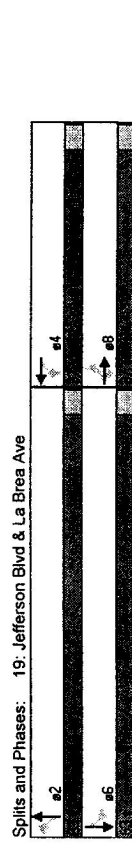


Splits and Phases: 18: Exposition Blvd & La Brea Ave
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
19: Jefferson Blvd & La Brea Ave
2020 No LRT - AM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1711	3421	1531	1711	3397	0	1711	4901	0	1711	4817
File Permitted	0	0.121	0.121	0.349	0.349	0.089	0.089	0.089	0.089	0.089	0.089	0.089
Satd. Flow (perm)	0	1711	1531	1531	1531	628	3397	0	160	4901	0	122
Right Turn on Red		Yes		Yes		Yes		Yes		Yes		Yes
Satd. Flow (RTOR)		36		36		1	6		6		13	
Link Speed (mph)		35		35		35	35		45		45	
Link Distance (ft)		9390		3456		1415	1415		1415		1384	
Travel Time (s)		182.9		67.3		21.4	21.4		21.4		21.0	
Volume (vph)	77	519	241	116	1075	54	189	2777	63	76	1490	229
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	77	519	241	116	1129	0	189	2840	0	76	1719	0
Turn Type	Perm	8	Perm	Perm	4	Perm	2	Perm	6	Perm	6	6
Protected Phases												
Permitted Phases	8	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (s)	37.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
Act Effect Green (s)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Actuated g/C Ratio	1.07	0.46	0.46	0.56	1.01	2.01	0.98	1.06	0.60	1.06	0.60	0.60
v/c Ratio	33.5	26.4	22.1	27.5	33.5	20.4	19.9	20.5	12.9	20.5	12.9	12.9
Uniform Delay, d1	104.7	24.6	20.5	29.4	55.6	261.7	27.5	118.1	13.1	261.7	13.1	13.1
Delay	F	C	C	C	E	F	C	F	B	F	B	B
LOS	F	C	C	C	E	F	C	F	B	F	B	B
Approach Delay	30.8	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2	53.2
Approach LOS	D	D	D	D	D	D	D	D	D	D	D	D

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.01
Intersection Signal Delay: 36.3
Intersection Capacity Utilization 108.3%
Intersection LOS: D
ICU Level of Service F



Splits and Phases: 19: Jefferson Blvd & La Brea Ave
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

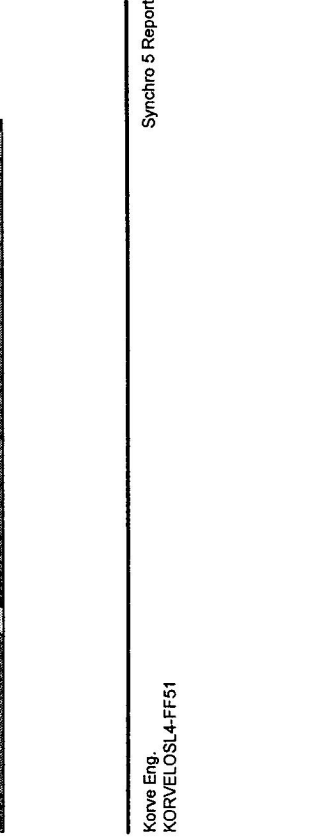
Exposition LRT
30: Adams Blvd & Flower St.

2020 No LRT - AM
12/13/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NET	SBL	SBT	SBR	SEL
Lane Configurations	10	10	10	10	10	10	10	10	10	10	10
Ideal Flow (vph/ft)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	10	10	10	10	10	10	10	10	10
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0
Storage Lanes	1	0	0	1	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	8	15	15	9	9	15	15	9	15	15
Satd. Flow (prot)	1486	2881	0	1486	4148	0	0	0	5249	0	0
Flt Permitted	0.190	0.305	0	0.305	0	0	0	0.992	0	0	0
Satd. Flow (perm)	297	2881	0	477	4148	0	0	0	5249	0	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	69	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	431	1288	432	406	909	17.7	7.9	9.5	23.4	25.6	25.6
Link Distance (ft)	8.4	25.1	8.4	7.9	17.7	42	42	42	91	271	34
Travel Time (s)	42	615	159	94	337	226	0	58	271	42	0
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	44	814	0	99	1224	0	0	390	0	0	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	4	4	4	4	4	4	4	4	4
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	60.5	60.5	0.0	60.5	60.5	0.0	0.0	29.5	29.5	0.0	0.0
Act Effct Green (s)	56.5	56.5	0.0	56.5	56.5	0.0	0.0	25.5	25.5	0.0	0.0
Actuated g/C Ratio	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.26	0.26	0.26	0.26
v/c Ratio	0.24	0.44	0.33	0.47	0.47	0.33	0.47	0.26	0.26	0.26	0.26
Uniform Delay, d1	7.3	7.8	7.9	8.8	24.9	7.9	8.8	24.9	7.9	8.8	24.9
Delay	15.6	16.5	8.7	9.0	25.1	8.7	9.0	25.1	8.7	9.0	25.1
LOS	B	B	A	A	C	A	A	C	A	A	C
Approach Delay	16.5	16.5	9.0	9.0	25.1	9.0	9.0	25.1	9.0	9.0	25.1
Approach LOS	B	B	A	A	C	A	A	C	A	A	C

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 71 (79%), Referenced to phase 2:SBTL, Start of Green
 Control Type: Pretimed
 Maximum v/c Ratio: 0.47
 Intersection Signal Delay: 13.9
 Intersection Capacity Utilization: 53.7%
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 30: Adams Blvd & Flower St.



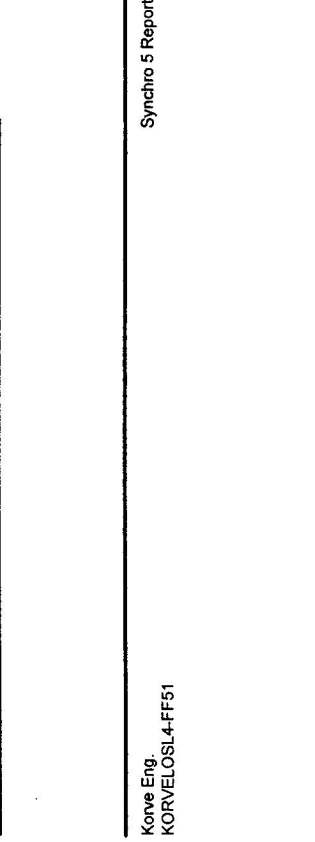
Exposition LRT
31: Jefferson Blvd & Flower St.

2020 No LRT - AM
12/13/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NET	SBL	SBT	SBR	SEL
Lane Configurations	10	10	10	10	10	10	10	10	10	10	10
Ideal Flow (vph/ft)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	10	10	10	10	10	10	10	10	10	10
Storage Length (ft)	0	0	0	0	0	0	0	0	0	0	0
Storage Lanes	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	15	9	15	15	9	15	15	15
Satd. Flow (prot)	0	2973	1377	1486	2973	0	0	0	0	0	0
Flt Permitted	0	2973	1377	1486	2973	0	0	0	0	0	0
Satd. Flow (perm)	0	2973	1377	383	2973	0	0	0	0	0	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	486	9.5	9.5	24.4	25.6	24.4	25.6	24.4	25.6	24.4	25.6
Link Distance (ft)	9.5	24.4	25.6	24.4	25.6	24.4	25.6	24.4	25.6	24.4	25.6
Travel Time (s)	0	782	158	64	789	0	0	0	0	0	0
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	823	166	67	831	0	0	0	0	0	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	4	4	4	4	4	4	4	4	4
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	0.0	45.0	45.0	45.0	45.0	0.0	0.0	0.0	0.0	0.0	0.0
Act Effct Green (s)	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0	41.0
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
v/c Ratio	0.61	0.23	0.39	0.61	0.61	0.23	0.39	0.61	0.61	0.23	0.39
Uniform Delay, d1	18.4	0.0	16.1	18.5	18.5	0.0	16.1	18.5	18.5	0.0	16.1
Delay	18.8	2.5	18.1	18.9	18.9	2.5	18.1	18.9	18.9	2.5	18.1
LOS	B	A	A	B	B	A	A	B	B	A	A
Approach Delay	16.1	16.1	18.8	18.8	18.8	16.1	16.1	18.8	18.8	16.1	16.1
Approach LOS	B	B	B	B	B	B	B	B	B	B	B

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 20 (22%), Referenced to phase 2:SBTL, Start of Green
 Control Type: Pretimed
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 16.7
 Intersection Capacity Utilization: 51.9%
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 31: Jefferson Blvd & Flower St.



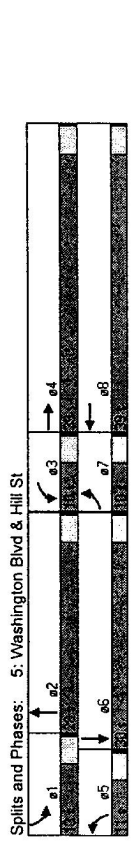
**Level of Service Analysis
Year 2020 No LRT
PM Peak**

Exposition LRT
5: Washington Blvd & Hill St

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3173	0	1593	3169	0	1593	3045	0	1593	3112	0
Satd. Flow (prot)	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0
Fit Permitted	1593	3173	0	1593	3169	0	1593	3045	0	1593	3112	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	3	35	4	35	35	4	35	68	35	35	22	35
Link Speed (mph)	750	750	640	640	1868	36.4	1868	36.4	1868	36.4	1868	36.4
Link Distance (ft)	14.6	14.6	12.5	12.5	36.4	8.8	36.4	8.8	36.4	8.8	36.4	8.8
Travel Time (s)	29	852	22	35	1032	32	62	264	108	81	548	97
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	31	920	0	37	1120	0	65	392	0	85	679	0
Lane Group Flow (vph)	Prot	7	4	Prot	3	8	5	2	Prot	1	6	Prot
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	10.0	39.0	0.0	10.0	39.0	0.0	11.0	28.0	0.0	13.0	30.0	0.0
Total Split (s)	5.9	44.2	5.9	44.2	5.9	44.2	6.7	21.6	6.7	21.6	8.2	23.0
Act Effect Green (s)	0.07	0.49	0.07	0.49	0.07	0.49	0.07	0.24	0.07	0.24	0.09	0.26
Actuated g/C Ratio	0.30	0.59	0.36	0.72	0.55	0.50	0.58	0.84	0.58	0.84	0.58	0.84
v/c Ratio	42.3	18.2	42.4	19.9	41.2	24.1	40.3	30.5	40.8	26.0	39.8	30.4
Uniform Delay, d1	D	B	D	C	D	B	D	C	D	B	D	C
Delay	20.1	26.5	20.1	26.5	20.1	26.5	20.1	17.7	20.1	26.5	20.1	17.7
Approach Delay	C	C	C	C	C	C	C	C	C	C	C	C
Approach LOS	C	C	C	C	C	C	C	C	C	C	C	C

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 86 (96%), Referenced to phase 4:EBT and 8:WBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 24.6
 Intersection Capacity Utilization 69.9%

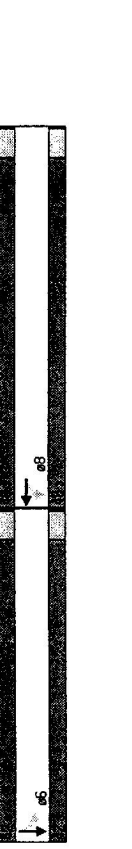


Exposition LRT
6: Adams Blvd & Hill St

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	15	15	15	15	15	15	15	15	15	15	15	15
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3166	0	1593	3160	0	1593	3144	0	1593	3134	0
Satd. Flow (prot)	0.272	0.285	0	0.285	0.285	0	0.303	0.303	0	0.395	0.395	0
Fit Permitted	455	3166	0	478	3160	0	508	3144	0	662	3134	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	6	35	9	35	35	9	14	35	9	18	35	9
Link Speed (mph)	727	727	617	617	1868	36.4	1868	36.4	1868	36.4	1868	36.4
Link Distance (ft)	14.2	14.2	12.0	12.0	17.3	8.8	17.3	8.8	17.3	8.8	17.3	8.8
Travel Time (s)	69	701	28	28	713	42	45	450	44	47	575	68
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	73	767	0	29	795	0	47	520	0	49	677	0
Lane Group Flow (vph)	Perm	4	4	Perm	8	8	2	2	Perm	6	6	Perm
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	48.0	48.0	0.0	48.0	48.0	0.0	42.0	42.0	0.0	42.0	42.0	0.0
Total Split (s)	44.0	44.0	44.0	44.0	44.0	44.0	38.0	38.0	38.0	38.0	38.0	38.0
Act Effect Green (s)	0.49	0.49	0.49	0.49	0.49	0.49	0.42	0.42	0.42	0.42	0.42	0.42
Actuated g/C Ratio	0.33	0.49	0.12	0.51	0.22	0.39	0.22	0.39	0.17	0.51	0.17	0.51
v/c Ratio	14.0	15.3	12.5	15.5	16.6	17.4	16.6	17.4	16.2	18.5	16.2	18.5
Uniform Delay, d1	15.3	15.6	13.2	15.7	28.7	28.6	28.7	28.6	28.7	28.6	28.7	28.6
Delay	B	B	B	B	B	B	C	C	C	A	A	A
LOS	B	B	B	B	B	B	C	C	C	A	A	A
Approach Delay	15.6	15.6	15.7	15.7	15.7	15.7	28.6	28.6	28.6	8.5	8.5	8.5
Approach LOS	B	B	B	B	B	B	C	C	C	A	A	A

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBL and 6:SBTL, Start of Green
 Control Type: Pre-timed
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 16.3
 Intersection Capacity Utilization 60.2%

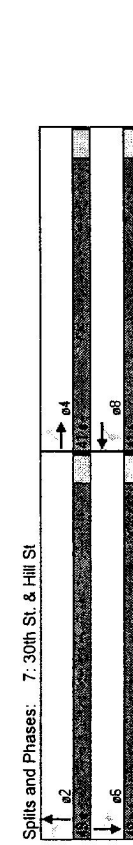


Exposition LRT
7: 30th St. & Hill St

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4<	4<	4<	4<	4<	4<	4<	4<	4<	4<	4<	4<
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1640	0	0	1643	0	0	3150	0	0	3173	0
Fit Permitted	0	0.992	0	0	0.992	0	0	0.930	0	0	0.941	0
Satd. Flow (perm)	0	1631	0	0	1635	0	0	2936	0	0	2988	0
Right Turn on Red		Yes		Yes		Yes		Yes		Yes		Yes
Satd. Flow (RTOR)	11	7	35	10	35	3	35	3	35	3	35	3
Link Speed (mph)	817	683	1044	888	1044	888	1044	888	1044	888	1044	888
Link Distance (ft)	15.9	13.3	20.3	17.3	20.3	17.3	20.3	17.3	20.3	17.3	20.3	17.3
Travel Time (s)	6	84	14	3	43	7	16	476	30	13	583	12
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	109	0	0	55	0	0	550	0	0	641	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	8	2	6	8	2	6	8	2	6	8	2
Protected Phases												
Permitted Phases	4	41.0	0.0	41.0	41.0	0.0	49.0	49.0	0.0	49.0	49.0	0.0
Total Spill (s)	37.0	0.41	0.41	0.50	0.50	0.41	0.50	0.50	0.41	0.50	0.50	0.41
Act Effect Green (s)	0.16	0.08	0.08	0.37	0.37	0.16	0.08	0.37	0.16	0.08	0.37	0.16
v/c Ratio	14.9	14.0	13.5	7.1	14.8	14.8	7.1	14.8	14.8	7.1	14.8	14.8
Uniform Delay, d1	15.3	B	B	A	A	B	A	A	B	A	A	B
Delay	15.3	B	B	A	A	B	A	A	B	A	A	B
Approach Delay	15.3	B	B	A	A	B	A	A	B	A	A	B
Approach LOS	B	B	A	A	A	B	A	A	B	A	A	B

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Prelimed
 Maximum v/c Ratio: 0.43
 Intersection Signal Delay: 6.0
 Intersection Capacity Utilization 35.3%
 Intersection LOS: A
 ICU Level of Service A

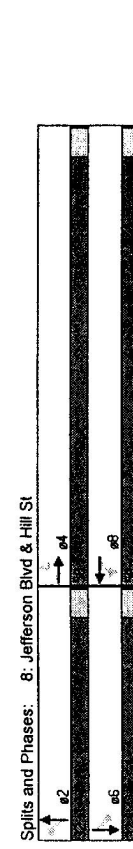


Exposition LRT
8: Jefferson Blvd & Hill St

2020 No LRT - PM
12/8/2004

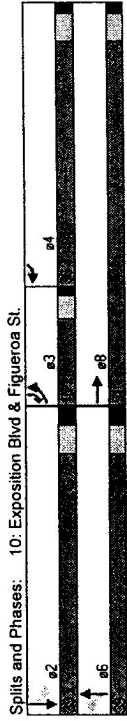
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4<	4<	4<	4<	4<	4<	4<	4<	4<	4<	4<	4<
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	3144	0	0	3166	0	1593	3138	0	1593	3118	0
Fit Permitted	0	0.875	0	0	0.896	0	0.304	0.471	0	0.471	0.471	0
Satd. Flow (perm)	0	2756	0	0	2843	0	510	3138	0	790	3118	0
Right Turn on Red		Yes		Yes		Yes		Yes		Yes		Yes
Satd. Flow (RTOR)	16	5	35	13	35	5	13	35	5	13	35	5
Link Speed (mph)	727	722	1218	1044	722	727	1218	1044	722	727	1218	1044
Link Distance (ft)	14.2	14.1	23.7	20.3	14.1	14.2	23.7	20.3	14.1	14.2	23.7	20.3
Travel Time (s)	45	892	75	27	779	21	72	311	34	60	469	76
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	1065	0	0	870	0	76	363	0	63	574	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	8	2	6	8	2	6	8	2	6	8	2
Protected Phases												
Permitted Phases	4	58.0	0.0	58.0	58.0	0.0	32.0	32.0	0.0	32.0	32.0	0.0
Total Spill (s)	54.0	0.60	0.60	0.31	0.31	0.60	0.31	0.31	0.60	0.31	0.31	0.60
Act Effect Green (s)	0.64	0.51	0.51	0.48	0.48	0.64	0.51	0.48	0.51	0.48	0.48	0.51
v/c Ratio	11.5	10.3	25.1	23.2	23.2	11.5	27.2	23.5	40.5	42.8	42.8	40.5
Uniform Delay, d1	11.8	B	B	C	C	11.8	B	B	C	C	B	D
Delay	11.8	B	B	C	C	11.8	B	B	C	C	B	D
Approach Delay	11.8	B	B	C	C	11.8	B	B	C	C	B	D
Approach LOS	B	B	C	C	C	B	B	B	C	C	B	D

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Prelimed
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 19.8
 Intersection Capacity Utilization 84.9%
 Intersection LOS: B
 ICU Level of Service D



2020 No LRT - PM
12/8/2004

Exposition LRT
10: Exposition Blvd & Figueroa St.



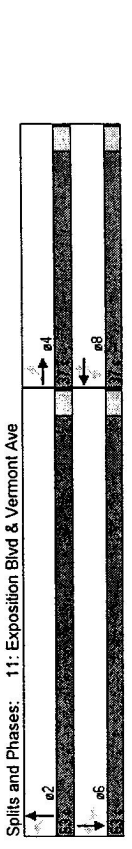
Synchro 5 Report

Korve Eng.
KORVELOSL4-FF51

Exposition LRT
11: Exposition Blvd & Vermont Ave
2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	4793	0	0	4906	1531	1711	3387	0	1711	3421	1531
Fit Permitted	0	0.687	0	0	0.846	0.142	0.142	0.256	0.3387	0	0.340	0.1531
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	32	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	5575	1320	5575	1320	5575	1320	5575	1320	5575	1320	5575	1320
Link Distance (ft)	108.6	25.7	108.6	25.7	108.6	25.7	108.6	25.7	108.6	25.7	108.6	25.7
Travel Time (s)	80	700	125	41	1091	364	57	658	47	161	1276	161
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	0	905	0	0	1132	364	57	705	0	161	1276	161
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	4	4	4	4	4	4	4	4	4	4	4
Protected Phases	8	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	37.0	37.0	0.0	37.0	37.0	37.0	63.0	63.0	0.0	63.0	63.0	63.0
Act Effct Green (s)	31.9	31.9	0.0	31.9	31.9	31.9	60.1	60.1	0.0	60.1	60.1	60.1
Actuated g/C Ratio	0.32	0.32	0.00	0.32	0.32	0.32	0.60	0.60	0.00	0.60	0.60	0.60
v/c Ratio	0.87dl	0.85	0.00	0.85	0.85	0.85	0.37	0.35	0.00	0.44	0.62	0.17
Uniform Delay, dl	30.5	31.8	0.0	31.8	7.6	10.2	9.8	10.8	0.0	12.7	8.2	8.2
Delay	11.2	11.2	0.0	11.2	32.4	8.5	12.8	10.1	0.0	12.2	13.2	8.7
LOS	B	B	C	A	B	B	B	B	B	B	B	A
Approach Delay	11.2	11.2	0.0	11.2	26.6	8.5	10.3	10.3	0.0	12.6	12.6	8.7
Approach LOS	B	B	C	C	C	C	B	B	B	B	B	B

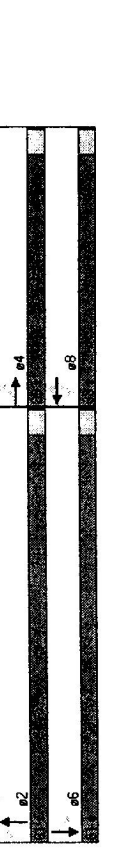
Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 20 (20%); Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 16.4
 Intersection Capacity Utilization 91.9%
 Defacto Left Lane. Recode with 1 though lane as a left lane.
 Intersection LOS: B
 ICU Level of Service E



Exposition LRT
12: Exposition Blvd & Normandie Ave
2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1711	3319	0	1711	3421	1531	1711	3408	0	1711	3384	0
Fit Permitted	0.114	0.133	0	0.133	0.239	0.1531	0.070	0.281	0	0.281	0.281	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	33	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	5452	1245	5452	1245	5452	1245	5452	1245	5452	1245	5452	1245
Link Distance (ft)	106.2	108.6	106.2	108.6	106.2	108.6	106.2	108.6	106.2	108.6	106.2	108.6
Travel Time (s)	14	740	182	8	1440	150	93	806	23	79	1462	114
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	14	922	0	8	1440	150	93	829	0	79	1576	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	8	8	8	8	8	8	8	8	8	8	8	8
Total Split (s)	39.0	39.0	0.0	39.0	39.0	61.0	61.0	61.0	0.0	61.0	61.0	0.0
Act Effct Green (s)	35.0	35.0	0.00	35.0	35.0	35.0	35.0	35.0	0.00	35.0	35.0	0.00
Actuated g/C Ratio	0.35	0.35	0.00	0.35	0.35	0.35	0.35	0.35	0.00	0.35	0.35	0.00
v/c Ratio	0.19	0.78	0.00	0.10	1.20	0.24	1.29	0.43	0.00	0.27	0.82	0.00
Uniform Delay, dl	22.6	27.9	0.00	21.9	32.5	4.2	21.6	12.1	0.00	10.9	17.2	0.00
Delay	8.7	8.4	0.00	8.7	8.4	11.8	161.3	12.3	0.00	11.8	17.7	0.00
LOS	A	A	C	F	B	B	F	F	F	B	B	B
Approach Delay	8.4	8.4	0.00	8.4	102.7	11.8	12.3	12.3	0.00	11.8	17.4	0.00
Approach LOS	A	A	C	F	F	F	F	F	F	B	B	B

Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 10 (10%); Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.29
 Intersection Signal Delay: 44.2
 Intersection Capacity Utilization 99.0%
 ICU Level of Service E

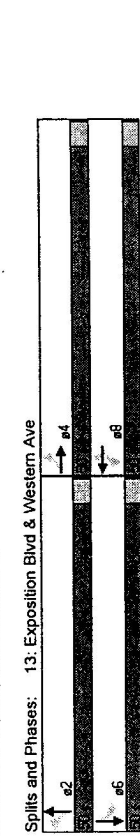


Exposition LRT
13: Exposition Blvd & Western Ave

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15
Satd. Flow (prot)	1711	3370	0	1711	3421	1531	0	3394	0	0	3390
Flt Permitted	0.181	0.209	0	0.209	0	0.950	0	0.941	0	0	0.941
Satd. Flow (perm)	326	3370	0	376	3421	1531	0	3224	0	0	3194
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	16	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	5604	5604	5604	5604	5604	5604	5604	5604	5604	5604	5604
Link Distance (ft)	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2
Travel Time (s)	4	815	91	10	978	132	4	856	47	14	1149
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	4	906	0	10	978	132	0	907	0	0	1228
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	8	8	8	8	8	2	6	6	6	6
Protected Phases	4	8	8	8	8	8	2	6	6	6	6
Permitted Phases	4	8	8	8	8	8	2	6	6	6	6
Total Split (s)	50.0	50.0	0.0	50.0	50.0	50.0	50.0	50.0	0.0	50.0	50.0
Act Effect Green (s)	43.5	43.5	43.5	43.5	43.5	43.5	48.5	48.5	48.5	48.5	48.5
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.49	0.49	0.49	0.49	0.49
v/c Ratio	0.03	0.61	0.06	0.66	0.18	0.58	0.79	0.79	0.79	0.79	0.79
Uniform Delay, d1	16.2	21.3	16.4	22.3	5.0	18.3	21.4	21.4	21.4	21.4	21.4
Delay	7.5	8.9	14.6	19.5	5.6	19.3	23.3	23.3	23.3	23.3	23.3
LOS	A	A	B	B	A	B	C	C	C	C	C
Approach Delay	8.9	17.9	17.9	17.9	17.9	17.9	19.3	19.3	19.3	19.3	19.3
Approach LOS	A	A	B	B	B	B	C	C	C	C	C

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 6 (6%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 17.8
Intersection Capacity Utilization 72.0%
Intersection LOS: B
ICU Level of Service C



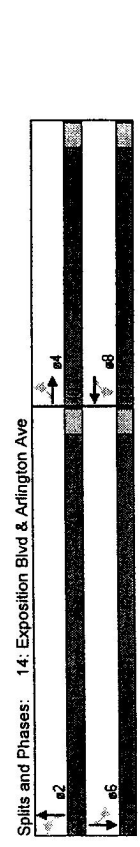
Splits and Phases: 13: Exposition Blvd & Western Ave

Exposition LRT
14: Exposition Blvd & Arlington Ave

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15
Satd. Flow (prot)	0	3367	0	0	3360	0	0	3404	0	0	3414
Flt Permitted	0	0.887	0	0.885	0	0.951	0	0.951	0	0	0.953
Satd. Flow (perm)	0	2998	0	0	2982	0	0	3237	0	0	3254
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	10	14	14	14	14	14	6	6	6	6	6
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	6666	5604	5604	5604	5604	5604	1201	1201	1201	1201	1207
Travel Time (s)	129.9	109.2	109.2	109.2	109.2	109.2	23.4	23.4	23.4	23.4	23.5
Volume (vph)	43	502	47	32	386	48	3	697	24	5	1259
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	4	8	8	8	8	8	2	2	2	2	6
Protected Phases	4	8	8	8	8	8	2	2	2	2	6
Permitted Phases	4	8	8	8	8	8	2	2	2	2	6
Total Split (s)	40.0	40.0	0.0	40.0	40.0	40.0	60.0	60.0	60.0	60.0	60.0
Act Effect Green (s)	25.5	25.5	25.5	25.5	25.5	25.5	66.5	66.5	66.5	66.5	66.5
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26	0.67	0.67	0.67	0.67	0.67
v/c Ratio	0.77	0.77	0.77	0.77	0.77	0.77	0.34	0.34	0.34	0.34	0.59
Uniform Delay, d1	33.9	31.7	31.7	31.7	31.7	31.7	7.1	7.1	7.1	7.1	9.2
Delay	32.3	28.2	28.2	28.2	28.2	28.2	7.9	7.9	7.9	7.9	10.3
LOS	C	C	C	C	C	C	A	A	A	A	B
Approach Delay	32.3	28.2	28.2	28.2	28.2	28.2	7.9	7.9	7.9	7.9	10.3
Approach LOS	C	C	C	C	C	C	A	A	A	A	B

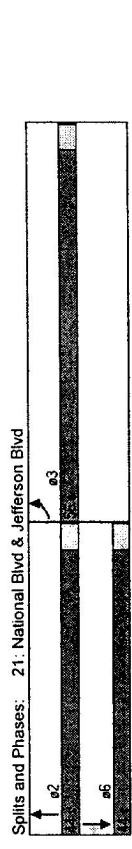
Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 16.7
Intersection Capacity Utilization 67.4%
Intersection LOS: B
ICU Level of Service B



Splits and Phases: 14: Exposition Blvd & Arlington Ave

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TW	TW	TT	TT	TT	TT
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	0	0	9
Satd. Flow (prot)	3216	0	0	3421	3421	2694
Flt Permitted	0.967					
Satd. Flow (perm)	3216	0	0	3421	3421	2694
Right Turn on Red	Yes					No
Satd. Flow (RTOR)	124					
Link Speed (mph)	35		35			35
Link Distance (ft)	3564		3072		382	
Travel Time (s)	69.4		59.8		7.4	
Volume (vph)	914	433	0	1026	532	379
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	1347	0	0	1026	532	379
Turn Type						Perm
Protected Phases	3		2	6		6
Permitted Phases			2			
Total Split (s)	56.0	0.0	0.0	44.0	44.0	44.0
Act Effect Green (s)	52.0		40.0	40.0	40.0	
Actuated g/C Ratio	0.52		0.40	0.40	0.40	
v/c Ratio	0.78		0.75	0.39	0.35	
Uniform Delay, d1	17.3		25.7	21.3	20.9	
Delay	7.9		26.1	21.4	21.0	
LOS	A		C	C	C	C
Approach Delay	7.9		26.1	21.3		
Approach LOS	A		C	C		

Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 17.3
 Intersection Capacity Utilization 74.7%



Exposition LRT
18: Exposition Blvd & La Brea Ave

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1607	0	1711	0	1531	1711	4801	0	0	4916	0
Fit Permitted	0	0.985	0	0.751	0	0.059	0.059	0	0	0	0.925	0
Right Turn on Red	0	1607	0	1352	0	1531	106	4901	0	0	4547	0
Satd. Flow (RTOR)	7	35	45	7	35	45	7	35	45	7	35	45
Link Speed (mph)	7230	8250	1035	7230	8250	1035	7230	8250	1035	7230	8250	1035
Link Distance (ft)	140.8	160.7	15.7	140.8	160.7	15.7	140.8	160.7	15.7	140.8	160.7	15.7
Travel Time (s)	3	0	7	3	0	7	3	0	7	3	0	7
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	0	10	0	3	0	45	9	2616	0	0	3090	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	3	4	3	3	4	3	3	4	3	3	4
Permitted Phases	3	8.0	0.0	20.0	0.0	20.0	72.0	72.0	0.0	72.0	72.0	0.0
Total Split (s)	4.0	7.2	0.0	7.2	0.0	7.2	88.7	88.7	0.0	88.7	88.7	0.0
Act Effct Green (s)	0.04	0.07	0.07	0.07	0.07	0.07	0.89	0.89	0.07	0.89	0.89	0.07
Actuated g/C Ratio	0.14	0.03	0.03	0.03	0.03	0.10	0.60	0.60	0.03	0.60	0.60	0.03
v/c Ratio	14.8	45.3	20.7	8.9	3.1	3.0	3.4	3.4	20.7	8.9	3.1	3.0
Uniform Delay, d1	31.3	20.7	8.9	3.1	3.0	3.4	3.4	3.4	20.7	8.9	3.1	3.0
Delay	C	C	C	A	A	A	A	A	C	A	A	A
LOS	C	C	C	A	A	A	A	A	C	A	A	A
Approach Delay	31.3	20.7	8.9	3.1	3.0	3.4	3.4	3.4	20.7	8.9	3.1	3.0
Approach LOS	C	C	C	A	A	A	A	A	C	A	A	A

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 6 (6%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 3.3
Intersection LOS: A
Intersection Capacity Utilization 72.0%
ICU Level of Service C



Konve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
19: Jefferson Blvd & La Brea Ave

2020 No LRT - PM
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	1	1	1	1	1	1	1	1	1	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	1711	3421	1531	1711	3363	0	1711	4876	0	1711	4876	0
Fit Permitted	0.246	0.168	0.168	0.168	0.168	0	0.073	0.073	0	0.073	0.073	0
Right Turn on Red	443	3421	1531	303	3363	0	131	4876	0	131	4876	0
Satd. Flow (RTOR)	35	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	9390	9390	9390	9390	9390	9390	9390	9390	9390	9390	9390	9390
Link Distance (ft)	182.9	67.3	67.3	182.9	67.3	67.3	182.9	67.3	67.3	182.9	67.3	67.3
Travel Time (s)	141	879	472	112	642	81	93	1921	115	92	2307	129
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	141	879	472	112	642	81	93	1921	115	92	2307	129
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	8	8	4	8	4	8	8	4	8	4	8	4
Permitted Phases	41.0	41.0	41.0	41.0	41.0	41.0	59.0	59.0	0.0	59.0	59.0	0.0
Total Split (s)	37.0	37.0	37.0	37.0	37.0	37.0	55.0	55.0	0.0	55.0	55.0	0.0
Act Effct Green (s)	0.37	0.37	0.37	0.37	0.37	0.37	0.55	0.55	0.00	0.55	0.55	0.00
Actuated g/C Ratio	0.86	0.69	0.83	1.00	0.58	1.29	0.76	0.76	0.00	0.76	0.76	0.00
v/c Ratio	29.1	26.7	28.5	31.5	24.9	22.5	17.2	17.2	0.00	17.2	17.2	0.00
Uniform Delay, d1	32.3	26.5	29.3	98.0	25.2	157.4	15.6	15.6	0.00	15.6	15.6	0.00
Delay	C	C	C	F	C	C	F	F	0.00	F	F	0.00
LOS	C	C	C	F	C	C	F	F	0.00	F	F	0.00
Approach Delay	27.9	27.9	27.9	35.0	35.0	35.0	21.8	21.8	0.00	21.8	21.8	0.00
Approach LOS	C	C	C	C	C	C	C	C	0.00	C	C	0.00

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 26.6
Intersection LOS: C
Intersection Capacity Utilization 96.4%
ICU Level of Service E



Konve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
30: Adams Blvd & Flower St. 2020 No LRT - PM
12/13/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	SEL
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	10	12	10	10	14	12	12	12	10	12	12
Lane Width (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Storage Length (ft)	120	0	0	120	0	0	0	0	0	0	0	0
Storage Lanes	1	0	0	1	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	15	9	15	15	9	15	9	15	15
Satd. Flow (prot)	1486	2792	0	1486	4212	0	0	0	5334	0	0	0
Flt Permitted	0.085	0.218	0	0.218	0	0	0	0	0.999	0	0	0
Satd. Flow (perm)	133	2792	0	341	4212	0	0	0	5334	0	0	0
Right Turn on Red	4	Yes										
Satd. Flow (RTOR)	35	35										35
Link Speed (mph)	431	1288										406
Link Distance (ft)	8.4	25.1										7.9
Travel Time (s)	16	553										17.7
Volume (vph)	0.95	0.95	377	148	1458	149	0	22	1432	82	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	17	979	0	156	1692	0	0	0	1616	0	0	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	2
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	2
Total Split (s)	53.0	53.0	0.0	53.0	53.0	0.0	0.0	37.0	37.0	0.0	0.0	0.0
Act Effct Green (s)	49.0	49.0	0.0	49.0	49.0	0.0	0.0	33.0	33.0	0.0	0.0	0.0
Actuated g/C Ratio	0.54	0.54	0.0	0.54	0.54	0.0	0.0	0.37	0.37	0.0	0.0	0.0
v/c Ratio	0.24	0.64	0.0	0.84	0.74	0.0	0.0	0.83	0.83	0.0	0.0	0.0
Uniform Delay, d1	10.7	14.3	0.0	17.2	15.6	0.0	0.0	25.9	25.9	0.0	0.0	0.0
Delay	10.0	9.2	0.0	43.2	15.9	0.0	0.0	26.2	26.2	0.0	0.0	0.0
LOS	A	A	A	D	B	B	B	C	C	C	C	C
Approach Delay	9.2	18.2						26.2	26.2			
Approach LOS	A	B						B	B			C

Intersection Summary
Area Type: CBD
Cycle Length: 90
Offset: 33 (37%), Referenced to phase 2:SBTL, Start of Green
Control Type: Prelimed
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 19.1
Intersection Capacity Utilization 81.4%
Intersection LOS: B
ICU Level of Service D

Splits and Phases: 30: Adams Blvd & Flower St.

Exposition LRT
31: Jefferson Blvd & Flower St. 2020 No LRT - PM
12/13/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR	SEL
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	10	11	10	10	12	12	12	12	10	10	12
Lane Width (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Storage Length (ft)	0	0	155	0	0	0	0	0	0	0	0	150
Storage Lanes	0	0	1	0	0	0	0	0	0	0	0	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Turning Speed (mph)	15	9	15	15	9	15	15	9	15	9	15	15
Satd. Flow (prot)	0	2973	1377	1486	2973	0	0	0	0	0	0	5916
Flt Permitted	0	2973	1377	0.306	479	2973	0	0	0	0	0	0.995
Satd. Flow (perm)	0	2973	1377	479	2973	0	0	0	0	0	0	5916
Right Turn on Red	25	Yes										40
Satd. Flow (RTOR)	35	35										35
Link Speed (mph)	486	1253										2334
Link Distance (ft)	9.5	24.4										45.5
Travel Time (s)	0	663	275	128	1062	0	0	0	0	125	1205	95
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	0	698	289	135	1118	0	0	0	0	0	0	1400
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	2
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	2
Total Split (s)	0.0	45.0	45.0	45.0	45.0	0.0	0.0	0.0	0.0	45.0	45.0	45.0
Act Effct Green (s)	0.0	41.0	41.0	41.0	41.0	0.0	0.0	0.0	0.0	41.0	41.0	41.0
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.46	0.0	0.0	0.0	0.0	0.46	0.46	0.46
v/c Ratio	0.52	0.45	0.62	0.83	0.83	0.0	0.0	0.0	0.0	0.52	0.19	0.52
Uniform Delay, d1	17.4	15.1	18.6	21.4	22.7	0.0	0.0	0.0	0.0	17.4	8.5	17.4
Delay	17.7	15.7	15.7	23.1	22.7	0.0	0.0	0.0	0.0	17.7	7.5	23.1
LOS	B	B	B	C	C	C	C	C	C	A	A	A
Approach Delay	17.1	17.1	17.1	22.8	22.8	0.0	0.0	0.0	0.0	17.1	7.2	22.8
Approach LOS	B	B	B	C	C	C	C	C	C	A	A	A

Intersection Summary
Area Type: CBD
Cycle Length: 90
Offset: 84 (93%), Referenced to phase 2:SBTL, Start of Green
Control Type: Prelimed
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 15.0
Intersection Capacity Utilization 59.6%
Intersection LOS: B
ICU Level of Service A

Splits and Phases: 31: Jefferson Blvd & Flower St.

**Level of Service Analysis
Year 2020 With LRT - LPA
AM Peak**

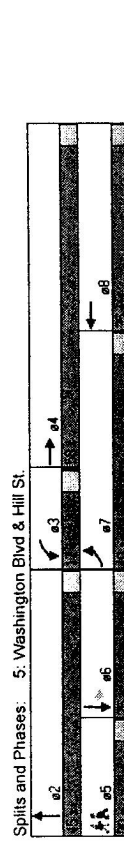
Item	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3096	0	1593	3160	0	0	3106	0	1593	3118
Satd. Flow (prot)	0.950			0.950						0.466	
Flt Permitted	1593	3096	0	1593	3160	0	0	3106	0	781	3118
Satd. Flow (perm)	5			5						21	14
Right Turn on Red	35			35						35	
Satd. Flow (RTOR)	1363			567						2001	1425
Link Speed (mph)	26.6			11.0						39.0	27.8
Link Distance (ft)	48	537	123	82	704	42	0	400	81	41	415
Travel Time (s)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Volume (vph)	51	694	0	86	785	0	0	506	0	43	510
Peak Hour Factor	Prot			Prot						Perm	
Lane Group Flow (vph)	7	4		3	8			2		6	
Turn Type											
Protected Phases											
Permitted Phases	40.0	58.0	0.0	17.0	35.0	0.0	0.0	45.0	0.0	25.0	25.0
Total Split (s)	36.1	57.8		10.6	30.1			29.8		20.3	20.3
Act Effect Green (s)	0.33	0.54		0.10	0.28			0.28		0.19	0.19
Actuated g/C Ratio	0.10	0.42		0.56	0.89			0.58		0.29	0.85
w/c Ratio	25.2	14.6		48.2	36.7			32.6		38.1	41.7
Uniform Delay, d1	25.9	15.5		46.8	41.0			32.6		39.1	45.4
Delay	C	B		D	D			C		D	D
LOS											
Approach Delay	16.2			41.6				32.6		44.9	
Approach LOS	B	B		D	D			C		D	D

Intersection Summary

Intersection Summary

Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 107.9
 Control Type: Semi Act-Uncoord
 Maximum w/c Ratio: 0.89
 Intersection Signal Delay: 33.5
 Intersection Capacity Utilization 72.3%

Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 107.9
 Control Type: Semi Act-Uncoord
 Maximum w/c Ratio: 0.89
 Intersection Signal Delay: 33.5
 Intersection Capacity Utilization 72.3%

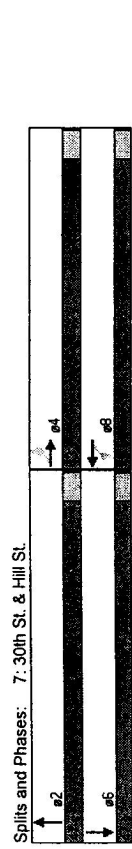


Exposition LRT
6: Adams Blvd & Hill St.

2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	16	12	16	12	16	12	16	12	16	12	16
Lane Width (ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	1819	0	0	1736	0	0	3157	0	0	3147	0
Flt Permitted	0	0.944	0	0	0.928	0	0	0.944	0	0	0.944	0
Satd. Flow (perm)	0	1734	0	0	1629	0	0	3157	0	0	3147	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	15	35	15	35	15	35	15	35	15	35	15	35
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	818	818	818	818	818	818	818	818	818	818	818	818
Travel Time (s)	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
Volume (vph)	11	32	14	49	45	122	0	661	41	0	215	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	0	61	0	61	0	227	0	739	0	0	246	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	43.0	43.0	0.0	43.0	43.0	0.0	0.0	47.0	0.0	0.0	47.0	0.0
Act Effct Green (s)	11.1	11.1	0.0	11.1	11.1	0.0	0.0	11.1	0.0	0.0	11.1	0.0
Actuated g/C Ratio	0.17	0.17	0.00	0.17	0.17	0.00	0.00	0.17	0.00	0.00	0.17	0.00
v/c Ratio	0.20	0.20	0.00	0.20	0.20	0.00	0.00	0.20	0.00	0.00	0.20	0.00
Uniform Delay, d1	17.7	17.7	0.00	17.7	17.7	0.00	0.00	17.7	0.00	0.00	17.7	0.00
Delay	B	B	B	B	B	B	B	B	B	B	B	B
LOS	B	B	B	B	B	B	B	B	B	B	B	B
Approach Delay	17.0	17.0	0.00	17.0	17.0	0.00	0.00	17.0	0.00	0.00	17.0	0.00
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	B

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 66.1
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 6.4
 Intersection Capacity Utilization 50.9%
 Spills and Phases: 7: 30th St. & Hill St.



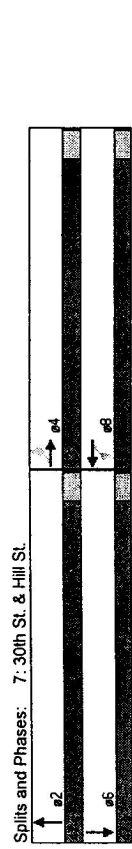
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
6: Adams Blvd & Hill St.

2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	16	12	16	12	16	12	16	12	16	12	16
Lane Width (ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1593	3141	0	1593	3138	0	1593	1651	0	1593	1630	0
Flt Permitted	0.246	0.327	0	0.327	0	0	0.950	0.950	0	0.950	1630	0
Satd. Flow (perm)	412	3141	0	548	3138	0	1593	1651	0	1593	1630	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	15	35	15	35	15	35	15	35	15	35	15	35
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	911	859	859	859	911	859	911	859	911	859	859	911
Travel Time (s)	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
Volume (vph)	113	507	52	41	622	68	51	610	69	27	171	40
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	119	589	0	43	727	0	54	715	0	28	222	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	4	4	4	4	5	2	6	1	6	1	6
Permitted Phases	4	4	4	4	4	5	2	6	1	6	1	6
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	11.0	42.0	0.0	11.0	42.0	0.0
Act Effct Green (s)	26.3	26.3	0.00	26.3	26.3	0.00	6.6	41.1	0.00	6.5	39.2	0.00
Actuated g/C Ratio	0.33	0.33	0.00	0.33	0.33	0.00	0.08	0.52	0.00	0.08	0.49	0.00
v/c Ratio	0.88	0.96	0.00	0.24	0.70	0.00	0.43	0.83	0.00	0.23	0.27	0.00
Uniform Delay, d1	26.5	22.6	0.00	20.5	24.0	0.00	37.9	17.6	0.00	39.1	11.8	0.00
Delay	D	C	C	C	C	C	D	D	D	D	B	B
LOS	D	C	C	C	C	C	D	D	D	D	B	B
Approach Delay	25.4	25.4	0.00	22.6	22.6	0.00	36.2	17.4	0.00	36.2	17.4	0.00
Approach LOS	C	C	C	C	C	C	D	D	D	D	B	B

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 79.5
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 27.0
 Intersection Capacity Utilization 82.4%
 Spills and Phases: 6: Adams Blvd & Hill St.

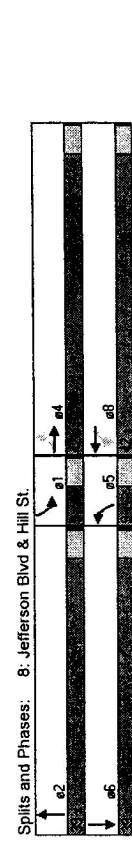


Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
8: Jefferson Blvd & Hill St. 2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	MBL	WBL	NBL	NBR	SBL	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	3134	0	1593	1668	0	1593	1643	0
Flt Permitted	0.641	0	0.923	0	0.950	0	0.950	0.950	0
Satd. Flow (perm)	0	2019	0	1593	1668	0	1593	1643	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	12	16	16	16	16	16	16	16	16
Link Speed (mph)	35	35	35	35	35	35	35	35	35
Link Distance (ft)	820	870	870	870	870	870	870	870	870
Travel Time (s)	16.0	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
Volume (vph)	92	699	65	772	87	76	639	24	39
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	0	901	0	926	0	80	698	0	41
Turn Type	Perm	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	4	8	5	2	1	6			
Permitted Phases	4	8	8	8	8	8	8	8	8
Total Split (s)	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0	42.0
Act Effect Green (s)	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0	38.0
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
v/c Ratio	1.05	0.75	0.90	0.97	0.90	0.97	0.48	0.27	0.48
Uniform Delay, d1	26.4	22.5	41.5	26.3	44.0	18.4	45.0	18.1	45.0
Delay	64.5	22.1	101.1	63.8	45.0	18.1	45.0	18.1	45.0
LOS	E	C	F	E	D	B	D	B	D
Approach Delay	64.5	22.1	67.6	67.6	67.6	67.6	67.6	67.6	67.6
Approach LOS	E	C	E	E	E	E	E	E	E

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Semi Act-Uncoordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay: 48.3
 Intersection Capacity Utilization: 114.7%
 Intersection LOS: D
 ICU Level of Service: G

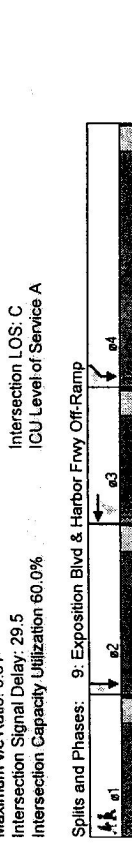


Splits and Phases: 8: Jefferson Blvd & Hill St.
 Lane Group: e1, e2, e3, e4, e5, e6
 Phases: 1, 2, 3, 4, 5, 6

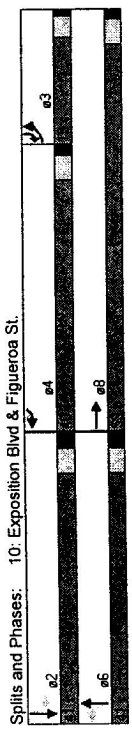
Exposition LRT
9: Exposition Blvd & Harbor Fwy Off-Ramp 2020 LRT - AM - LPA
12/8/2004

Lane Group	EBT	WBL	NET	SBT	SBR	SWL	SWR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12
Storage Length (ft)	0	0	0	0	0	0	0
Storage Lanes	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	90	90	254	254	205	205	205
Trailing Detector (ft)	6	6	248	248	10	10	10
Turning Speed (mph)	15	15	15	15	15	15	15
Satd. Flow (prot)	0	3176	0	6158	1083	2904	1297
Flt Permitted	0	0.997	0	0.997	0.980	0.980	0.980
Satd. Flow (perm)	0	3176	0	6158	1083	2904	1297
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	5	5	5	5	5	5	5
Link Speed (mph)	35	35	35	35	35	35	35
Link Distance (ft)	582	527	275	6786	301	301	301
Travel Time (s)	11.3	10.3	5.4	132.2	4.6	4.6	4.6
Volume (vph)	0	17	301	0	430	76	224
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	0	335	0	453	80	577	342
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	3	3	2	4	4	1
Permitted Phases	3	3	3	2	2	2	4
Total Split (s)	0.0	19.0	19.0	0.0	24.0	24.0	37.0
Act Effect Green (s)	0.0	12.7	12.7	0.0	11.8	11.8	27.4
Actuated g/C Ratio	0.0	0.15	0.15	0.0	0.14	0.14	0.32
v/c Ratio	0.0	0.69	0.69	0.0	0.53	0.36	0.61
Uniform Delay, d1	0.0	33.4	33.4	0.0	33.6	33.6	23.9
Delay	0.0	35.0	35.0	0.0	35.1	35.1	24.3
LOS	D	D	D	D	A	A	C
Approach Delay	0.0	35.0	35.0	0.0	31.2	31.2	26.4
Approach LOS	D	D	D	D	C	C	C

Intersection Summary
 Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 84.5
 Control Type: Semi Act-Uncoordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 29.5
 Intersection Capacity Utilization: 60.0%
 Intersection LOS: C
 ICU Level of Service: A



Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp
 Lane Group: e1, e2, e3, e4
 Phases: 1, 2, 3, 4



Lane Group	EBL2	EBT	WBT	NBL	NBT	NBR2	SBL	SBT	SBR	SWL	SWR2	SWR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (Vphpl)	10	12	12	9	10	12	12	10	15	12	11	14
Lane Width (ft)	102			102			200		0	0	0	0
Storage Lanes	1			1			1		1	0	1	1
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	200	200	200	150	150	200	200	200	200	200	150	150
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15			15			9	15	9	15	9	9
Satd. Flow (prot)	2884	3185	0	1433	5377	0	1593	2788	1426	0	2424	1520
Flt Permitted	0.950			0.485			0.108					
Satd. Flow (perm)	2884	3185	0	732	5377	0	181	2788	1426	0	2424	1520
Right Turn on Red				Yes			Yes		Yes		Yes	4
Satd. Flow (RTOR)				1			19		96		35	
Link Speed (mph)	35			35			35		35		562	
Link Distance (ft)	1277	203		334			7116		562		11.3	
Travel Time (s)	24.9	4.0		6.5			138.6		11.3		137	
Volume (vph)	480	1072	0	262	1831	9	80	285	137	0	520	304
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	505	1128	0	276	1936	0	84	348	96	0	547	320
Turn Type	custom	custom	custom	Perm	Perm	Perm	Perm	Over	Over	Perm	Perm	Perm
Protected Phases	3	8		6			2		3		4	
Permitted Phases	4			6			2		3		4	
Total Split (s)	19.0	59.0	0.0	41.0	41.0	0.0	41.0	41.0	19.0	0.0	40.0	40.0
Act Effect Green (s)	15.2	52.0	0.0	40.0	40.0	0.0	40.0	40.0	15.2	0.0	32.8	32.8
Actuated g/C Ratio	0.15	0.52		0.40	0.40		0.40	0.40	0.15		0.33	0.33
v/c Ratio	1.15	0.68		0.94	0.90		1.17	0.31	0.32		0.69	0.64
Uniform Delay, d1	42.4	17.8		26.9	28.1		29.9	19.3	0.0		29.1	28.1
Delay	110.8	17.7		72.7	37.4		155.8	20.4	8.4		28.9	27.9
LOS	F	B		E	D		F	C	A		C	C
Approach Delay		46.4			41.8			39.8			28.5	
Approach LOS		D			D			D			C	

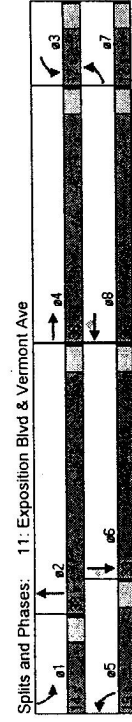
Intersection Summary
 Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 64 (64%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.17
 Intersection Signal Delay: 40.8
 Intersection Capacity Utilization 90.2%
 Intersection LOS: D
 ICU Level of Service E

Exposition LRT
11: Exposition Blvd & Vermont Ave
2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1711	3394	0	1711	3421	1531	1711	3384	0	1711	3421	1531
Satd. Flow (prot)	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0.950
Fit Permitted	1711	3394	0	1711	3421	1531	1711	3384	0	1711	3421	1531
Satd. Flow (perm)	6	35	Yes	235	9	Yes	235	9	Yes	235	9	Yes
Right Turn on Red	35	1320	35	35	1228	35	35	1228	35	35	1228	35
Satd. Flow (RTOR)	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575	5575
Link Speed (mph)	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6	108.6
Link Distance (ft)	238	969	54	25	497	324	133	1212	94	225	881	45
Travel Time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	238	969	54	25	497	324	133	1212	94	225	881	45
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	238	1023	0	25	497	324	133	1306	0	225	881	45
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Perm
Protected Phases	7	4	4	3	8	8	5	2	2	1	6	6
Permitted Phases	12.0	36.0	0.0	12.0	36.0	36.0	19.0	38.0	0.0	14.0	33.0	33.0
Total Split (s)	6.7	20.0	0.0	6.7	20.0	20.0	12.3	41.2	0.0	10.0	38.9	38.9
Act Effct Green (s)	0.13	0.32	0.00	0.07	0.20	0.20	0.12	0.41	0.00	0.10	0.39	0.39
Actuated g/C Ratio	1.09	0.94	0.00	0.22	0.73	0.66	0.63	0.93	0.00	1.32	0.66	0.07
v/c Ratio	41.8	32.8	0.00	47.5	37.4	9.4	41.7	30.2	0.00	45.0	27.1	8.2
Uniform Delay, d1	94.6	26.3	0.00	43.9	36.9	10.3	41.3	53.1	0.00	159.8	31.5	8.2
Delay	F	C	0.00	D	D	B	D	D	0.00	F	C	A
LOS	F	C	0.00	D	D	B	D	D	0.00	F	C	A
Approach Delay	39.2	D	0.00	26.9	C	0.00	52.0	D	0.00	55.7	E	E
Approach LOS	D	D	0.00	C	D	0.00	D	D	0.00	E	E	E

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 34 (34%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 44.9
Intersection Capacity Utilization 94.1%

Intersection LOS: D
ICU Level of Service E

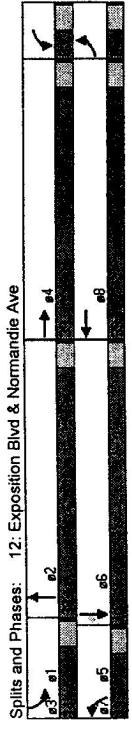


Exposition LRT
12: Exposition Blvd & Normandie Ave
2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1711	3380	0	1711	3408	0	1711	3397	0	1711	3421	1531
Satd. Flow (prot)	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0.950
Fit Permitted	1711	3380	0	1711	3408	0	1711	3397	0	1711	3421	1531
Satd. Flow (perm)	10	35	Yes	3	35	Yes	5	35	Yes	5	35	84
Right Turn on Red	35	1245	35	35	1245	35	35	1245	35	35	1245	35
Satd. Flow (RTOR)	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452
Link Speed (mph)	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
Link Distance (ft)	111	918	77	2	649	18	220	1026	49	199	951	84
Travel Time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Volume (vph)	111	918	77	2	649	18	220	1026	49	199	951	84
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	111	995	0	2	667	0	220	1075	0	199	951	84
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Perm
Protected Phases	7	4	4	3	8	8	5	2	2	1	6	6
Permitted Phases	8.0	39.0	0.0	8.0	39.0	0.0	13.0	39.0	0.0	14.0	40.0	40.0
Total Split (s)	4.0	40.6	0.00	4.0	34.2	0.00	9.0	35.8	0.00	10.0	36.8	36.8
Act Effct Green (s)	0.04	0.41	0.00	0.04	0.34	0.00	0.09	0.36	0.00	0.10	0.37	0.37
Actuated g/C Ratio	1.63	0.72	0.00	0.03	0.57	0.00	1.43	0.88	0.00	1.16	0.76	0.14
v/c Ratio	48.0	24.7	0.00	49.5	26.8	0.00	45.5	33.0	0.00	45.0	30.5	0.00
Uniform Delay, d1	217.8	53	0.00	29.0	10.6	0.00	183.9	35.1	0.00	129.2	28.3	5.0
Delay	F	A	0.00	C	B	0.00	F	D	0.00	F	F	A
LOS	F	A	0.00	C	B	0.00	F	D	0.00	F	F	A
Approach Delay	26.6	C	0.00	10.7	B	0.00	60.4	E	0.00	43.0	D	D
Approach LOS	C	C	0.00	B	B	0.00	E	E	0.00	D	D	D

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 24 (24%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.63
Intersection Signal Delay: 39.0
Intersection Capacity Utilization 85.4%

Intersection LOS: D
ICU Level of Service D

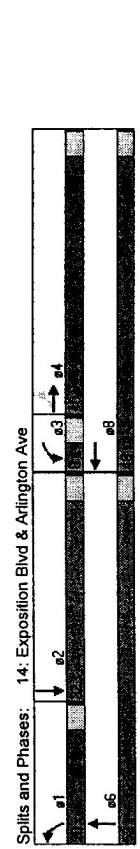


Exposition LRT
13: Exposition Blvd & Western Ave

2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1711	3397	0	1711	3346	0	1711	3380	0	1711	3373
Satd. Flow (prot)	0.950	0.950	0	0.950	0.950	0	0.950	0.950	0	0.950	0.950
Fit Permitted	1711	3397	0	1711	3346	0	1711	3380	0	1711	3373
Satd. Flow (perm)	1711	3397	0	1711	3346	0	1711	3380	0	1711	3373
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	6	6	21	6	21	11	6	11	12	6	12
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	5604	5604	5452	5604	5452	1122	5604	1122	5604	1278	5604
Travel Time (s)	109.2	109.2	106.2	109.2	106.2	21.9	109.2	21.9	109.2	24.9	109.2
Volume (vph)	2	975	51	3	838	143	66	1116	97	38	600
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	2	1026	0	3	981	0	66	1213	0	38	660
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Protected Phases	7	4	3	8	3	5	2	3	1	6	3
Permitted Phases	8.0	39.0	0.0	8.0	39.0	0.0	13.0	45.0	0.0	8.0	40.0
Total Split (s)	4.0	35.0	0.0	4.0	35.0	0.0	8.1	50.6	0.0	4.0	45.3
Act Effct Green (s)	0.04	0.35	0.04	0.04	0.35	0.08	0.51	0.08	0.51	0.04	0.45
Actuated g/C Ratio	0.03	0.86	0.04	0.04	0.83	0.48	0.71	0.48	0.71	0.56	0.43
v/c Ratio	49.5	30.0	49.3	29.0	44.3	22.5	44.3	22.5	48.7	21.5	48.7
Uniform Delay, d1	44.0	29.7	31.7	20.9	44.0	22.4	44.0	22.4	60.7	19.8	44.0
Delay	D	C	C	C	C	D	C	C	E	B	C
LOS	D	C	C	C	C	D	C	C	E	B	C
Approach Delay	29.8	29.8	20.9	29.8	20.9	23.5	29.8	20.9	23.5	22.0	29.8
Approach LOS	C	C	C	C	C	C	C	C	C	C	C

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 6 (6%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 24.2
Intersection Capacity Utilization 75.8%



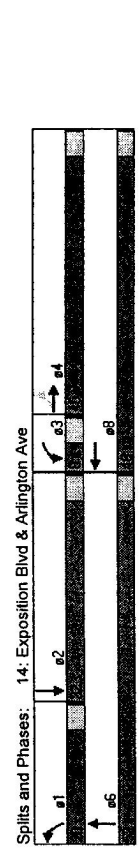
Splits and Phases: 13: Exposition Blvd & Western Ave
Korve Eng.
KORVELOS4-FF51
Synchro 5 Report

Exposition LRT
14: Exposition Blvd & Arlington Ave

2020 LRT - AM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1711	1754	0	1711	1786	0	1711	3377	0	1711	3404
Satd. Flow (prot)	0.216	0.216	0	0.216	0.216	0	0.216	0.216	0	0.216	0.216
Fit Permitted	1711	1754	0	1711	1786	0	1711	3377	0	1711	3404
Satd. Flow (perm)	1711	1754	0	1711	1786	0	1711	3377	0	1711	3404
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	12	12	3	12	3	14	12	14	3	12	14
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	6666	6666	5604	6666	5604	1201	6666	1201	6666	1207	6666
Travel Time (s)	129.9	129.9	109.2	129.9	109.2	23.4	129.9	23.4	129.9	23.5	129.9
Volume (vph)	42	305	63	20	593	32	75	964	93	0	796
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	42	368	0	20	625	0	75	1057	0	0	826
Turn Type	Perm	Perm	Prot	Perm	Prot	Prot	Perm	Prot	Prot	Prot	Prot
Protected Phases	4	4	3	8	3	1	6	3	2	2	4
Permitted Phases	40.0	40.0	0.0	40.0	0.0	20.0	52.0	0.0	0.0	0.0	32.0
Total Split (s)	35.5	35.5	4.0	38.7	9.6	53.3	41.7	9.6	53.3	41.7	41.7
Act Effct Green (s)	0.04	0.36	0.04	0.39	0.10	0.53	0.42	0.10	0.53	0.42	0.42
Actuated g/C Ratio	0.30	0.58	0.29	0.90	0.46	0.59	0.58	0.46	0.59	0.58	0.58
v/c Ratio	23.3	25.3	49.0	26.5	43.8	17.2	24.8	43.8	17.2	24.8	24.8
Uniform Delay, d1	27.0	27.4	48.1	46.9	42.0	16.6	24.9	42.0	16.6	24.9	24.9
Delay	C	C	D	D	D	B	C	D	B	C	C
LOS	C	C	D	D	D	B	C	D	B	C	C
Approach Delay	27.4	27.4	46.9	46.9	46.9	18.3	27.4	46.9	18.3	27.4	27.4
Approach LOS	C	C	D	D	D	B	C	D	B	C	C

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 27.5
Intersection Capacity Utilization 70.3%



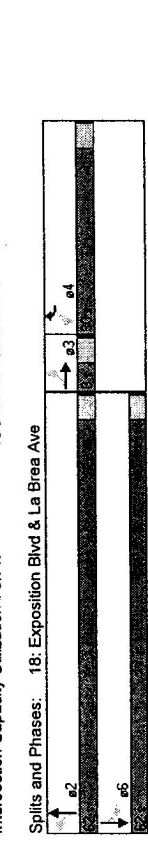
Splits and Phases: 14: Exposition Blvd & Arlington Ave
Korve Eng.
KORVELOS4-FF51
Synchro 5 Report

Exposition LRT
18: Exposition Blvd & La Brea Ave

2020 LRT - AM - LPA
12/8/2004

Lane Group	EBC	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1592	0	1711	0	1531	1711	4906	0	0	4916	0
Flt Permitted	0	0.990	0	0.745	0	0.072	0.072	4906	0	0	0.885	0
Satd. Flow (perm)	0	1592	0	1341	0	1531	130	4906	0	0	4400	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	15	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	35	8250	8250	8250	8250	8250	8250	8250	8250	8250	8250	8250
Link Distance (ft)	7230	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7	160.7
Travel Time (s)	140.8	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Volume (vph)	4	0	15	1	0	65	10	3022	43	1	1829	6
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	0	19	0	1	0	65	10	3065	0	0	1836	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	3	3	3	3	3	3	3	3	3	3	3
Permitted Phases	3	8.0	0.0	30.0	0.0	62.0	62.0	62.0	0.0	62.0	62.0	0.0
Total Split (s)	8.0	6.3	0.0	6.3	87.9	87.9	87.9	87.9	0.0	87.9	87.9	0.0
Act Effct Green (s)	0.04	0.06	0.06	0.06	0.88	0.88	0.88	0.88	0.00	0.88	0.88	0.00
Actuated g/C Ratio	0.24	0.01	0.01	0.01	0.42	0.09	0.71	0.71	0.00	0.71	0.71	0.00
v/c Ratio	10.2	46.0	1.4	1.7	4.2	2.7	2.7	2.7	0.0	2.7	2.7	0.0
Uniform Delay, d1	25.6	44.0	15.3	3.1	4.3	3.8	3.8	3.8	0.0	3.8	3.8	0.0
Delay	C	C	D	B	A	A	A	A	A	A	A	A
LOS	C	C	D	B	A	A	A	A	A	A	A	A
Approach Delay	25.6	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
Approach LOS	C	B	B	B	B	B	B	B	B	B	B	B

Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 96 (96%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 4.3
 Intersection Capacity Utilization 76.7%
 Intersection LOS: A
 ICU Level of Service C



Splits and Phases: 18: Exposition Blvd & La Brea Ave

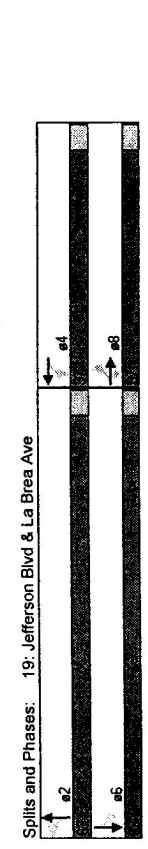
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
19: Jefferson Blvd & La Brea Ave

2020 LRT - AM - LPA
12/8/2004

Lane Group	EBC	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1711	3421	1531	1711	3397	0	1711	4901	0	1711	4817
Flt Permitted	0	0.121	0.121	0.361	0.361	0.094	0.094	0.094	0.068	0.068	0.068	0.068
Satd. Flow (perm)	0	218	3421	1531	650	3397	0	169	4901	0	122	4817
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	15	39	39	39	39	39	39	39	39	39	39	39
Link Speed (mph)	35	9390	9390	9390	9390	9390	9390	9390	9390	9390	9390	9390
Link Distance (ft)	182.9	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
Travel Time (s)	74	502	233	108	999	50	187	2743	62	74	1462	225
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	74	502	233	108	1049	0	187	2805	0	74	1687	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	8	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	8	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (s)	37.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
Act Effct Green (s)	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Actuated g/C Ratio	1.03	0.44	0.44	0.50	0.83	0.87	0.97	0.97	1.03	0.59	0.59	0.59
v/c Ratio	33.5	26.3	21.5	26.9	32.4	20.6	19.6	20.6	20.5	12.7	12.7	12.7
Uniform Delay, d1	93.4	11.0	6.8	28.6	41.2	247.0	32.1	32.1	112.7	12.9	12.9	12.9
Delay	F	B	A	C	D	F	C	C	F	B	B	B
LOS	F	B	A	C	D	F	C	C	F	B	B	B
Approach Delay	17.3	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
Approach LOS	B	D	D	D	D	D	D	D	D	D	D	D

Intersection Summary
 Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 47 (47%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.87
 Intersection Signal Delay: 33.7
 Intersection Capacity Utilization 105.1%
 Intersection LOS: C
 ICU Level of Service F



Splits and Phases: 19: Jefferson Blvd & La Brea Ave

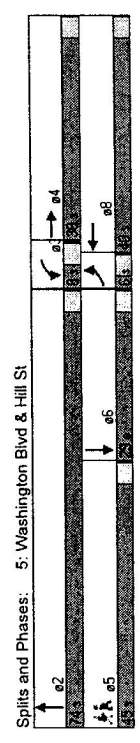
Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

**Level of Service Analysis
Year 2020 With LRT - LPA
PM Peak**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	1593	1593	1593	1593	1593	1593	1593	1593	1593	1593	1593
Satd. Flow (prot)	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flt Permitted	1593	3173	0	1593	3173	0	0	3067	0	1593	3112	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	2	3	3	3	3	3	3	65	15	15	15	15
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	1363	567	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764
Travel Time (s)	26.6	11.0	34.4	34.4	34.4	34.4	34.4	27.8	27.8	27.8	27.8	27.8
Volume (vph)	29	842	22	34	1021	31	0	329	109	83	563	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	31	909	0	36	1108	0	0	461	0	87	696	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Perm	Perm	Perm	Perm	Perm
Protected Phases	7	4	3	8	2	6	6	6	6	6	6	6
Permitted Phases	6.0	38.0	0.0	8.0	40.0	0.0	0.0	74.0	0.0	29.0	29.0	0.0
Total Split (s)	2.0	35.6	0.0	4.0	36.0	0.0	0.0	49.0	0.0	25.0	25.0	0.0
Act Effect Green (s)	0.02	0.36	0.04	0.36	0.04	0.36	0.49	0.25	0.25	0.25	0.25	0.0
Actuated g/C Ratio	0.97	0.80	0.57	0.96	0.57	0.96	0.30	0.42	0.42	0.88	0.88	0.0
v/c Ratio	48.8	28.9	47.8	30.4	12.8	31.4	35.2	32.3	39.6	39.6	39.6	0.0
Uniform Delay, d1	178.3	30.3	58.8	42.6	12.7	12.7	12.7	12.7	12.7	12.7	12.7	0.0
Delay	F	C	C	D	E	D	B	C	C	D	D	D
LOS	F	C	C	D	E	D	B	C	C	D	D	D
Approach Delay	35.2	43.1	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	0.0
Approach LOS	D	D	D	D	D	D	D	D	D	D	D	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	1593	1593	1593	1593	1593	1593	1593	1593	1593	1593	1593
Satd. Flow (prot)	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Flt Permitted	1593	3173	0	1593	3173	0	0	3067	0	1593	3112	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	2	3	3	3	3	3	3	65	15	15	15	15
Link Speed (mph)	35	35	35	35	35	35	35	35	35	35	35	35
Link Distance (ft)	1363	567	1764	1764	1764	1764	1764	1764	1764	1764	1764	1764
Travel Time (s)	26.6	11.0	34.4	34.4	34.4	34.4	34.4	27.8	27.8	27.8	27.8	27.8
Volume (vph)	29	842	22	34	1021	31	0	329	109	83	563	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	31	909	0	36	1108	0	0	461	0	87	696	0
Turn Type	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Perm	Perm	Perm	Perm	Perm
Protected Phases	7	4	3	8	2	6	6	6	6	6	6	6
Permitted Phases	6.0	38.0	0.0	8.0	40.0	0.0	0.0	74.0	0.0	29.0	29.0	0.0
Total Split (s)	2.0	35.6	0.0	4.0	36.0	0.0	0.0	49.0	0.0	25.0	25.0	0.0
Act Effect Green (s)	0.02	0.36	0.04	0.36	0.04	0.36	0.49	0.25	0.25	0.25	0.25	0.0
Actuated g/C Ratio	0.97	0.80	0.57	0.96	0.57	0.96	0.30	0.42	0.42	0.88	0.88	0.0
v/c Ratio	48.8	28.9	47.8	30.4	12.8	31.4	35.2	32.3	39.6	39.6	39.6	0.0
Uniform Delay, d1	178.3	30.3	58.8	42.6	12.7	12.7	12.7	12.7	12.7	12.7	12.7	0.0
Delay	F	C	C	D	E	D	B	C	C	D	D	D
LOS	F	C	C	D	E	D	B	C	C	D	D	D
Approach Delay	35.2	43.1	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	0.0
Approach LOS	D	D	D	D	D	D	D	D	D	D	D	D

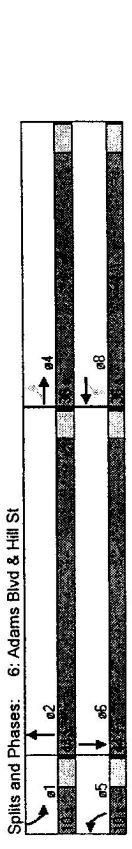
Intersection Summary: CBD
 Area Type: CBD
 Cycle Length: 120
 Actuated Cycle Length: 99
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 35.6
 Intersection Capacity Utilization: 64.3%
 Intersection LOS: D
 ICU Level of Service B



Exposition LRT
6: Adams Blvd & Hill St
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EET	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vph/ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3166	0	1593	3160	0	1593	1655	0	1593	1650	0
Satd. Flow (prot)	0.199	0.217	0	0.199	0.217	0	0.199	0.217	0	0.199	0.217	0
Fit Permitted	334	3166	0	364	3160	0	1593	1655	0	1593	1650	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	5	35	7	35	35	7	35	35	7	35	35	7
Link Speed (mph)	35	826	35	826	1041	35	1041	1041	35	826	1764	35
Link Distance (ft)	16.9	16.1	16.1	16.1	20.3	16.1	20.3	20.3	16.1	16.1	34.4	16.1
Travel Time (s)	69	701	28	28	719	43	46	459	45	47	567	67
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	73	767	0	29	802	0	48	530	0	49	668	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	4	4	8	8	5	2	2	2	1	6	6	6
Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases
Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	10.0	44.0	0.0	10.0	44.0	0.0
Act Effect Green (s)	24.9	24.9	24.9	24.9	24.9	24.9	5.9	40.9	5.9	40.9	5.9	40.9
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.07	0.52	0.07	0.52	0.07	0.52
v/c Ratio	0.70	0.77	0.25	0.80	0.42	0.62	0.43	0.78	0.43	0.78	0.43	0.78
Uniform Delay, d1	24.8	25.4	21.1	25.7	38.5	14.3	38.5	16.4	38.5	16.4	40.1	26.3
Delay	36.0	24.6	22.1	25.0	40.1	17.1	40.1	26.3	40.1	26.3	40.1	26.3
LOS	D	C	C	C	D	B	D	C	D	C	D	C
Approach Delay	25.6	24.9	24.9	24.9	19.0	19.0	19.0	27.3	19.0	27.3	19.0	27.3
Approach LOS	C	C	C	C	B	B	B	C	B	C	B	C

Intersection Summary CBD
 Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 79.4
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 24.5
 Intersection Capacity Utilization 79.0%
 Intersection LOS: C
 ICU Level of Service C

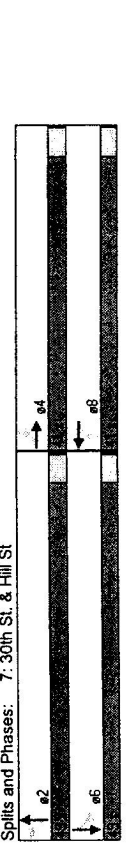


Splits and Phases: 6: Adams Blvd & Hill St

Exposition LRT
7: 30th St. & Hill St
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EET	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vph/ft)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1593	3166	0	1593	3160	0	1593	1655	0	1593	1650	0
Satd. Flow (prot)	0.199	0.217	0	0.199	0.217	0	0.199	0.217	0	0.199	0.217	0
Fit Permitted	334	3166	0	364	3160	0	1593	1655	0	1593	1650	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	5	35	7	35	35	7	35	35	7	35	35	7
Link Speed (mph)	35	826	35	826	1041	35	1041	1041	35	826	1764	35
Link Distance (ft)	16.9	16.1	16.1	16.1	20.3	16.1	20.3	20.3	16.1	16.1	34.4	16.1
Travel Time (s)	69	701	28	28	719	43	46	459	45	47	567	67
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	73	767	0	29	802	0	48	530	0	49	668	0
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	4	4	8	8	5	2	2	2	1	6	6	6
Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases	Protected Phases
Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases	Permitted Phases
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	10.0	44.0	0.0	10.0	44.0	0.0
Act Effect Green (s)	24.9	24.9	24.9	24.9	24.9	24.9	5.9	40.9	5.9	40.9	5.9	40.9
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.07	0.52	0.07	0.52	0.07	0.52
v/c Ratio	0.70	0.77	0.25	0.80	0.42	0.62	0.43	0.78	0.43	0.78	0.43	0.78
Uniform Delay, d1	24.8	25.4	21.1	25.7	38.5	14.3	38.5	16.4	38.5	16.4	40.1	26.3
Delay	36.0	24.6	22.1	25.0	40.1	17.1	40.1	26.3	40.1	26.3	40.1	26.3
LOS	D	C	C	C	D	B	D	C	D	C	D	C
Approach Delay	25.6	24.9	24.9	24.9	19.0	19.0	19.0	27.3	19.0	27.3	19.0	27.3
Approach LOS	C	C	C	C	B	B	B	C	B	C	B	C

Intersection Summary CBD
 Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 78.4
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 4.9
 Intersection Capacity Utilization 32.3%
 Intersection LOS: A
 ICU Level of Service A

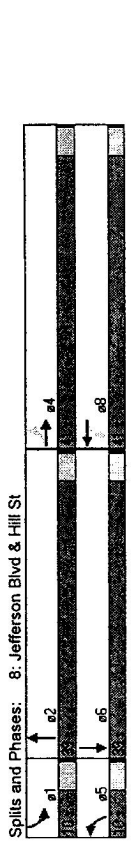


Splits and Phases: 7: 30th St. & Hill St

Exposition LRT
8: Jefferson Blvd & Hill St
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EBT	EBL	WBL	WBT	NBL	NBT	SBL	SBT	SBR	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	0	3144	0	3166	0	1593	1651	0	1593	1641	0
Fit Permitted	0	0.825	0	0.837	0	0.950	0.950	0	0.950	0.950	0
Satd. Flow (perm)	0	2599	0	2655	0	1593	1651	0	1593	1641	0
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	11	3	35	7	35	11	35	11	35	11	35
Link Speed (mph)	804	876	876	2022	1167	1167	1167	1167	1167	1167	1167
Link Distance (ft)	15.7	17.1	17.1	39.4	22.7	22.7	22.7	22.7	22.7	22.7	22.7
Travel Time (s)	45	886	75	27	777	21	74	320	35	60	468
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	1059	0	0	868	0	78	374	0	63	573
Lane Group Flow (vph)	Perm	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	4	4	8	5	2	1	6	1	6	1	6
Protected Phases	4	4	8	5	2	1	6	1	6	1	6
Permitted Phases	4	4	8	5	2	1	6	1	6	1	6
Total Split (s)	41.0	41.0	0.0	10.0	39.0	0.0	10.0	39.0	0.0	10.0	39.0
Act Effct Green (s)	36.8	36.8	0.0	6.0	35.1	0.0	6.0	35.1	0.0	6.0	35.1
Act Effct Green (s)	0.42	0.42	0.0	0.07	0.40	0.0	0.07	0.40	0.0	0.07	0.40
Actuated g/C Ratio	0.97	0.78	0.0	0.74	0.56	0.0	0.60	0.86	0.0	0.60	0.86
v/c Ratio	25.2	22.4	0.0	41.8	20.4	0.0	41.3	24.2	0.0	41.3	24.2
Uniform Delay, d1	43.0	23.4	0.0	63.0	21.3	0.0	50.5	33.4	0.0	50.5	33.4
Delay	D	D	C	E	C	D	D	C	D	D	C
LOS	D	D	C	E	C	D	D	C	D	D	C
Approach Delay	43.0	23.4	0.0	28.5	35.1	0.0	35.1	28.5	0.0	35.1	28.5
Approach LOS	D	D	C	C	C	D	D	C	D	D	C

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 87.7
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 33.5
 Intersection Capacity Utilization: 100.9%
 Intersection LOS: C
 ICU Level of Service: F

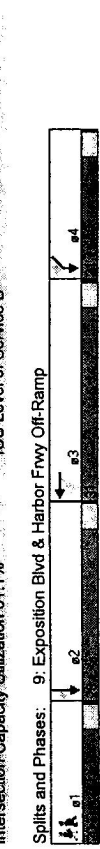


Splits and Phases: 8: Jefferson Blvd & Hill St

Exposition LRT
9: Exposition Blvd & Harbor Frwy Off-Ramp
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBT	WBL	WBT	NBT	SBT	SBR	SBR
Lane Configurations	4T	4T	4T	4T	4T	4T	4T
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	12	12	12	12	12	12	12
Leading Detector (ft)	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15
Satd. Flow (prot)	0	0	3179	0	6158	1083	2860
Fit Permitted	0	0	0.998	0	0.986	0.986	0.986
Satd. Flow (perm)	0	0	3179	0	6158	1083	2860
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	3	3	35	35	35	45	45
Link Speed (mph)	582	527	275	6786	301	301	301
Link Distance (ft)	11.3	10.3	5.4	132.2	4.6	4.6	4.6
Travel Time (s)	0	21	816	0	1100	205	58
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	0	670	0	1158	216	159
Lane Group Flow (vph)	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Turn Type	3	3	2	2	4	4	1
Protected Phases	3	3	2	2	4	4	1
Permitted Phases	3	3	2	2	4	4	1
Total Split (s)	0.0	31.0	0.0	0.0	28.0	21.0	21.0
Act Effct Green (s)	22.4	22.4	0.0	0.0	22.2	22.2	14.7
Actuated g/C Ratio	0.26	0.26	0.0	0.0	0.26	0.26	0.17
v/c Ratio	0.81	0.81	0.0	0.0	0.73	0.49	0.71
Uniform Delay, d1	29.3	30.1	0.0	0.0	28.8	0.0	31.7
Delay	C	C	C	C	A	C	D
LOS	C	C	C	C	A	C	D
Approach Delay	30.1	30.1	0.0	0.0	25.9	36.0	36.0
Approach LOS	C	C	C	C	C	D	D

Intersection Summary CBD
 Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 85.8
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 28.6
 Intersection Capacity Utilization: 61.1%
 Intersection LOS: C
 ICU Level of Service: B



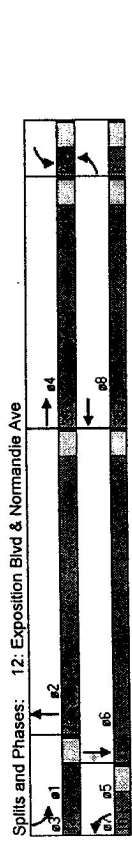
Splits and Phases: 9: Exposition Blvd & Harbor Frwy Off-Ramp

Exposition LRT
11: Exposition Blvd & Vermont Ave
2020 LRT - PM - LPA
12/8/2004



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1711	3353	0	1711	3421	1531	1711	3387	0	1711	3421	1531
Fit Permitted	0.950	0.950	0	0.950	0.950	0.950	0.950	0.950	0	0.950	0.950	0.950
Satd. Flow (perm)	1711	3353	0	1711	3421	1531	1711	3387	0	1711	3421	1531
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	18	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	35	1320	1228	1228	1228	1228	1228	1228	1228	1228	1228	1228
Link Distance (ft)	5575	2579	239	239	239	239	239	239	239	239	239	239
Travel Time (s)	108.6	52	609	52	609	52	609	52	609	52	609	52
Volume (vph)	127	534	81	39	1015	338	44	214	1356	74	1356	74
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	127	615	0	39	1015	338	52	653	0	214	1356	74
Turn Type	Prot	7	4	Prot	3	8	5	2	Prot	1	6	6
Protected Phases	7	4	4	7	3	8	5	2	7	1	6	6
Permitted Phases	12.0	36.0	0.0	12.0	36.0	36.0	15.0	37.0	0.0	15.0	37.0	37.0
Total Split (s)	8.0	32.7	10.9	31.7	31.7	6.3	33.3	11.0	38.0	38.0	38.0	38.0
Act Effct Green (s)	0.08	0.33	0.11	0.32	0.32	0.08	0.33	0.11	0.38	0.38	0.38	0.38
Actuated g/C Ratio	0.93	0.56	0.21	0.94	0.48	0.37	0.58	0.11	1.04	1.04	1.04	1.04
v/c Ratio	44.1	26.8	42.7	33.2	1.9	44.4	28.5	44.5	32.2	3.7	32.2	3.7
Uniform Delay, d1	73.6	20.5	39.5	41.1	4.3	42.8	27.6	121.9	79.6	8.2	79.6	8.2
Delay	E	C	D	D	A	D	C	F	E	E	A	A
LOS	E	C	D	D	A	D	C	F	E	E	A	A
Approach Delay	29.6	32.1	32.1	32.1	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7
Approach LOS	C	C	C	C	C	C	C	C	C	C	C	C

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 28 (28%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 49.4
 Intersection Capacity Utilization: 89.2%
 Intersection LOS: D
 ICU Level of Service D



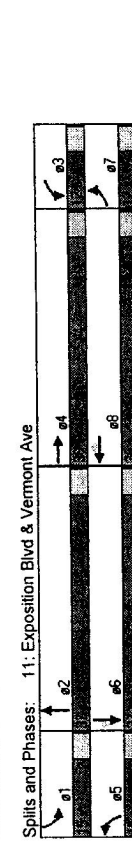
Spits and Phases: 11: Exposition Blvd & Vermont Ave

Exposition LRT
12: Exposition Blvd & Normandie Ave
2020 LRT - PM - LPA
12/8/2004



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1711	3353	0	1711	3421	1531	1711	3387	0	1711	3421	1531
Fit Permitted	0.950	0.950	0	0.950	0.950	0.950	0.950	0.950	0	0.950	0.950	0.950
Satd. Flow (perm)	1711	3353	0	1711	3421	1531	1711	3387	0	1711	3421	1531
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	18	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	35	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245	1245
Link Distance (ft)	5575	243	243	243	243	243	243	243	243	243	243	243
Travel Time (s)	108.6	85	521	153	6	995	85	153	857	23	149	1449
Volume (vph)	127	534	81	39	1015	338	44	214	1356	74	1356	74
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Group Flow (vph)	127	615	0	39	1015	338	52	653	0	214	1356	74
Turn Type	Prot	7	4	Prot	3	8	5	2	Prot	1	6	6
Protected Phases	7	4	4	7	3	8	5	2	7	1	6	6
Permitted Phases	8.0	35.0	0.0	8.0	35.0	35.0	10.0	43.0	0.0	10.0	43.0	47.0
Total Split (s)	4.0	37.4	4.0	31.0	4.0	31.0	6.0	39.0	0.0	6.0	39.0	43.0
Act Effct Green (s)	0.04	0.37	0.04	0.31	0.04	0.31	0.06	0.39	0.10	0.43	0.43	0.43
Actuated g/C Ratio	1.25	0.53	0.09	1.02	1.49	0.86	1.49	0.86	0.87	0.99	0.16	0.16
v/c Ratio	45.3	22.8	42.7	33.2	1.9	44.4	28.5	44.5	32.2	3.7	32.2	3.7
Uniform Delay, d1	158.7	4.3	58.0	78.6	198.8	25.3	44.3	43.2	4.4	43.2	4.4	4.4
Delay	F	A	E	E	F	C	E	D	E	D	D	A
LOS	F	A	E	E	F	C	E	D	E	D	D	A
Approach Delay	21.6	78.5	78.5	78.5	21.6	78.5	21.6	78.5	21.6	78.5	78.5	21.6
Approach LOS	C	E	E	E	C	E	C	E	C	E	E	D

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 2 (2%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.49
 Intersection Signal Delay: 49.7
 Intersection Capacity Utilization: 96.8%
 Intersection LOS: D
 ICU Level of Service E

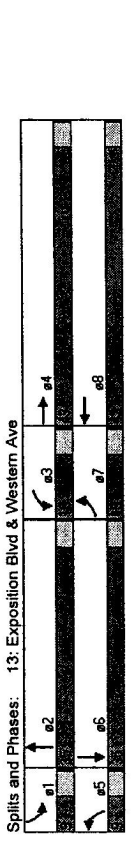


Spits and Phases: 12: Exposition Blvd & Normandie Ave

Exposition LRT
13: Exposition Blvd & Western Ave
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1711	3370	0	1711	3363	0	1711	3394	0	1711	3394	0
Satd. Flow (prot)	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Fit Permitted	1711	3370	0	1711	3363	0	1711	3394	0	1711	3394	0
Satd. Flow (perm)	14	14	16	16	16	16	16	16	16	16	16	16
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	35	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	5604	5604	5452	5452	5452	5452	5452	5452	5452	5452	5452	5452
Link Distance (ft)	109.2	109.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
Travel Time (s)	3	687	77	7	701	88	6	882	49	14	1121	63
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	3	764	0	7	789	0	6	931	0	14	1184	0
Lane Group Flow (vph)	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	7	4	3	8	5	2	1	6	1	6	1	6
Protected Phases	Permitted Phases	13.0	43.0	0.0	13.0	43.0	0.0	9.0	35.0	0.0	9.0	35.0
Total Spill (s)	Act Effort Green (s)	5.7	38.4	6.0	38.5	5.0	47.8	5.0	49.6	5.0	49.6	5.0
Act Effort Green (s)	Actuated g/C Ratio	0.06	0.38	0.06	0.39	0.05	0.48	0.05	0.50	0.05	0.50	0.05
Actuated g/C Ratio	v/c Ratio	0.03	0.59	0.07	0.60	0.07	0.57	0.16	0.70	0.16	0.70	0.16
v/c Ratio	Uniform Delay, d1	49.0	24.0	48.9	24.0	48.2	22.8	48.4	24.6	48.4	24.6	48.4
Uniform Delay, d1	Delay	54.7	17.6	54.1	16.3	45.7	21.1	45.9	27.9	45.9	27.9	45.9
Delay	LOS	D	B	D	B	D	C	D	C	D	C	D
LOS	Approach Delay	17.8	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
Approach Delay	Approach LOS	B	B	B	B	B	B	B	B	B	B	B
Approach LOS	Intersection Summary	Other										
Intersection Summary	Area Type:	Other										
Area Type:	Cycle Length:	100										
Cycle Length:	Actuated Cycle Length:	100										
Actuated Cycle Length:	Offset:	90 (90%), Referenced to phase 2:NBT and 6:SBT, Start of Green										
Offset:	Control Type:	Actuated-Coordinated										
Control Type:	Maximum v/c Ratio:	0.70										
Maximum v/c Ratio:	Intersection Signal Delay:	21.5										
Intersection Signal Delay:	Intersection Capacity Utilization:	61.8%										
Intersection Capacity Utilization:	Splits and Phases:	13: Exposition Blvd & Western Ave										
Splits and Phases:												

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 90 (90%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.70
Intersection Signal Delay: 21.5
Intersection Capacity Utilization: 61.8%

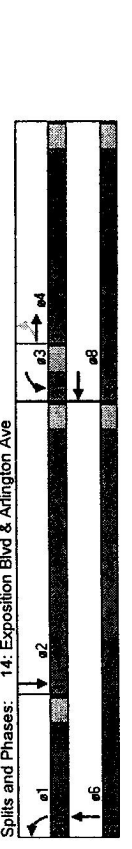


Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
14: Exposition Blvd & Arlington Ave
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Total Lost Time (s)	50	50	50	50	50	50	50	50	50	50	50	50
Leading Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Trailing Detector (ft)	15	15	15	15	15	15	15	15	15	15	15	15
Turning Speed (mph)	1711	1759	0	1711	1770	0	1711	3360	0	0	3418	0
Satd. Flow (prot)	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Fit Permitted	978	1759	0	1711	1770	0	1711	3360	0	0	3418	0
Satd. Flow (perm)	9	9	7	7	7	7	7	7	7	7	7	7
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	35	35	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	6666	6666	6666	6666	6666	6666	6666	6666	6666	6666	6666	6666
Link Distance (ft)	129.9	129.9	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2	109.2
Travel Time (s)	41	477	87	23	274	34	28	727	101	0	1322	13
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	41	564	0	23	308	0	28	828	0	0	1335	0
Lane Group Flow (vph)	Perm	Perm	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	Protected Phases	4	3	8	8	1	6	1	6	1	6	1
Protected Phases	Permitted Phases	31.0	31.0	0.0	8.0	39.0	0.0	20.0	61.0	0.0	0.0	41.0
Permitted Phases	Total Spill (s)	27.0	27.0	4.0	30.2	7.0	61.8	7.0	61.8	7.0	61.8	7.0
Total Spill (s)	Act Effort Green (s)	0.27	0.27	0.04	0.30	0.07	0.62	0.07	0.62	0.07	0.62	0.07
Act Effort Green (s)	Actuated g/C Ratio	0.16	1.17	0.34	0.57	0.23	0.40	0.23	0.40	0.23	0.40	0.23
Actuated g/C Ratio	v/c Ratio	27.8	35.8	49.0	26.7	47.4	10.5	49.0	26.7	47.4	10.5	49.0
v/c Ratio	Uniform Delay, d1	45.4	122.4	43.3	46.4	43.5	10.0	43.5	10.0	43.5	10.0	43.5
Uniform Delay, d1	Delay	D	F	D	D	D	A	D	A	D	C	C
Delay	LOS	D	F	D	D	D	A	D	A	D	C	C
LOS	Approach Delay	117.2	46.2	46.2	46.2	46.2	11.1	46.2	11.1	46.2	20.5	20.5
Approach Delay	Approach LOS	F	D	D	D	D	B	D	B	D	C	C
Approach LOS	Intersection Summary	Other										
Intersection Summary	Area Type:	Other										
Area Type:	Cycle Length:	100										
Cycle Length:	Actuated Cycle Length:	100										
Actuated Cycle Length:	Offset:	66 (66%), Referenced to phase 2:SBT and 6:NBT, Start of Green										
Offset:	Control Type:	Actuated-Coordinated										
Control Type:	Maximum v/c Ratio:	1.17										
Maximum v/c Ratio:	Intersection Signal Delay:	39.3										
Intersection Signal Delay:	Intersection Capacity Utilization:	74.0%										
Intersection Capacity Utilization:	Splits and Phases:	14: Exposition Blvd & Arlington Ave										
Splits and Phases:												

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 66 (66%), Referenced to phase 2:SBT and 6:NBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 39.3
Intersection Capacity Utilization: 74.0%

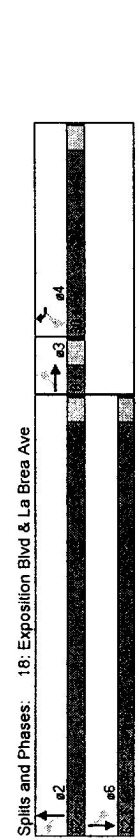


Korve Eng.
KORVELOSL4-FF51
Synchro 5 Report

Exposition LRT
18: Exposition Blvd & La Brea Ave
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	0	1607	0	1711	0	1531	1711	4901	0	4916	0	0
Satd. Flow (perm)	0	0.985	0	0.751	0	0.069	0.069	0.909	0	0.909	0	0
Right Turn on Red	0	1607	0	1352	0	1531	124	4901	0	0	4468	0
Satd. Flow (RTOR)	7	35	43	5	45	1	45	45	1	45	45	1
Link Speed (mph)	7230	8250	1035	1415	1415	1415	1415	1415	1415	1415	1415	1415
Link Distance (ft)	140.8	160.7	15.7	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
Travel Time (s)	3	0	7	3	0	43	9	2554	53	7	3035	7
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	0	10	0	3	0	43	9	2607	0	0	3049	0
Lane Group Flow (vph)	Perm	3	custom	4	4	2	2	6	6	6	6	6
Turn Type	3	8	8	8	8	8	8	8	8	8	8	8
Protected Phases	3	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	3	8	8	8	8	8	8	8	8	8	8	8
Total Split (s)	8.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
Act Effct Green (s)	4.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
Actuated g/C Ratio	0.04	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
v/c Ratio	0.14	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Uniform Delay, d1	14.8	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7
Delay	31.3	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
LOS	C	D	D	D	D	D	D	D	D	D	D	D
Approach Delay	31.3	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7
Approach LOS	C	B	B	B	B	B	B	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 8 (8%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.74
Intersection Signal Delay: 3.7
Intersection LOS: A
Intersection Capacity Utilization 71.2%
ICU Level of Service C

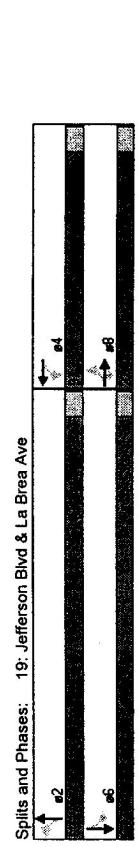


Splits and Phases: 18: Exposition Blvd & La Brea Ave

Exposition LRT
19: Jefferson Blvd & La Brea Ave
2020 LRT - PM - LPA
12/8/2004

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	4	4	4	4	4	4	4	4	4	4	4	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Satd. Flow (prot)	1711	3421	1531	1711	3363	0	1711	4876	0	1711	4876	0
Satd. Flow (perm)	0.240	0.146	0.146	0.146	0.146	0.068	0.068	0.068	0.068	0.068	0.068	0.068
Right Turn on Red	0	432	3421	1531	263	3363	0	122	4876	0	122	4876
Satd. Flow (RTOR)	7	35	43	5	45	1	45	45	1	45	45	1
Link Speed (mph)	7230	8250	1035	1415	1415	1415	1415	1415	1415	1415	1415	1415
Link Distance (ft)	140.8	160.7	15.7	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4	21.4
Travel Time (s)	3	0	7	3	0	43	9	2554	53	7	3035	7
Volume (vph)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Peak Hour Factor	0	10	0	3	0	43	9	2607	0	0	3049	0
Lane Group Flow (vph)	Perm	3	custom	4	4	2	2	6	6	6	6	6
Turn Type	3	8	8	8	8	8	8	8	8	8	8	8
Protected Phases	3	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	3	8	8	8	8	8	8	8	8	8	8	8
Total Split (s)	8.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
Act Effct Green (s)	4.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
Actuated g/C Ratio	0.04	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
v/c Ratio	0.14	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33
Uniform Delay, d1	14.8	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7	47.7
Delay	31.3	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
LOS	C	D	D	D	D	D	D	D	D	D	D	D
Approach Delay	31.3	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7	44.7
Approach LOS	C	B	B	B	B	B	B	B	B	B	B	B

Intersection Summary
Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.29
Intersection Signal Delay: 25.4
Intersection LOS: C
Intersection Capacity Utilization 94.9%
ICU Level of Service E



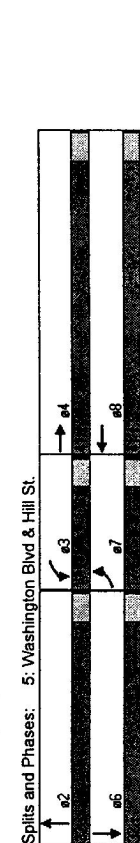
Splits and Phases: 19: Jefferson Blvd & La Brea Ave

**Level of Service Analysis
Year 2020 With LRT – Hill Couplet
AM & PM Peak**

Exposition LRT
 5: Washington Blvd & Hill St. 2020 LRT - AM - Hill Couplet
 12/9/2004

EBL	EET	EBR	WBL	WBR	NBL	NBR	SBL	SBR
1900	1900	1900	1900	1900	1900	1900	1900	1900
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
50	50	50	50	50	50	50	50	50
0	0	0	0	0	0	0	0	0
15	9	15	9	15	9	15	9	9
1593	3096	0	1593	3160	0	3106	0	3122
0.950								
1593	3096	0	1593	3160	0	3106	0	3122
Yes			Yes		Yes		Yes	
37	8		27		19		35	
35	35		35		35		1425	
1363	567		1228		27.8		27.8	
26.6	11.0		23.9		81		0	
48	537	123	82	704	42	0	400	81
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
51	694	0	86	785	0	0	506	0
Prot			Prot		Prot		Prot	
7	4		3		2		6	
17.0	41.0	0.0	17.0	41.0	0.0	0.0	32.0	0.0
7.8	20.8		9.0	24.2		29.0	29.0	
0.11	0.30		0.13	0.35		0.42	0.42	
0.30	0.72		0.42	0.70		0.38	0.41	
31.3	20.1		29.6	19.7		13.5	14.0	
32.0	20.4		30.6	19.5		15.9	16.5	
C	C		C	B		B	B	
21.2	C		20.6	C		15.9	16.5	
C	C		C	B		B	B	

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 68.6
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 19.0
 Intersection Capacity Utilization 55.0%
 Intersection LOS: B
 ICU Level of Service A



Exposition LRT
5: Washington Blvd & Hill St. 2020 LRT - PM - Hill Couplet 12/9/2004

Case Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	15	15	15	15	15	15	15	15
Satd. Flow (prot)	1593	3173	0	1593	3173	0	0	3067	0	0	3122	0
Flt Permitted	0.950		Yes			Yes			Yes			Yes
Satd. Flow (perm)	1593	3173	0	1593	3173	0	0	3067	0	0	3122	0
Right Turn on Red			4			4			56			21
Satd. Flow (RTOR)			35			35			35			35
Link Speed (mph)			1363			567			1228			1425
Link Distance (ft)			26.6			11.0			23.9			27.8
Travel Time (s)			29			34			329			109
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	31	909	0	36	1108	0	0	461	0	0	785	0
Lane Group Flow (vph)	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot	Prot
Turn Type	7	4	3	8	2	6						
Protected Phases												
Permitted Phases												
Total Split (s)	10.0	44.0	0.0	10.0	44.0	0.0	0.0	36.0	0.0	0.0	36.0	0.0
Act Effct Green (s)	6.4	25.8	7.4	26.7	20.5	0.34	0.34	20.5	0.34	0.34	20.5	0.34
Actuated g/C Ratio	0.10	0.43	0.11	0.45	0.42	0.72	0.72	0.42	0.72	0.72	0.42	0.72
v/c Ratio	0.20	0.66	0.20	0.78	13.5	17.2	17.2	13.5	17.2	17.2	13.5	17.2
Uniform Delay, d1	29.4	14.0	28.6	14.6	15.7	18.6	18.6	15.0	15.0	15.0	18.6	18.6
Delay	36.8	15.6	34.5	15.7	15.7	18.6	18.6	15.0	15.0	15.0	18.6	18.6
LOS	D	B	C	B	B	B	B	B	B	B	B	B
Approach Delay		16.3		16.3		15.0	15.0	15.0	15.0	15.0	18.6	18.6
Approach LOS		B		B		B	B	B	B	B	B	B

Intersection Summary

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 59.5
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 16.7
 Intersection Capacity Utilization: 65.4%

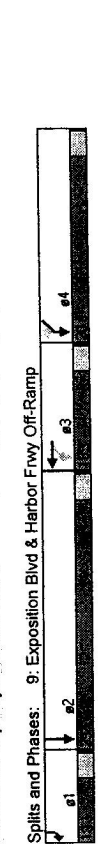


**Level of Service Analysis
Year 2020 With LRT – Flower Westside
AM & PM Peak**

Exposition LRT
9: Exposition Blvd & Harbor Fwy Off-Ramp
2020 LRT - AM - Flower Westside
12/9/2004

EBL2	EB1	WB1	WB2	NBL	NBR1	NBR2	SB1	SB2	SBL	SBL1	SBL2	SMB	SMB1	SMB2
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
90	90	90	90	254	254	254	205	205	205	205	205	205	205	205
6	6	6	6	248	248	248	10	10	10	10	10	10	10	10
15	15	15	15	9	9	9	15	9	9	9	9	9	9	9
0	0	0	0	3176	0	3079	1425	2904	1297	0.980	0.980	0.980	0.980	0.980
0	0	0	0	3176	0	3079	1425	2904	1297	Yes	Yes	Yes	Yes	Yes
35	35	35	35	5	5	5	35	35	35	35	35	35	35	35
582	527	275	1315	80	80	80	45	45	45	45	45	45	45	45
11.3	10.3	5.4	25.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
0	17	301	0	490	76	224	649	649	649	649	649	649	649	649
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
0	0	335	0	453	80	577	342	342	342	342	342	342	342	342
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
3	3	2	1	4	4	4	4	4	4	4	4	4	4	4
18.0	18.0	0.0	39.0	13.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
0.0	11.9	14.9	5.4	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3	26.3
0.16	0.21	0.07	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36
0.64	0.72	0.45	0.55	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
28.2	28.2	27.2	0.0	18.7	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
29.5	29.5	27.6	10.1	20.9	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
C	C	C	B	C	C	C	C	C	C	C	C	C	C	C
29.5	29.5	25.0	25.0	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5	24.5
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

Intersection Summary
Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 72.5
Control Type: Semi-Act-Uncoord
Maximum v/c Ratio: 0.73
Intersection Signal Delay: 25.6
Intersection Capacity Utilization 65.5%



Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp
Intersection LOS: C
ICU Level of Service B

Exposition LRT
10: Exposition Blvd & Figueroa St.
2020 LRT - AM - Flower Westside
12/9/2004

EB12	EB1	WB1	WB2	NBL	NBR1	NBR2	SB1	SB2	SBL	SBL1	SBL2	SMB	SMB1	SMB2
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
10	12	12	12	12	12	12	12	12	12	12	12	12	12	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
200	200	200	200	150	150	200	200	200	200	200	200	200	200	200
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	15	15	15	9	15	9	15	9	15	9	15	9	15	9
2884	3185	0	1433	5377	0	1593	2788	1426	1426	1426	1426	1426	1426	1426
0.950	0.950	0	0.485	0.108	0.108	0.108	0.108	0.108	0.108	0.108	0.108	0.108	0.108	0.108
2884	3185	0	732	5377	0	181	2788	1426	1426	1426	1426	1426	1426	1426
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
1277	203	24.9	4.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
480	1072	0	262	1831	9	80	285	137	137	137	137	137	137	137
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
505	1128	0	276	1936	0	84	348	96	96	96	96	96	96	96
custom	custom	custom	custom	custom	custom	custom	custom	custom	custom	custom	custom	custom	custom	custom
3	8	8	6	6	6	6	6	6	6	6	6	6	6	6
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
19.0	59.0	0.0	41.0	41.0	0.0	41.0	41.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
15.2	52.0	0.0	40.0	40.0	0.0	40.0	40.0	15.2	15.2	15.2	15.2	15.2	15.2	15.2
0.15	0.52	0.0	0.40	0.40	0.0	0.40	0.40	0.15	0.15	0.15	0.15	0.15	0.15	0.15
1.15	0.68	0.0	0.94	0.90	0.0	0.94	0.90	1.15	1.15	1.15	1.15	1.15	1.15	1.15
42.4	17.8	0.0	28.9	28.1	0.0	28.9	28.1	42.4	42.4	42.4	42.4	42.4	42.4	42.4
110.8	17.7	0.0	72.7	37.4	0.0	72.7	37.4	110.8	110.8	110.8	110.8	110.8	110.8	110.8
F	B	B	E	D	D	E	D	F	F	F	F	F	F	F
46.4	46.4	46.4	41.8	41.8	41.8	41.8	41.8	46.4	46.4	46.4	46.4	46.4	46.4	46.4
D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

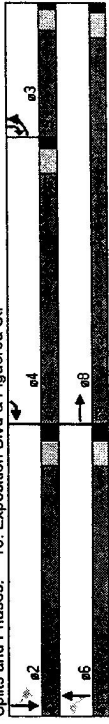
Intersection Summary
Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:SBTL and 6:NBL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 40.8
Intersection Capacity Utilization 90.2%



Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp
Intersection LOS: D
ICU Level of Service E

Exposition LRT
10: Exposition Blvd & Figueroa St.
2020 LRT - AM - Flower Westside
12/9/2004

Splits and Phases: 10: Exposition Blvd & Figueroa St.



Exposition LRT
30: Adams Blvd & Flower St.
12/13/2004

Item	EBL	EFT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	SBL	SBR	SEL
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	10	11	10	10	10	10	10	10	10	10	10
Lane Width (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	50	50	50	50	50	50	50	50	50	50	50	50
Storage Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	15	9	15	15	15	15	15	15	15	15	15	15
Leading Detector (ft)	1593	3087	0	1593	4444	0	0	4463	0	0	0	0
Trailing Detector (ft)	0.149	0.258	0	0.258	0.992	0	0	0.992	0	0	0	0
Turning Speed (mph)	250	3087	0	433	4444	0	0	4463	0	0	0	0
Satd. Flow (prot)	48	35	35	35	35	35	35	35	35	35	35	35
Fit Permitted	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Right Turn on Red	35	35	35	35	35	35	35	35	35	35	35	35
Satd. Flow (RTOR)	205	778	432	409	905	8.0	17.6	8.0	17.6	8.0	17.6	8.0
Link Speed (mph)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Link Distance (ft)	41	608	157	96	958	231	0	57	266	41	0	0
Travel Time (s)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Volume (vph)	43	805	0	101	1251	0	0	383	0	0	0	0
Peak Hour Factor	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Lane Group Flow (vph)	4	4	4	4	4	4	4	4	4	4	4	4
Turn Type	4	4	4	4	4	4	4	4	4	4	4	4
Protected Phases	4	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	4
Total Split (s)	46.0	46.0	0.0	46.0	46.0	0.0	0.0	32.0	32.0	0.0	0.0	12.0
Act Effct Green (s)	36.9	36.9	36.9	36.9	36.9	0.33	0.33	28.2	28.2	0.33	0.33	0.33
Actuated Cycle Length	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Maximum v/c Ratio	0.40	0.59	0.54	0.65	0.65	0.26	0.26	20.8	20.8	0.26	0.26	0.26
Uniform Delay, d1	16.5	17.1	17.8	19.0	19.0	17.8	19.0	22.1	22.1	17.8	19.0	19.0
Delay	B	B	B	B	B	B	B	C	C	B	B	B
Approach Delay	17.1	17.1	18.9	18.9	18.9	17.1	18.9	22.1	22.1	17.1	18.9	18.9
Approach LOS	B	B	B	B	B	B	B	C	C	B	B	B

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 85.2
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 18.8
 Intersection Capacity Utilization 54.4%
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 30: Adams Blvd & Flower St.

Exposition LRT
31: Jefferson Blvd & Flower St.
12/13/2004

Item	EBL	EFT	EBR	WBL	WBT	NBL	NBR	SBL	SBR	SBL	SBR	SEL
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	10	11	10	10	10	10	10	10	10	10	10
Lane Width (ft)	0	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	140	140	140	140	140	140	140	140	140	140	140	140
Storage Lanes	0	0	0	0	0	0	0	0	0	0	0	0
Total Lost Time (s)	15	9	15	15	15	15	15	15	15	15	15	15
Leading Detector (ft)	2973	1377	1486	2973	0	0	0	4170	0	0	0	0
Trailing Detector (ft)	0	0	0	0	0	0	0	0.989	0	0	0	0
Turning Speed (mph)	0	2973	1377	1486	2973	0	0	0	0	0	0	0
Satd. Flow (prot)	0	2973	1377	401	2973	0	0	0	0	0	0	0
Fit Permitted	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Right Turn on Red	35	35	35	35	35	35	35	35	35	35	35	35
Satd. Flow (RTOR)	486	1253	1315	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6
Link Speed (mph)	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Link Distance (ft)	0	779	158	63	787	0	0	0	0	0	0	0
Travel Time (s)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Volume (vph)	0	820	166	66	828	0	0	0	0	0	0	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	0	820	166	66	828	0	0	0	0	0	0	0
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	8	8	8	8	8	8	8	8	8	8	8	8
Permitted Phases	8	8	8	8	8	8	8	8	8	8	8	8
Total Split (s)	0.0	47.0	47.0	47.0	47.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0
Actuated Cycle Length	30.6	30.6	30.6	30.6	30.6	0.41	0.41	0.41	0.41	0.41	0.41	0.31
Maximum v/c Ratio	0.67	0.25	0.40	0.68	0.68	0.25	0.40	0.68	0.68	0.25	0.40	0.31
Uniform Delay, d1	17.6	0.0	15.3	17.7	17.7	17.6	15.3	17.7	17.7	17.6	15.3	18.4
Delay	B	A	B	B	B	B	B	B	B	B	B	C
Approach Delay	14.6	14.6	17.1	17.1	17.1	14.6	17.1	17.1	17.1	14.6	17.1	17.1
Approach LOS	B	B	B	B	B	B	B	B	B	B	B	C

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 74.2
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 16.6
 Intersection Capacity Utilization 52.6%
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 31: Jefferson Blvd & Flower St.

Exposition LRT
 31: Jefferson Blvd & Flower St. 2020 LRT - AM - Flower Westside
 12/13/2004

Item Group	Value
Lane Configurations	
Ideal Flow (vph/ft)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Peak Hour Factor	
Lane Group Flow (vph)	
Turn Type	1
Protected Phases	
Permitted Phases	
Total Split (s)	16.0
Act Effct Green (s)	
Actualized g/C Ratio	
v/c Ratio	
Uniform Delay, d1	
Delay	
LOS	
Approach Delay	
Approach LOS	
Intersection Summary	

2020 LRT - PM - Flower Westside
12/9/2004
Exposition LRT
9: Exposition Blvd & Harbor Fwy Off-Ramp

Lane Group	EBT	WBL	WBT	NBT	SBT	SBR	SVM	SMR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	12	12	12	12	11	12	12	12
Lane Width (ft)	0	0	0	0	0	0	0	0
Storage Length (ft)	0	0	0	0	0	0	0	0
Storage Lanes	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	90	90	254	254	205	205	205	205
Trailing Detector (ft)	6	6	248	248	10	10	10	10
Turning Speed (mph)	15	15	9	9	15	9	15	9
Satd. Flow (prot)	0	0	3179	0	3079	1425	2860	1297
Flt Permitted	0	0	0.998	0	0.998	0	0.986	0
Satd. Flow (perm)	0	0	3179	0	3079	1425	2860	1297
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	35	35	35	35	35	35	45	45
Link Speed (mph)	582	527	275	1315	301	301	4.6	4.6
Link Distance (ft)	11.3	10.3	5.4	25.6	4.6	4.6	0.95	0.95
Travel Time (s)	0	21	616	0	1100	205	58	301
Volume (vph)	0	0	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	0	670	0	1158	216	219	159
Lane Group Flow (vph)	0	0	670	0	1158	216	219	159
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	3	2	1	4	4	4	4
Permitted Phases	0.0	27.0	0.0	45.0	12.0	16.0	16.0	16.0
Total Split (s)	22.0	38.9	6.9	12.1	12.1	12.1	12.1	12.1
Act Efect Green (s)	0.23	0.41	0.07	0.13	0.13	0.13	0.13	0.13
Actuated g/C Ratio	0.92	0.93	0.88	0.88dr	0.98	0.98	0.98	0.98
v/c Ratio	35.9	27.1	12.7	39.6	41.7	41.7	41.7	41.7
Uniform Delay, d1	47.0	33.6	31.6	41.4	106.1	106.1	106.1	106.1
Delay	D	C	C	D	F	F	F	F
LOS	D	C	C	D	E	E	E	E
Approach Delay	47.0	33.3	33.3	68.6	68.6	68.6	68.6	68.6
Approach LOS	D	C	C	E	E	E	E	E

Intersection Summary
Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 95.9
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 42.6
Intersection Capacity Utilization 80.7%
dr Defacto Right Lane. Recode with 1 though lane as a right lane.



Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp

2020 LRT - PM - Flower Westside
12/9/2004
Exposition LRT
10: Exposition Blvd & Figueroa St.

Lane Group	EBL2	EBT	WBT	NBT	SBL	SBR	SVM	SMR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	10	12	12	9	10	12	12	11
Lane Width (ft)	0	0	0	0	0	0	0	0
Storage Length (ft)	0	0	0	0	0	0	0	0
Storage Lanes	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	200	200	150	150	200	200	150	150
Trailing Detector (ft)	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	9	15	9	15	9
Satd. Flow (prot)	2884	3185	0	1433	5361	0	1593	2848
Flt Permitted	0.950	0.950	0	0.098	0.260	0	0.2424	1520
Satd. Flow (perm)	2884	3185	0	148	5361	0	2424	1520
Right Turn on Red	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Satd. Flow (RTOR)	35	35	35	35	35	35	35	35
Link Speed (mph)	1277	203	4.0	334	1647	582	11.3	11.3
Link Distance (ft)	24.9	4.0	6.5	32.1	32.1	11.3	0	0
Travel Time (s)	306	648	0	165	799	21	139	1041
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	322	682	0	174	863	0	146	1096
Turn Type	custom	custom	Perm	Perm	Perm	Perm	Over	Perm
Protected Phases	3	8	6	6	2	3	4	4
Permitted Phases	15.0	55.0	0.0	45.0	45.0	15.0	0.0	40.0
Total Split (s)	11.0	51.0	41.0	41.0	41.0	11.0	36.0	36.0
Act Efect Green (s)	0.11	0.51	0.41	0.41	0.41	0.11	0.36	0.36
Actuated g/C Ratio	1.02	0.42	2.85	0.39	0.82	0.94	0.82	1.10
v/c Ratio	44.5	15.3	29.5	20.6	26.2	28.3	11.1	32.0
Uniform Delay, d1	86.4	15.5	329.1	20.7	47.0	37.3	21.8	79.8
Delay	F	B	F	C	D	C	E	E
LOS	F	B	F	C	D	C	E	E
Approach Delay	38.2	35.4	72.5	35.4	35.4	66.7	66.7	66.7
Approach LOS	D	D	E	D	D	E	E	E

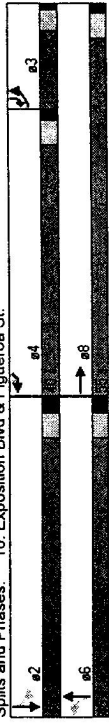
Intersection Summary
Area Type: CBD
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.85
Intersection Signal Delay: 52.0
Intersection Capacity Utilization 108.3%
Intersection LOS: D
ICU Level of Service F



Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp

Exposition LRT
10: Exposition Blvd & Figueroa St.
12/9/2004

Splits and Phases: 10: Exposition Blvd & Figueroa St.



Exposition LRT
30: Adams Blvd & Flower St.
12/13/2004

EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	SEL
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
50	50	50	50	50	50	50	50	50	50	50	50
0	0	0	0	0	0	0	0	0	0	0	0
15	9	15	9	15	9	15	9	15	9	15	15
1593	2991	0	1593	4513	0	0	0	4536	0	0	0
0.108	0.156	0	0.156	0.999	0	0	0.999	0	0	0	0
181	2991	0	262	4513	0	0	0	4536	0	0	0
219	35	35	35	35	35	35	35	35	35	35	35
35	778	432	409	905	905	905	905	905	905	905	905
4.0	15.2	8.4	8.0	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
16	553	377	150	1470	151	0	22	1411	81	0	0
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
17	979	0	158	1706	0	0	0	1593	0	0	0
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
4	4	4	4	4	4	4	4	4	4	4	4
41.0	41.0	0.0	41.0	41.0	0.0	0.0	0.0	37.0	37.0	0.0	0.0
37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0	37.0
0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
0.23	0.72	1.46	0.92	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
17.2	16.7	26.5	25.1	195.3	29.5	29.5	29.5	29.5	29.5	29.5	29.5
19.8	17.1	B	B	F	C	C	C	F	D	D	D
B	B	B	B	B	B	B	B	B	B	B	B
17.2	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5	43.5

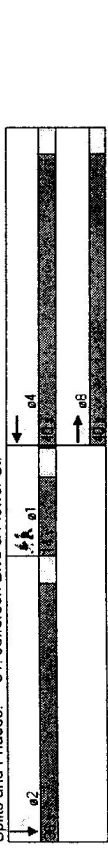
Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 90
 Control Type: Semi-Act-Uncoord
 Maximum v/c Ratio: 1.46
 Intersection Signal Delay: 35.5
 Intersection Capacity Utilization 90.0%
 Intersection LOS: D
 ICU Level of Service D



Exposition LRT
31: Jefferson Blvd & Flower St.
12/13/2004

EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
12	10	11	10	10	12	12	12	10	10	12
0	0	0	155	0	0	0	0	0	0	150
0	0	1	1	0	0	0	0	0	0	0
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
140	140	140	20	250	9	15	9	15	9	15
0	0	0	0	0	0	0	0	0	0	0
15	0	9	15	1486	2973	0	0	0	0	4212
0	2973	1377	0.283	2973	0	0	0	0	0	0.996
0	2973	1377	443	2973	0	0	0	0	0	4212
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
263	35	35	35	35	35	35	35	35	35	35
486	1253	1315	25.6	25.6	25.6	25.6	25.6	25.6	25.6	25.6
9.5	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4
0	659	273	128	1059	0	0	0	125	1203	95
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
0	694	287	135	1115	0	0	0	0	0	1498
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
8	8	8	4	4	4	4	4	4	4	4
40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0
0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
0.57	0.40	0.75	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
20.0	1.3	22.1	24.6	24.6	24.6	24.6	24.6	24.6	24.6	24.6
20.4	3.2	36.3	31.1	31.1	31.1	31.1	31.1	31.1	31.1	31.1
C	C	A	D	C	C	C	C	C	C	C
15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4

Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 88
 Control Type: Semi-Act-Uncoord
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 30.7
 Intersection Capacity Utilization 73.5%
 Intersection LOS: C
 ICU Level of Service C



Exposition LRT
 31: Jefferson Blvd & Flower St. 2020 LRT - PM - Flower Westside
 12/13/2004

Item	Value
Lane Group	01
Lane Configurations	
Ideal Flow (vphpl)	
Lane Width (ft)	
Storage Length (ft)	
Storage Lanes	
Total Lost Time (s)	
Leading Detector (ft)	
Trailing Detector (ft)	
Turning Speed (mph)	
Satd. Flow (prot)	
Flt. Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Volume (vph)	
Peak Hour Factor	
Lane Group Flow (vph)	
Turn Type	1
Protected Phases	
Permitted Phases	
Total Split (s)	14.0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Uniform Delay, d1	
Delay	
LOS	
Approach Delay	
Approach LOS	

**Level of Service Analysis
Year 2020 With LRT – Flower Eastside with Grade
Separation
AM & PM Peak**

Exposition LRT
 9: Exposition Blvd & Harbor Fwy Off-Ramp
 2020 LRT - AM - Flower Eastside with Grade Sep.
 12/9/2004

EBT	WBL	WBT	NBT	SBT	SBR	SWL	SWR
1900	1900	1900	1900	1900	1900	1900	1900
12	12	12	12	11	12	12	12
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
90	90	254	254	205	205	205	205
6	6	248	248	10	10	10	10
15	15	9	9	15	9	9	9
0	0	3176	0	6158	1083	2904	1297
0	0	0.997	0	6158	1083	2904	1297
Yes	Yes	80	Yes	80	Yes	80	Yes
35	35	35	35	35	35	35	35
582	527	275	1315	301	301	301	301
11.3	10.3	5.4	25.6	4.6	4.6	4.6	4.6
0	17	301	0	430	76	224	649
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
0	0	335	0	453	80	577	342
Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
3	3	2	2	2	2	2	2
0.0	25.0	0.0	30.0	30.0	35.0	35.0	35.0
0.19	10.9	11.2	11.2	22.0	22.0	22.0	22.0
0.54	0.37	0.29	0.51	0.68	0.68	0.68	0.68
19.9	19.4	0.0	12.9	14.1	14.1	14.1	14.1
22.0	22.2	7.5	13.3	15.1	15.1	15.1	15.1
C	C	A	B	B	B	B	B
22.0	20.0	C	13.9	B	B	B	B
C	C	C	13.9	B	B	B	B

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 56.7
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 17.3
 Intersection Capacity Utilization 60.0%
 Spills and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp



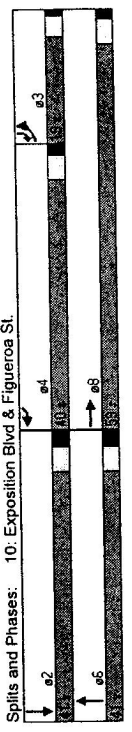
Exposition LRT
 10: Exposition Blvd & Figueroa St.
 2020 LRT - AM - Flower Eastside with Grade Sep.
 12/9/2004

EBL2	EBT	WBT	NBL	NBT	NBR2	SBL	SBR	SWL	SWR	SWR2
1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
10	12	12	12	10	12	12	10	15	12	11
4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
200	200	150	150	200	200	200	200	200	150	150
0	0	0	0	0	0	0	0	0	0	0
15	15	15	15	9	15	9	15	9	15	9
2884	5767	0	1433	5377	0	1593	2788	1426	0	3141
0.950	0.950	0.485	0.108	0.108	0.181	2788	1426	0	3141	1520
2884	5767	0	732	5377	0	181	2788	1426	0	3141
Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
35	35	35	35	35	35	35	35	35	35	35
1277	203	203	334	1647	1647	582	582	582	582	582
24.9	4.0	4.0	6.5	6.5	11.3	11.3	11.3	11.3	11.3	11.3
480	1072	0	262	1831	9	80	285	137	0	520
0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
505	1128	0	276	1936	0	84	348	96	0	547
custom	custom	Perm	Perm	Perm	Perm	Over	Over	Over	Perm	Perm
3	8	6	6	6	2	2	2	2	4	4
3	3	6	6	6	2	2	2	2	4	4
19.0	59.0	0.0	41.0	41.0	0.0	41.0	41.0	19.0	0.0	40.0
15.0	50.6	41.4	41.4	41.4	41.4	15.0	15.0	31.6	31.6	31.6
0.15	0.51	0.41	0.41	0.41	0.41	0.15	0.15	0.32	0.32	0.32
1.17	0.39	0.91	0.87	0.87	1.12	0.30	0.32	0.55	0.55	0.55
42.5	15.2	27.5	26.8	29.3	18.4	0.0	0.0	28.3	28.3	28.3
113.6	14.9	68.4	35.7	152.3	19.8	8.4	8.4	27.7	27.7	27.7
F	B	E	D	D	F	B	A	C	C	C
45.4	D	D	D	D	38.8	D	D	28.1	C	C

Intersection Summary
 Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 64 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.17
 Intersection Signal Delay: 39.5
 Intersection Capacity Utilization 83.1%
 Intersection LOS: D
 ICU Level of Service D



Exposition LRT
10: Exposition Blvd & Figueroa St.
2020 LRT - AM - Flower Eastside with Grade Sep.
12/9/2004



Exposition LRT
9. Exposition Blvd & Harbor Fwy Off-Ramp

2020 LRT - PM - Flower Eastside with Grade Sep.
12/9/2004

Lane Group	EBT	WBL	WBT	NBT	SBT	SBR	SWL	SWR
Lane Configurations	4A							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12
Storage Length (ft)	0	0	0	0	0	0	0	0
Storage Lanes	0	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	90	90	254	254	205	205	205	205
Trailing Detector (ft)	6	6	248	248	10	10	10	10
Turning Speed (mph)	15	15	9	9	15	9	15	9
Satd. Flow (prot)	0	0	3179	0	6158	1083	2860	1297
Fit Permitted	0	0	0.998	0	0.998	0.986	0.986	0.986
Satd. Flow (perm)	0	0	3179	0	6158	1083	2860	1297
Right Turn on Red	Yes							
Satd. Flow (RTOR)	3	35	35	35	35	165	45	301
Link Speed (mph)	582	527	275	1315	301	301	301	301
Link Distance (ft)	11.3	10.3	5.4	25.6	4.6	4.6	4.6	301
Travel Time (s)	0	21	616	0	1100	205	58	301
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0	0	670	0	1158	216	219	159
Lane Group Flow (vph)	0	0	670	0	1158	216	219	159
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	3	2	2	4	4	4	4
Permitted Phases	3	3	2	2	4	4	4	4
Total Split (s)	0.0	20.0	20.0	0.0	40.0	40.0	30.0	30.0
Act Effct Green (s)	16.6	24.0	24.0	14.6	14.6	14.6	14.6	14.6
Actuated g/C Ratio	0.25	0.35	0.35	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.86	0.53	0.44	0.36	0.57	0.57	0.57	0.57
Uniform Delay, d1	24.0	17.1	3.5	22.3	23.4	23.4	23.4	23.4
Delay	49.7	17.2	5.4	23.8	25.9	25.9	25.9	25.9
LOS	D	D	B	A	C	C	C	C
Approach Delay	49.7	15.3						
Approach LOS	D	B						

Intersection Summary
 Area Type: CBD
 Cycle Length: 90
 Actuated Cycle Length: 67.7
 Control Type: Semi Act-Uncoord
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 26.3
 Intersection Capacity Utilization 61.1%
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 9: Exposition Blvd & Harbor Fwy Off-Ramp

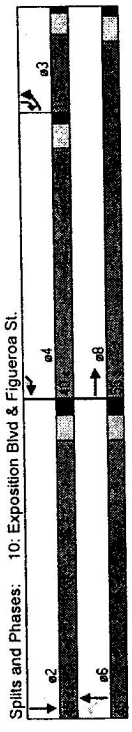
Exposition LRT
10. Exposition Blvd & Figueroa St.

2020 LRT - PM - Flower Eastside with Grade Sep.
12/9/2004

Lane Group	EBL2	EBT	WBT	NBL	NBT	NBR2	SBL	SBT	SBR	SWL	SWR2
Lane Configurations	11	11	11	11	11	11	11	11	11	11	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	9	10	12	10	10	15	12	11
Storage Length (ft)	0	0	0	102	0	0	0	0	0	0	0
Storage Lanes	0	0	0	1	0	0	0	0	0	0	0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Leading Detector (ft)	200	200	150	150	200	200	200	200	200	150	150
Trailing Detector (ft)	0	0	0	0	0	0	0	0	0	0	0
Turning Speed (mph)	15	15	15	15	9	15	9	15	9	15	9
Satd. Flow (prot)	2884	5767	0	1433	5361	0	1593	2848	1426	0	3141
Fit Permitted	0.950	0.950	0.098	0.098	0.260	0.260	0.260	0.260	0.260	0.260	0.260
Satd. Flow (perm)	2884	5767	0	148	5361	0	436	2848	1426	0	3141
Right Turn on Red	Yes										
Satd. Flow (RTOR)	6	35	35	35	35	35	35	35	35	35	35
Link Speed (mph)	1277	203	334	334	334	334	334	334	334	334	334
Link Distance (ft)	24.9	4.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
Travel Time (s)	306	648	0	165	799	21	139	1041	264	0	908
Volume (vph)	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Lane Group Flow (vph)	322	682	0	174	863	0	146	1096	278	0	956
Turn Type	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm	Perm
Protected Phases	3	8	6	6	6	2	2	3	3	4	4
Permitted Phases	3	8	6	6	6	2	2	3	3	4	4
Total Split (s)	15.0	55.0	0.0	45.0	45.0	0.0	45.0	15.0	15.0	0.0	40.0
Act Effct Green (s)	11.0	51.0	0.0	41.0	41.0	0.0	41.0	11.0	11.0	0.0	36.0
Actuated g/C Ratio	0.11	0.51	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.11	0.36
v/c Ratio	1.02	0.23	2.85	0.39	0.82	0.82	0.82	0.82	0.82	0.85	0.45
Uniform Delay, d1	44.5	13.6	29.6	20.6	26.2	28.3	11.1	29.4	18.3	31.7	18.9
Delay	86.4	13.7	329.1	20.7	47.0	37.3	21.8	31.7	18.9	28.9	18.9
LOS	F	B	C	F	C	D	D	C	C	C	C
Approach Delay	37.0	72.5									
Approach LOS	D	E									

Intersection Summary
 Area Type: CBD
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 64 (64%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.85
 Intersection Signal Delay: 42.1
 Intersection Capacity Utilization 95.9%
 Intersection LOS: D
 ICU Level of Service E

Exposition LRT
10: Exposition Blvd & Figueroa St. 2020 LRT - PM - Flower Eastside with Grade Sep.
12/9/2004



Korve Eng
KORVELOS4.FF51 Synchio 5 Report

**Level of Service Analysis
Year 2020 With & Without LRT – Crenshaw Station
AM & PM Peak**

Year 2020 AM peak - With PMon Mar 22, 2004 16:42:08
 Crenshaw Park N Ride Station
 Traffic Impact Study

Trip Generation Report

Forecast for AM Peak

Zone #	Subzone	Amount	Units	Rate		Trips		Total # Of	
				In	Out	In	Out	Trips	Trips
1	Crenshaw Par	868.00	Parking Struct	0.31	0.02	269	17	286	85.1
	Zone 1 Subtotal					269	17	286	85.1
2	Kiss and Rid	82.00	Kiss and Ride	0.31	0.31	25	25	50	14.9
	Zone 2 Subtotal					25	25	50	14.9
TOTAL						294	42	336	100.0

Year 2020 AM peak - With PMon Mar 22, 2004 16:42:08
 Crenshaw Park N Ride Station
 Traffic Impact Study

Scenario Report

Year 2020 AM peak - With Project

Default Command
 Year 2020 AM peak - With Project
 Default Geometry
 Default Impact Fee
 AM Peak
 Trip Generation:
 Trip Distribution:
 Paths:
 Routes:
 Default Configuration

Crenshaw Park N Ride Station
Traffic Impact Study

Trip Distribution Report

Zone	Percent Of Trips AM Peak			
	To Gate 1	To Gate 3	To Gate 4	To Gate 5
1	15.0	12.0	14.0	36.0
2	50.0	0.0	0.0	50.0

Crenshaw Park N Ride Station
Traffic Impact Study

Turning Movement Report
AM Peak

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total
	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right	
#1 36th St/Crenshaw Blvd									
Base	47	1438	16	7	2342	51	22	1	60
Added	0	0	135	0	0	0	0	0	0
Total	47	1438	151	60	2342	51	22	1	60
#2 Exposition Blvd/Crenshaw Blvd									
Base	45	1477	17	67	914	23	29	170	22
Added	0	135	29	0	5	0	0	32	0
Total	45	1612	46	67	919	23	29	202	22
#3 Rodeo Rd/Crenshaw Blvd									
Base	77	1201	96	83	1956	46	64	322	117
Added	0	109	0	1	6	2	38	0	0
Total	77	1310	96	84	1962	48	102	322	117

Crenshaw Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

 Intersection #1 36th St/Crenshaw Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.505
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 2.6
 Optimal Cycle: 38 Level Of Service: A
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Protected	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	10 10 10 10 10 10 10 10 10 10 10 10	10 10 10 10 10 10 10 10 10 10 10 10	10 10 10 10 10 10 10 10 10 10 10 10	10 10 10 10 10 10 10 10 10 10 10 10
Lanes:	1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:	16	7 2342	51	22	1	60	1	60	1	3	27
Base Vol:	47 1438	16 7 2342	51 22	1 60	1 60	1 60	1 60	1 60	1 60	1 60	1 60
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Initial Base:	47 1438	16 7 2342	51 22	1 60	1 60	1 60	1 60	1 60	1 60	1 60	1 60
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
PHF Volume:	47 1438	16 7 2342	51 22	1 60	1 60	1 60	1 60	1 60	1 60	1 60	1 60
Reduct Vol:	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Reduced Vol:	47 1438	16 7 2342	51 22	1 60	1 60	1 60	1 60	1 60	1 60	1 60	1 60
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
MUF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00
Final Vol.:	47 1438	16 7 2342	51 22	1 60	1 60	1 60	1 60	1 60	1 60	1 60	1 60

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.06 0.91 0.91 0.95 0.91 0.91 0.84 0.84 0.84 0.84 0.88 0.88
 Lanes: 1.00 2.97 0.03 1.00 2.94 0.06 0.27 0.01 0.72 0.03 0.10 0.87
 Final Sat.: 104 5120 57 1805 5061 110 425 19 1160 54 161 1451

Capacity Analysis Module:
 Vol/Sat: 0.45 0.28 0.28 0.00 0.46 0.46 0.05 0.05 0.05 0.02 0.02 0.02
 Crit Moves: ****
 Green/Cycle: 0.85 0.85 0.85 0.05 0.90 0.90 0.10 0.10 0.10 0.10 0.10 0.10
 Volume/Cap: 0.53 0.33 0.33 0.08 0.51 0.51 0.52 0.52 0.52 0.19 0.19 0.19
 Delay/Veh: 8.0 1.6 1.6 45.7 1.0 1.0 45.7 45.7 45.7 41.8 41.8 41.8
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.0 1.6 1.6 45.7 1.0 1.0 45.7 45.7 45.7 41.8 41.8 41.8
 DesignQueue: 0 13 0 0 15 0 1 0 3 0 0 1

Crenshaw Park N Ride Station
Traffic Impact Study

Impact Analysis Report
Level Of Service

Intersection	Base Del/Vol	Future Del/Vol	Change in
# 1 36th St/Crenshaw Blvd	LOS Veh C A 2.6 0.505	LOS Veh C A 3.4 0.534 + 0.795 D/V	
# 2 Exposition Blvd/Crenshaw Blvd	LOS Veh C B 27.5 0.729	LOS Veh C C 28.5 0.764 + 1.008 D/V	
# 3 Rodeo Rd/Crenshaw Blvd	LOS Veh B 17.8 0.905	LOS Veh B 18.2 0.917 + 0.375 D/V	

Crenshaw Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #2 Exposition Blvd/Crenshaw Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.729
Loss time (sec): 4 (Y+R = 12 sec) Average Delay (sec/veh): 27.5
Optimal Cycle: 39 Level Of Service: C
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Protected Protected Protected Protected Protected
Rights: Include Include Include Include Include Include
Min. Green: 5 10 0 5 10 0 0 0 0 0 0 0
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 1 0

Volume Module:
Base Vol: 45 1477 17 67 914 23 29 170 22 19 455 195
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 45 1477 17 67 914 23 29 170 22 19 455 195
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 45 1477 17 67 914 23 29 170 22 19 455 195
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 45 1477 17 67 914 23 29 170 22 19 455 195

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.91 0.95 0.93 0.07 1.00 0.89 0.11 1.00 0.70 0.30
Lanes: 1805 5118 59 1805 5039 127 1805 1654 214 1805 1270 544
Final Sat.: 1805 5118 59 1805 5039 127 1805 1654 214 1805 1270 544
Capacity Analysis Module:
Vol/Sat: 0.02 0.29 0.29 0.04 0.18 0.18 0.02 0.10 0.10 0.01 0.36 0.36
Crit Moves: 0.02 0.29 0.29 0.04 0.18 0.18 0.02 0.10 0.10 0.01 0.36 0.36
Green/Cycle: 0.07 0.39 0.00 0.05 0.41 0.00 0.05 0.39 0.00 0.05 0.39 0.00
Volume/Cap: 0.36 0.74 xxxxx 0.74 0.44 xxxxx 0.32 0.26 xxxxx 0.21 0.32 xxxxx
Delay/Veh: 46.1 27.6 0.0 74.7 21.4 0.0 47.9 20.9 0.0 46.8 46.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 46.1 27.6 0.0 74.7 21.4 0.0 47.9 20.9 0.0 46.8 46.0 0.0
DesignQueue: 2 54 1 4 31 1 2 6 1 1 17 12

Crenshaw Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #1 36th St/Crenshaw Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 0.534
Loss time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 3.4
Optimal Cycle: 40 Level Of Service: A
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Protected Permitted Permitted Permitted Permitted
Rights: Include Include Include Include Include Include
Min. Green: 10 10 10 5 10 10 10 10 10 10 10 10
Lanes: 1 0 2 1 0 1 0 2 1 0 0 0 1 1 0 0 0 0 1 1 0 0

Volume Module:
Base Vol: 47 1438 16 7 2342 51 22 1 60 1 3 27
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 47 1438 16 7 2342 51 22 1 60 1 3 27
User Adj: 0 0 0 0 0 0 0 0 0 0 0 0
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 47 1438 16 7 2342 51 22 1 60 1 3 27
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 47 1438 16 7 2342 51 22 1 60 1 3 27

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.06 0.90 0.90 0.95 0.91 0.91 0.85 0.85 0.85 0.85 0.85 0.85
Lanes: 1.00 2.71 0.29 1.00 2.94 0.06 0.27 0.01 0.72 0.15 0.08 0.77
Final Sat.: 104 4628 486 1805 5061 110 428 19 1168 249 125 1247
Capacity Analysis Module:
Vol/Sat: 0.45 0.31 0.31 0.03 0.46 0.46 0.05 0.05 0.05 0.02 0.02 0.02
Crit Moves: 0.45 0.31 0.31 0.03 0.46 0.46 0.05 0.05 0.05 0.02 0.02 0.02
Green/Cycle: 0.84 0.84 0.84 0.06 0.90 0.90 0.10 0.10 0.10 0.10 0.10 0.10
Volume/Cap: 0.54 0.37 0.37 0.54 0.51 0.51 0.51 0.51 0.51 0.24 0.24 0.24
Delay/Veh: 8.8 2.0 2.0 50.6 1.0 1.0 45.5 45.5 45.5 42.3 42.3 42.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 8.8 2.0 2.0 50.6 1.0 1.0 45.5 45.5 45.5 42.3 42.3 42.3
DesignQueue: 0 14 1 3 15 0 1 0 3 0 0 0

Crenshaw Park N Ride Station Traffic Impact Study

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Exposition Blvd/Crenshaw Blvd Critical Vol./Cap. (X): 0.764

Cycle (sec): 100 (Y+R = 12 sec) Average Delay (sec/veh): 28.5

Loss Time (sec): 4 (Y+R = 12 sec) Level of Service: C

Optimal Cycle: 44

Approach: North Bound South Bound East Bound West Bound

Movement: L-T-R L-T-R L-T-R L-T-R

Control: Permitted Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 5 10 0 5 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 0 1 0 1 0 0 1 0

Volume Module: 45 1477 17 67 914 23 29 170 22 19 455 195

Base Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 45 1477 17 67 914 23 29 170 22 19 455 195

User Adj: 0 135 29 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0

Initial Fut: 45 1612 46 67 919 23 29 202 22 23 457 195

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 45 1612 46 67 919 23 29 202 22 23 457 195

Reduced Vol: 0

FCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 45 1612 46 67 919 23 29 202 22 23 457 195

Saturation Flow Module: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Sat/Lane: 0.95 0.91 0.91 0.95 0.99 0.99 0.95 0.96 0.96 0.96 0.96 0.96

Adjustment: 1.00 2.92 0.08 1.00 2.93 0.07 1.00 0.90 1.00 0.70 0.30

Lanes: 1805 5023 143 1805 5040 126 1805 1688 184 1805 1272 543

Final Sat: 1.00 2.92 0.08 1.00 2.93 0.07 1.00 0.90 1.00 0.70 0.30

Capacity Analysis Module: 0.02 0.32 0.32 0.04 0.18 0.18 0.02 0.12 0.12 0.01 0.36 0.36

Vol/Sat: 0.02 0.32 0.32 0.04 0.18 0.18 0.02 0.12 0.12 0.01 0.36 0.36

Crit Moves: 0.07 0.39 0.00 0.05 0.41 0.00 0.05 0.39 0.00 0.05 0.39 0.00

Green/Cycle: 0.07 0.39 0.00 0.05 0.41 0.00 0.05 0.39 0.00 0.05 0.39 0.00

Volume/Cap: 0.36 0.82 xxxx 0.74 0.44 xxxx 0.32 0.31 xxxx 0.25 0.92 xxxx

Delay/Veh: 46.1 30.3 0.0 74.7 21.4 0.0 47.9 21.4 0.0 47.2 46.5 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 46.1 30.3 0.0 74.7 21.4 0.0 47.9 21.4 0.0 47.2 46.5 0.0

DesignQueue: 2 59 3 4 31 1 2 7 1 1 17 12

DesignQueue: 2 59 3 4 31 1 2 7 1 1 17 12

Crenshaw Park N Ride Station Traffic Impact Study

Level of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Rodeo Rd/Crenshaw Blvd Critical Vol./Cap. (X): 0.905

Cycle (sec): 100 (Y+R = 4 sec) Average Delay (sec/veh): 17.8

Loss Time (sec): 0 (Y+R = 4 sec) Level of Service: B

Optimal Cycle: 180

Approach: North Bound South Bound East Bound West Bound

Movement: L-T-R L-T-R L-T-R L-T-R

Control: Permitted Protected Protected Protected

Rights: Include Include Include Include

Min. Green: 0

Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module: 77 1201 96 83 1956 46 64 322 117 154 393 35

Base Vol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 77 1201 96 83 1956 46 64 322 117 154 393 35

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PasserByVol: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Fut: 77 1201 96 83 1956 46 64 322 117 154 393 35

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 77 1201 96 83 1956 46 64 322 117 154 393 35

Reduced Vol: 0

FCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

M/F Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 77 1201 96 83 1956 46 64 322 117 154 393 35

Saturation Flow Module: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Sat/Lane: 0.90 0.95 0.91 0.91 0.34 0.91 0.91 0.34 0.91 0.91 0.30 0.95 0.85

Adjustment: 1.00 2.78 0.22 1.00 2.93 0.07 1.00 1.47 0.53 1.00 2.00 1.00

Lanes: 131 4750 380 1805 5053 119 640 2542 924 566 3610 1615

Final Sat: 1.00 2.78 0.22 1.00 2.93 0.07 1.00 1.47 0.53 1.00 2.00 1.00

Capacity Analysis Module: 0.59 0.25 0.25 0.05 0.39 0.39 0.10 0.13 0.13 0.27 0.11 0.02

Vol/Sat: 0.59 0.25 0.25 0.05 0.39 0.39 0.10 0.13 0.13 0.27 0.11 0.02

Crit Moves: 0.68 0.68 0.68 0.05 0.73 0.73 0.27 0.27 0.27 0.27 0.27 0.27

Green/Cycle: 0.68 0.68 0.68 0.05 0.73 0.73 0.27 0.27 0.27 0.27 0.27 0.27

Volume/Cap: 0.87 0.37 0.37 0.91 0.53 0.53 0.37 0.47 0.47 0.47 0.40 0.08

Delay/Veh: 66.5 7.0 7.0 111.0 6.1 6.1 30.9 30.8 30.8 110.5 30.1 27.3

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 66.5 7.0 7.0 111.0 6.1 6.1 30.9 30.8 30.8 110.5 30.1 27.3

DesignQueue: 1 23 2 4 32 1 3 13 5 6 16 1

DesignQueue: 1 23 2 4 32 1 3 13 5 6 16 1

Crenshaw Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Rodeo Rd/Crenshaw Blvd Critical Vol./Cap. (X): 0.917

Cycle (sec): 100 Average Delay (sec/veh): 18.2

Loss Time (sec): 0 (V+R = 4 sec) Level Of Service: B

Optimal Cycle: 180

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Permitted Permitted Permitted

Rights: Include Include Include Include Include

Min. Green: 0

Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:

Base Vol: 77 1201 96 83 1956 46 64 322 117 154 393 35

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Base: 77 1201 96 83 1956 46 64 322 117 154 393 35

Added Vol: 0 109 0 1 6 2 38 0 0 0 0 0 16

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 77 1310 96 84 1962 48 102 322 117 154 393 51

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

HF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

HF Volume: 77 1310 96 84 1962 48 102 322 117 154 393 51

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

FCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol: 77 1310 96 84 1962 48 102 322 117 154 393 51

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

AdjLstment: 0.07 0.90 0.90 0.95 0.91 0.91 0.33 0.91 0.91 0.30 0.95 0.85

Lanes: 1.00 2.80 0.20 1.00 2.93 0.07 1.00 1.47 0.53 1.00 2.00 1.00

Final Sat: 129 4785 351 1805 5043 123 635 2542 924 561 3610 1615

Capacity Analysis Module:

Vol/Sat: 0.60 0.27 0.27 0.05 0.39 0.39 0.16 0.13 0.13 0.27 0.11 0.03

Crit Moves: ****

Green/Cycle: 0.68 0.68 0.68 0.05 0.73 0.73 0.27 0.27 0.27 0.27 0.27 0.27

Volume/Cap: 0.87 0.40 0.40 0.91 0.53 0.53 0.60 0.47 0.47 1.03 0.41 0.12

Delay/Veh: 69.3 7.1 7.1 113.6 6.0 6.0 37.8 31.1 31.1 117.2 30.4 27.8

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 69.3 7.1 7.1 113.6 6.0 6.0 37.8 31.1 31.1 117.2 30.4 27.8

DesignQueue: 1 25 2 4 32 1 4 14 5 6 16 2

Crenshaw Park N Ride Station
 Traffic Impact Study
 Trip Generation Report

Forecast for PM Peak

Zone #	Subzone	Amount	Units	Rate In	Rate Out	Trips In	Trips Out	Total Trips	% Of Trips Total
1	Crenshaw Par	868.00	Parking Struct	0.05	0.44	43	382	425	85.5
	Zone 1 Subtotal					43	382	425	85.5
2	Kiss and Rid	82.00	Kiss and Ride	0.44	0.44	36	36	72	14.5
	Zone 2 Subtotal					36	36	72	14.5
TOTAL						79	418	497	100.0

Crenshaw Park N Ride Station
 Traffic Impact Study
 Scenario Report

Year 2020 PM peak - With Project

Default Command
 Year 2020 PM peak - With Project
 Default Geometry
 Default Impact Fee
 PM Peak
 Trip Generation:
 Trip Distribution:
 Paths:
 Default Routes
 Default Configuration

Turning Movement Report
 PM Peak

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total				
	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right					
#1 36th St/Crenshaw Blvd													
Base	36	2073	7	19	1585	32	22	0	50	2	0	86	3912
Added	0	0	22	24	0	0	0	0	0	122	0	57	225
Total	36	2073	29	43	1585	32	22	0	50	124	0	143	4137
#2 Exposition Blvd/Crenshaw Blvd													
Base	43	1257	18	113	1704	29	33	309	36	34	216	91	3883
Added	0	22	21	0	122	0	0	5	0	92	46	0	308
Total	43	1279	39	113	1826	29	33	314	36	126	262	91	4191
#3 Rodeo Rd/Crenshaw Blvd													
Base	135	1402	293	201	1683	426	332	1088	113	178	1001	200	7052
Added	0	33	0	23	138	53	6	0	0	0	0	3	256
Total	135	1435	293	224	1821	479	338	1088	113	178	1001	203	7308

Trip Distribution Report

Zone	Percent Of Trips PM Peak							
	To Gates							
	1	3	4	5	6	8		
1	15.0	12.0	14.0	36.0	6.0	17.0		
2	50.0	0.0	0.0	50.0	0.0	0.0		

Impact Analysis Report
 Level Of Service
 2000 HCM Operations Method (Base Volume Alternative)
 Intersection #1 36th St/Crenshaw Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.465
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 3.6
 Optimal Cycle: 35 Level Of Service: A
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Protected	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	10 10 10 10	5 10 10 10	10 10 10 10	10 10 10 10
Lanes:	1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0			

Volume Module:

Base Vol:	36 2073	7 19 1585	32 22 0	50 2 0	86
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Initial Bst:	36 2073	7 19 1585	32 22 0	50 2 0	86
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
PHF Volume:	36 2073	7 19 1585	32 22 0	50 2 0	86
PHF Vol:	0 0	0 0	0 0	0 0	0
Reduced Vol:	36 2073	7 19 1585	32 22 0	50 2 0	86
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Final Vol.:	36 2073	7 19 1585	32 22 0	50 2 0	86

Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900
Adjustment:	0.13 0.91	0.91 0.91	0.91 0.91	0.76 1.00	0.86 1.00
Lanes:	1.00 2.99	0.01 1.00	2.94 0.06	0.31 0.00	0.69 0.02
Final Sat.:	255 5170	17 1805	5069 102 443	0 1008	37 0 1605

Capacity Analysis Module:
 Vol/Sat: 0.14 0.40 0.40 0.31 0.31 0.05 0.00 0.05 0.05 0.00 0.05 0.05 0.00 0.05
 Crit Moves: ****
 Green/Cycle: 0.84 0.84 0.84 0.05 0.89 0.89 0.11 0.00 0.11 0.11 0.00 0.11
 Volume/Cap: 0.17 0.48 0.48 0.21 0.35 0.35 0.44 0.00 0.44 0.48 0.00 0.48
 Delay/Veh: 1.9 2.3 2.3 46.8 1.0 1.0 43.4 0.0 43.4 43.6 0.0 43.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 1.9 2.3 2.3 46.8 1.0 1.0 43.4 0.0 43.4 43.6 0.0 43.6
 DesignQueue: 0 21 0 1 11 0 1 0 2 0 0 4

Impact Analysis Report
 Level Of Service
 2000 HCM Operations Method (Base Volume Alternative)
 Intersection #1 36th St/Crenshaw Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.465
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 3.6
 Optimal Cycle: 35 Level Of Service: A
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Protected	Permitted	Permitted
Rights:	Include	Include	Include	Include
Min. Green:	10 10 10 10	5 10 10 10	10 10 10 10	10 10 10 10
Lanes:	1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0			

Volume Module:

Base Vol:	36 2073	7 19 1585	32 22 0	50 2 0	86
Growth Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Initial Bst:	36 2073	7 19 1585	32 22 0	50 2 0	86
User Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
PHF Volume:	36 2073	7 19 1585	32 22 0	50 2 0	86
PHF Vol:	0 0	0 0	0 0	0 0	0
Reduced Vol:	36 2073	7 19 1585	32 22 0	50 2 0	86
PCE Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
MLF Adj:	1.00 1.00	1.00 1.00	1.00 1.00	1.00 1.00	1.00
Final Vol.:	36 2073	7 19 1585	32 22 0	50 2 0	86

Saturation Flow Module:

Sat/Lane:	1900 1900	1900 1900	1900 1900	1900 1900	1900
Adjustment:	0.13 0.91	0.91 0.91	0.91 0.91	0.76 1.00	0.86 1.00
Lanes:	1.00 2.99	0.01 1.00	2.94 0.06	0.31 0.00	0.69 0.02
Final Sat.:	255 5170	17 1805	5069 102 443	0 1008	37 0 1605

Capacity Analysis Module:
 Vol/Sat: 0.14 0.40 0.40 0.31 0.31 0.05 0.00 0.05 0.05 0.00 0.05 0.05 0.00 0.05
 Crit Moves: ****
 Green/Cycle: 0.84 0.84 0.84 0.05 0.89 0.89 0.11 0.00 0.11 0.11 0.00 0.11
 Volume/Cap: 0.17 0.48 0.48 0.21 0.35 0.35 0.44 0.00 0.44 0.48 0.00 0.48
 Delay/Veh: 1.9 2.3 2.3 46.8 1.0 1.0 43.4 0.0 43.4 43.6 0.0 43.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 1.9 2.3 2.3 46.8 1.0 1.0 43.4 0.0 43.4 43.6 0.0 43.6
 DesignQueue: 0 21 0 1 11 0 1 0 2 0 0 4

Crenshaw Park N Ride Station
Traffic Impact Study

Level of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 36th St/Crenshaw Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.609
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 10.8
 Optimal Cycle: 48 Level of Service: B

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Permitted Permitted
 Rights: Include Include Include Include
 Min. Green: 10 10 10 10 10 10 10 10
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 36 2073 7 19 1585 32 22 0 50 2 0 86
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 36 2073 7 19 1585 32 22 0 50 2 0 86
 User Adj: 0 0 22 24 0 0 0 0 0 122 0 57
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 36 2073 29 43 1585 32 22 0 50 124 0 143
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volumes: 36 2073 29 43 1585 32 22 0 50 124 0 143
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 36 2073 29 43 1585 32 22 0 50 124 0 143
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MFL Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 36 2073 29 43 1585 32 22 0 50 124 0 143

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 2.96 0.04 1.00 2.94 0.06 0.31 0.00 0.69 0.46 0.00 0.54
 Final Sat: 213 5105 71 1805 5069 102 475 0 1079 694 0 800

Capacity Analysis Module:
 Vol/Sat: 0.17 0.41 0.41 0.22 0.31 0.31 0.05 0.00 0.05 0.18 0.00 0.18
 Crit Moves: ****
 Green/Cycle: 0.66 0.66 0.66 0.05 0.71 0.71 0.29 0.00 0.29 0.00 0.29
 Volume/Cap: 0.26 0.62 0.62 0.48 0.44 0.44 0.16 0.00 0.16 0.61 0.00 0.61
 Delay/Veh: 8.0 10.1 10.1 50.2 6.2 6.2 26.5 0.0 26.5 33.2 0.0 33.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 8.0 10.1 10.1 50.2 6.2 6.2 26.5 0.0 26.5 33.2 0.0 33.2
 DesignQueue: 1 43 1 2 28 1 1 0 2 5 0 6

Level of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 Exposition Blvd/Crenshaw Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.586
 Loss Time (sec): 4 (Y+R = 12 sec) Average Delay (sec/veh): 31.8
 Optimal Cycle: 27 Level of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
 Rights: Include Include Include Include
 Min. Green: 5 10 0 5 10 0 0 0
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0

Volume Module:
 Base Vol: 43 1257 18 113 1704 29 33 309 36 34 216 91
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Base: 43 1257 18 113 1704 29 33 309 36 34 216 91
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volumes: 43 1257 18 113 1704 29 33 309 36 34 216 91
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 43 1257 18 113 1704 29 33 309 36 34 216 91
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MFL Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol: 43 1257 18 113 1704 29 33 309 36 34 216 91

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 0.91 0.91 0.95 0.91 0.91 0.95 0.98 0.98 0.95 0.96 0.96
 Final Sat: 1805 5104 73 1805 5085 87 1805 1675 195 1805 1278 538

Capacity Analysis Module:
 Vol/Sat: 0.02 0.25 0.25 0.06 0.34 0.34 0.02 0.18 0.18 0.02 0.17 0.17
 Crit Moves: ****
 Green/Cycle: 0.07 0.39 0.00 0.05 0.41 0.00 0.05 0.39 0.00 0.05 0.39 0.00
 Volume/Cap: 0.34 0.63 xxxxx 1.25 0.82 xxxxx 0.37 0.47 xxxxx 0.38 0.43 xxxxx
 Delay/Veh: 45.9 25.3 0.0 224.4 28.8 0.0 48.5 23.3 0.0 48.6 22.8 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 45.9 25.3 0.0 224.4 28.8 0.0 48.5 23.3 0.0 48.6 22.8 0.0
 DesignQueue: 2 45 1 6 61 2 2 11 2 2 8 5

Intersection #3 Rodeco Rd/Crenshaw Blvd
Critical Vol./Cap. (X): 1.838
Level Of Service: E

Cycle (sec): 100
Loss time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 74.3
Optimal Cycle: 180
Level Of Service: E

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 2 0 1

Volume Module:
Base Vol: 135 1402 293 201 1683 426 332 1088 113 178 1001 200
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 135 1402 293 201 1683 426 332 1088 113 178 1001 200
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 135 1402 293 201 1683 426 332 1088 113 178 1001 200
Initial Fut: 0 0 0 0 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 135 1402 293 201 1683 426 332 1088 113 178 1001 200
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 135 1402 293 201 1683 426 332 1088 113 178 1001 200

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.09 0.89 0.89 0.95 0.88 0.88 0.18 0.94 0.94 0.12 0.95 0.85
Lanes: 1.00 2.48 0.52 1.00 2.39 0.61 1.00 1.81 1.19 1.00 2.00 1.00
Final Sat.: 179 4179 873 1805 4015 1016 342 3225 335 228 3610 1615
Capacity Analysis Module:
Vol/Sat: 0.76 0.34 0.34 0.11 0.42 0.42 0.97 0.34 0.34 0.78 0.28 0.12
Crit Moves: ****
Green/Cycle: 0.42 0.42 0.42 0.05 0.47 0.47 0.53 0.53 0.53 0.53 0.53 0.53
Volume/Cap: 1.78 0.79 0.79 2.26 0.86 0.86 1.85 0.64 0.64 1.48 0.53 0.24
Delay/Veh: 427.2 26.9 26.9 648.2 28.1 28.1 425.1 17.7 17.7 280.7 15.8 13.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 427.2 26.9 26.9 648.2 28.1 28.1 425.1 17.7 17.7 280.7 15.8 13.0
DesignQueue: 4 49 10 11 55 14 9 31 3 5 28 5

Intersection #2 Exposition Blvd/Crenshaw Blvd
Critical Vol./Cap. (X): 0.666
Level Of Service: D

Cycle (sec): 100
Loss time (sec): 4 (Y+R = 12 sec) Average Delay (sec/veh): 40.1
Optimal Cycle: 32
Level Of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Include
Min. Green: 5 10 0 5 10 0 0 0
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 1 0

Volume Module:
Base Vol: 43 1257 18 113 1704 29 33 309 36 34 216 91
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 43 1257 18 113 1704 29 33 309 36 34 216 91
User Adj: 0 22 21 0 122 0 0 5 0 82 46 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 43 1279 39 113 1826 29 33 314 36 126 262 91
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 43 1279 39 113 1826 29 33 314 36 126 262 91
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 43 1279 39 113 1826 29 33 314 36 126 262 91

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.91 0.91 0.95 0.99 0.99 0.95 0.96 0.96 0.96 0.74 0.26
Lanes: 1.00 2.91 0.09 1.00 2.95 0.05 1.00 0.90 1.10 1.00 0.74 0.26
Final Sat.: 1805 5013 153 1805 5096 81 1805 1679 192 1805 1355 471
Capacity Analysis Module:
Vol/Sat: 0.02 0.26 0.26 0.06 0.36 0.36 0.02 0.19 0.19 0.07 0.19 0.19
Crit Moves: ****
Green/Cycle: 0.07 0.39 0.00 0.05 0.41 0.00 0.05 0.39 0.00 0.05 0.39 0.00
Volume/Cap: 0.34 0.65 xxxx 1.25 0.87 xxxx 0.37 0.48 xxxx 1.40 0.50 xxxx
Delay/Veh: 45.9 25.8 0.0 224.4 31.5 0.0 48.5 23.4 0.0 279.7 23.6 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 45.9 25.8 0.0 224.4 31.5 0.0 48.5 23.4 0.0 279.7 23.6 0.0
DesignQueue: 2 46 2 6 65 2 2 11 2 7 9 5

Crenshaw Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #3 Rodeo Rd/Crenshaw Blvd
Cycle (sec): 100 Critical Vol./Cap. (X): 1.891
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 78.7
Optimal Cycle: 180 Level Of Service: E
*****
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Protected Permitted Permitted
Rights: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Min. Green: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 2 0 1
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 1 0 1 0 1 0 2 0 1
*****
Volume Module:
Base Vol: 135 1402 293 201 1683 426 332 1088 113 178 1001 200
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Base: 135 1402 293 201 1683 426 332 1088 113 178 1001 200
Added Vol: 0 33 0 23 138 53 6 0 0 0 0 0 3
PassesByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 135 1435 293 224 1821 479 338 1088 113 178 1001 203
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 135 1435 293 224 1821 479 338 1088 113 178 1001 203
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 135 1435 293 224 1821 479 338 1088 113 178 1001 203
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 135 1435 293 224 1821 479 338 1088 113 178 1001 203
*****
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.09 0.89 0.89 0.88 0.88 0.18 0.94 0.94 0.12 0.95 0.85
Lanes: 1.00 2.49 0.51 1.00 2.38 0.62 1.00 1.81 0.19 1.00 2.00 1.00
Final Sat.: 179 4200 858 1805 3979 1047 334 3225 335 220 3610 1615
*****
Capacity Analysis Module:
Vol/Sat: 0.76 0.34 0.34 0.12 0.46 0.46 1.01 0.34 0.34 0.81 0.28 0.13
Cric Moves: ****
Green/Cycle: 0.42 0.42 0.42 0.06 0.48 0.48 0.52 0.52 0.52 0.52 0.52 0.52
Volume/Cap: 1.78 0.80 0.80 2.17 0.95 0.95 1.95 0.65 0.65 1.56 0.54 0.24
Delay/Veh: 427.4 27.4 27.4 605.7 33.9 33.9 472.2 18.4 18.4 313.6 16.4 13.4
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 427.4 27.4 27.4 605.7 33.9 33.9 472.2 18.4 18.4 313.6 16.4 13.4
DesignQueue: 4 50 10 12 59 15 9 32 3 5 29 6
*****

```

**Level of Service Analysis
Year 2020 With & Without LRT – La Cienega Station
AM & PM Peak**

Scenario Report
 Year 2020 AM peak - With Project
 Command
 Volume: Year 2020 AM Peak - With Project
 Geometry: Future AM
 Impact Fee: Default Impact Fee
 Trip Generation: AM Peak
 Trip Distribution: AM Peak
 Paths: Default Paths
 Routes: Default Routes
 Configuration: Default Configuration

Trip Generation Report

Forecast for AM Peak

Zone #	Subzone	Amount	Units	Rate		Trips		Total % Of Trips Total
				In	Out	In	Out	
1	La Cienega P	530.00	Parking Struct	0.31	0.02	164	11	175 42.7
	Zone 1 Subtotal					164	11	175 42.7
2	La Cienega P	530.00	Parking Lot	0.31	0.02	164	11	175 42.7
	Zone 2 Subtotal					164	11	175 42.7
3	Kiss & Ride	97.00	Parking KissNR	0.31	0.31	30	30	60 14.6
	Zone 3 Subtotal					30	30	60 14.6
TOTAL						358	52	410 100.0

La Cienega Park N Ride Station
Traffic Impact Study

Trip Distribution Report

Percent Of Trips AM Peak

Zone	To Gates					
	2	4	5	6		
1	19.0	0.0	50.0	21.0		
2	3.0	2.0	0.0	5.0		
3	50.0	0.0	50.0	0.0		

La Cienega Park N Ride Station
Traffic Impact Study

Turning Movement Report

AM Peak

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total				
	Left	Thru Right	Left	Thru Right	Left	Thru Right	Left	Thru Right					
#1 La Cienega Blvd/Jefferson Blvd													
Base	94	2614	119	23	1800	426	340	485	102	262	810	97	7172
Added	0	0	0	51	0	0	0	3	0	0	0	0	2
Bus	0	0	8	0	0	0	0	0	0	0	6	0	14
Total	94	2614	127	74	1800	426	340	488	102	268	810	99	7242
#2 Jefferson Blvd/National Blvd													
Base	0	363	0	0	766	776	315	0	155	0	12	0	2587
Added	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	366	0	0	766	776	315	0	155	0	12	0	2590
#3 Jefferson Blvd/La Cienega Station Drwy													
Base	0	0	0	0	0	0	0	627	0	0	1169	0	1796
Added	2	0	2	0	0	0	8	31	34	1	0	0	78
Bus	6	0	0	0	0	0	8	0	8	0	8	0	22
Total	8	0	2	0	0	0	643	31	42	1170	0	0	1896

Impact Analysis Report
 Level Of Service

Intersection	Base Del/V/LOS Veh C	Future Del/V/LOS Veh C	Change in
# 1 La Cienega Blvd/Jefferson Blvd	38.7 0.999 D	39.7 0.999 C	+ 1.067 D/V
# 2 Jefferson Blvd/National Blvd	29.8 0.422 C	29.8 0.422 C	-0.005 D/V
# 3 Jefferson Blvd/La Cienega Stat	0.0 0.324 A	1.6 0.330 A	+ 1.560 D/V

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 La Cienega Blvd/Jefferson Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.999
 Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (scc/veh): 38.7
 Optimal Cycle: 180 Level of Service: D

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Permitted	Protected	Protected
Rights:	Include	Include	Include
Min. Green:	5 10 10 5 10 10	5 10 10 5 10 10	5 10 10 5 10 10
Lanes:	1 0 2 1 0 1 0 3 0 1 2 0 1 1 0 2 0 2 0 1		

Volume Module:

Base Vol:	119	23 1800	426	340 485	102 262 810	97
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bss:	94 2614	119	23 1800	426	340 485	102 262 810
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	94 2614	119	23 1800	426	340 485	102 262 810
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	94 2614	119	23 1800	426	340 485	102 262 810
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	94 2614	119	23 1800	426	340 485	102 262 810

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900
Adjustment:	0.07 0.90	0.90	0.07 0.91	0.85	0.92 0.93	0.92 0.95
Lanes:	1.00 2.87	0.13	1.00 3.00	1.00	2.00 1.65	0.35 2.00
Final Sat.:	139 4926	224	139 5187	1615	3502 2905	611 3502 3610 1615

Capacity Analysis Module:

Vol/Sat:	0.68 0.53	0.53	0.17 0.35	0.26	0.10 0.17	0.17 0.07 0.22
Crit Moves:	****	****	****	****	****	****
Green/Cycle:	0.55 0.55	0.55	0.55 0.55	0.55	0.08 0.21	0.21 0.12 0.25
Volume/Cap:	1.23 0.96	0.96	0.30 0.63	0.48	1.21 0.79	0.79 0.62 0.90
Delay/Veh:	200.5 31.6	31.6	14.4 16.0	14.2 170.4	43.4 44.8	47.9 30.2
User DelAdj:	1.00 1.00	1.00	1.00 1.00	1.00	1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	200.5 31.6	31.6	14.4 16.0	14.2 170.4	43.4 44.8	47.9 30.2
DesignQueue:	2 75	3	1 49	11 18	22 5	13 36

Level of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)
 Intersection #1 La Cienega Blvd/Jefferson Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.999
 Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 39.7
 Optimal Cycle: 180 Level of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Include Protected Protected
 Rights: 5 10 10 5 10 0 5 10 10 5 10 10
 Min. Green: 1 0 2 1 0 1 0 3 0 1 2 0 1 1 0 2 0 2 0 1
 Lanes: 1 0 2 1 0 1 0 3 0 1 2 0 1 1 0 2 0 2 0 1

Volume Module:
 Base Vol: 94 2614 119 23 1800 426 340 485 102 262 810 97
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 94 2614 119 23 1800 426 340 485 102 262 810 97
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Bus: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 94 2614 127 74 1800 426 340 488 102 268 810 99
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 94 2614 127 74 1800 426 340 488 102 268 810 99
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 94 2614 127 74 1800 426 340 488 102 268 810 99

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 1.00 2.86 0.14 1.00 3.00 1.00 2.00 1.65 0.35 2.00 2.00
 Final Sat.: 139 4912 239 139 5187 1615 3502 2908 608 3502 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.68 0.53 0.53 0.26 0.10 0.17 0.17 0.08 0.22 0.06
 Crit Moves: ****
 Green/Cycle: 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55 0.55
 Volume/Cap: 1.23 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 Delay/Veh: 200.5 32.1 32.1 114.2 16.0 14.2 170.4 43.7 43.7 45.2 47.9
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 200.5 32.1 32.1 114.2 16.0 14.2 170.4 43.7 43.7 45.2 47.9
 DesignQueue: 2 75 4 2 49 11 18 22 5 13 36 4

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)
 Intersection #2 Jefferson Blvd/National Blvd
 Cycle (sec): 110 Critical Vol./Cap. (X): 0.422
 Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 29.8
 Optimal Cycle: 55 Level of Service: C
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Include Protected Protected
 Rights: 0 10 0 0 10 10 10 10 10 0 10 0 35 0
 Min. Green: 1 0 2 0 0 0 0 1 1 1 0 1 0 1 0 0 1 0 0
 Lanes: 1 0 2 0 0 0 0 1 1 1 1 0 1 0 1 0 0 1 0 0

Volume Module:
 Base Vol: 0 563 0 0 766 776 315 0 155 0 12 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 563 0 0 766 776 315 0 155 0 12 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 563 0 0 766 776 315 0 155 0 12 0
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MIF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 563 0 0 766 776 315 0 155 0 12 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adj: 1.00 0.95 1.00 1.00 0.88 0.88 0.92 1.00 0.92 1.00 1.00
 Adj: 1.00 2.00 0.00 0.00 1.49 1.51 1.67 0.00 1.33 0.00 1.00
 Lanes: 1.00 3610 0 0 2488 2521 2921 0 2326 0 1900 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.16 0.00 0.00 0.31 0.31 0.11 0.00 0.07 0.00 0.01 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.43 0.43 0.43 0.43 0.43 0.14 0.14 0.14 0.31 0.31
 Volume/Cap: 0.00 0.36 0.00 0.00 0.72 0.72 0.77 0.00 0.48 0.00 0.02 0.00
 Delay/Veh: 0 21.3 0 0 27.0 27.0 51.6 0 43.9 0 26.4 0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0 20 0 0 29 29 17 0 8 0 1 0
 DesignQueue: 0 20 0 0 29 29 17 0 8 0 1 0

La Cienega Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #3 Jefferson Blvd/La Cienega Station Drwy
Cycle (sec): 100 Critical Vol./Cap. (X): 0.324
Loss time (sec): 0 (Y+R = 8 sec) Average Delay (sec/veh): 0.0
Optimal Cycle: 28 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0

Volume Module:
Base Vol: 0
Growth Adj: 1.00
Initial Bse: 0
User Adj: 1.00
PHF Adj: 1.00
PHF Volume: 0
Reduced Vol: 0
PCE Adj: 1.00
MLF Adj: 1.00
Final Vol.: 0

Saturation Flow Module:
Sat/Lane: 1900
Adjustment: 1.00
Lanes: 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 1900 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00
Crit Moves: 0.00
Volume/Cap: 0.00
Delay/Veh: 0.0
User DelAdj: 1.00
AdjDel/Veh: 0.0
DesignQueue: 0

La Cienega Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #2 Jefferson Blvd/National Blvd
Cycle (sec): 110 Critical Vol./Cap. (X): 0.422
Loss time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 29.8
Optimal Cycle: 55 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 10 0 0 10 10 10 0 10 0 35 0
Lanes: 1 0 2 0 0 0 1 1 1 0 1 0 1 0 0 1 0 0 0 0 0

Volume Module:
Base Vol: 0 563 0 0 766 776 315 0 155 0 12 0
Growth Adj: 1.00
Initial Bse: 0 563 0 0 766 776 315 0 155 0 12 0
User Adj: 1.00
PHF Adj: 1.00
PHF Volume: 0 566 0 0 766 776 315 0 155 0 12 0
Reduced Vol: 0 566 0 0 766 776 315 0 155 0 12 0
PCE Adj: 1.00
MLF Adj: 1.00
Final Vol.: 0 566 0 0 766 776 315 0 155 0 12 0

Saturation Flow Module:
Sat/Lane: 1900
Adjustment: 1.00 0.95 1.00 1.00 0.88 0.88 0.92 1.00 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 1.49 1.51 1.67 0.00 1.33 0.00 1.00 0.00
Final Sat.: 1900 3610 0 0 2488 2521 2921 0 2326 0 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.16 0.00 0.00 0.31 0.31 0.11 0.00 0.07 0.00 0.01 0.00
Crit Moves: 0.00 0.43 0.43 0.43 0.43 0.14 0.14 0.14 0.31 0.31 0.31
Volume/Cap: 0.00 0.36 0.00 0.00 0.72 0.72 0.77 0.00 0.48 0.00 0.02 0.00
Delay/Veh: 0.0 21.3 0.0 0.0 27.0 27.0 51.6 0.0 43.9 0.0 26.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 21.3 0.0 0.0 27.0 27.0 51.6 0.0 43.9 0.0 26.4 0.0
DesignQueue: 0 21 0 0 29 29 17 0 8 0 1 0

La Cienega Park N Ride Station
Traffic Impact Study

Trip Generation Report

Forecast for PM Peak

Zone #	Subzone	Amount	Units	Rate		Trips		Total % Of	
				In	Out	In	Out	Trips	Trips Total
1	La Cienega P	530.00	Parking Struct	0.05	0.44	27	233	260	42.9
	Zone 1 Subtotal					27	233	260	42.9
2	La Cienega P	530.00	Parking Lot	0.05	0.44	27	233	260	42.9
	Zone 2 Subtotal					27	233	260	42.9
3	Kiss & Ride	97.00	Parking Kiss&R	0.44	0.44	43	43	86	14.2
	Zone 3 Subtotal					43	43	86	14.2
TOTAL						97	509	606	100.0

La Cienega Park N Ride Station
Traffic Impact Study

Scenario Report

Year 2020 PM peak - With Project

Command: Default Command
 Volume: Year 2020 PM Peak - With Project
 Geometry: Future PM
 Impact Fee: Default Impact Fee
 Trip Generation: PM Peak
 Paths: Default Paths
 Routes: Default Routes
 Configuration: Default Configuration

La Cienega Park N Ride Station
Traffic Impact Study

Turning Movement Report
PM Peak

Volume Type	Northbound		Southbound		Eastbound		Westbound		Total				
	Left	Thru	Right	Left	Thru	Right	Left	Thru		Right			
#1 La Cienega Blvd/Jefferson Blvd													
Base	65	2423	224	44	2339	274	590	764	279	372	421	114	7909
Added	0	0	0	27	0	0	0	1	0	0	5	51	84
PassBy	0	0	0	0	0	0	0	0	0	0	0	0	14
Total	65	2423	232	71	2339	274	590	765	279	378	426	165	8007
#2 Jefferson Blvd/National Blvd													
Base	0	1014	0	0	523	372	892	0	423	0	12	0	3236
Added	0	1	0	0	5	0	0	0	0	0	0	0	6
Total	0	1015	0	0	528	372	892	0	423	0	12	0	3242
#3 Jefferson Blvd/La Cienega Station Drwy													
Base	0	0	0	0	0	0	0	1032	0	0	907	0	1939
Added	44	0	49	0	0	0	0	1	5	6	12	0	117
Bus	6	0	0	0	0	0	0	0	8	0	8	0	22
Total	50	0	49	0	0	0	0	1041	5	14	919	0	2078

La Cienega Park N Ride Station
Traffic Impact Study

Trip Distribution Report

Zone	Percent Of Trips PM Peak					
	To Gate 2	To Gate 4	To Gate 5	To Gate 6	To Gate 7	To Gate 8
1	19.0	0.0	50.0	21.0	0.0	0.0
2	3.0	2.0	0.0	5.0	0.0	0.0
3	50.0	0.0	50.0	0.0	0.0	0.0

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #1 La Cienega Blvd/Jefferson Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.924
 Loss Time (sec): 0 (V+R = 13 sec) Average Delay (sec/veh): 47.5
 Optimal Cycle: 180 Level Of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Min. Green: 5 10 10 5 10 10 5 10 10
 Lanes: 1 0 2 1 0 1 0 3 0 1 2 0 1 1 0 2 0 2 0 1
 Volume Module:
 Base Vol: 65 2423 224 44 2339 274 590 764 279 372 421 114
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 65 2423 224 44 2339 274 590 764 279 372 421 114
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 65 2423 224 44 2339 274 590 764 279 372 421 114
 Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Sat/Lane: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PCF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 65 2423 224 44 2339 274 590 764 279 372 421 114
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.08 0.90 0.25 1.00 3.00 1.00 2.00 1.47 0.53 2.00 2.00 1.00
 Lanes: 1.00 2.75 0.25 1.00 3.00 1.00 2.00 1.47 0.53 2.00 2.00 1.00
 Final Sat.: 152 4686 433 139 5187 1615 3502 2539 927 3502 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.43 0.52 0.52 0.32 0.45 0.17 0.17 0.30 0.30 0.11 0.12 0.07
 Crit Moves: Green/Cycle: 0.50 0.50 0.50 0.55 0.55 0.55 0.22 0.28 0.28 0.10 0.16 0.16
 Volume/Cap: 0.86 1.03 1.03 0.58 0.82 0.31 0.77 1.07 1.07 1.06 0.73 0.44
 Delay/Veh: 79.1 52.3 52.3 25.3 20.4 12.4 41.2 87.2 87.2 110.5 44.6 39.2
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 79.1 52.3 52.3 25.3 20.4 12.4 41.2 87.2 87.2 110.5 44.6 39.2
 DesignQueue: 2 77 7 1 66 7 27 33 12 19 20 5

Impact Analysis Report
 Level Of Service

 Intersection Base Vol./Cap. Future Del./Veh C Change In
 # 1 La Cienega Blvd/Jefferson Blvd D 47.5 0.924 D 48.8 0.928 + 1.360 D/V
 # 2 Jefferson Blvd/National Blvd D 48.4 0.591 D 48.4 0.591 + 0.040 D/V
 # 3 Jefferson Blvd/La Cienega Stat A 0.0 0.286 A 4.5 0.362 + 4.505 D/V

Level Of Service Computation Report
 2000 HCM Operations Method (Future Volume Alternative)

 Intersection #1 La Cienega Blvd/Jefferson Blvd
 Cycle (sec): 100 Critical Vol./Cap. (X): 0.928
 Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 48.8
 Optimal Cycle: 180 Level Of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Protected Protected
 Rights: Include Include Include Include
 Min. Green: 5 10 10 5 10 10 5 10 10 5 10 10
 Lanes: 1 0 2 1 0 1 0 3 0 1 2 0 1 1 0 2 0 2 0 1
 Volume Module:
 Base Vol: 65 2423 224 44 2339 274 590 764 279 372 421 114
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 65 2423 224 44 2339 274 590 764 279 372 421 114
 Added Vol: 0 0 0 27 0 0 0 0 1 0 0 0 5 51
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 6 0 0
 Initial Fut: 65 2423 232 71 2339 274 590 765 279 378 426 165
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 65 2423 232 71 2339 274 590 765 279 378 426 165
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 65 2423 232 71 2339 274 590 765 279 378 426 165
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 65 2423 232 71 2339 274 590 765 279 378 426 165
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.08 0.90 0.90 0.07 0.91 0.85 0.92 0.91 0.91 0.92 0.95 0.85
 Lanes: 1.00 2.74 0.26 1.00 3.00 1.00 2.00 1.47 0.53 2.00 2.00 1.00
 Final Sat.: 152 4672 447 139 5187 1615 3502 2539 926 3502 3610 1615
 Capacity Analysis Module:
 Vol/Sat: 0.43 0.52 0.52 0.51 0.45 0.17 0.17 0.30 0.30 0.11 0.12 0.10
 Crit Moves: ****
 Green/Cycle: 0.50 0.50 0.50 0.55 0.55 0.55 0.22 0.28 0.28 0.10 0.16 0.16
 Volume/Cap: 0.96 1.04 1.04 0.93 0.82 0.31 0.77 1.08 1.08 1.08 0.74 0.64
 Delay/Veh: 79.1 53.3 53.3 100.2 20.4 12.4 41.2 87.6 87.6 116.0 45.0 44.6
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 79.1 53.3 53.3 100.2 20.4 12.4 41.2 87.6 87.6 116.0 45.0 44.6
 DesignQueue: 2 77 7 2 66 7 27 33 12 19 20 8

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #2 Jefferson Blvd/National Blvd
 Cycle (sec): 110 Critical Vol./Cap. (X): 0.591
 Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 48.4
 Optimal Cycle: 55 Level Of Service: D
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Permitted Permitted Split Phase Split Phase
 Rights: Include Include Include Include
 Min. Green: 0 10 0 0 10 10 10 0 10 0 35 0
 Lanes: 1 0 2 0 0 0 0 1 1 1 0 1 0 1 0 0 1 0 0
 Volume Module:
 Base Vol: 0 1014 0 0 523 372 892 0 423 0 12 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 0 1014 0 0 523 372 892 0 423 0 12 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Volume: 0 1014 0 0 523 372 892 0 423 0 12 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 1014 0 0 523 372 892 0 423 0 12 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 0 1014 0 0 523 372 892 0 423 0 12 0
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 0.95 1.00 1.00 0.89 0.89 0.92 1.00 0.92 1.00 1.00 1.00
 Lanes: 1.00 2.00 0.00 0.00 1.75 1.25 1.68 0.00 1.32 0.00 1.00 0.00
 Final Sat.: 1900 3610 0 0 2968 2111 2936 0 2312 0 1900 0
 Capacity Analysis Module:
 Vol/Sat: 0.00 0.28 0.00 0.00 0.18 0.18 0.30 0.00 0.18 0.00 0.01 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.30 0.00 0.00 0.30 0.30 0.30 0.00 0.30 0.31 0.31 0.31
 Volume/Cap: 0.00 0.94 0.00 0.00 0.59 0.59 1.01 0.00 0.61 0.00 0.02 0.00
 Delay/Veh: 0.0 52.0 0.0 0.0 33.3 33.3 66.7 0.0 33.5 0.0 26.4 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 0.0 52.0 0.0 0.0 33.3 33.3 66.7 0.0 33.5 0.0 26.4 0.0
 DesignQueue: 0 47 0 0 23 17 41 0 19 0 1 0

La Cienega Park N Ride Station
Traffic Impact Study

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)
Intersection #3 Jefferson Blvd/La Cienega Station Drwy
Cycle (sec): 100 Critical Vol./Cap. (X): 0.286
Loss Time (sec): 0 (Y+R = 8 sec) Average Delay (sec/veh): 0.0
Optimal Cycle: 26 Level of Service: A

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R L T R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 10 0 0 0 0 0 0 10 0 0 10 0 0 10 0
Lanes: 0 0 1 0 0 0 0 0 0 0 0 1 0 1 0 1 0 2 0 0

Volume Module:
Base Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.00 1.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Final Sat.: 0 1900 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Crit Moves: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Green/Cycle: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Volume/Cap: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Delay/Veh: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
DesignQueue: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

La Cienega Park N Ride Station
Traffic Impact Study

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #2 Jefferson Blvd/National Blvd
Cycle (sec): 110 Critical Vol./Cap. (X): 0.591
Loss Time (sec): 0 (Y+R = 13 sec) Average Delay (sec/veh): 48.4
Optimal Cycle: 55 Level of Service: D

Approach: North Bound South Bound East Bound West Bound
Movement: L T R L T R L T R L T R L T R L T R
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 10 0 0 10 10 10 0 10 0 35 0
Lanes: 1 0 2 0 0 0 1 1 1 0 1 1 0 1 0 1 0 1 0 0

Volume Module:
Base Vol: 0 1014 0 0 523 372 892 0 423 0 12 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 1014 0 0 523 372 892 0 423 0 12 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 0 1015 0 0 528 372 892 0 423 0 12 0
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 0 1015 0 0 528 372 892 0 423 0 12 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.95 1.00 1.00 0.89 0.89 0.92 1.00 0.92 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.00 0.00 0.00 1.76 1.24 1.68 0.00 1.32 0.00 1.00 0.00
Final Sat.: 1900 3610 0 0 2960 2099 2936 0 2312 0 1900 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.28 0.00 0.00 0.18 0.18 0.30 0.00 0.18 0.00 0.01 0.00
Crit Moves: 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
Green/Cycle: 0.00 0.30 0.00 0.00 0.30 0.30 0.30 0.00 0.30 0.31 0.31 0.31
Volume/Cap: 0.00 0.94 0.00 0.00 0.59 0.59 1.01 0.00 0.61 0.00 0.02 0.00
Delay/Veh: 0.0 52.2 0.0 0.0 33.4 33.4 66.7 0.0 33.5 0.0 26.4 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 52.2 0.0 0.0 33.4 33.4 66.7 0.0 33.5 0.0 26.4 0.0
DesignQueue: 0 47 0 0 24 17 41 0 19 0 1 0

La Cienega Park N Ride Station
Traffic Impact Study

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Jefferson Blvd/La Cienega Station Drwy
Critical Vol./Cap. (X): 0.362

Cycle (sec): 100 (Y+R = 8 sec) Average Delay (sec/Veh): 4.5

Optimal Cycle: 29 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 10 0 0 0 0 0 0 10 0 0 10 0

Lanes: 0 0 1 0 0 0 0 0 0 0 1 0 1 0 2 0 0

Volume Module:

Base Vol: 0 0 0 0 0 0 0 0 1032 0 0 907 0

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 0 0 0 0 0 1032 0 0 907 0

Added Vol: 44 0 49 0 0 0 0 0 1 5 6 12 0

Bus: 6 0 0 0 0 0 0 0 8 0 6 0 0

Initial Fut: 50 0 49 0 0 0 0 0 1041 5 14 919 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 50 0 49 0 0 0 0 0 1041 5 14 919 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 50 0 49 0 0 0 0 0 1041 5 14 919 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 50 0 49 0 0 0 0 0 1041 5 14 919 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.81 1.00 0.81 1.00 1.00 1.00 1.00 1.00 0.95 0.95 0.95 1.00

Lanes: 0.51 0.00 0.49 0.00 0.00 0.00 0.00 1.99 0.01 1.00 2.00 0.00

Final Sat.: 774 0 758 0 0 0 0 0 3589 17 1805 3610 0

Capacity Analysis Module:

Vol/Sat: 0.06 0.00 0.06 0.00 0.00 0.00 0.29 0.29 0.01 0.25 0.00

Crit Moves: ****

Green/Cycle: 0.18 0.00 0.18 0.00 0.00 0.00 0.80 0.80 0.02 0.82 0.00

Volume/Cap: 0.36 0.00 0.36 0.00 0.00 0.00 0.36 0.36 0.36 0.31 0.00

Delay/Veh: 36.9 0.0 36.9 0.0 0.0 0.0 2.9 2.9 54.0 2.2 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 36.9 0.0 36.9 0.0 0.0 0.0 2.9 2.9 54.0 2.2 0.0

DesignQueue: 2 0 2 0 0 0 0 0 12 0 1 10 0

**Level of Service Analysis
Year 2020 With & Without LRT – Venice Station
AM & PM Peak**