

Appendix A

Roadway Segment Average Daily Traffic & Intersection Turning Movement Counts

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH LONE HILL AVENUE BETWEEN WEST GLADSTONE STREET
 AND AUTO CENTRE DRIVE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	35	12	14	5	66
1:00	11	6	10	7	34
2:00	27	4	4	4	39
3:00	4	6	6	6	22
4:00	8	11	10	21	50
5:00	22	18	17	38	95
6:00	56	63	86	113	318
7:00	106	107	139	151	503
8:00	158	150	130	157	595
9:00	120	142	160	172	594
10:00	172	166	190	216	744
11:00	200	228	258	258	944
12:00	258	228	208	225	919
13:00	216	186	185	178	765
14:00	204	156	186	186	732
15:00	224	189	212	174	799
16:00	178	175	194	202	749
17:00	256	262	271	245	1034
18:00	241	228	248	212	929
19:00	232	242	207	204	885
20:00	158	152	115	142	567
21:00	150	104	80	71	405
22:00	54	60	52	36	202
23:00	41	26	36	15	118
				TOTAL	12108
AM PEAK HOUR		1100-1200			
VOLUME		944			
PM PEAK HOUR		1700-1800			
VOLUME		1034			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	25	14	14	16	69
1:00	13	11	9	4	37
2:00	7	6	5	1	19
3:00	3	6	6	4	19
4:00	9	9	7	22	47
5:00	22	22	32	52	128
6:00	80	146	198	266	690
7:00	251	302	273	296	1122
8:00	204	198	174	149	725
9:00	104	116	122	148	490
10:00	132	150	166	146	594
11:00	160	145	202	196	703
12:00	205	248	180	219	852
13:00	234	192	236	223	885
14:00	196	215	190	182	783
15:00	196	222	216	176	810
16:00	204	215	186	220	825
17:00	200	224	228	214	866
18:00	202	214	202	187	805
19:00	168	154	149	112	583
20:00	144	118	92	88	442
21:00	76	60	66	79	281
22:00	56	50	45	33	184
23:00	39	27	20	14	100
				TOTAL	12059
AM PEAK HOUR		0700-0800			
VOLUME		1122			
PM PEAK HOUR		1300-1400			
VOLUME		885			

TOTAL BI-DIRECTIONAL VOLUME	24167

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
PROJECT: GOLD LINE FOOTHILL EXTENSION
LOCATION: SOUTH LORAIN AVENUE BETWEEN ROUTE 66
AND EAST LEMON AVENUE
DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	7	5	3	7	22
1:00	1	3	2	5	11
2:00	2	2	4	1	9
3:00	1	0	2	1	4
4:00	3	0	2	2	7
5:00	5	6	5	6	22
6:00	14	13	16	30	73
7:00	46	54	84	116	300
8:00	80	46	42	50	218
9:00	36	38	43	47	164
10:00	52	34	51	30	167
11:00	46	58	57	70	231
12:00	69	60	79	69	277
13:00	76	75	66	78	295
14:00	76	82	92	100	350
15:00	76	76	80	56	288
16:00	69	82	69	78	298
17:00	63	96	80	94	333
18:00	70	83	69	86	308
19:00	80	62	70	68	280
20:00	62	52	48	43	205
21:00	51	40	38	33	162
22:00	23	31	32	15	101
23:00	13	14	14	6	47
				TOTAL	4172
AM PEAK HOUR		0715-0815			
VOLUME		334			
PM PEAK HOUR		1400-1500			
VOLUME		350			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	7	4	4	18
1:00	2	6	4	4	16
2:00	3	3	2	2	10
3:00	1	5	5	5	16
4:00	5	7	9	10	31
5:00	12	20	31	23	86
6:00	37	48	41	66	192
7:00	72	80	130	108	390
8:00	128	113	76	98	415
9:00	64	60	82	52	258
10:00	62	58	79	75	274
11:00	74	74	66	55	269
12:00	90	70	84	74	318
13:00	78	74	74	78	304
14:00	76	104	128	113	421
15:00	102	78	66	75	321
16:00	86	76	94	81	337
17:00	96	83	84	86	349
18:00	78	76	74	72	300
19:00	90	67	64	65	286
20:00	60	48	41	44	193
21:00	37	36	25	30	128
22:00	28	16	16	10	70
23:00	11	6	10	4	31
				TOTAL	5033
AM PEAK HOUR		0730-0830			
VOLUME		479			
PM PEAK HOUR		1415-1515			
VOLUME		447			

TOTAL BI-DIRECTIONAL VOLUME	9205

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH ELWOOD AVENUE BETWEEN ROUTE 66
 AND EAST LEMON AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	0	1	1	4
1:00	3	1	2	1	7
2:00	0	0	1	1	2
3:00	0	0	1	0	1
4:00	0	1	0	2	3
5:00	3	0	4	1	8
6:00	4	6	4	4	18
7:00	11	11	12	26	60
8:00	26	18	18	13	75
9:00	10	18	11	8	47
10:00	12	14	15	6	47
11:00	10	12	13	19	54
12:00	19	20	14	18	71
13:00	15	31	19	21	86
14:00	20	24	27	17	88
15:00	16	22	26	18	82
16:00	16	22	24	30	92
17:00	37	29	26	27	119
18:00	37	25	25	26	113
19:00	22	25	14	20	81
20:00	18	16	9	13	56
21:00	22	13	14	10	59
22:00	14	7	5	6	32
23:00	8	5	2	3	18
				TOTAL	1223
AM PEAK HOUR		0745-0845			
VOLUME		88			
PM PEAK HOUR		1645-1745			
VOLUME		122			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	0	1	0	4
1:00	0	0	1	3	4
2:00	0	2	1	0	3
3:00	0	2	1	3	6
4:00	0	4	3	8	15
5:00	4	6	12	6	28
6:00	12	15	11	18	56
7:00	20	19	24	31	94
8:00	30	24	26	17	97
9:00	15	20	11	17	63
10:00	14	18	13	14	59
11:00	14	17	22	12	65
12:00	19	14	20	23	76
13:00	20	12	18	20	70
14:00	19	12	27	28	86
15:00	16	20	16	18	70
16:00	18	18	18	17	71
17:00	26	16	18	20	80
18:00	15	10	20	12	57
19:00	15	15	18	10	58
20:00	7	3	11	10	31
21:00	9	6	3	4	22
22:00	4	5	2	3	14
23:00	2	2	4	1	9
				TOTAL	1138
AM PEAK HOUR		0745-0845			
VOLUME		111			
PM PEAK HOUR		1430-1530			
VOLUME		91			

TOTAL BI-DIRECTIONAL VOLUME

2361

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH GLENWOOD AVENUE BETWEEN ROUTE 66
 AND EAST LEMON AVENUE
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	3	1	1	8
1:00	2	0	0	0	2
2:00	0	0	0	0	0
3:00	1	0	0	1	2
4:00	0	1	2	0	3
5:00	2	2	2	1	7
6:00	4	5	10	8	27
7:00	5	17	12	15	49
8:00	22	18	23	10	73
9:00	9	18	12	9	48
10:00	12	12	10	14	48
11:00	5	12	28	29	74
12:00	15	16	23	24	78
13:00	24	16	18	20	78
14:00	17	20	25	14	76
15:00	24	26	19	30	99
16:00	32	32	23	20	107
17:00	31	30	35	22	118
18:00	30	17	18	16	81
19:00	19	24	21	12	76
20:00	10	17	20	15	62
21:00	21	10	6	8	45
22:00	10	2	5	4	21
23:00	3	7	3	1	14
				TOTAL	1196
AM PEAK HOUR		0745-0845			
VOLUME		78			
PM PEAK HOUR		1700-1800			
VOLUME		118			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	3	0	2	8
1:00	3	1	0	0	4
2:00	0	0	0	0	0
3:00	0	0	3	0	3
4:00	0	2	2	5	9
5:00	1	8	8	6	23
6:00	12	10	13	14	49
7:00	26	24	34	20	104
8:00	28	26	30	20	104
9:00	19	21	19	22	81
10:00	11	11	25	15	62
11:00	13	22	20	20	75
12:00	18	22	15	18	73
13:00	18	30	24	19	91
14:00	27	18	15	26	86
15:00	18	22	18	25	83
16:00	18	19	19	22	78
17:00	23	17	20	22	82
18:00	32	22	13	13	80
19:00	19	11	17	11	58
20:00	18	7	6	6	37
21:00	5	9	7	4	25
22:00	5	4	2	3	14
23:00	9	0	3	0	12
				TOTAL	1241
AM PEAK HOUR		0730-0830			
VOLUME		108			
PM PEAK HOUR		1315-1415			
VOLUME		100			

TOTAL BI-DIRECTIONAL VOLUME	2437

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH PASADENA AVENUE BETWEEN ROUTE 66
 AND EAST LEMON AVENUE
 DATE: THURSDAY MAY 20, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	5	4	1	4	14
1:00	1	2	1	2	6
2:00	4	1	0	0	5
3:00	2	2	1	1	6
4:00	2	1	0	1	4
5:00	2	1	2	0	5
6:00	3	8	6	6	23
7:00	8	9	8	18	43
8:00	20	24	18	12	74
9:00	12	13	12	9	46
10:00	8	8	10	12	38
11:00	14	15	16	21	66
12:00	14	14	10	24	62
13:00	10	25	17	19	71
14:00	22	20	16	20	78
15:00	23	30	20	28	101
16:00	22	23	20	26	91
17:00	14	30	15	30	89
18:00	22	26	24	22	94
19:00	24	14	24	20	82
20:00	14	15	10	12	51
21:00	9	18	13	8	48
22:00	6	3	6	13	28
23:00	10	8	3	4	25
				TOTAL	1150
AM PEAK HOUR		0745-0845			
VOLUME		80			
PM PEAK HOUR		1745-1845			
VOLUME		102			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	2	1	1	6
1:00	3	1	1	1	6
2:00	2	1	1	2	6
3:00	0	1	0	4	5
4:00	0	2	0	2	4
5:00	7	5	8	6	26
6:00	13	13	8	12	46
7:00	17	12	18	29	76
8:00	26	34	26	26	112
9:00	11	21	9	14	55
10:00	16	14	13	16	59
11:00	18	13	10	12	53
12:00	9	12	14	9	44
13:00	28	15	12	17	72
14:00	23	30	11	21	85
15:00	20	33	20	24	97
16:00	17	19	25	25	86
17:00	25	17	18	19	79
18:00	24	16	9	20	69
19:00	17	14	9	18	58
20:00	14	6	11	4	35
21:00	10	10	8	12	40
22:00	7	5	9	4	25
23:00	4	2	6	1	13
				TOTAL	1157
AM PEAK HOUR		0745-0845			
VOLUME		115			
PM PEAK HOUR		1500-1600			
VOLUME		97			

TOTAL BI-DIRECTIONAL VOLUME	2307

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH GLENDORA AVENUE BETWEEN ROUTE 66
 AND FOOTHILL BOULEVARD
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	14	12	15	12	53
1:00	6	4	4	3	17
2:00	1	7	4	5	17
3:00	4	3	5	8	20
4:00	5	4	8	11	28
5:00	9	14	13	21	57
6:00	23	29	40	60	152
7:00	66	116	128	196	506
8:00	200	147	102	130	579
9:00	115	98	94	120	427
10:00	116	120	126	140	502
11:00	126	121	131	128	506
12:00	148	144	137	169	598
13:00	134	152	162	143	591
14:00	162	154	158	175	649
15:00	162	180	182	172	696
16:00	178	167	173	183	701
17:00	153	158	158	155	624
18:00	128	136	135	136	535
19:00	110	116	114	98	438
20:00	78	90	95	88	351
21:00	92	66	52	44	254
22:00	44	36	29	30	139
23:00	23	18	17	19	77
				TOTAL	8517
AM PEAK HOUR		0730-0830			
VOLUME		671			
PM PEAK HOUR		1515-1615			
VOLUME		712			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	16	6	3	7	32
1:00	3	4	2	2	11
2:00	2	5	1	5	13
3:00	6	5	2	5	18
4:00	11	19	8	17	55
5:00	20	26	39	39	124
6:00	32	44	58	59	193
7:00	79	100	101	102	382
8:00	105	124	115	92	436
9:00	94	105	99	101	399
10:00	94	107	122	112	435
11:00	102	118	146	134	500
12:00	135	134	126	140	535
13:00	152	112	133	138	535
14:00	138	144	159	146	587
15:00	163	138	142	118	561
16:00	150	154	128	149	581
17:00	182	140	140	111	573
18:00	103	126	126	114	469
19:00	118	90	81	66	355
20:00	80	78	76	62	296
21:00	68	66	60	41	235
22:00	36	21	18	18	93
23:00	12	13	7	2	34
				TOTAL	7452
AM PEAK HOUR		1100-1200			
VOLUME		500			
PM PEAK HOUR		1615-1715			
VOLUME		613			

TOTAL BI-DIRECTIONAL VOLUME	15969

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH VERMONT AVENUE BETWEEN ROUTE 66
 AND WEST FOOTHILL BOULEVARD
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	4	0	0	5
1:00	0	1	1	0	2
2:00	1	0	0	0	1
3:00	2	2	1	2	7
4:00	2	3	0	2	7
5:00	2	2	1	7	12
6:00	4	12	10	20	46
7:00	20	19	22	36	97
8:00	34	30	32	26	122
9:00	18	24	32	28	102
10:00	19	21	24	24	88
11:00	24	23	26	26	99
12:00	18	22	31	27	98
13:00	36	26	36	28	126
14:00	32	28	28	30	118
15:00	22	36	31	40	129
16:00	36	26	45	34	141
17:00	27	36	30	32	125
18:00	28	22	20	20	90
19:00	20	24	20	12	76
20:00	9	12	10	12	43
21:00	9	9	5	6	29
22:00	4	3	5	3	15
23:00	4	0	7	0	11
				TOTAL	1589
AM PEAK HOUR		0745-0845			
VOLUME		132			
PM PEAK HOUR		1545-1645			
VOLUME		147			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	1	4	5
1:00	0	0	0	2	2
2:00	1	0	0	0	1
3:00	2	0	0	3	5
4:00	0	1	3	2	6
5:00	4	2	6	4	16
6:00	7	8	6	12	33
7:00	12	22	22	38	94
8:00	36	40	26	28	130
9:00	30	34	29	33	126
10:00	35	40	44	30	149
11:00	43	34	45	48	170
12:00	68	34	46	40	188
13:00	48	56	42	48	194
14:00	42	49	48	58	197
15:00	54	63	44	44	205
16:00	37	46	52	54	189
17:00	60	34	42	16	152
18:00	24	24	22	24	94
19:00	18	13	14	16	61
20:00	14	13	7	7	41
21:00	17	7	4	6	34
22:00	8	4	8	2	22
23:00	6	2	2	2	12
				TOTAL	2126
AM PEAK HOUR		1100-1200			
VOLUME		170			
PM PEAK HOUR		1430-1530			
VOLUME		223			

TOTAL BI-DIRECTIONAL VOLUME	3715

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: GRAND AVENUE BETWEEN ROUTE 66
 AND WEST LEADORA AVENUE
 DATE: THURSDAY MAY 20, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	9	6	5	5	25
1:00	3	3	2	3	11
2:00	0	2	3	2	7
3:00	0	1	3	2	6
4:00	1	2	4	0	7
5:00	9	5	8	13	35
6:00	29	20	39	46	134
7:00	54	68	118	176	416
8:00	236	120	67	64	487
9:00	51	55	56	80	242
10:00	70	64	62	86	282
11:00	82	95	90	105	372
12:00	108	137	128	109	482
13:00	118	93	92	100	403
14:00	134	142	155	134	565
15:00	126	98	102	118	444
16:00	129	102	129	98	458
17:00	130	144	147	100	521
18:00	101	128	135	150	514
19:00	117	88	104	88	397
20:00	108	124	102	82	416
21:00	63	52	64	41	220
22:00	30	27	35	31	123
23:00	32	23	12	13	80
				TOTAL	6647
AM PEAK HOUR		0730-0830			
VOLUME		650			
PM PEAK HOUR		1400-1500			
VOLUME		565			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	6	2	1	0	9
1:00	5	2	2	0	9
2:00	0	3	4	2	9
3:00	2	3	4	4	13
4:00	4	3	12	16	35
5:00	24	18	34	40	116
6:00	48	30	56	52	186
7:00	74	77	96	108	355
8:00	144	194	94	78	510
9:00	76	82	88	66	312
10:00	78	66	65	88	297
11:00	76	70	92	86	324
12:00	139	84	120	108	451
13:00	88	83	84	76	331
14:00	66	71	162	154	453
15:00	102	102	99	88	391
16:00	90	78	76	69	313
17:00	78	78	92	70	318
18:00	70	64	90	84	308
19:00	100	90	105	99	394
20:00	119	94	46	62	321
21:00	50	36	32	24	142
22:00	24	24	16	26	90
23:00	18	14	8	9	49
				TOTAL	5736
AM PEAK HOUR		0730-0830			
VOLUME		542			
PM PEAK HOUR		1430-1530			
VOLUME		520			

TOTAL BI-DIRECTIONAL VOLUME	12383

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: FOOTHILL BOULEVARD BETWEEN BARRANCA AVENUE
 AND GLENDORA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		EB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	6	2	6	2	16
1:00	0	6	2	3	11
2:00	1	3	5	2	11
3:00	1	0	2	2	5
4:00	4	3	2	6	15
5:00	6	3	13	23	45
6:00	16	17	37	23	93
7:00	26	35	70	75	206
8:00	100	82	60	62	304
9:00	45	64	63	89	261
10:00	63	50	55	58	226
11:00	69	103	97	84	353
12:00	97	98	72	105	372
13:00	98	80	86	97	361
14:00	92	116	154	122	484
15:00	109	115	95	90	409
16:00	96	122	110	131	459
17:00	131	128	92	106	457
18:00	132	113	78	66	389
19:00	86	56	52	66	260
20:00	53	48	66	51	218
21:00	66	56	62	34	218
22:00	32	28	31	12	103
23:00	18	13	16	12	59
				TOTAL	5335
AM PEAK HOUR		1100-1200			
VOLUME		353			
PM PEAK HOUR		1415-1515			
VOLUME		501			

DIRECTION:		WB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	5	4	3	0	12
1:00	4	0	2	2	8
2:00	0	3	2	4	9
3:00	2	0	3	2	7
4:00	0	4	4	9	17
5:00	14	11	23	30	78
6:00	50	48	82	129	309
7:00	129	126	156	190	601
8:00	182	148	97	84	511
9:00	81	64	86	84	315
10:00	70	57	50	76	253
11:00	86	83	74	68	311
12:00	78	66	74	84	302
13:00	83	70	63	90	306
14:00	80	86	86	100	352
15:00	90	91	74	78	333
16:00	68	74	80	74	296
17:00	78	88	73	66	305
18:00	100	66	84	56	306
19:00	66	45	52	60	223
20:00	36	32	36	38	142
21:00	42	36	30	31	139
22:00	24	22	10	11	67
23:00	10	8	6	8	32
				TOTAL	5234
AM PEAK HOUR		0730-0830			
VOLUME		676			
PM PEAK HOUR		1430-1530			
VOLUME		367			

TOTAL BI-DIRECTIONAL VOLUME	10569

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: NORTH BARRANCA AVENUE BETWEEN WEST FOOTHILL BOULEVARD
 AND WEST LEADORA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	7	3	7	4	21
1:00	4	1	1	2	8
2:00	2	0	0	1	3
3:00	0	2	0	1	3
4:00	1	0	0	1	2
5:00	1	1	4	10	16
6:00	8	12	13	21	54
7:00	24	41	62	82	209
8:00	138	76	33	38	285
9:00	34	23	24	40	121
10:00	32	35	18	25	110
11:00	26	42	53	41	162
12:00	50	47	56	58	211
13:00	52	61	50	57	220
14:00	72	84	126	69	351
15:00	42	60	51	56	209
16:00	62	66	65	72	265
17:00	80	75	76	56	287
18:00	82	73	62	58	275
19:00	43	40	39	43	165
20:00	44	44	44	50	182
21:00	60	51	45	28	184
22:00	32	19	21	11	83
23:00	10	15	12	6	43
				TOTAL	3469
AM PEAK HOUR		0730-0830			
VOLUME		358			
PM PEAK HOUR		1400-1500			
VOLUME		351			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	0	3	2	8
1:00	1	2	1	0	4
2:00	1	0	0	1	2
3:00	0	0	0	4	4
4:00	1	3	1	2	7
5:00	9	6	16	22	53
6:00	19	35	33	46	133
7:00	36	75	102	151	364
8:00	214	193	66	52	525
9:00	45	35	43	40	163
10:00	55	40	57	56	208
11:00	48	54	38	41	181
12:00	80	129	74	62	345
13:00	42	46	61	42	191
14:00	66	78	128	92	364
15:00	58	54	60	46	218
16:00	42	46	42	44	174
17:00	54	46	50	58	208
18:00	50	46	52	49	197
19:00	58	47	50	23	178
20:00	33	24	20	17	94
21:00	22	24	22	23	91
22:00	10	7	10	9	36
23:00	4	5	5	4	18
				TOTAL	3766
AM PEAK HOUR		0730-0830			
VOLUME		660			
PM PEAK HOUR		1400-1500			
VOLUME		364			

TOTAL BI-DIRECTIONAL VOLUME	7235

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SAN DIMAS CANYON ROAD BETWEEN
 ARROW HIGHWAY AND BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	8	2	4	2	16
1:00	8	4	5	3	20
2:00	6	0	4	2	12
3:00	1	3	3	2	9
4:00	0	6	1	6	13
5:00	11	16	16	18	61
6:00	22	33	21	25	101
7:00	54	54	82	119	309
8:00	59	58	56	67	240
9:00	49	35	35	42	161
10:00	38	37	36	45	156
11:00	29	43	50	47	169
12:00	40	52	58	74	224
13:00	57	40	63	67	227
14:00	51	74	67	70	262
15:00	82	86	72	106	346
16:00	92	96	90	120	398
17:00	136	109	108	90	443
18:00	101	94	80	76	351
19:00	60	54	56	55	225
20:00	47	34	28	55	164
21:00	43	41	23	34	141
22:00	30	24	22	5	81
23:00	16	10	14	13	53
				TOTAL	4182
AM PEAK HOUR		0730-0830			
VOLUME		318			
PM PEAK HOUR		1645-1745			
VOLUME		473			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	2	9	1	14
1:00	3	1	4	3	11
2:00	2	3	1	1	7
3:00	1	4	3	2	10
4:00	2	0	4	7	13
5:00	10	13	14	25	62
6:00	20	26	35	62	143
7:00	56	56	95	84	291
8:00	88	48	64	56	256
9:00	38	34	48	43	163
10:00	38	32	48	32	150
11:00	71	34	28	44	177
12:00	44	38	62	41	185
13:00	69	61	53	44	227
14:00	82	58	46	61	247
15:00	48	61	56	64	229
16:00	56	78	60	68	262
17:00	61	72	68	69	270
18:00	72	58	52	54	236
19:00	66	61	37	42	206
20:00	28	28	32	31	119
21:00	23	28	36	20	107
22:00	18	12	15	8	53
23:00	11	7	8	6	32
				TOTAL	3470
AM PEAK HOUR		0715-0815			
VOLUME		323			
PM PEAK HOUR		1715-1815			
VOLUME		281			

TOTAL BI-DIRECTIONAL VOLUME	7652

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: WALNUT AVENUE BETWEEN EAST ARROW HIGHWAY
 AND EAST BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	6	4	3	16
1:00	4	1	2	1	8
2:00	2	2	2	1	7
3:00	1	2	6	6	15
4:00	5	2	2	6	15
5:00	5	10	12	12	39
6:00	10	13	20	20	63
7:00	34	41	44	55	174
8:00	38	30	39	38	145
9:00	41	17	29	32	119
10:00	24	24	37	39	124
11:00	43	35	36	51	165
12:00	46	53	62	56	217
13:00	34	53	48	52	187
14:00	61	50	60	70	241
15:00	48	66	73	60	247
16:00	56	80	88	98	322
17:00	105	86	78	64	333
18:00	58	50	35	44	187
19:00	52	40	30	37	159
20:00	27	24	28	24	103
21:00	25	30	15	19	89
22:00	12	15	6	23	56
23:00	7	6	5	4	22
				TOTAL	3053
AM PEAK HOUR		0715-0815			
VOLUME		178			
PM PEAK HOUR		1630-1730			
VOLUME		377			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	0	3	2	7
1:00	2	1	1	4	8
2:00	2	0	2	0	4
3:00	2	1	3	4	10
4:00	1	1	6	8	16
5:00	5	8	14	14	41
6:00	5	11	23	22	61
7:00	30	36	44	45	155
8:00	53	38	38	32	161
9:00	26	32	38	38	134
10:00	37	25	28	22	112
11:00	24	24	46	36	130
12:00	30	20	31	36	117
13:00	56	38	44	34	172
14:00	46	32	44	50	172
15:00	39	40	44	60	183
16:00	96	90	102	100	388
17:00	122	80	78	80	360
18:00	72	62	78	74	286
19:00	58	68	73	52	251
20:00	30	41	36	40	147
21:00	37	34	31	36	138
22:00	21	12	10	6	49
23:00	4	3	12	7	26
				TOTAL	3128
AM PEAK HOUR		0730-0830			
VOLUME		180			
PM PEAK HOUR		1615-1715			
VOLUME		414			

TOTAL BI-DIRECTIONAL VOLUME	6181

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SAN DIMAS AVENUE BETWEEN ARROW HIGHWAY
 AND BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	3	7	0	20
1:00	2	4	0	1	7
2:00	4	1	1	2	8
3:00	2	6	5	2	15
4:00	1	3	6	5	15
5:00	20	4	28	28	80
6:00	37	42	36	54	169
7:00	55	62	88	88	293
8:00	60	56	53	49	218
9:00	59	40	55	74	228
10:00	64	53	68	73	258
11:00	65	69	69	74	277
12:00	66	61	62	58	247
13:00	64	88	80	64	296
14:00	86	76	77	79	318
15:00	87	88	107	90	372
16:00	114	109	153	144	520
17:00	158	132	110	117	517
18:00	114	99	98	87	398
19:00	76	70	76	47	269
20:00	44	45	42	42	173
21:00	56	35	22	24	137
22:00	18	14	10	8	50
23:00	13	10	5	6	34
				TOTAL	4919
AM PEAK HOUR		0715-0815			
VOLUME		298			
PM PEAK HOUR		1630-1730			
VOLUME		587			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	12	4	7	4	27
1:00	3	4	1	0	8
2:00	1	2	0	2	5
3:00	2	1	5	2	10
4:00	3	2	15	9	29
5:00	13	13	20	46	92
6:00	32	32	35	56	155
7:00	58	74	81	88	301
8:00	85	71	70	74	300
9:00	56	73	54	55	238
10:00	60	58	61	38	217
11:00	73	50	61	64	248
12:00	76	74	63	55	268
13:00	83	91	69	76	319
14:00	78	70	88	90	326
15:00	73	94	81	92	340
16:00	94	126	109	122	451
17:00	128	134	152	123	537
18:00	152	122	124	114	512
19:00	84	78	60	66	288
20:00	40	61	80	59	240
21:00	60	45	33	35	173
22:00	34	22	20	8	84
23:00	6	13	11	5	35
				TOTAL	5203
AM PEAK HOUR		0715-0815			
VOLUME		328			
PM PEAK HOUR		1715-1815			
VOLUME		561			

TOTAL BI-DIRECTIONAL VOLUME	10122

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: MONTE VISTA AVENUE BETWEEN COMMERCIAL STREET
 AND BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	0	0
2:00	0	0	0	0	0
3:00	0	1	0	0	1
4:00	0	0	0	1	1
5:00	0	1	0	0	1
6:00	3	1	1	1	6
7:00	4	4	2	7	17
8:00	2	4	2	3	11
9:00	2	2	4	2	10
10:00	1	3	2	2	8
11:00	4	8	4	3	19
12:00	2	1	2	1	6
13:00	0	3	4	6	13
14:00	6	3	1	4	14
15:00	6	1	4	4	15
16:00	3	4	4	3	14
17:00	6	2	4	5	17
18:00	4	5	0	3	12
19:00	1	4	2	1	8
20:00	1	0	0	1	2
21:00	0	3	0	0	3
22:00	0	0	0	0	0
23:00	0	0	0	1	1
				TOTAL	179
AM PEAK HOUR		1100-1200			
VOLUME		19			
PM PEAK HOUR		1315-1415			
VOLUME		19			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	0	0
2:00	0	0	0	0	0
3:00	0	2	0	0	2
4:00	0	0	0	1	1
5:00	1	2	0	0	3
6:00	1	1	1	3	6
7:00	4	4	7	4	19
8:00	1	4	8	6	19
9:00	4	3	4	3	14
10:00	3	8	4	2	17
11:00	10	4	6	3	23
12:00	4	1	6	3	14
13:00	4	3	2	4	13
14:00	6	2	12	3	23
15:00	4	3	3	6	16
16:00	9	6	8	5	28
17:00	10	8	4	2	24
18:00	6	8	6	1	21
19:00	4	3	2	2	11
20:00	2	0	3	0	5
21:00	0	4	1	1	6
22:00	2	0	1	0	3
23:00	1	0	0	0	1
				TOTAL	269
AM PEAK HOUR		1015-1115			
VOLUME		24			
PM PEAK HOUR		1630-1730			
VOLUME		31			

TOTAL BI-DIRECTIONAL VOLUME	448

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: CATARACT AVENUE BETWEEN ARROW HIGHWAY
 AND FIRST STREET
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	1	1
1:00	0	0	0	0	0
2:00	0	4	0	2	6
3:00	1	1	1	0	3
4:00	1	3	1	0	5
5:00	0	2	0	6	8
6:00	7	5	4	7	23
7:00	14	22	35	20	91
8:00	11	11	18	23	63
9:00	16	5	15	16	52
10:00	15	13	11	15	54
11:00	18	12	24	18	72
12:00	26	12	16	18	72
13:00	18	24	27	16	85
14:00	18	10	40	42	110
15:00	27	10	34	36	107
16:00	38	32	45	41	156
17:00	44	28	38	30	140
18:00	34	32	27	16	109
19:00	11	16	6	11	44
20:00	14	5	9	14	42
21:00	12	8	10	10	40
22:00	6	11	3	7	27
23:00	3	1	2	3	9
				TOTAL	1319
AM PEAK HOUR		0700-0800			
VOLUME		91			
PM PEAK HOUR		1615-1715			
VOLUME		162			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	1	0	1	2
1:00	1	2	0	0	3
2:00	0	0	0	0	0
3:00	0	0	0	0	0
4:00	3	2	2	0	7
5:00	2	5	4	14	25
6:00	17	21	22	22	82
7:00	36	54	32	38	160
8:00	36	24	32	20	112
9:00	14	6	12	15	47
10:00	21	12	12	12	57
11:00	10	15	14	16	55
12:00	14	12	13	18	57
13:00	18	12	16	22	68
14:00	24	26	20	31	101
15:00	18	22	24	20	84
16:00	10	24	16	16	66
17:00	16	17	20	27	80
18:00	16	14	17	21	68
19:00	10	20	14	8	52
20:00	10	9	2	8	29
21:00	8	8	10	4	30
22:00	6	4	3	4	17
23:00	3	2	1	3	9
				TOTAL	1211
AM PEAK HOUR		0700-0800			
VOLUME		160			
PM PEAK HOUR		1400-1500			
VOLUME		101			

TOTAL BI-DIRECTIONAL VOLUME	2530

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: BONITA AVENUE BETWEEN EULA AVENUE
 AND SAN DIMAS AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		EB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	11	7	5	6	29
1:00	4	4	3	6	17
2:00	2	5	3	4	14
3:00	4	3	4	1	12
4:00	7	2	2	5	16
5:00	9	6	16	22	53
6:00	11	24	36	39	110
7:00	42	55	88	73	258
8:00	58	64	78	66	266
9:00	67	82	79	67	295
10:00	85	75	93	91	344
11:00	99	83	110	120	412
12:00	104	104	117	108	433
13:00	131	127	131	140	529
14:00	118	104	152	146	520
15:00	134	150	138	163	585
16:00	138	141	142	143	564
17:00	154	156	158	123	591
18:00	157	133	115	124	529
19:00	88	84	64	68	304
20:00	72	61	61	68	262
21:00	60	59	45	37	201
22:00	30	36	26	26	118
23:00	28	17	10	16	71
				TOTAL	6533
AM PEAK HOUR		1100-1200			
VOLUME		412			
PM PEAK HOUR		1645-1745			
VOLUME		611			

DIRECTION:		WB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	4	6	3	4	17
1:00	3	6	4	5	18
2:00	2	3	5	1	11
3:00	3	2	3	4	12
4:00	7	9	12	16	44
5:00	13	25	33	37	108
6:00	52	68	80	103	303
7:00	122	116	128	140	506
8:00	122	95	94	114	425
9:00	92	98	96	86	372
10:00	102	96	106	142	446
11:00	108	128	154	152	542
12:00	131	120	128	130	509
13:00	147	137	127	127	538
14:00	154	128	134	143	559
15:00	134	135	118	98	485
16:00	89	78	74	87	328
17:00	88	84	86	64	322
18:00	70	60	64	70	264
19:00	65	51	56	52	224
20:00	48	55	32	52	187
21:00	49	41	40	21	151
22:00	11	33	16	22	82
23:00	15	16	13	8	52
				TOTAL	6505
AM PEAK HOUR		1100-1200			
VOLUME		542			
PM PEAK HOUR		1400-1500			
VOLUME		559			

TOTAL BI-DIRECTIONAL VOLUME	13038

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: EUCLA AVENUE BETWEEN BONITA AVENUE
 AND THIRD STREET
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	6	3	1	4	14
1:00	0	1	1	1	3
2:00	3	1	1	3	8
3:00	1	1	0	1	3
4:00	1	1	0	0	2
5:00	1	6	4	10	21
6:00	8	5	7	4	24
7:00	12	8	14	18	52
8:00	13	10	14	24	61
9:00	14	19	15	10	58
10:00	14	8	11	16	49
11:00	10	15	16	15	56
12:00	21	20	18	24	83
13:00	25	27	33	20	105
14:00	20	23	24	13	80
15:00	27	20	36	42	125
16:00	36	33	35	40	144
17:00	36	43	49	34	162
18:00	48	48	34	31	161
19:00	39	33	21	14	107
20:00	20	21	14	20	75
21:00	17	22	27	11	77
22:00	20	11	15	5	51
23:00	7	5	5	6	23
				TOTAL	1544
AM PEAK HOUR		0845-0945			
VOLUME		72			
PM PEAK HOUR		1730-1830			
VOLUME		179			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	5	3	2	3	13
1:00	1	2	1	0	4
2:00	1	0	2	1	4
3:00	1	0	0	3	4
4:00	4	5	3	5	17
5:00	5	6	7	15	33
6:00	8	20	14	24	66
7:00	33	31	26	26	116
8:00	36	27	30	38	131
9:00	23	22	16	16	77
10:00	8	20	13	23	64
11:00	17	19	21	22	79
12:00	18	23	18	22	81
13:00	26	32	22	23	103
14:00	29	23	26	28	106
15:00	26	28	22	24	100
16:00	24	32	34	30	120
17:00	46	32	36	35	149
18:00	32	26	26	20	104
19:00	25	16	14	17	72
20:00	22	9	21	14	66
21:00	11	8	5	5	29
22:00	7	15	2	6	30
23:00	5	2	5	4	16
				TOTAL	1584
AM PEAK HOUR		0800-0900			
VOLUME		131			
PM PEAK HOUR		1700-1800			
VOLUME		149			

TOTAL BI-DIRECTIONAL VOLUME	3128

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: WEST GLADSTONE STREET BETWEEN LONE HILL AVENUE
 AND AMELIA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		EB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	21	12	6	7	46
1:00	2	1	3	1	7
2:00	3	1	2	0	6
3:00	2	1	1	1	5
4:00	1	1	0	4	6
5:00	4	7	13	18	42
6:00	24	18	21	28	91
7:00	44	40	72	91	247
8:00	82	68	53	79	282
9:00	50	50	54	40	194
10:00	54	58	64	66	242
11:00	65	74	73	92	304
12:00	78	99	114	132	423
13:00	158	117	136	131	542
14:00	133	118	124	132	507
15:00	145	134	138	164	581
16:00	177	177	166	204	724
17:00	188	218	194	208	808
18:00	170	157	147	154	628
19:00	145	110	122	102	479
20:00	110	64	72	62	308
21:00	67	54	47	39	207
22:00	32	36	27	21	116
23:00	12	20	11	5	48
				TOTAL	6843
AM PEAK HOUR		0730-0830			
VOLUME		313			
PM PEAK HOUR		1700-1800			
VOLUME		808			

DIRECTION:		WB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	9	5	4	0	18
1:00	4	0	4	0	8
2:00	2	3	0	2	7
3:00	2	3	4	6	15
4:00	1	7	13	11	32
5:00	16	22	28	41	107
6:00	72	84	108	113	377
7:00	122	142	136	182	582
8:00	146	98	87	90	421
9:00	96	50	70	70	286
10:00	77	89	70	86	322
11:00	63	80	80	94	317
12:00	82	100	94	93	369
13:00	119	114	92	64	389
14:00	110	90	113	86	399
15:00	94	95	92	82	363
16:00	90	118	105	106	419
17:00	165	106	124	132	527
18:00	104	122	100	88	414
19:00	86	96	84	57	323
20:00	56	54	33	54	197
21:00	41	50	38	18	147
22:00	22	22	18	16	78
23:00	13	10	10	6	39
				TOTAL	6156
AM PEAK HOUR		0715-0815			
VOLUME		606			
PM PEAK HOUR		1700-1800			
VOLUME		527			

TOTAL BI-DIRECTIONAL VOLUME	12999

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: WHITE AVENUE BETWEEN ARROW HIGHWAY
 AND THIRD STREET
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	11	10	10	10	41
1:00	6	5	8	4	23
2:00	3	3	2	3	11
3:00	4	12	6	8	30
4:00	10	10	12	21	53
5:00	26	40	23	56	145
6:00	35	62	58	90	245
7:00	84	138	134	124	480
8:00	162	98	86	98	444
9:00	98	86	75	106	365
10:00	90	69	91	110	360
11:00	106	106	100	130	442
12:00	151	109	136	122	518
13:00	122	136	136	142	536
14:00	126	145	144	172	587
15:00	142	178	170	167	657
16:00	208	199	185	192	784
17:00	226	236	196	180	838
18:00	182	150	122	141	595
19:00	122	116	86	98	422
20:00	97	78	84	92	351
21:00	106	72	58	47	283
22:00	40	33	40	33	146
23:00	28	23	24	18	93
				TOTAL	8449
AM PEAK HOUR		0715-0815			
VOLUME		558			
PM PEAK HOUR		1645-1745			
VOLUME		850			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	11	9	8	7	35
1:00	6	7	3	5	21
2:00	4	4	6	3	17
3:00	6	2	7	12	27
4:00	10	14	16	17	57
5:00	21	38	48	68	175
6:00	69	94	100	142	405
7:00	117	164	222	151	654
8:00	144	148	120	116	528
9:00	96	97	90	100	383
10:00	86	84	96	96	362
11:00	96	94	112	108	410
12:00	132	134	119	124	509
13:00	123	144	130	116	513
14:00	120	148	130	133	531
15:00	141	128	174	126	569
16:00	140	150	106	134	530
17:00	170	134	130	172	606
18:00	130	146	113	120	509
19:00	130	91	82	86	389
20:00	83	94	72	96	345
21:00	75	60	56	39	230
22:00	52	31	32	20	135
23:00	23	22	18	14	77
				TOTAL	8017
AM PEAK HOUR		0715-0815			
VOLUME		681			
PM PEAK HOUR		1700-1800			
VOLUME		606			

TOTAL BI-DIRECTIONAL VOLUME	16466

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: E STREET BETWEEN ARROW HIGHWAY
 THIRD STREET
 DATE: THURSDAY MAY 20, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	1	2	2	7
1:00	4	1	3	0	8
2:00	0	0	0	1	1
3:00	0	2	3	2	7
4:00	2	4	4	12	22
5:00	13	17	15	9	54
6:00	8	6	12	21	47
7:00	20	46	50	59	175
8:00	56	34	22	43	155
9:00	23	21	19	27	90
10:00	26	31	24	29	110
11:00	21	23	18	24	86
12:00	49	54	50	46	199
13:00	51	38	33	51	173
14:00	48	77	52	58	235
15:00	58	60	77	72	267
16:00	104	104	115	116	439
17:00	128	103	98	106	435
18:00	67	138	86	76	367
19:00	86	80	66	39	271
20:00	56	61	50	50	217
21:00	60	66	44	32	202
22:00	35	9	16	16	76
23:00	7	9	3	5	24
				TOTAL	3667
AM PEAK HOUR		0715-0815			
VOLUME		211			
PM PEAK HOUR		1615-1715			
VOLUME		463			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	3	4	0	8
1:00	4	0	1	0	5
2:00	1	3	4	0	8
3:00	0	1	0	5	6
4:00	3	5	7	9	24
5:00	23	9	13	10	55
6:00	11	20	28	38	97
7:00	44	54	74	65	237
8:00	62	72	38	41	213
9:00	34	37	26	28	125
10:00	30	21	21	18	90
11:00	38	32	22	34	126
12:00	46	60	30	45	181
13:00	44	51	35	37	167
14:00	35	42	41	30	148
15:00	47	32	37	43	159
16:00	34	40	36	36	146
17:00	40	50	82	33	205
18:00	34	36	31	24	125
19:00	19	22	17	17	75
20:00	22	8	16	34	80
21:00	19	18	23	6	66
22:00	23	4	2	8	37
23:00	1	6	4	3	14
				TOTAL	2397
AM PEAK HOUR		0730-0830			
VOLUME		273			
PM PEAK HOUR		1645-1745			
VOLUME		208			

TOTAL BI-DIRECTIONAL VOLUME	6064

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: D STREET BETWEEN ARROW HIGHWAY
 AND THIRD STREET
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	2	11	2	1	16
1:00	1	1	0	2	4
2:00	1	1	2	0	4
3:00	1	0	1	2	4
4:00	2	1	1	1	5
5:00	4	4	4	15	27
6:00	7	8	14	24	53
7:00	27	43	27	37	134
8:00	33	34	24	24	115
9:00	37	25	40	35	137
10:00	36	27	17	32	112
11:00	40	47	43	27	157
12:00	51	60	54	42	207
13:00	36	49	55	39	179
14:00	36	37	44	49	166
15:00	47	42	63	60	212
16:00	49	52	53	52	206
17:00	58	58	60	54	230
18:00	48	54	71	45	218
19:00	27	25	27	28	107
20:00	24	20	26	17	87
21:00	14	21	23	14	72
22:00	14	16	6	8	44
23:00	7	6	8	7	28
				TOTAL	2524
AM PEAK HOUR		1045-1145			
VOLUME		162			
PM PEAK HOUR		1700-1800			
VOLUME		230			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	3	8	4	25
1:00	7	3	2	3	15
2:00	1	3	5	0	9
3:00	1	0	2	0	3
4:00	2	2	3	5	12
5:00	6	6	8	15	35
6:00	10	11	13	21	55
7:00	29	32	48	38	147
8:00	34	27	27	32	120
9:00	29	25	26	22	102
10:00	28	32	28	42	130
11:00	40	37	34	36	147
12:00	36	48	38	44	166
13:00	37	36	40	31	144
14:00	48	44	37	38	167
15:00	33	41	38	42	154
16:00	38	37	40	48	163
17:00	44	48	37	41	170
18:00	46	48	35	38	167
19:00	46	37	36	39	158
20:00	30	38	38	27	133
21:00	40	32	22	28	122
22:00	25	18	21	18	82
23:00	16	14	5	10	45
				TOTAL	2471
AM PEAK HOUR		1045-1145			
VOLUME		153			
PM PEAK HOUR		1630-1730			
VOLUME		180			

TOTAL BI-DIRECTIONAL VOLUME	4995

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: A STREET BETWEEN ARROW HIGHWAY
 AND THIRD STREET
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	2	1	2	5
1:00	2	0	0	0	2
2:00	1	0	0	0	1
3:00	1	2	0	0	3
4:00	1	0	1	0	2
5:00	0	0	1	2	3
6:00	1	1	4	8	14
7:00	9	25	18	17	69
8:00	11	8	8	10	37
9:00	7	7	12	17	43
10:00	4	6	8	7	25
11:00	2	7	8	10	27
12:00	6	5	8	12	31
13:00	5	18	9	12	44
14:00	6	12	9	3	30
15:00	6	10	10	11	37
16:00	12	25	16	22	75
17:00	16	17	10	19	62
18:00	25	15	15	8	63
19:00	15	7	8	6	36
20:00	4	9	6	4	23
21:00	3	5	6	5	19
22:00	5	1	0	0	6
23:00	0	1	0	2	3
				TOTAL	660
AM PEAK HOUR		0715-0815			
VOLUME		71			
PM PEAK HOUR		1615-1715			
VOLUME		79			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	0	0
2:00	0	1	0	0	1
3:00	1	2	1	1	5
4:00	1	2	2	0	5
5:00	2	4	0	3	9
6:00	12	4	10	9	35
7:00	6	10	14	4	34
8:00	12	9	10	16	47
9:00	5	8	2	3	18
10:00	13	6	16	7	42
11:00	6	8	4	11	29
12:00	5	10	12	12	39
13:00	6	15	4	6	31
14:00	6	12	9	9	36
15:00	10	2	7	13	32
16:00	6	14	3	6	29
17:00	4	14	10	11	39
18:00	8	4	9	5	26
19:00	8	3	3	7	21
20:00	4	6	2	2	14
21:00	3	1	4	1	9
22:00	2	2	0	2	6
23:00	0	2	4	1	7
				TOTAL	514
AM PEAK HOUR		0800-0900			
VOLUME		47			
PM PEAK HOUR		1230-1330			
VOLUME		45			

TOTAL BI-DIRECTIONAL VOLUME	1174

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: WHEELER AVENUE BETWEEN ARROW HIGHWAY
 AND THIRD STREET
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	6	8	2	2	18
1:00	4	4	1	0	9
2:00	3	2	1	2	8
3:00	1	0	0	3	4
4:00	1	2	3	6	12
5:00	8	9	14	14	45
6:00	19	30	29	34	112
7:00	44	48	56	112	260
8:00	61	49	82	76	268
9:00	38	28	38	42	146
10:00	44	45	55	48	192
11:00	58	48	66	81	253
12:00	80	78	61	84	303
13:00	72	70	59	77	278
14:00	60	71	86	82	299
15:00	88	115	109	95	407
16:00	137	122	134	114	507
17:00	152	132	126	115	525
18:00	113	78	82	73	346
19:00	60	50	55	37	202
20:00	40	46	34	33	153
21:00	24	29	33	16	102
22:00	25	23	16	11	75
23:00	16	10	5	7	38
				TOTAL	4562
AM PEAK HOUR		0745-0845			
VOLUME		304			
PM PEAK HOUR		1630-1730			
VOLUME		532			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	4	3	4	3	14
1:00	2	3	2	1	8
2:00	2	1	2	0	5
3:00	0	1	4	4	9
4:00	4	3	5	7	19
5:00	7	25	18	42	92
6:00	29	38	54	86	207
7:00	76	116	142	160	494
8:00	144	82	94	82	402
9:00	68	50	60	45	223
10:00	51	60	57	54	222
11:00	52	62	54	64	232
12:00	62	68	82	75	287
13:00	104	76	56	64	300
14:00	84	62	84	62	292
15:00	54	72	106	87	319
16:00	83	79	104	74	340
17:00	80	90	74	65	309
18:00	60	59	62	56	237
19:00	54	38	40	39	171
20:00	33	30	33	34	130
21:00	25	29	22	10	86
22:00	21	22	13	19	75
23:00	8	7	12	5	32
				TOTAL	4505
AM PEAK HOUR		0715-0815			
VOLUME		562			
PM PEAK HOUR		1530-1630			
VOLUME		355			

TOTAL BI-DIRECTIONAL VOLUME	9067

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: NORTH TOWNE AVENUE BETWEEN ARROW HIGHWAY
 AND BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	30	24	24	22	100
1:00	14	9	14	12	49
2:00	11	9	6	6	32
3:00	8	6	7	20	41
4:00	22	12	12	25	71
5:00	44	49	58	78	229
6:00	81	95	119	169	464
7:00	144	182	246	297	869
8:00	259	198	204	220	881
9:00	153	138	159	148	598
10:00	148	147	166	138	599
11:00	162	159	167	144	632
12:00	209	159	204	216	788
13:00	212	178	162	218	770
14:00	188	208	225	216	837
15:00	255	278	239	278	1050
16:00	254	276	282	244	1056
17:00	277	268	260	240	1045
18:00	213	206	183	212	814
19:00	158	160	130	133	581
20:00	146	106	119	121	492
21:00	132	120	109	107	468
22:00	74	66	56	54	250
23:00	64	47	48	34	193
				TOTAL	12909
AM PEAK HOUR		0730-0830			
VOLUME		1000			
PM PEAK HOUR		1545-1645			
VOLUME		1090			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	24	18	16	12	70
1:00	8	16	8	5	37
2:00	12	8	5	9	34
3:00	8	8	12	15	43
4:00	18	21	38	32	109
5:00	43	50	83	80	256
6:00	102	96	160	144	502
7:00	182	204	244	312	942
8:00	282	239	200	248	969
9:00	176	168	154	145	643
10:00	162	154	148	166	630
11:00	138	172	172	167	649
12:00	180	176	192	198	746
13:00	191	220	202	175	788
14:00	204	210	222	231	867
15:00	232	245	238	198	913
16:00	212	200	198	200	810
17:00	245	202	222	178	847
18:00	190	182	157	182	711
19:00	192	143	122	108	565
20:00	116	118	96	104	434
21:00	112	104	83	81	380
22:00	78	68	60	55	261
23:00	58	46	35	44	183
				TOTAL	12389
AM PEAK HOUR		0730-0830			
VOLUME		1077			
PM PEAK HOUR		1445-1545			
VOLUME		946			

TOTAL BI-DIRECTIONAL VOLUME

25298

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: NORTH GAREY AVENUE BETWEEN ARROW HIGHWAY
 AND BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	20	19	9	15	63
1:00	12	15	9	8	44
2:00	10	6	5	9	30
3:00	3	4	2	6	15
4:00	4	4	10	15	33
5:00	22	16	34	44	116
6:00	51	54	72	112	289
7:00	100	131	118	237	586
8:00	188	166	148	157	659
9:00	131	123	152	150	556
10:00	150	126	146	169	591
11:00	172	146	173	212	703
12:00	213	185	193	158	749
13:00	206	184	188	172	750
14:00	158	162	186	195	701
15:00	196	200	206	184	786
16:00	188	202	201	164	755
17:00	204	196	202	182	784
18:00	161	134	196	136	627
19:00	134	138	113	106	491
20:00	95	80	86	84	345
21:00	120	97	91	84	392
22:00	71	60	54	40	225
23:00	41	26	30	18	115
				TOTAL	10405
AM PEAK HOUR		0745-0845			
VOLUME		739			
PM PEAK HOUR		1445-1545			
VOLUME		797			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	15	16	12	14	57
1:00	14	7	6	8	35
2:00	10	8	8	5	31
3:00	6	5	4	12	27
4:00	8	11	24	36	79
5:00	25	54	73	60	212
6:00	85	111	117	141	454
7:00	170	152	234	210	766
8:00	194	182	142	168	686
9:00	165	123	146	156	590
10:00	139	154	148	166	607
11:00	160	142	153	152	607
12:00	176	224	184	162	746
13:00	179	190	182	174	725
14:00	192	176	186	206	760
15:00	189	174	192	164	719
16:00	190	173	170	159	692
17:00	197	186	171	136	690
18:00	146	135	180	142	603
19:00	122	139	103	90	454
20:00	100	96	92	114	402
21:00	81	64	66	63	274
22:00	60	37	60	30	187
23:00	34	30	23	23	110
				TOTAL	10513
AM PEAK HOUR		0730-0830			
VOLUME		820			
PM PEAK HOUR		1445-1545			
VOLUME		761			

TOTAL BI-DIRECTIONAL VOLUME	20918

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: FULTON ROAD AT THE METROLINK DRIVEWAY
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		ENTER			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	0	0
1:00	0	0	0	0	0
2:00	0	0	0	0	0
3:00	0	0	0	0	0
4:00	0	4	12	12	28
5:00	8	26	22	40	96
6:00	40	24	32	31	127
7:00	52	40	36	30	158
8:00	32	22	23	14	91
9:00	10	2	5	9	26
10:00	5	1	0	3	9
11:00	1	5	2	3	11
12:00	2	3	0	2	7
13:00	2	6	3	4	15
14:00	4	1	0	4	9
15:00	2	2	0	5	9
16:00	1	5	4	2	12
17:00	8	8	8	6	30
18:00	5	5	6	3	19
19:00	5	2	1	6	14
20:00	2	0	0	3	5
21:00	0	2	2	1	5
22:00	1	0	0	0	1
23:00	0	1	0	0	1
				TOTAL	673
AM PEAK HOUR		0645-0745			
VOLUME		159			
PM PEAK HOUR		1700-1800			
VOLUME		30			

DIRECTION:		EXIT			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	0	0	3	3
1:00	0	0	0	0	0
2:00	0	0	0	0	0
3:00	0	0	0	0	0
4:00	0	3	2	4	9
5:00	2	13	3	2	20
6:00	14	20	14	12	60
7:00	15	14	8	7	44
8:00	0	1	5	14	20
9:00	2	0	0	6	8
10:00	1	2	4	4	11
11:00	8	4	4	4	20
12:00	4	8	0	2	14
13:00	4	4	4	4	16
14:00	20	4	2	2	28
15:00	20	6	2	4	32
16:00	30	1	38	5	74
17:00	34	27	6	59	126
18:00	44	6	32	42	124
19:00	4	4	4	22	34
20:00	2	0	0	13	15
21:00	0	0	0	3	3
22:00	8	0	0	0	8
23:00	0	1	0	2	3
				TOTAL	672
AM PEAK HOUR		0615-0715			
VOLUME		61			
PM PEAK HOUR		1745-1845			
VOLUME		141			

TOTAL BI-DIRECTIONAL VOLUME	1345

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: FULTON ROAD BETWEEN ARROW HIGHWAY
 AND BONITA AVENUE
 DATE: WEDNESDAY MAY 19, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	0	0	0	3
1:00	0	1	0	1	2
2:00	0	1	0	0	1
3:00	1	0	0	0	1
4:00	0	0	2	3	5
5:00	2	8	2	12	24
6:00	9	16	19	16	60
7:00	7	28	12	22	69
8:00	26	11	12	14	63
9:00	9	16	12	11	48
10:00	12	10	9	10	41
11:00	6	4	7	8	25
12:00	22	16	17	11	66
13:00	14	5	7	8	34
14:00	10	11	14	16	51
15:00	12	12	9	8	41
16:00	9	13	18	10	50
17:00	13	10	16	8	47
18:00	14	8	13	8	43
19:00	4	4	5	2	15
20:00	5	3	6	8	22
21:00	4	8	3	6	21
22:00	5	3	1	2	11
23:00	2	2	0	1	5
				TOTAL	748
AM PEAK HOUR		0715-0815			
VOLUME		88			
PM PEAK HOUR		1200-1300			
VOLUME		66			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	1	4	2	10
1:00	0	1	3	0	4
2:00	0	0	0	1	1
3:00	0	0	2	1	3
4:00	0	0	3	2	5
5:00	2	2	0	2	6
6:00	2	9	10	8	29
7:00	15	13	13	10	51
8:00	17	12	16	10	55
9:00	19	7	9	18	53
10:00	9	6	10	8	33
11:00	9	10	4	12	35
12:00	20	18	16	10	64
13:00	14	16	19	15	64
14:00	8	12	20	14	54
15:00	20	14	18	20	72
16:00	34	12	20	10	76
17:00	28	20	21	18	87
18:00	23	22	8	11	64
19:00	8	11	9	9	37
20:00	11	4	9	9	33
21:00	10	10	6	4	30
22:00	6	3	1	4	14
23:00	3	1	1	2	7
				TOTAL	887
AM PEAK HOUR		0815-0915			
VOLUME		57			
PM PEAK HOUR		1700-1800			
VOLUME		87			

TOTAL BI-DIRECTIONAL VOLUME	1635

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: SOUTH MILLS / CLAREMONT BOULEVARD
 BETWEEN ARROW HIGHWAY AND EAST FIRST STREET
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	9	4	1	3	17
1:00	2	2	1	0	5
2:00	1	1	4	2	8
3:00	0	0	1	4	5
4:00	3	6	8	13	30
5:00	12	16	28	45	101
6:00	25	44	41	68	178
7:00	41	52	102	114	309
8:00	66	68	57	58	249
9:00	48	50	41	60	199
10:00	41	48	38	59	186
11:00	30	45	44	46	165
12:00	52	55	61	61	229
13:00	48	56	64	51	219
14:00	60	68	66	74	268
15:00	76	63	68	87	294
16:00	64	74	60	92	290
17:00	80	78	72	84	314
18:00	70	45	50	62	227
19:00	44	38	33	22	137
20:00	21	30	29	30	110
21:00	20	29	11	19	79
22:00	21	14	10	15	60
23:00	8	7	4	9	28
				TOTAL	3707
AM PEAK HOUR		0730-0830			
VOLUME		350			
PM PEAK HOUR		1645-1745			
VOLUME		322			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	8	4	4	4	20
1:00	4	2	1	1	8
2:00	3	0	2	2	7
3:00	2	0	0	6	8
4:00	3	1	2	1	7
5:00	10	5	13	19	47
6:00	17	32	38	38	125
7:00	59	73	75	84	291
8:00	68	48	57	52	225
9:00	44	56	45	48	193
10:00	46	48	34	60	188
11:00	50	48	41	76	215
12:00	69	70	68	46	253
13:00	60	54	60	62	236
14:00	60	60	82	81	283
15:00	86	80	82	59	307
16:00	91	76	102	94	363
17:00	90	87	104	74	355
18:00	58	57	62	54	231
19:00	58	42	36	41	177
20:00	32	20	38	29	119
21:00	34	40	22	22	118
22:00	19	9	7	14	49
23:00	8	14	13	10	45
				TOTAL	3870
AM PEAK HOUR		0715-0815			
VOLUME		300			
PM PEAK HOUR		1645-1745			
VOLUME		375			

TOTAL BI-DIRECTIONAL VOLUME	7577

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: INDIAN HILL BOULEVARD BETWEEN ARROW HIGHWAY
 AND BONITA AVENUE
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	13	13	13	9	48
1:00	6	8	2	4	20
2:00	4	6	5	2	17
3:00	1	1	5	6	13
4:00	5	6	10	8	29
5:00	14	32	23	42	111
6:00	33	74	102	138	347
7:00	108	128	174	184	594
8:00	180	151	117	164	612
9:00	132	136	136	152	556
10:00	132	133	128	154	547
11:00	166	124	166	182	638
12:00	169	172	177	149	667
13:00	125	159	133	176	593
14:00	176	174	173	218	741
15:00	184	174	162	185	705
16:00	190	175	167	178	710
17:00	158	162	147	164	631
18:00	138	148	144	124	554
19:00	128	120	84	98	430
20:00	75	67	80	73	295
21:00	64	65	69	45	243
22:00	64	48	48	40	200
23:00	29	24	21	19	93
				TOTAL	9394
AM PEAK HOUR		0730-0830			
VOLUME		689			
PM PEAK HOUR		1415-1515			
VOLUME		749			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	16	20	14	5	55
1:00	6	3	5	3	17
2:00	3	5	5	2	15
3:00	3	0	3	1	7
4:00	5	10	6	12	33
5:00	212	17	29	25	283
6:00	32	45	52	68	197
7:00	110	108	169	206	593
8:00	183	137	102	122	544
9:00	111	112	120	127	470
10:00	117	118	108	138	481
11:00	144	150	139	144	577
12:00	168	164	149	147	628
13:00	136	151	158	163	608
14:00	202	180	175	170	727
15:00	242	240	214	158	854
16:00	201	176	190	196	763
17:00	215	201	148	136	700
18:00	135	140	118	88	481
19:00	143	96	102	122	463
20:00	105	92	100	74	371
21:00	94	88	70	62	314
22:00	51	48	50	37	186
23:00	52	26	28	22	128
				TOTAL	9495
AM PEAK HOUR		0730-0830			
VOLUME		695			
PM PEAK HOUR		1445-1545			
VOLUME		866			

TOTAL BI-DIRECTIONAL VOLUME	18889

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: COLLEGE AVENUE BETWEEN EAST ARROW HIGHWAY
 AND WEST BONITA AVENUE
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	2	0	2	5
1:00	0	1	0	1	2
2:00	1	2	0	0	3
3:00	0	0	0	1	1
4:00	1	3	6	7	17
5:00	1	12	4	14	31
6:00	16	18	22	26	82
7:00	26	30	70	102	228
8:00	74	47	40	30	191
9:00	30	30	19	36	115
10:00	29	26	32	16	103
11:00	25	31	32	32	120
12:00	38	33	43	37	151
13:00	28	26	32	42	128
14:00	58	36	44	39	177
15:00	37	34	40	24	135
16:00	47	31	33	52	163
17:00	36	44	28	44	152
18:00	42	30	32	24	128
19:00	41	29	23	16	109
20:00	12	6	14	9	41
21:00	14	10	8	8	40
22:00	7	12	2	2	23
23:00	2	4	4	2	12
				TOTAL	2157
AM PEAK HOUR		0730-0830			
VOLUME		293			
PM PEAK HOUR		1345-1445			
VOLUME		180			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	2	3	1	16
1:00	1	1	2	1	5
2:00	0	1	1	2	4
3:00	0	0	1	0	1
4:00	0	0	4	0	4
5:00	2	2	4	6	14
6:00	7	4	8	11	30
7:00	28	23	42	116	209
8:00	88	30	18	32	168
9:00	24	31	30	21	106
10:00	42	27	41	38	148
11:00	37	38	46	42	163
12:00	50	37	40	48	175
13:00	41	41	42	52	176
14:00	95	74	64	101	334
15:00	70	68	82	56	276
16:00	48	44	79	78	249
17:00	111	64	77	68	320
18:00	68	46	42	45	201
19:00	32	38	42	29	141
20:00	22	18	16	12	68
21:00	18	21	14	9	62
22:00	10	11	4	5	30
23:00	4	0	4	3	11
				TOTAL	2911
AM PEAK HOUR		0730-0830			
VOLUME		276			
PM PEAK HOUR		1400-1500			
VOLUME		334			

TOTAL BI-DIRECTIONAL VOLUME	5068

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: COLLEGE AVENUE NORTH OF
 FIRST STREET
 DATE: WEDNESDAY MAY 26, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	3	3	1	0	7
1:00	6	1	0	1	8
2:00	3	0	0	1	4
3:00	0	0	1	0	1
4:00	1	1	2	5	9
5:00	9	6	10	34	59
6:00	8	24	24	36	92
7:00	22	30	68	82	202
8:00	77	40	42	49	208
9:00	40	32	31	30	133
10:00	22	14	29	36	101
11:00	28	26	32	42	128
12:00	50	42	37	48	177
13:00	46	49	50	50	195
14:00	64	54	47	52	217
15:00	55	36	33	55	179
16:00	54	38	38	60	190
17:00	60	61	62	54	237
18:00	35	56	36	30	157
19:00	21	28	15	33	97
20:00	22	17	13	19	71
21:00	14	17	12	18	61
22:00	18	6	7	6	37
23:00	3	0	8	4	15
				TOTAL	2585
AM PEAK HOUR		0730-0830			
VOLUME		267			
PM PEAK HOUR		1645-1745			
VOLUME		243			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	8	3	4	1	16
1:00	0	5	2	0	7
2:00	2	1	1	0	4
3:00	1	0	0	5	6
4:00	2	2	4	2	10
5:00	8	7	4	8	27
6:00	12	17	16	21	66
7:00	26	30	44	54	154
8:00	52	44	36	30	162
9:00	31	32	38	36	137
10:00	30	40	36	35	141
11:00	24	31	46	49	150
12:00	69	50	54	46	219
13:00	58	56	47	60	221
14:00	76	51	54	68	249
15:00	92	66	61	64	283
16:00	70	64	76	90	300
17:00	96	70	62	60	288
18:00	51	52	44	33	180
19:00	33	36	28	32	129
20:00	22	34	21	18	95
21:00	16	21	12	13	62
22:00	18	8	7	11	44
23:00	7	6	0	5	18
				TOTAL	2968
AM PEAK HOUR		0730-0830			
VOLUME		194			
PM PEAK HOUR		1630-1730			
VOLUME		332			

TOTAL BI-DIRECTIONAL VOLUME	5553

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: CAMBRIDGE AVENUE BETWEEN WEST ARROW HIGHWAY
 AND BONITA AVENUE
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	1	4	1	3	9
1:00	0	0	0	0	0
2:00	0	4	0	2	6
3:00	4	1	0	2	7
4:00	0	0	0	1	1
5:00	2	8	4	6	20
6:00	4	14	13	36	67
7:00	24	41	106	105	276
8:00	78	24	19	20	141
9:00	19	21	20	20	80
10:00	18	27	31	32	108
11:00	18	40	44	31	133
12:00	32	36	35	33	136
13:00	18	22	23	42	105
14:00	74	62	53	68	257
15:00	50	40	43	56	189
16:00	54	36	56	60	206
17:00	46	64	54	38	202
18:00	43	27	20	20	110
19:00	41	34	23	15	113
20:00	18	7	16	20	61
21:00	9	9	10	6	34
22:00	9	10	6	7	32
23:00	3	1	4	1	9
				TOTAL	2302
AM PEAK HOUR		0715-0815			
VOLUME		330			
PM PEAK HOUR		1400-1500			
VOLUME		257			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	0	1	0	3	4
1:00	0	2	1	1	4
2:00	4	0	0	0	4
3:00	2	1	1	1	5
4:00	1	1	3	4	9
5:00	4	5	9	11	29
6:00	11	21	21	50	103
7:00	41	36	62	114	253
8:00	63	54	33	33	183
9:00	20	24	29	28	101
10:00	27	22	23	24	96
11:00	18	32	19	34	103
12:00	26	40	30	36	132
13:00	31	22	28	32	113
14:00	34	62	52	59	207
15:00	97	66	48	32	243
16:00	36	42	40	39	157
17:00	40	50	33	26	149
18:00	44	30	26	24	124
19:00	24	28	27	21	100
20:00	12	17	13	26	68
21:00	8	16	10	7	41
22:00	11	8	7	2	28
23:00	10	3	5	4	22
				TOTAL	2278
AM PEAK HOUR		0730-0830			
VOLUME		293			
PM PEAK HOUR		1430-1530			
VOLUME		274			

TOTAL BI-DIRECTIONAL VOLUME	4580

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: FIRST STREET BETWEEN INDIAN HILL BOULEVARD
 AND COLLEGE AVENUE
 DATE: WEDNESDAY MAY 26, 2010

DIRECTION:		EB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	5	2	1	0	8
1:00	1	0	1	1	3
2:00	0	2	0	0	2
3:00	1	1	1	0	3
4:00	1	1	2	2	6
5:00	3	10	6	11	30
6:00	13	28	19	24	84
7:00	34	32	32	41	139
8:00	42	34	41	28	145
9:00	30	34	47	36	147
10:00	50	28	41	40	159
11:00	47	54	46	52	199
12:00	50	61	60	52	223
13:00	64	58	56	54	232
14:00	46	41	58	50	195
15:00	56	75	52	48	231
16:00	60	59	68	58	245
17:00	68	49	40	54	211
18:00	43	48	42	45	178
19:00	36	22	28	27	113
20:00	19	15	24	17	75
21:00	24	25	10	8	67
22:00	9	4	10	8	31
23:00	8	4	7	4	23
				TOTAL	2749
AM PEAK HOUR		1100-1200			
VOLUME		199			
PM PEAK HOUR		1615-1715			
VOLUME		253			

DIRECTION:		WB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	6	5	2	5	18
1:00	12	2	1	1	16
2:00	9	2	4	0	15
3:00	4	6	1	0	11
4:00	2	2	1	3	8
5:00	10	6	16	12	44
6:00	17	21	22	29	89
7:00	37	30	26	51	144
8:00	54	29	40	41	164
9:00	56	62	70	66	254
10:00	57	51	80	74	262
11:00	76	72	79	117	344
12:00	136	114	88	100	438
13:00	110	80	107	115	412
14:00	102	82	74	96	354
15:00	86	73	110	77	346
16:00	90	115	92	106	403
17:00	78	122	71	106	377
18:00	84	89	64	54	291
19:00	54	50	48	50	202
20:00	42	29	19	66	156
21:00	52	30	20	16	118
22:00	22	26	7	19	74
23:00	13	12	26	23	74
				TOTAL	4614
AM PEAK HOUR		1100-1200			
VOLUME		344			
PM PEAK HOUR		1200-1300			
VOLUME		438			

TOTAL BI-DIRECTIONAL VOLUME	7363

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: MONTE VISTA AVENUE BETWEEN RICHTON STREET
 AND ARROW HIGHWAY
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	12	17	13	6	48
1:00	6	5	4	2	17
2:00	2	3	5	2	12
3:00	5	6	4	6	21
4:00	11	10	20	23	64
5:00	31	38	56	69	194
6:00	79	91	112	142	424
7:00	97	122	181	177	577
8:00	159	132	105	130	526
9:00	94	92	98	108	392
10:00	98	114	102	118	432
11:00	104	140	118	125	487
12:00	126	151	142	148	567
13:00	158	152	156	168	634
14:00	138	190	172	198	698
15:00	143	145	170	155	613
16:00	186	180	202	182	750
17:00	188	215	204	186	793
18:00	168	141	140	148	597
19:00	133	117	90	110	450
20:00	100	78	99	104	381
21:00	72	64	66	66	268
22:00	50	38	37	40	165
23:00	33	32	24	15	104
				TOTAL	9214
AM PEAK HOUR		0730-0830			
VOLUME		649			
PM PEAK HOUR		1700-1800			
VOLUME		793			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	10	11	9	9	39
1:00	9	9	3	6	27
2:00	11	4	3	5	23
3:00	5	9	2	5	21
4:00	16	13	22	36	87
5:00	24	34	46	66	170
6:00	83	86	131	150	450
7:00	184	176	200	223	783
8:00	190	168	159	162	679
9:00	148	127	142	130	547
10:00	140	119	110	140	509
11:00	156	152	130	158	596
12:00	133	194	176	136	639
13:00	156	127	141	142	566
14:00	164	142	152	153	611
15:00	172	174	208	173	727
16:00	184	145	166	168	663
17:00	200	176	166	176	718
18:00	148	166	164	132	610
19:00	119	92	102	78	391
20:00	80	69	77	60	286
21:00	80	73	69	40	262
22:00	48	40	34	24	146
23:00	25	22	14	12	73
				TOTAL	9623
AM PEAK HOUR		0715-0815			
VOLUME		789			
PM PEAK HOUR		1515-1615			
VOLUME		739			

TOTAL BI-DIRECTIONAL VOLUME	18837

24-HOUR ADT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING INC.
 PROJECT: GOLD LINE FOOTHILL EXTENSION
 LOCATION: CENTRAL AVENUE BETWEEN RICHTON STREET
 AND ARROW HIGHWAY
 DATE: TUESDAY MAY 25, 2010

DIRECTION:		NB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	21	21	13	10	65
1:00	8	12	9	12	41
2:00	9	10	9	6	34
3:00	2	7	4	15	28
4:00	10	14	24	28	76
5:00	36	50	60	124	270
6:00	100	104	96	122	422
7:00	98	116	146	159	519
8:00	151	156	146	146	599
9:00	132	144	152	154	582
10:00	144	143	158	148	593
11:00	201	188	216	213	818
12:00	214	224	206	238	882
13:00	210	206	213	207	836
14:00	191	206	216	214	827
15:00	203	226	202	214	845
16:00	214	206	219	242	881
17:00	234	220	188	208	850
18:00	220	186	168	162	736
19:00	136	158	151	126	571
20:00	114	103	106	128	451
21:00	110	108	72	66	356
22:00	62	56	44	36	198
23:00	47	30	20	32	129
				TOTAL	11609
AM PEAK HOUR		1100-1200			
VOLUME		818			
PM PEAK HOUR		1630-1730			
VOLUME		915			

DIRECTION:		SB			
TIME	00-15	15-30	30-45	45-60	HOUR TOTALS
0:00	18	16	5	9	48
1:00	13	9	8	5	35
2:00	11	7	7	11	36
3:00	9	5	9	3	26
4:00	10	14	16	26	66
5:00	30	38	48	43	159
6:00	69	57	104	110	340
7:00	110	116	143	128	497
8:00	124	108	130	152	514
9:00	117	150	130	156	553
10:00	168	155	151	186	660
11:00	172	216	191	206	785
12:00	238	188	196	173	795
13:00	216	213	182	220	831
14:00	202	194	221	190	807
15:00	198	224	196	216	834
16:00	204	201	220	212	837
17:00	266	216	222	174	878
18:00	200	194	178	134	706
19:00	132	132	114	105	483
20:00	105	92	104	62	363
21:00	64	68	48	51	231
22:00	54	44	40	35	173
23:00	34	30	28	24	116
				TOTAL	10773
AM PEAK HOUR		1100-1200			
VOLUME		785			
PM PEAK HOUR		1645-1745			
VOLUME		916			

TOTAL BI-DIRECTIONAL VOLUME	22382

N/S BARRANCA AVE

E/W BENNETT AVE

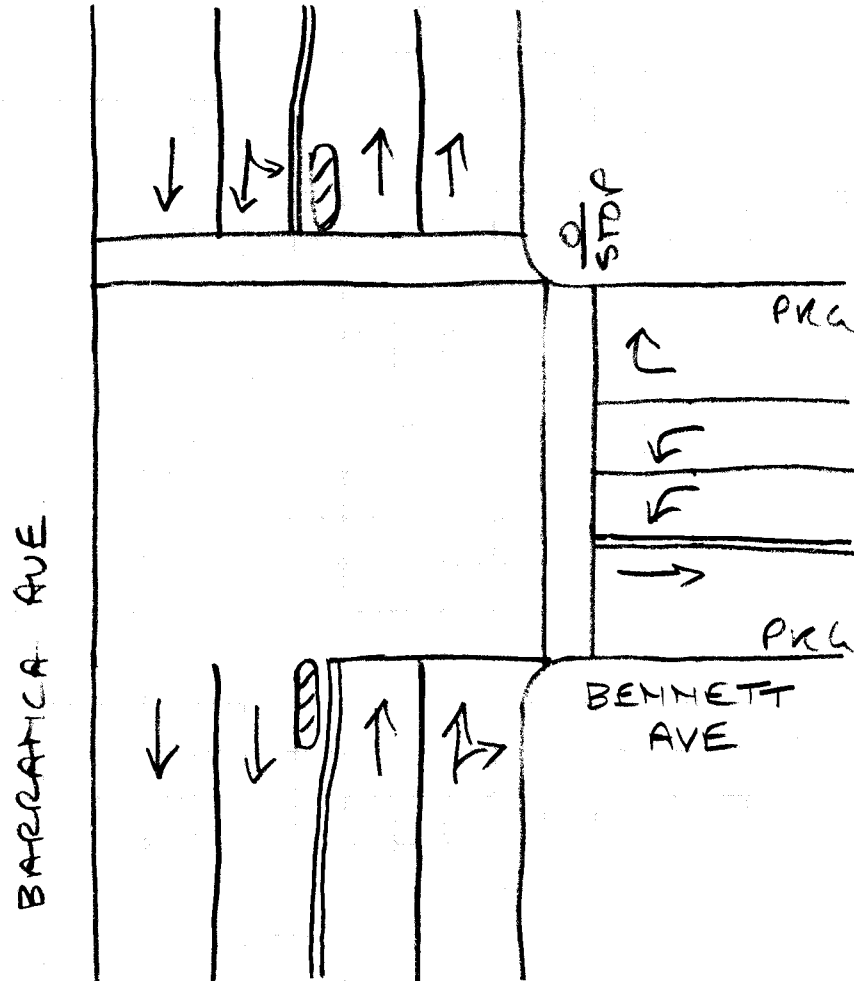
BY: MMW

DATE: 10/14/03

Revised 6/25/10



North Point



Phasing:

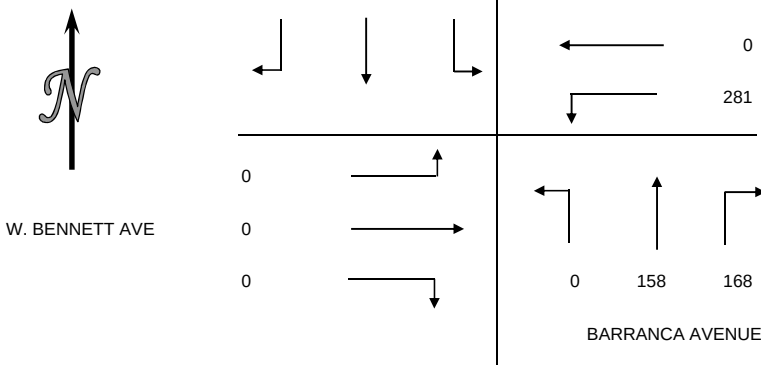
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S BARRANCA AVENUE
 E/W W. BENNETT AVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	42	7	5	0	15	6	22	0	0	0	0	97
715-730	0	56	4	2	0	16	12	22	0	0	0	0	112
730-745	0	75	8	9	0	39	22	39	0	0	0	0	192
745-800	0	106	16	15	0	66	44	56	0	0	0	0	303
800-815	0	98	15	22	0	90	66	38	0	0	0	0	329
815-830	0	60	18	17	0	86	36	25	0	0	0	0	242
830-845	0	37	6	12	0	26	24	30	0	0	0	0	135
845-900	0	34	4	7	0	11	15	20	0	0	0	0	91
HOUR TOTALS													
700-800	0	279	35	31	0	136	84	139	0	0	0	0	704
715-815	0	335	43	48	0	211	144	155	0	0	0	0	936
730-830	0	339	57	63	0	281	168	158	0	0	0	0	1066
745-845	0	301	55	66	0	268	170	149	0	0	0	0	1009
800-900	0	229	43	58	0	213	141	113	0	0	0	0	797

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	3	0	0
715-730	0	1	0	0
730-745	6	0	1	0
745-800	2	7	0	0
800-815	1	12	0	0
815-830	1	5	0	0
830-845	0	6	0	0
845-900	1	2	0	0
HOUR TOTALS				
700-800	10	11	1	0
715-815	9	20	1	0
730-830	10	24	1	0
745-845	4	30	0	0
800-900	3	25	0	0

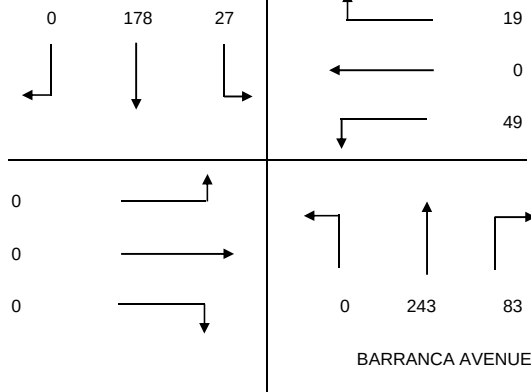
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S BARRANCA AVENUE
 E/W W. BENNETT AVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	39	2	4	0	17	10	45	0	0	0	0	117
415-430	0	38	1	2	0	6	24	55	0	0	0	0	126
430-445	0	35	8	8	0	13	26	46	0	0	0	0	136
445-500	0	43	5	11	0	8	22	43	0	0	0	0	132
500-515	0	40	9	7	0	7	30	53	0	0	0	0	146
515-530	0	53	8	4	0	14	21	54	0	0	0	0	154
530-545	0	46	5	5	0	14	8	71	0	0	0	0	149
545-600	0	39	5	3	0	14	24	65	0	0	0	0	150
HOURLY TOTALS													
400-500	0	155	16	25	0	44	82	189	0	0	0	0	511
415-515	0	156	23	28	0	34	102	197	0	0	0	0	540
430-530	0	171	30	30	0	42	99	196	0	0	0	0	568
445-545	0	182	27	27	0	43	81	221	0	0	0	0	581
500-600	0	178	27	19	0	49	83	243	0	0	0	0	599

PM PEAK HOUR
500-600

W. BENNETT AVE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	0	0
415-430	1	0	0	0
430-445	0	1	0	0
445-500	1	1	0	0
500-515	0	2	1	0
515-530	0	1	0	0
530-545	0	0	0	0
545-600	0	0	0	0
HOURLY TOTALS				
400-500	2	4	0	0
415-515	2	4	1	0
430-530	1	5	1	0
445-545	1	4	1	0
500-600	0	3	1	0

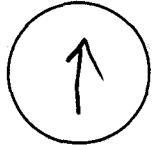
N/S BARRANCA AVE

E/W FOOTHILL BL

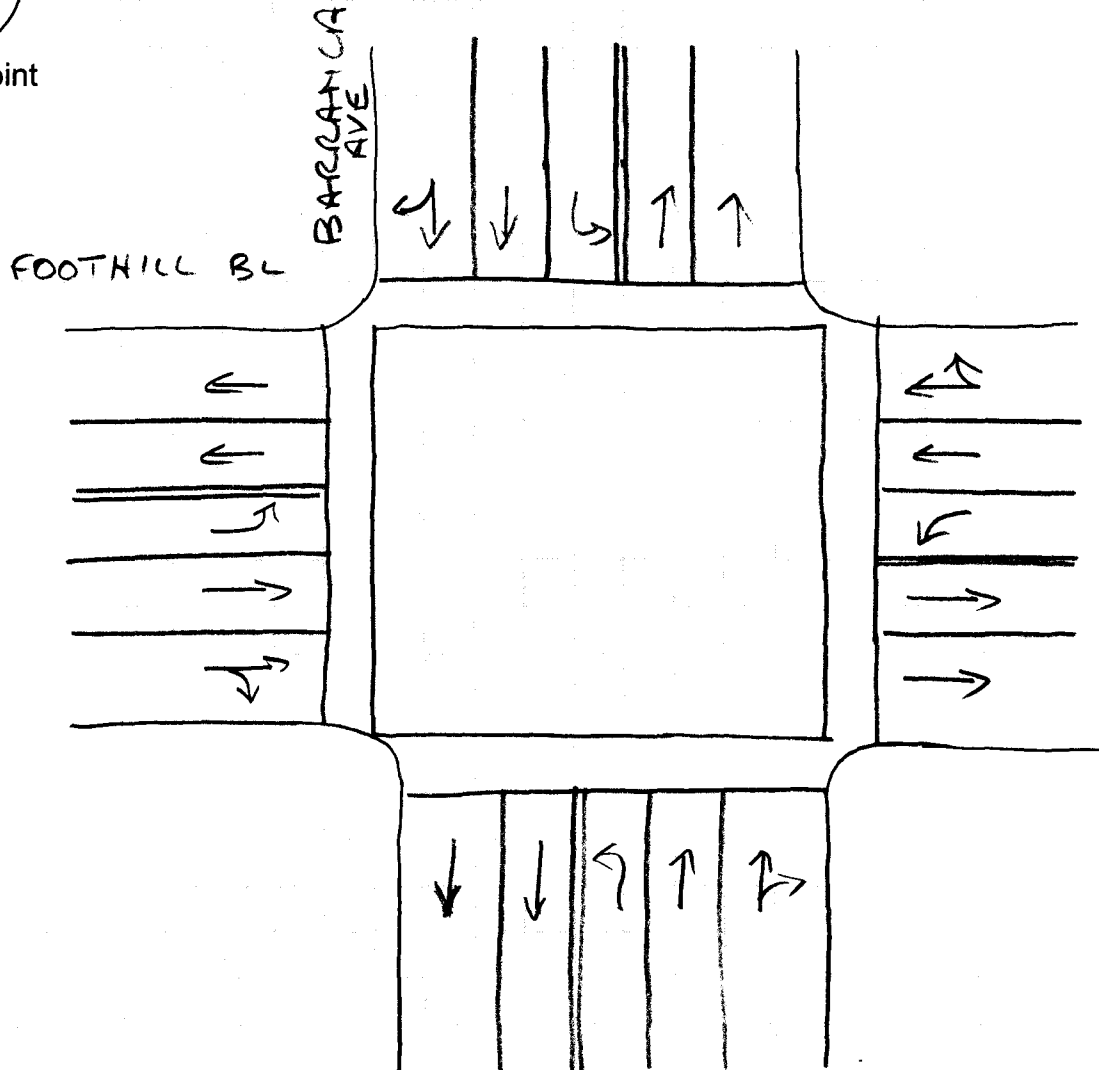
BY: HRW

DATE: 10/14/03

Revised 6/25/10



North Point



Phasing:

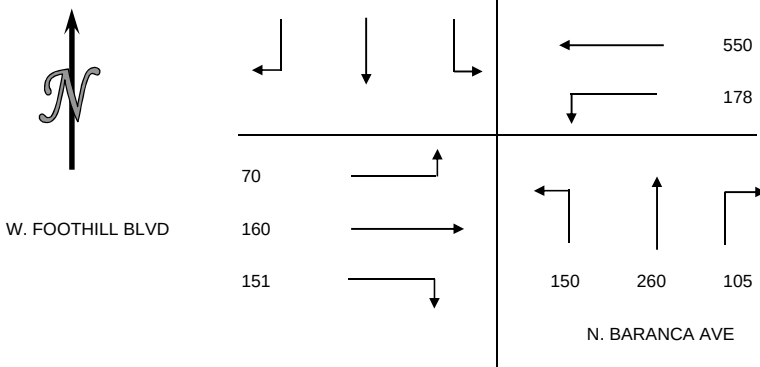
1	2	3	4	5	6
↓ ↑	← →				

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S N. BARANCA AVE
 E/W W. FOOTHILL BLVD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	21	44	1	0	98	28	11	22	15	14	14	6	274
715-730	16	64	4	2	111	44	13	22	22	15	17	8	338
730-745	21	74	12	5	121	44	24	41	25	29	30	9	435
745-800	29	87	20	3	136	58	21	68	37	39	46	20	564
800-815	44	116	37	13	140	39	35	97	50	47	50	23	691
815-830	54	105	29	9	153	37	25	54	38	36	34	18	592
830-845	21	55	5	3	74	37	24	28	24	23	27	10	331
845-900	14	36	4	2	117	43	27	31	21	23	44	7	369
HOUR TOTALS													
700-800	87	269	37	10	466	174	69	153	99	97	107	43	1611
715-815	110	341	73	23	508	185	93	228	134	130	143	60	2028
730-830	148	382	98	30	550	178	105	260	150	151	160	70	2282
745-845	148	363	91	28	503	171	105	247	149	145	157	71	2178
800-900	133	312	75	27	484	156	111	210	133	129	155	58	1983

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	5	0	1	1
715-730	2	2	6	2
730-745	0	5	1	2
745-800	5	3	11	3
800-815	1	13	12	17
815-830	3	9	12	8
830-845	0	3	9	5
845-900	2	2	8	3
HOUR TOTALS				
700-800	12	10	19	8
715-815	8	23	30	24
730-830	9	30	36	30
745-845	9	28	44	33
800-900	6	27	41	33

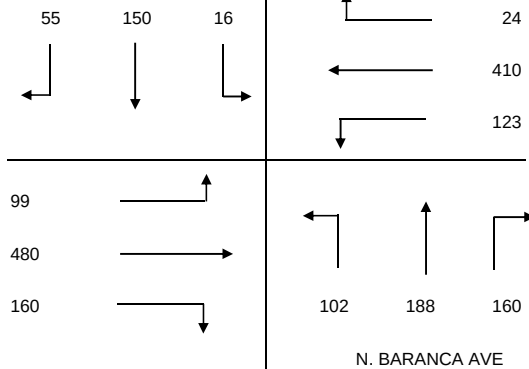
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S N. BARANCA AVE
 E/W W. FOOTHILL BLVD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	14	41	2	5	93	28	52	53	19	43	121	14	485
415-430	16	38	4	3	97	23	26	42	20	20	106	14	409
430-445	16	31	4	9	108	32	39	42	20	38	113	16	468
445-500	15	34	7	3	91	28	45	51	20	31	117	26	468
500-515	12	49	3	6	99	36	39	45	33	45	137	29	533
515-530	12	36	2	6	112	27	37	50	29	46	113	28	498
530-545	13	39	5	7	100	35	35	46	22	33	95	22	452
545-600	16	26	5	7	97	28	44	45	20	35	112	28	463
HOUR TOTALS													
400-500	61	144	17	20	389	111	162	188	79	132	457	70	1830
415-515	59	152	18	21	395	119	149	180	93	134	473	85	1878
430-530	55	150	16	24	410	123	160	188	102	160	480	99	1967
445-545	52	158	17	22	402	126	156	192	104	155	462	105	1951
500-600	53	150	15	26	408	126	155	186	104	159	457	107	1946

PM PEAK HOUR
430-530

W. FOOTHILL BLVD



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	3	10	2
415-430	0	0	8	7
430-445	2	2	4	13
445-500	3	1	7	4
500-515	2	2	9	8
515-530	4	2	10	6
530-545	2	4	16	4
545-600	4	0	8	3
HOUR TOTALS				
400-500	6	6	29	26
415-515	7	5	28	32
430-530	11	7	30	31
445-545	11	9	42	22
500-600	12	8	43	21

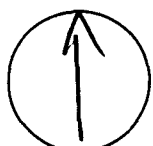
N/S GRAND AVE

E/W FOOTHILL BL

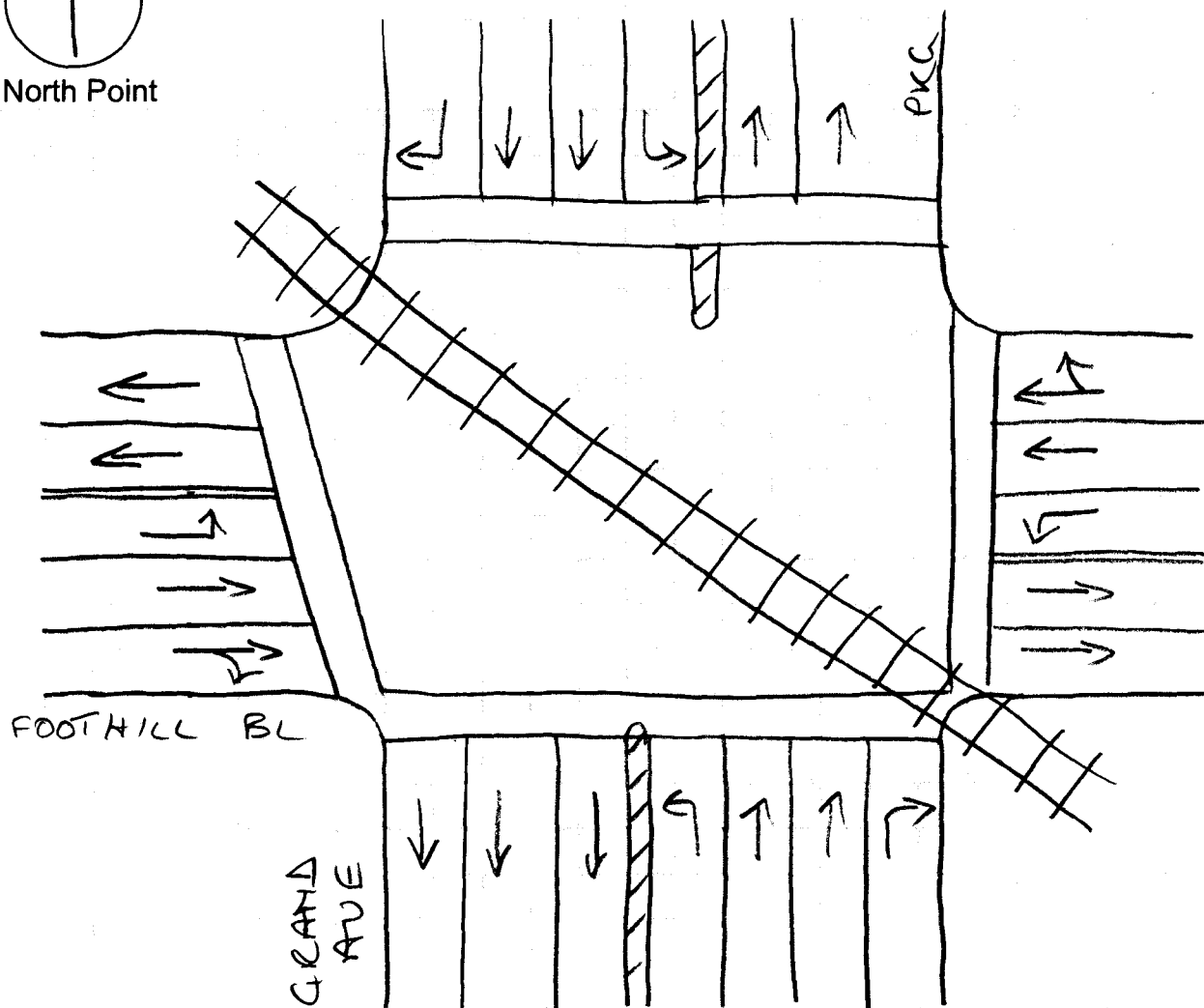
BY: MJW

DATE: 10/14/03

Revised 6/25/10



North Point



Phasing:

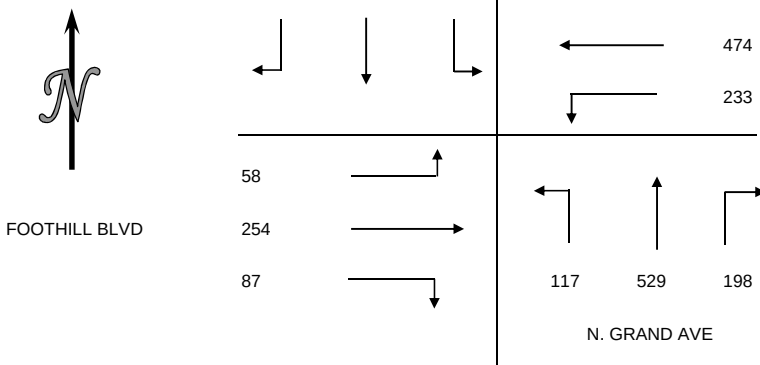
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S N. GRAND AVE
 E/W FOOTHILL BLVD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	14	77	5	13	98	36	19	49	11	5	19	6	352
715-730	14	71	3	9	84	48	19	68	20	8	21	6	371
730-745	21	74	9	12	108	44	19	99	29	17	42	17	491
745-800	15	94	23	27	132	41	44	152	40	16	53	8	645
800-815	19	128	32	33	134	66	57	175	27	20	89	27	807
815-830	25	112	21	18	114	66	57	114	36	30	69	14	676
830-845	31	83	14	15	94	60	40	88	14	21	43	9	512
845-900	13	93	8	7	71	53	47	75	5	12	63	11	458
HOURLY TOTALS													
700-800	64	316	40	61	422	169	101	368	100	46	135	37	1859
715-815	69	367	67	81	458	199	139	494	116	61	205	58	2314
730-830	80	408	85	90	488	217	177	540	132	83	253	66	2619
745-845	90	417	90	93	474	233	198	529	117	87	254	58	2640
800-900	88	416	75	73	413	245	201	452	82	83	264	61	2453

AM PEAK HOUR
745-845



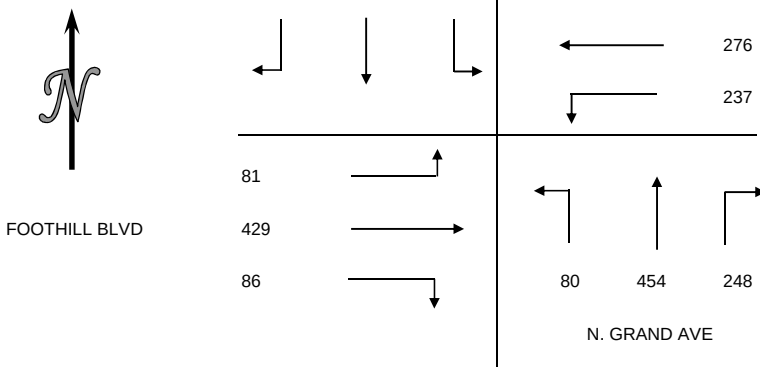
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	3	2	0	0
715-730	0	0	3	2
730-745	0	1	1	0
745-800	6	8	2	9
800-815	0	0	4	11
815-830	0	0	1	6
830-845	2	2	0	1
845-900	0	4	1	0
HOURLY TOTALS				
700-800	9	11	6	11
715-815	6	9	10	22
730-830	6	9	8	26
745-845	8	10	7	27
800-900	2	6	6	18

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S N. GRAND AVE
 E/W FOOTHILL BLVD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	10	81	23	21	64	65	80	100	19	24	105	27	619
415-430	9	74	16	15	54	54	60	67	12	13	70	19	463
430-445	16	88	13	17	76	59	63	104	16	27	110	17	606
445-500	10	80	17	18	65	51	70	105	20	18	99	27	580
500-515	11	61	15	13	70	64	65	132	23	24	114	20	612
515-530	13	61	21	25	65	63	50	113	21	17	106	17	572
530-545	7	69	13	14	52	47	41	93	14	18	81	11	460
545-600	8	63	12	17	82	48	45	101	20	10	103	21	530
HOUR TOTALS													
400-500	45	323	69	71	259	229	273	376	67	82	384	90	2268
415-515	46	303	61	63	265	228	258	408	71	82	393	83	2261
430-530	50	290	66	73	276	237	248	454	80	86	429	81	2370
445-545	41	271	66	70	252	225	226	443	78	77	400	75	2224
500-600	39	254	61	69	269	222	201	439	78	69	404	69	2174

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	2	2
415-430	0	1	1	1
430-445	4	4	0	1
445-500	0	1	1	0
500-515	1	5	2	1
515-530	5	1	1	1
530-545	3	4	0	1
545-600	2	1	3	2
HOUR TOTALS				
400-500	4	8	4	4
415-515	5	11	4	3
430-530	10	11	4	3
445-545	9	11	4	3
500-600	11	11	6	5

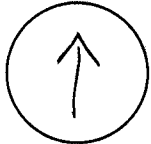
N/S VERMONT AVE

E/W (E) ADA AVE

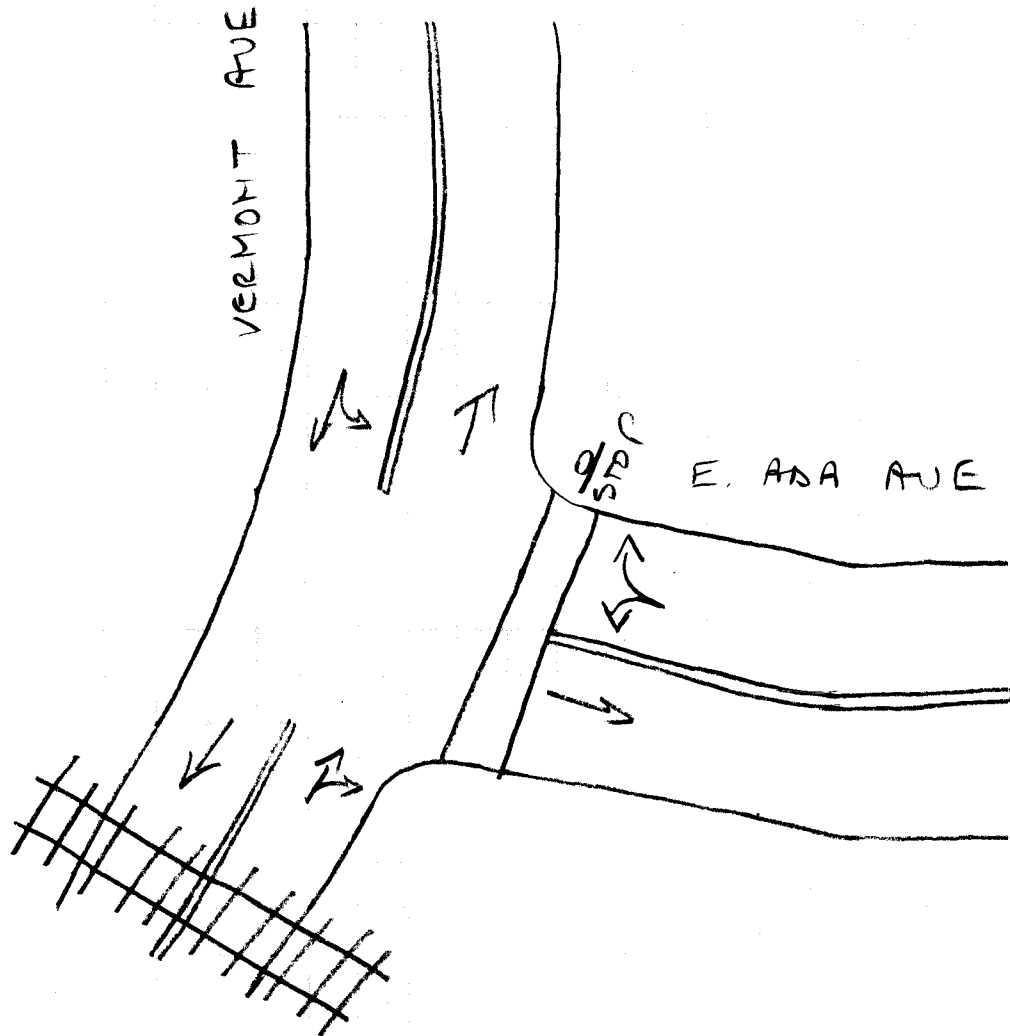
BY: HRW

DATE: 10/14/03

Revised 6/25/10



North Point



Phasing:

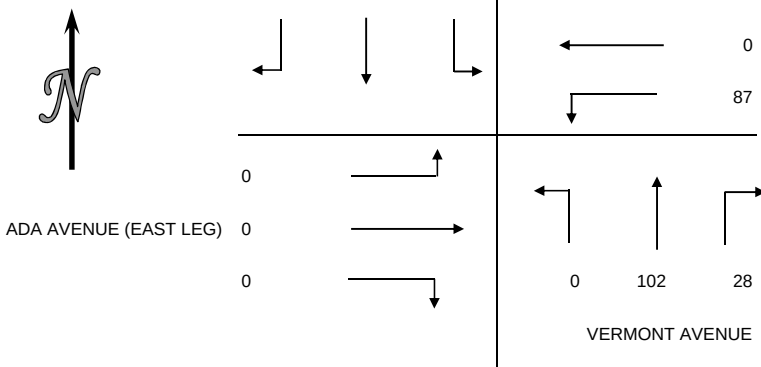
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S VERMONT AVENUE
 E/W ADA AVENUE (EAST LEG)

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	15	2	10	0	11	3	18	0	0	0	0	59
715-730	0	19	5	10	0	19	9	30	0	0	0	0	92
730-745	0	16	3	17	0	18	8	14	0	0	0	0	76
745-800	0	29	3	11	0	20	10	19	0	0	0	0	92
800-815	0	27	7	13	0	17	4	31	0	0	0	0	99
815-830	0	42	12	9	0	24	11	24	0	0	0	0	122
830-845	0	32	3	17	0	19	5	22	0	0	0	0	98
845-900	0	19	3	11	0	27	8	25	0	0	0	0	93
HOURLY TOTALS													
700-800	0	79	13	48	0	68	30	81	0	0	0	0	319
715-815	0	91	18	51	0	74	31	94	0	0	0	0	359
730-830	0	114	25	50	0	79	33	88	0	0	0	0	389
745-845	0	130	25	50	0	80	30	96	0	0	0	0	411
800-900	0	120	25	50	0	87	28	102	0	0	0	0	412

AM PEAK HOUR
800-900



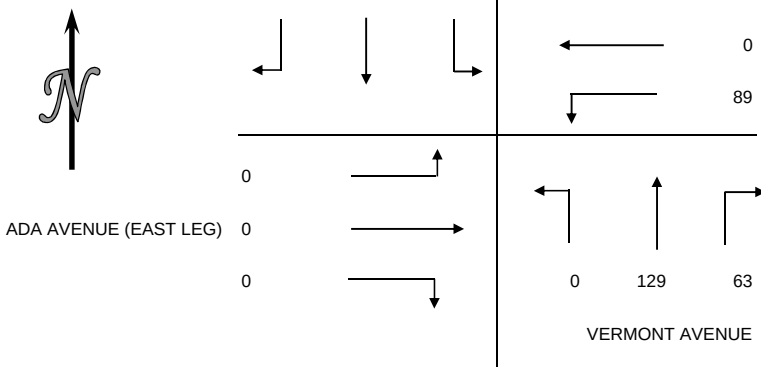
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	1	0	0
730-745	1	4	3	0
745-800	0	3	2	0
800-815	0	1	0	0
815-830	0	1	0	0
830-845	1	0	0	0
845-900	0	2	0	0
HOURLY TOTALS				
700-800	1	8	5	0
715-815	1	9	5	0
730-830	1	9	5	0
745-845	1	5	2	0
800-900	1	4	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S VERMONT AVENUE
 E/W ADA AVENUE (EAST LEG)

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	44	17	23	0	23	14	17	0	0	0	0	138
415-430	0	29	6	23	0	24	13	34	0	0	0	0	129
430-445	0	31	10	19	0	16	17	33	0	0	0	0	126
445-500	0	30	18	22	0	15	14	31	0	0	0	0	130
500-515	0	37	15	20	0	34	19	31	0	0	0	0	156
515-530	0	27	5	15	0	14	22	30	0	0	0	0	113
530-545	0	26	11	18	0	18	14	23	0	0	0	0	110
545-600	0	14	2	12	0	17	12	29	0	0	0	0	86
HOURLY TOTALS													
400-500	0	134	51	87	0	78	58	115	0	0	0	0	523
415-515	0	127	49	84	0	89	63	129	0	0	0	0	541
430-530	0	125	48	76	0	79	72	125	0	0	0	0	525
445-545	0	120	49	75	0	81	69	115	0	0	0	0	509
500-600	0	104	33	65	0	83	67	113	0	0	0	0	465

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	1	0
415-430	0	1	0	0
430-445	0	0	1	0
445-500	1	2	0	0
500-515	0	3	0	0
515-530	2	0	0	0
530-545	0	0	0	0
545-600	0	0	0	0
HOURLY TOTALS				
400-500	1	5	2	0
415-515	1	6	1	0
430-530	3	5	1	0
445-545	3	5	0	0
500-600	2	3	0	0

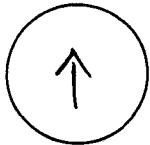
N/S VERMONT AVE

E/W Route 66

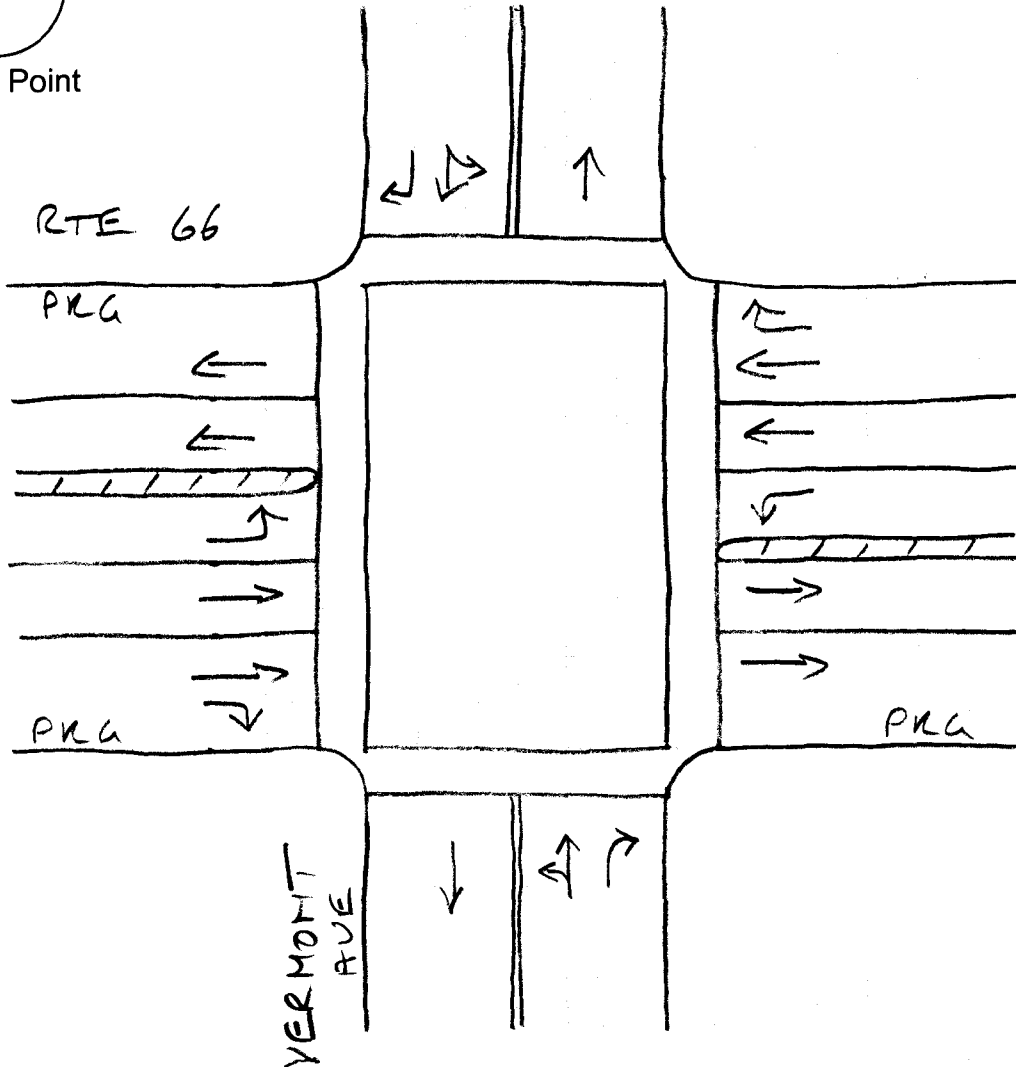
BY: MRW

DATE: 10/14/03

Revised 6/25/10



North Point



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WILTEC

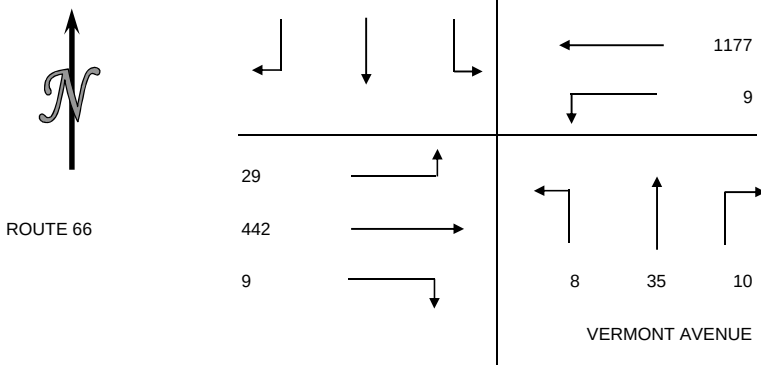
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S VERMONT AVENUE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	7	2	2	16	297	0	0	3	1	1	62	9	400
715-730	14	3	1	23	309	1	5	5	3	4	79	10	457
730-745	9	5	5	16	310	1	1	2	0	0	104	3	456
745-800	15	8	1	26	276	3	3	11	0	2	137	9	491
800-815	7	12	11	29	282	4	1	17	5	3	122	7	500
815-830	7	15	4	15	247	0	2	5	0	7	133	18	453
830-845	12	4	12	20	223	0	2	6	3	3	102	6	393
845-900	14	5	7	17	153	4	3	2	0	2	101	15	323
HOUR TOTALS													
700-800	45	18	9	81	1192	5	9	21	4	7	382	31	1804
715-815	45	28	18	94	1177	9	10	35	8	9	442	29	1904
730-830	38	40	21	86	1115	8	7	35	5	12	496	37	1900
745-845	41	39	28	90	1028	7	8	39	8	15	494	40	1837
800-900	40	36	34	81	905	8	8	30	8	15	458	46	1669

AM PEAK HOUR
715-815



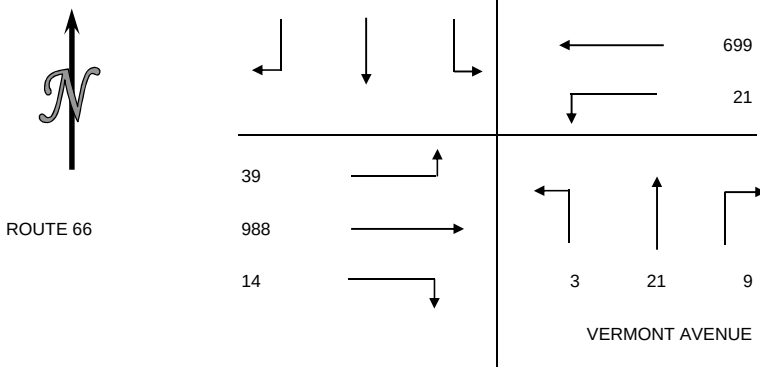
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	3	0	3	1
715-730	3	2	3	3
730-745	4	1	2	1
745-800	1	3	3	0
800-815	8	1	1	3
815-830	3	2	0	1
830-845	1	0	2	2
845-900	1	0	5	1
HOUR TOTALS				
700-800	11	6	11	5
715-815	16	7	9	7
730-830	16	7	6	5
745-845	13	6	6	6
800-900	13	3	8	7

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S VERMONT AVENUE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	32	8	14	14	149	3	2	0	0	4	242	10	478
415-430	29	10	15	20	148	1	1	9	1	3	226	11	474
430-445	43	11	23	13	128	4	2	3	1	5	190	16	439
445-500	20	10	13	27	160	2	2	5	1	3	223	11	477
500-515	45	10	17	19	212	11	3	8	0	3	258	10	596
515-530	26	7	7	11	160	3	1	4	2	7	224	11	463
530-545	13	8	11	10	167	5	3	4	0	1	283	7	512
545-600	12	12	8	19	137	2	1	4	0	4	225	9	433
HOUR TOTALS													
400-500	124	39	65	74	585	10	7	17	3	15	881	48	1868
415-515	137	41	68	79	648	18	8	25	3	14	897	48	1986
430-530	134	38	60	70	660	20	8	20	4	18	895	48	1975
445-545	104	35	48	67	699	21	9	21	3	14	988	39	2048
500-600	96	37	43	59	676	21	8	20	2	15	990	37	2004

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	1	2	0
415-430	7	1	3	2
430-445	3	0	3	3
445-500	1	2	6	0
500-515	5	2	3	0
515-530	5	1	6	0
530-545	0	3	4	1
545-600	0	1	4	0
HOUR TOTALS				
400-500	12	4	14	5
415-515	16	5	15	5
430-530	14	5	18	3
445-545	11	8	19	1
500-600	10	7	17	1

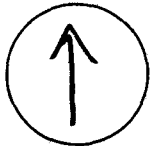
N/S VERMONT AVE

E/W FOOTHILL BL

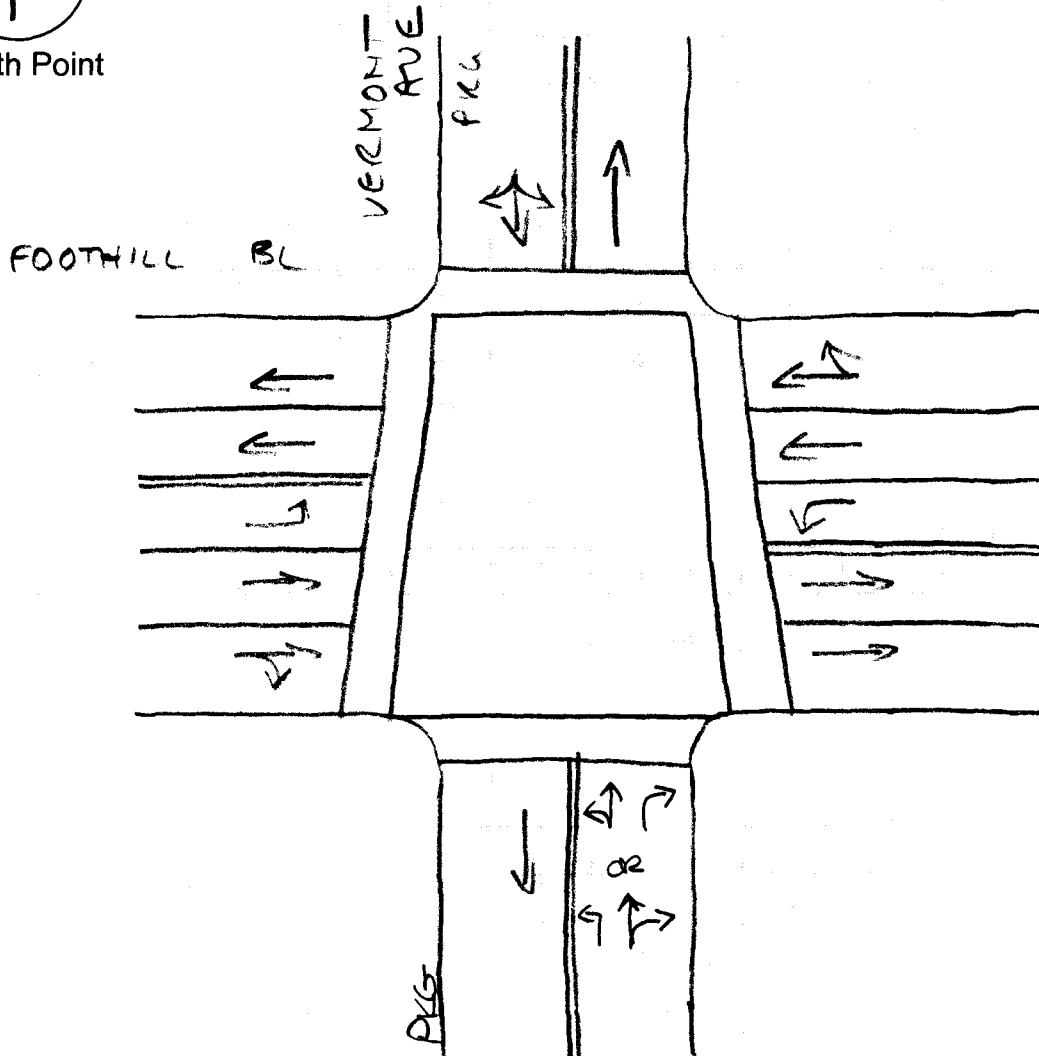
BY: HLW

DATE: 10/14/03

Revised 9/25/10



North Point



Phasing:

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WILTEC

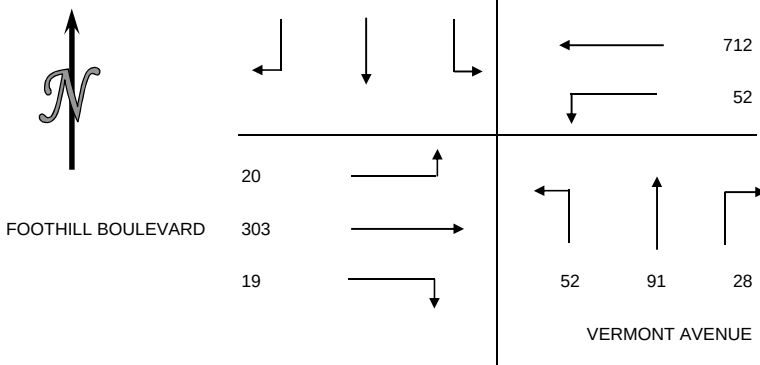
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S VERMONT AVENUE
 E/W FOOTHILL BOULEVARD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	6	3	2	4	122	4	3	5	4	1	24	2	180
715-730	7	12	3	9	134	8	6	9	8	2	36	1	235
730-745	10	9	1	6	158	3	4	10	12	5	61	3	282
745-800	15	12	6	22	194	6	9	21	12	2	96	4	399
800-815	12	31	14	15	198	13	13	33	13	1	91	4	438
815-830	17	30	9	12	149	14	1	19	9	8	67	10	345
830-845	16	17	1	17	171	19	5	18	18	8	49	2	341
845-900	17	11	5	10	104	5	2	5	2	3	29	3	196
HOURLY TOTALS													
700-800	38	36	12	41	608	21	22	45	36	10	217	10	1096
715-815	44	64	24	52	684	30	32	73	45	10	284	12	1354
730-830	54	82	30	55	699	36	27	83	46	16	315	21	1464
745-845	60	90	30	66	712	52	28	91	52	19	303	20	1523
800-900	62	89	29	54	622	51	21	75	42	20	236	19	1320

AM PEAK HOUR
745-845



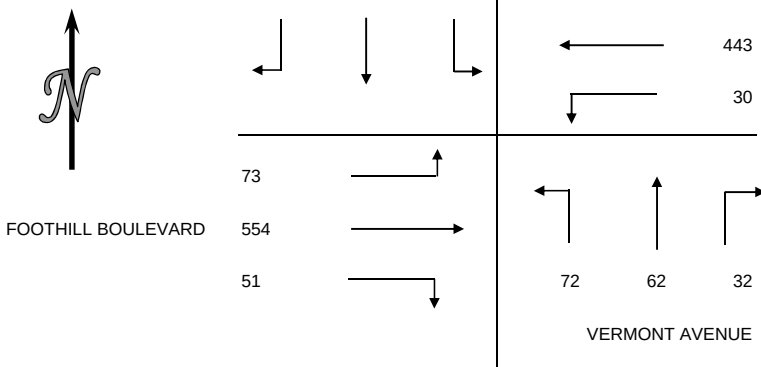
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	1	0	0
715-730	1	0	0	0
730-745	2	6	1	0
745-800	0	2	6	7
800-815	10	0	4	3
815-830	8	0	8	8
830-845	3	1	2	5
845-900	3	1	0	1
HOURLY TOTALS				
700-800	3	9	7	7
715-815	13	8	11	10
730-830	20	8	19	18
745-845	21	3	20	23
800-900	24	2	14	17

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S VERMONT AVENUE
 E/W FOOTHILL BOULEVARD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	23	18	1	17	106	11	11	14	18	11	136	19	385
415-430	10	11	9	15	82	4	13	19	13	6	104	30	316
430-445	24	26	13	13	101	8	7	26	23	11	139	21	412
445-500	17	20	14	13	102	4	16	16	19	20	161	18	420
500-515	18	15	4	23	117	9	2	10	14	7	143	14	376
515-530	19	4	9	16	123	9	7	10	16	13	111	20	357
530-545	15	9	7	13	99	4	11	12	9	9	103	11	302
545-600	19	5	9	6	83	7	4	10	16	6	114	9	288
HOURLY TOTALS													
400-500	74	75	37	58	391	27	47	75	73	48	540	88	1533
415-515	69	72	40	64	402	25	38	71	69	44	547	83	1524
430-530	78	65	40	65	443	30	32	62	72	51	554	73	1565
445-545	69	48	34	65	441	26	36	48	58	49	518	63	1455
500-600	71	33	29	58	422	29	24	42	55	35	471	54	1323

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	4	2	2	11
415-430	4	0	2	4
430-445	1	1	3	0
445-500	1	0	2	3
500-515	2	0	1	0
515-530	2	3	4	6
530-545	3	0	3	0
545-600	3	0	0	0
HOURLY TOTALS				
400-500	10	3	9	18
415-515	8	1	8	7
430-530	6	4	10	9
445-545	8	3	10	9
500-600	10	3	8	6

N/S VERMONT AVE

E/W (W) ADA AVE

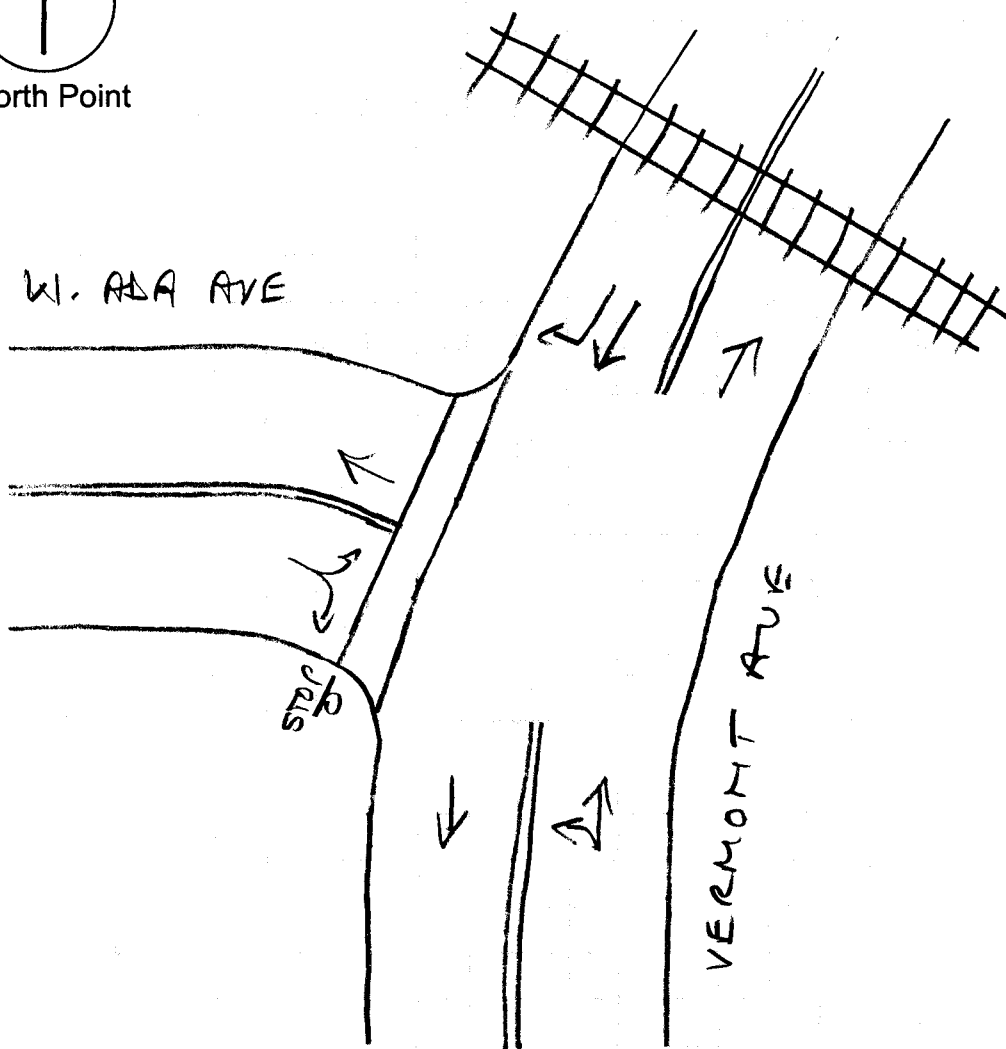
BY: HRW

DATE: 10/14/03

Revised 4/25/10



North Point



Phasing:

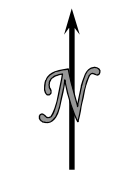
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

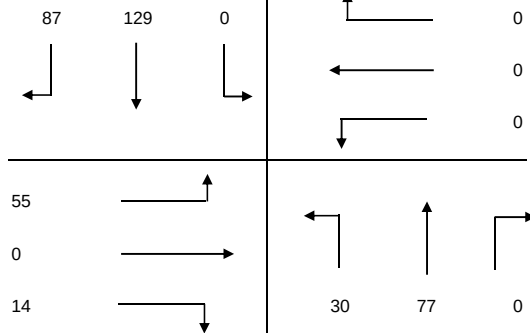
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S VERMONT AVENUE
 E/W ADA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	17	7	0	0	0	0	0	14	3	2	0	6	49
715-730	20	18	0	0	0	0	0	21	3	3	0	19	84
730-745	13	19	0	0	0	0	0	12	9	2	0	10	65
745-800	19	24	0	0	0	0	0	18	4	3	0	11	79
800-815	33	33	0	0	0	0	0	24	5	4	0	16	115
815-830	22	36	0	0	0	0	0	17	6	5	0	18	104
830-845	13	35	0	0	0	0	0	18	10	3	0	8	87
845-900	19	25	0	0	0	0	0	18	9	2	0	13	86
HOUR TOTALS													
700-800	69	68	0	0	0	0	0	65	19	10	0	46	277
715-815	85	94	0	0	0	0	0	75	21	12	0	56	343
730-830	87	112	0	0	0	0	0	71	24	14	0	55	363
745-845	87	128	0	0	0	0	0	77	25	15	0	53	385
800-900	87	129	0	0	0	0	0	77	30	14	0	55	392

AM PEAK HOUR
800-900



ADA AVENUE



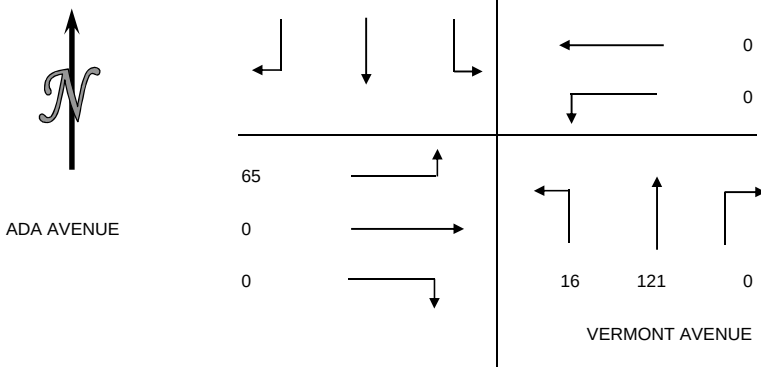
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	1	0	0	0
730-745	1	0	0	3
745-800	2	0	0	0
800-815	0	0	0	2
815-830	2	0	0	1
830-845	1	0	0	5
845-900	0	0	0	0
HOUR TOTALS				
700-800	4	0	0	3
715-815	4	0	0	5
730-830	5	0	0	6
745-845	5	0	0	8
800-900	3	0	0	8

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S VERMONT AVENUE
 E/W ADA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	22	46	0	0	0	0	0	18	1	0	0	15	102
415-430	13	42	0	0	0	0	0	28	4	0	0	17	104
430-445	10	32	0	0	0	0	0	30	1	0	0	18	91
445-500	11	38	0	0	0	0	0	33	5	0	0	13	100
500-515	20	50	0	0	0	0	0	30	6	0	0	17	123
515-530	14	28	0	0	0	0	0	28	3	0	0	20	93
530-545	17	25	0	0	0	0	0	24	4	0	0	16	86
545-600	11	20	0	0	0	0	0	28	2	0	0	13	74
HOUR TOTALS													
400-500	56	158	0	0	0	0	0	109	11	0	0	63	397
415-515	54	162	0	0	0	0	0	121	16	0	0	65	418
430-530	55	148	0	0	0	0	0	121	15	0	0	68	407
445-545	62	141	0	0	0	0	0	115	18	0	0	66	402
500-600	62	123	0	0	0	0	0	110	15	0	0	66	376

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	1	6
415-430	0	0	0	0
430-445	1	0	0	1
445-500	0	0	0	2
500-515	0	0	0	1
515-530	0	0	0	4
530-545	2	0	0	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	1	0	1	9
415-515	1	0	0	4
430-530	1	0	0	8
445-545	2	0	0	7
500-600	2	0	0	5

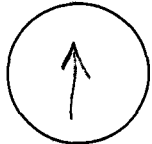
N/S GLENDORA AVE

E/W FOOTHILL BL

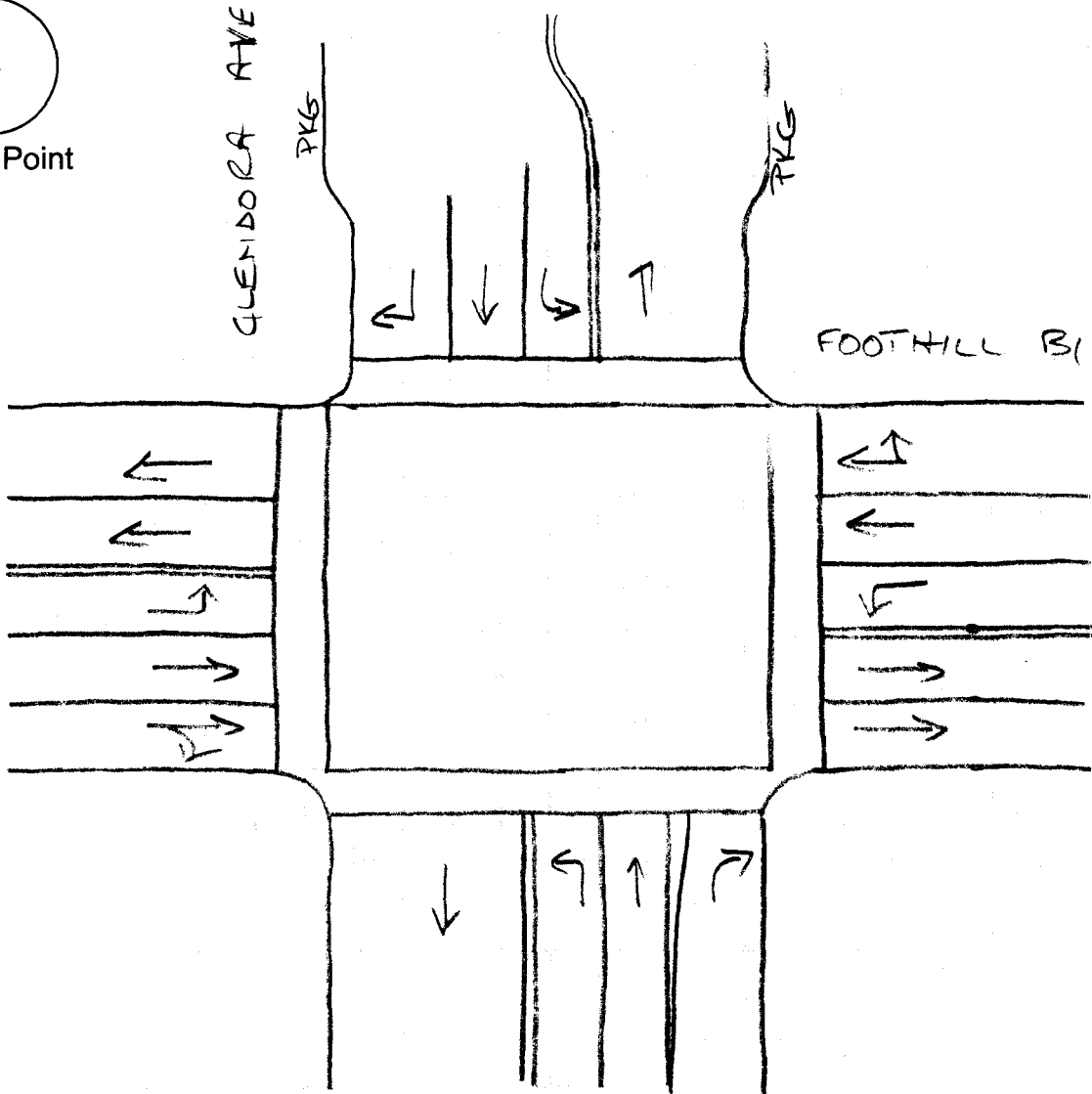
BY: MLW

DATE: 10/14/03

Revised 6/25/10



North Point



NOTE: N/S AND E/W LT YIELD ON GREEN

Phasing:

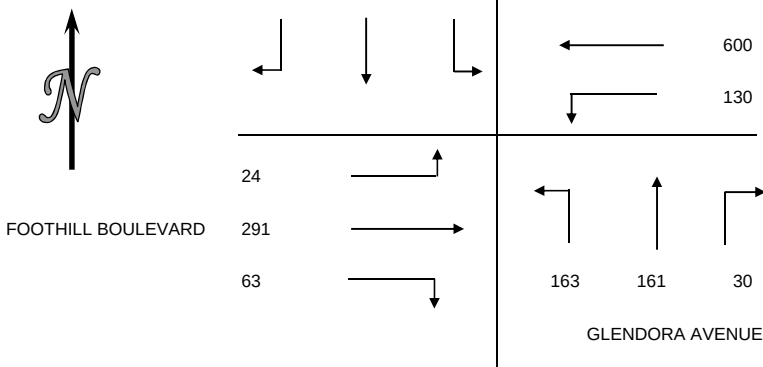
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GLENDORA AVENUE
 E/W FOOTHILL BOULEVARD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	5	16	2	4	83	7	2	22	13	3	16	1	174
715-730	7	27	4	4	122	21	3	39	19	6	29	3	284
730-745	4	32	7	7	120	24	2	42	27	9	40	6	320
745-800	10	28	17	15	151	20	5	47	60	9	72	5	439
800-815	13	47	15	18	142	38	8	51	54	13	98	11	508
815-830	16	58	16	7	164	37	10	33	27	23	77	2	470
830-845	15	26	2	12	143	35	7	30	22	18	44	6	360
845-900	10	29	5	14	93	12	5	37	20	18	55	11	309
HOURLY TOTALS													
700-800	26	103	30	30	476	72	12	150	119	27	157	15	1217
715-815	34	134	43	44	535	103	18	179	160	37	239	25	1551
730-830	43	165	55	47	577	119	25	173	168	54	287	24	1737
745-845	54	159	50	52	600	130	30	161	163	63	291	24	1777
800-900	54	160	38	51	542	122	30	151	123	72	274	30	1647

AM PEAK HOUR
745-845



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	2	2
715-730	2	0	0	5
730-745	0	0	1	0
745-800	8	3	4	3
800-815	4	0	3	2
815-830	7	3	1	0
830-845	2	3	0	0
845-900	6	2	2	0
HOURLY TOTALS				
700-800	10	3	7	10
715-815	14	3	8	10
730-830	19	6	9	5
745-845	21	9	8	5
800-900	19	8	6	2

WILTEC

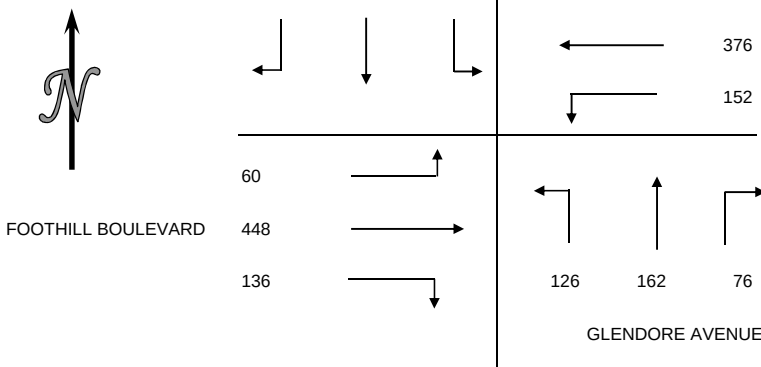
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GLENDORE AVENUE
 E/W FOOTHILL BOULEVARD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	12	51	9	18	82	32	19	40	29	30	118	19	459
415-430	12	45	15	13	99	32	19	38	37	32	84	23	449
430-445	9	34	11	16	92	43	14	41	34	35	107	11	447
445-500	20	44	16	18	86	40	23	44	28	40	130	13	502
500-515	23	45	15	12	99	37	20	39	27	29	127	13	486
515-530	16	43	20	16	80	24	15	41	30	24	106	6	421
530-545	15	50	7	14	75	26	15	21	24	26	108	16	397
545-600	11	40	10	10	84	34	20	37	23	32	124	14	439
HOUR TOTALS													
400-500	53	174	51	65	359	147	75	163	128	137	439	66	1857
415-515	64	168	57	59	376	152	76	162	126	136	448	60	1884
430-530	68	166	62	62	357	144	72	165	119	128	470	43	1856
445-545	74	182	58	60	340	127	73	145	109	119	471	48	1806
500-600	65	178	52	52	338	121	70	138	104	111	465	49	1743

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	5	5	2	7
415-430	1	4	10	14
430-445	3	2	5	4
445-500	3	3	2	3
500-515	10	1	3	7
515-530	1	6	4	5
530-545	9	5	2	0
545-600	5	6	0	4
HOUR TOTALS				
400-500	12	14	19	28
415-515	17	10	20	28
430-530	17	12	14	19
445-545	23	15	11	15
500-600	25	18	9	16

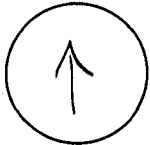
N/S Glendora Avenue

E/W ADA AVE

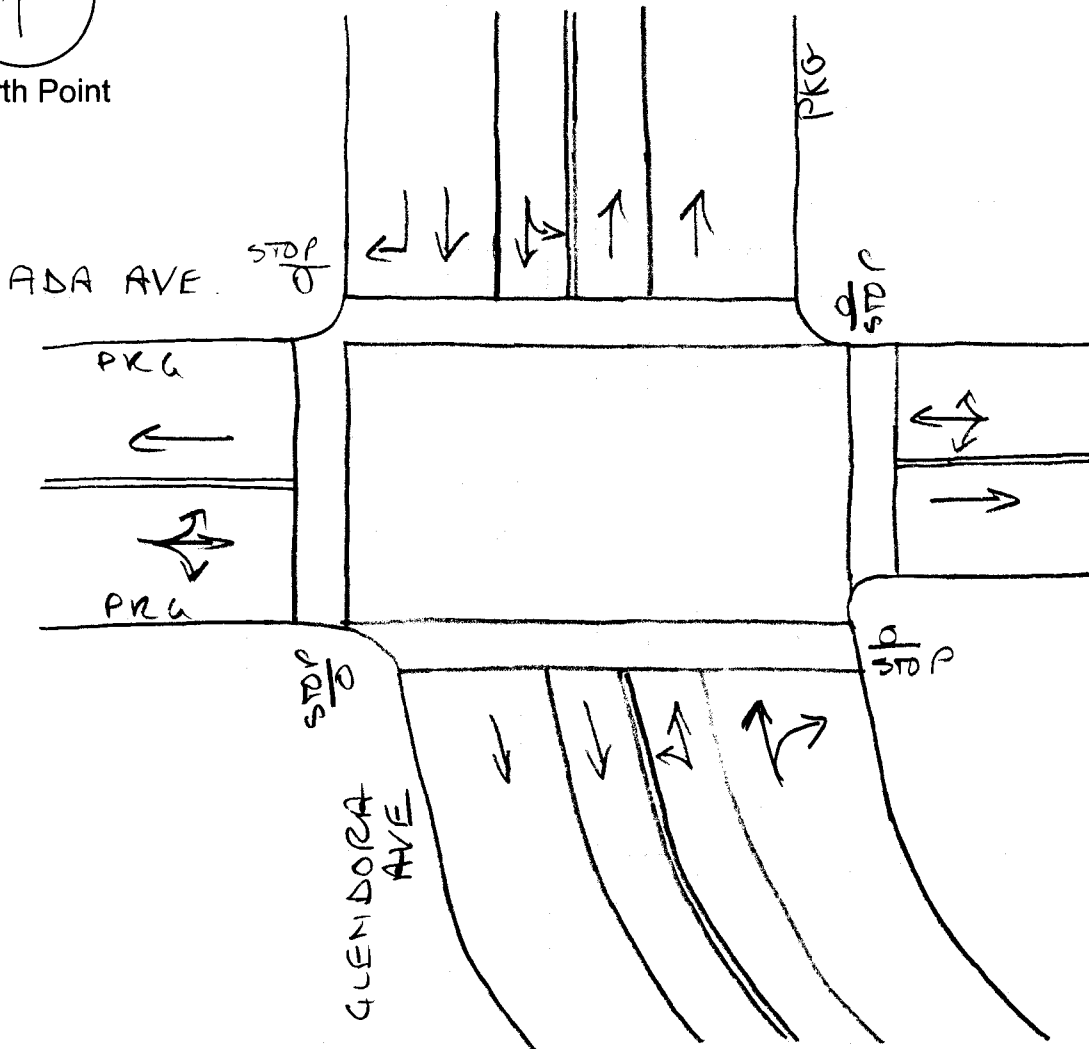
BY: MRW

DATE: 10/14/03

Revised 6/25/10



North Point



Phasing:

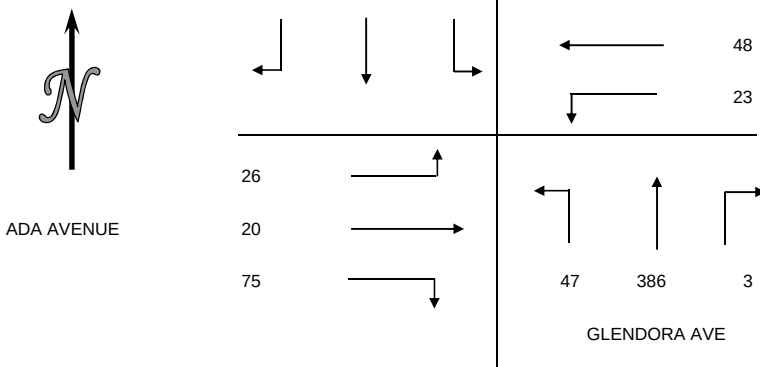
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GLENDORA AVE
 E/W ADA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	29	0	5	4	2	1	74	11	12	8	2	149
715-730	3	49	0	4	7	2	1	56	7	8	4	5	146
730-745	0	54	2	7	13	6	0	81	11	11	3	5	193
745-800	1	49	6	14	12	3	2	125	18	21	4	3	258
800-815	2	78	6	11	15	5	1	96	10	18	5	5	252
815-830	5	90	12	6	8	9	0	84	8	25	8	13	268
830-845	4	56	5	2	12	5	0	74	5	13	5	6	187
845-900	3	55	2	9	4	3	3	68	13	14	2	4	180
HOUR TOTALS													
700-800	5	181	8	30	36	13	4	336	47	52	19	15	746
715-815	6	230	14	36	47	16	4	358	46	58	16	18	849
730-830	8	271	26	38	48	23	3	386	47	75	20	26	971
745-845	12	273	29	33	47	22	3	379	41	77	22	27	965
800-900	14	279	25	28	39	22	4	322	36	70	20	28	887

AM PEAK HOUR
730-830



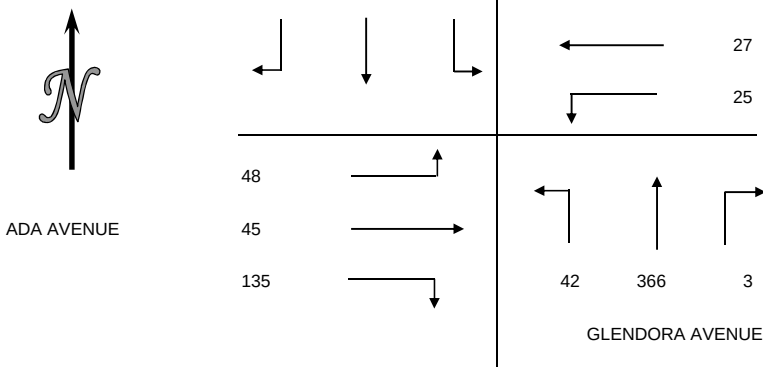
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	1	3
715-730	0	0	0	1
730-745	2	0	0	2
745-800	2	1	0	1
800-815	0	2	2	4
815-830	1	3	0	7
830-845	0	1	4	2
845-900	2	4	8	6
HOUR TOTALS				
700-800	5	2	1	7
715-815	4	3	2	8
730-830	5	6	2	14
745-845	3	7	6	14
800-900	3	10	14	19

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GLENDORA AVENUE
 E/W ADA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	11	85	6	9	13	5	2	88	13	45	12	14	303
415-430	7	89	2	4	6	9	1	95	13	31	9	10	276
430-445	6	76	4	7	2	5	0	83	8	27	11	15	244
445-500	9	100	5	10	6	6	0	100	8	32	13	9	298
500-515	14	85	2	9	5	5	1	90	8	32	23	15	289
515-530	2	85	5	5	7	10	1	95	6	15	11	12	254
530-545	7	88	2	5	8	9	1	68	9	19	7	3	226
545-600	7	100	5	5	7	4	0	74	9	11	9	6	237
HOUR TOTALS													
400-500	33	350	17	30	27	25	3	366	42	135	45	48	1121
415-515	36	350	13	30	19	25	2	368	37	122	56	49	1107
430-530	31	346	16	31	20	26	2	368	30	106	58	51	1085
445-545	32	358	14	29	26	30	3	353	31	98	54	39	1067
500-600	30	358	14	24	27	28	3	327	32	77	50	36	1006

PM PEAK HOUR
400-500



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	2
415-430	0	1	0	1
430-445	1	1	1	1
445-500	1	1	0	2
500-515	3	1	0	8
515-530	0	0	0	4
530-545	3	0	4	2
545-600	2	1	1	3
HOUR TOTALS				
400-500	3	3	1	6
415-515	5	4	1	12
430-530	5	3	1	15
445-545	7	2	4	16
500-600	8	2	5	17

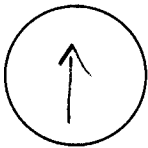
N/S GLENDORA AVE

E/W Route 66

BY: KRW

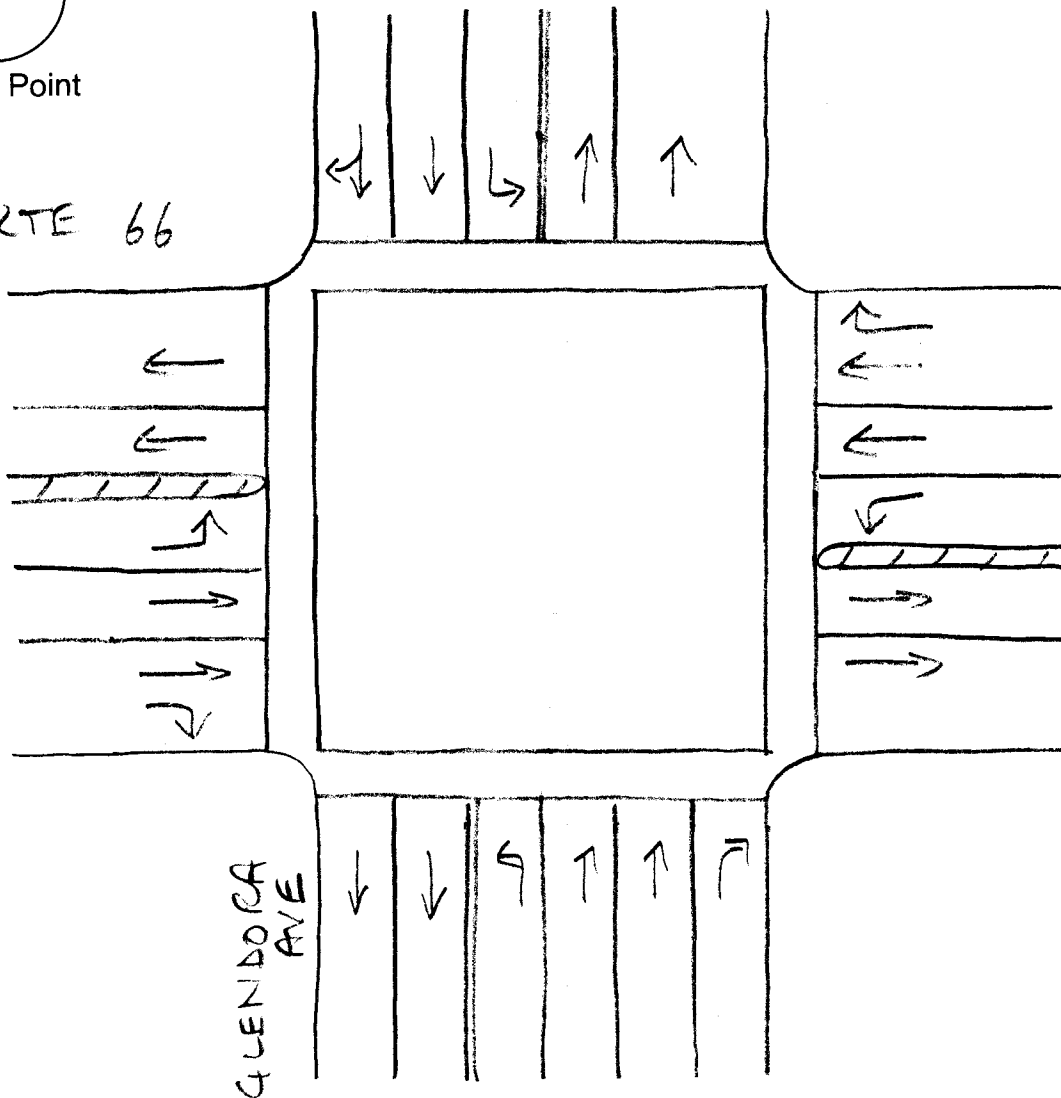
DATE: 10/14/03

Revised 6/25/10



North Point

RTE 66



Phasing:

1	2	3	4	5	6

WILTEC

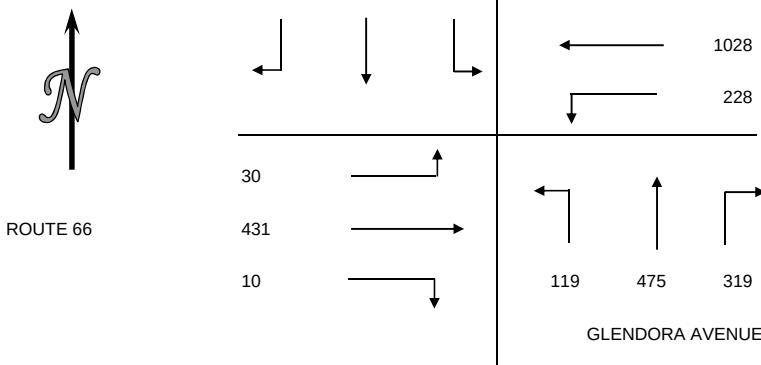
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GLENDORA AVENUE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	8	48	11	22	279	36	30	48	21	7	51	7	568
715-730	12	70	7	29	297	60	33	79	26	4	63	4	684
730-745	6	77	29	45	318	37	46	91	18	0	89	6	762
745-800	7	56	18	35	234	52	83	157	31	2	113	6	794
800-815	14	85	13	26	252	61	106	134	42	5	122	11	871
815-830	11	84	31	29	224	78	84	93	28	3	107	7	779
830-845	13	66	30	37	239	70	52	66	22	1	91	5	692
845-900	7	38	16	20	180	35	66	76	18	1	88	8	553
HOUR TOTALS													
700-800	33	251	65	131	1128	185	192	375	96	13	316	23	2808
715-815	39	288	67	135	1101	210	268	461	117	11	387	27	3111
730-830	38	302	91	135	1028	228	319	475	119	10	431	30	3206
745-845	45	291	92	127	949	261	325	450	123	11	433	29	3136
800-900	45	273	90	112	895	244	308	369	110	10	408	31	2895

AM PEAK HOUR
730-830



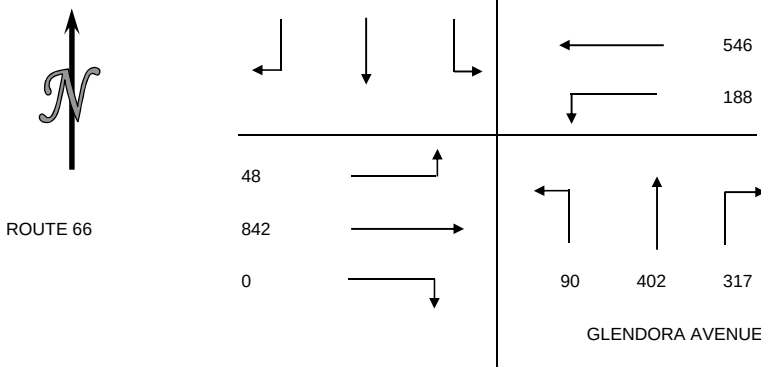
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	2	1	1
715-730	2	4	0	0
730-745	6	10	2	0
745-800	5	3	3	2
800-815	3	4	1	0
815-830	1	8	0	1
830-845	1	6	3	0
845-900	0	0	6	1
HOUR TOTALS				
700-800	15	19	6	3
715-815	16	21	6	2
730-830	15	25	6	3
745-845	10	21	7	3
800-900	5	18	10	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY, MAY 4TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GLENDORA AVENUE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	13	116	51	12	130	48	78	99	25	3	183	24	782
415-430	15	98	63	27	121	38	92	113	25	0	216	19	827
430-445	11	107	46	18	127	57	79	92	13	0	203	12	765
445-500	4	83	45	25	138	40	69	96	27	0	198	9	734
500-515	18	113	43	25	160	53	77	101	25	0	225	8	848
515-530	13	80	31	11	158	46	75	111	21	8	207	18	779
530-545	22	95	50	17	134	56	43	90	19	9	152	4	691
545-600	8	99	48	15	122	58	45	80	27	3	236	12	753
HOUR TOTALS													
400-500	43	404	205	82	516	183	318	400	90	3	800	64	3108
415-515	48	401	197	95	546	188	317	402	90	0	842	48	3174
430-530	46	383	165	79	583	196	300	400	86	8	833	47	3126
445-545	57	371	169	78	590	195	264	398	92	17	782	39	3052
500-600	61	387	172	68	574	213	240	382	92	20	820	42	3071

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	3	2	1
415-430	7	2	0	0
430-445	4	2	0	1
445-500	4	1	0	2
500-515	1	0	1	0
515-530	3	0	1	1
530-545	0	0	0	0
545-600	1	0	0	2
HOUR TOTALS				
400-500	18	8	2	4
415-515	16	5	1	3
430-530	12	3	2	4
445-545	8	1	2	3
500-600	5	0	2	3

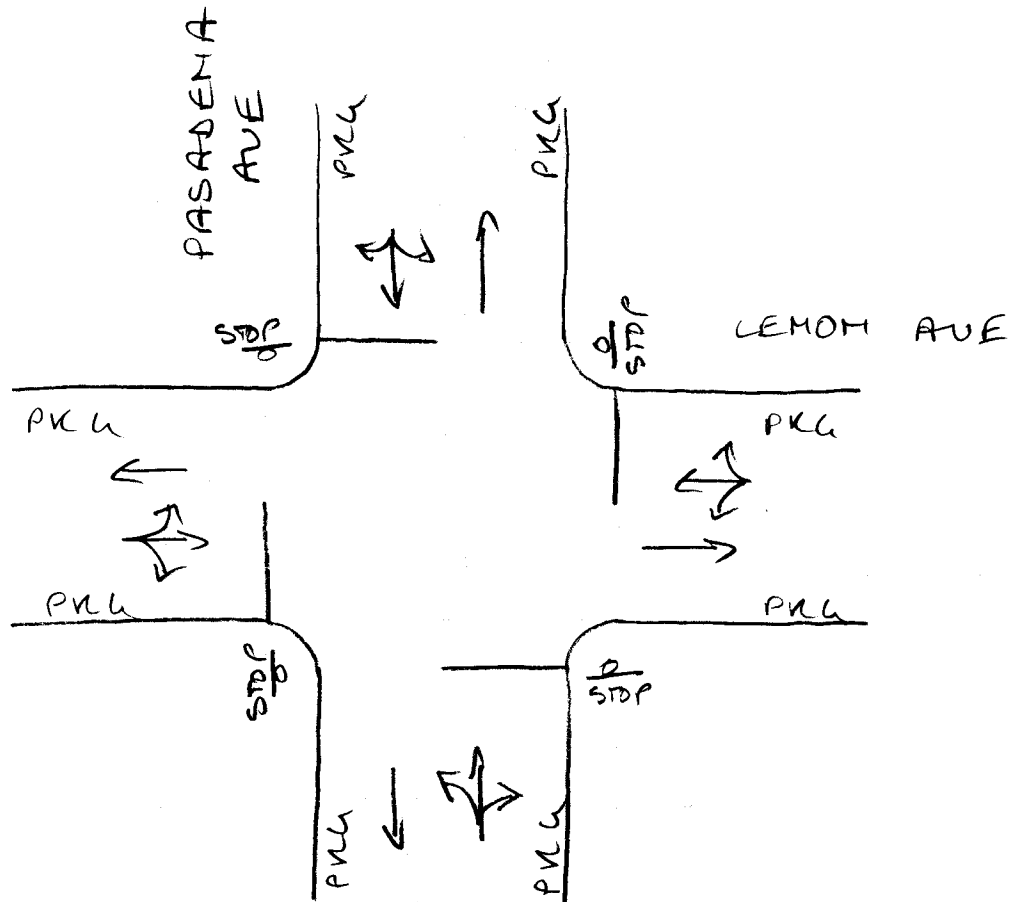
N/S PASADENA AVE

E/W LEMON AVE

BY: MRW

DATE: 10/14/03

Revised 4/25/10



Phasing:

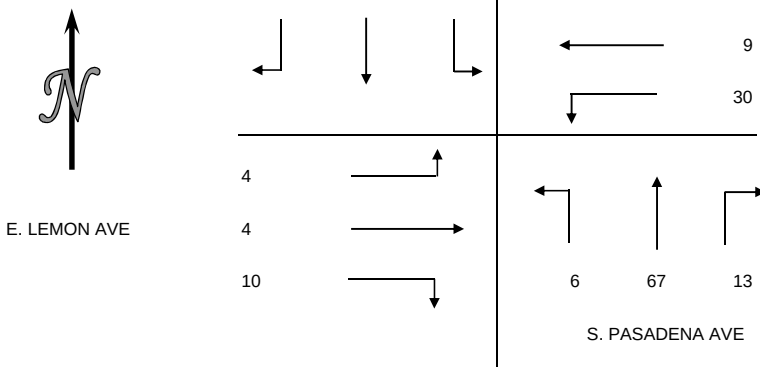
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S PASADENA AVE
 E/W E. LEMON AVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	9	1	1	2	5	1	3	0	0	1	0	23
715-730	0	15	0	1	0	8	1	6	0	0	0	0	31
730-745	0	14	2	1	1	4	4	5	1	3	2	0	37
745-800	0	16	1	4	2	7	5	16	3	4	1	2	61
800-815	2	19	5	9	0	7	2	20	2	0	2	1	69
815-830	1	27	5	8	0	6	3	15	1	5	0	1	72
830-845	1	23	6	4	7	10	3	16	0	1	1	0	72
845-900	0	13	1	3	0	10	5	10	2	3	2	0	49
HOURLY TOTALS													
700-800	0	54	4	7	5	24	11	30	4	7	4	2	152
715-815	2	64	8	15	3	26	12	47	6	7	5	3	198
730-830	3	76	13	22	3	24	14	56	7	12	5	4	239
745-845	4	85	17	25	9	30	13	67	6	10	4	4	274
800-900	4	82	17	24	7	33	13	61	5	9	5	2	262

AM PEAK HOUR
745-845



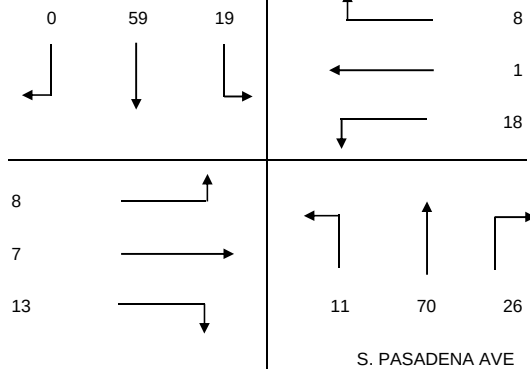
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	3	0	1
730-745	1	0	1	0
745-800	0	2	3	0
800-815	0	0	3	0
815-830	0	3	2	1
830-845	0	0	0	1
845-900	3	1	1	0
HOURLY TOTALS				
700-800	1	5	4	1
715-815	1	5	7	1
730-830	1	5	9	1
745-845	0	5	8	2
800-900	3	4	6	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S PASADENA AVE
 E/W E. LEMON AVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	9	3	3	0	1	5	12	1	1	0	3	38
415-430	2	15	3	0	0	7	4	10	0	1	0	2	44
430-445	0	12	6	2	2	2	4	16	2	2	2	1	51
445-500	0	10	6	2	0	7	7	17	5	3	1	2	60
500-515	0	17	4	1	0	3	8	14	1	3	3	3	57
515-530	0	20	4	1	0	4	2	22	2	4	2	2	63
530-545	0	12	5	4	1	4	9	17	3	3	1	1	60
545-600	0	14	1	0	1	7	6	15	2	2	3	1	52
HOURLY TOTALS													
400-500	2	46	18	7	2	17	20	55	8	7	3	8	193
415-515	2	54	19	5	2	19	23	57	8	9	6	8	212
430-530	0	59	20	6	2	16	21	69	10	12	8	8	231
445-545	0	59	19	8	1	18	26	70	11	13	7	8	240
500-600	0	63	14	6	2	18	25	68	8	12	9	7	232

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	6
415-430	0	1	1	2
430-445	0	0	3	0
445-500	3	0	0	0
500-515	1	0	1	1
515-530	0	0	0	0
530-545	0	2	3	0
545-600	0	0	1	0
HOURLY TOTALS				
400-500	3	1	4	8
415-515	4	1	5	3
430-530	4	0	4	1
445-545	4	2	4	1
500-600	1	2	5	1

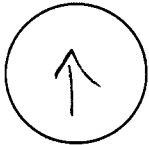
N/S PASADENA AVE

E/W Route 66

BY: MRW

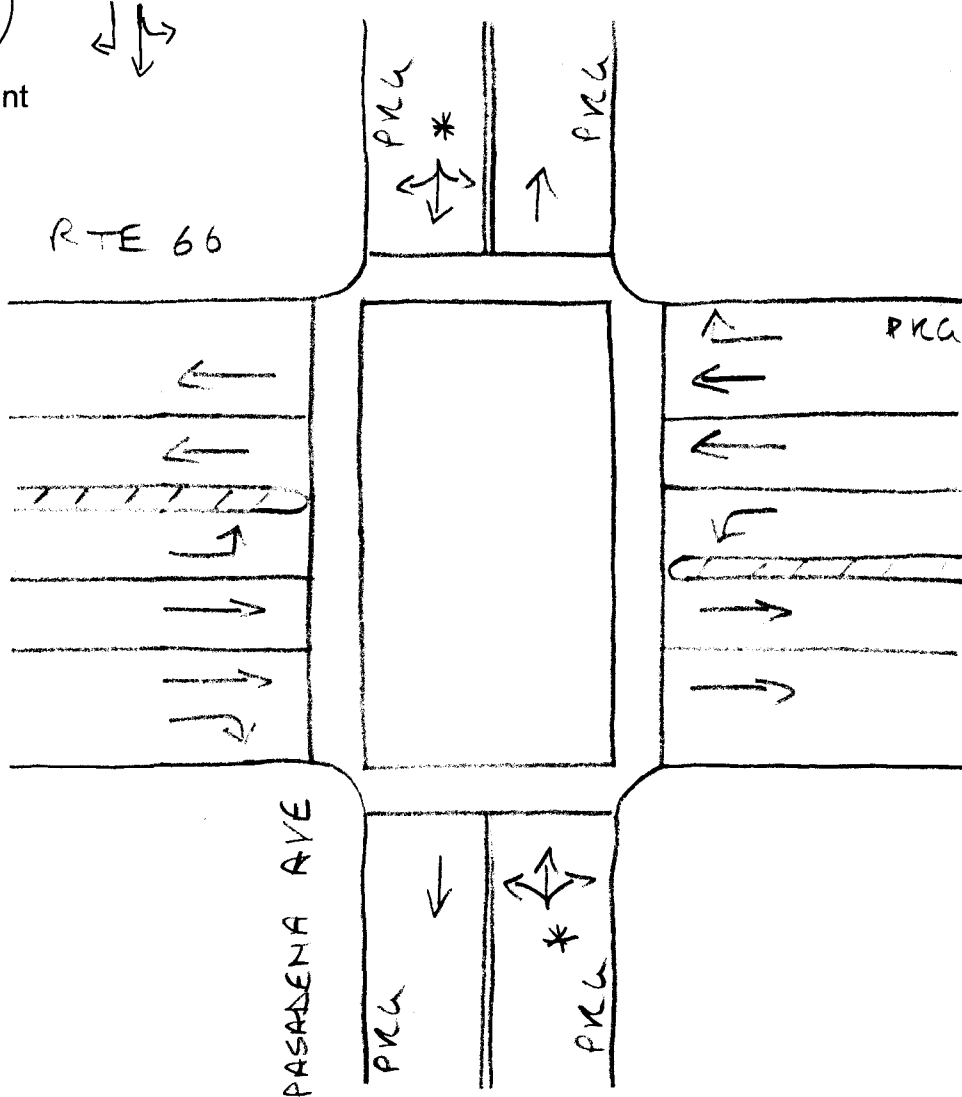
DATE: 10/14/03

Revised 6/25/10



North Point

* If no cars are parked near the intersection



Phasing:

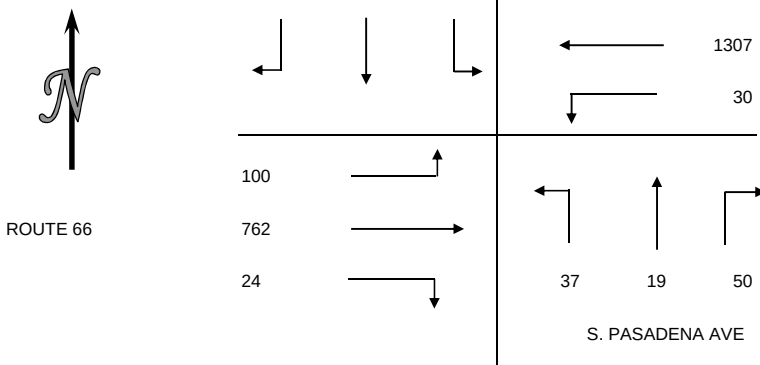
1	2	3	4	5	6
↓ ↑	↻ ↻	↓ ↻ ↑	↑ ↓		

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S PASADENA AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	11	3	4	2	350	3	5	1	2	1	70	7	459
715-730	12	3	7	1	345	1	6	2	6	1	80	4	468
730-745	10	8	5	6	371	3	4	2	4	3	116	12	544
745-800	17	3	4	19	332	6	12	8	9	4	174	22	610
800-815	12	6	9	15	324	7	9	6	13	8	198	31	638
815-830	24	6	12	15	341	11	18	2	13	7	219	28	696
830-845	12	6	14	16	310	6	11	3	2	5	171	19	575
845-900	21	6	8	16	220	5	6	1	6	4	144	20	457
HOURLY TOTALS													
700-800	50	17	20	28	1398	13	27	13	21	9	440	45	2081
715-815	51	20	25	41	1372	17	31	18	32	16	568	69	2260
730-830	63	23	30	55	1368	27	43	18	39	22	707	93	2488
745-845	65	21	39	65	1307	30	50	19	37	24	762	100	2519
800-900	69	24	43	62	1195	29	44	12	34	24	732	98	2366

AM PEAK HOUR
745-845



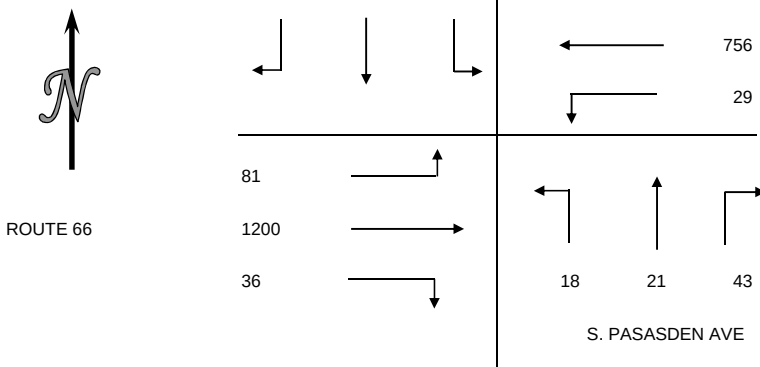
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	2	0	0	0
730-745	4	2	0	0
745-800	4	1	0	0
800-815	2	0	0	0
815-830	2	0	0	0
830-845	0	0	0	0
845-900	2	0	0	0
HOURLY TOTALS				
700-800	10	3	0	0
715-815	12	3	0	0
730-830	12	3	0	0
745-845	8	1	0	0
800-900	6	0	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S PASADENA AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	10	5	7	11	204	11	6	4	5	10	285	21	579
415-430	17	6	7	10	165	5	11	1	6	11	265	13	517
430-445	16	3	9	15	198	13	14	3	5	11	231	20	538
445-500	19	9	7	9	201	9	11	6	3	8	284	18	584
500-515	15	3	20	6	192	11	11	6	5	7	309	23	608
515-530	12	6	13	15	181	2	13	6	7	14	320	14	603
530-545	13	4	9	14	182	7	8	3	3	7	287	26	563
545-600	12	6	8	7	150	6	9	5	3	11	317	17	551
HOUR TOTALS													
400-500	62	23	30	45	768	38	42	14	19	40	1065	72	2218
415-515	67	21	43	40	756	38	47	16	19	37	1089	74	2247
430-530	62	21	49	45	772	35	49	21	20	40	1144	75	2333
445-545	59	22	49	44	756	29	43	21	18	36	1200	81	2358
500-600	52	19	50	42	705	26	41	20	18	39	1233	80	2325

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	3	0	0
415-430	0	1	0	0
430-445	3	0	0	0
445-500	4	0	0	0
500-515	3	6	0	0
515-530	2	2	0	0
530-545	3	1	0	0
545-600	2	0	0	0
HOUR TOTALS				
400-500	10	4	0	0
415-515	10	7	0	0
430-530	12	8	0	0
445-545	12	9	0	0
500-600	10	9	0	0

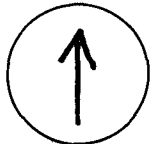
N/S GLENWOOD AVE.

E/W LEMON AVE.

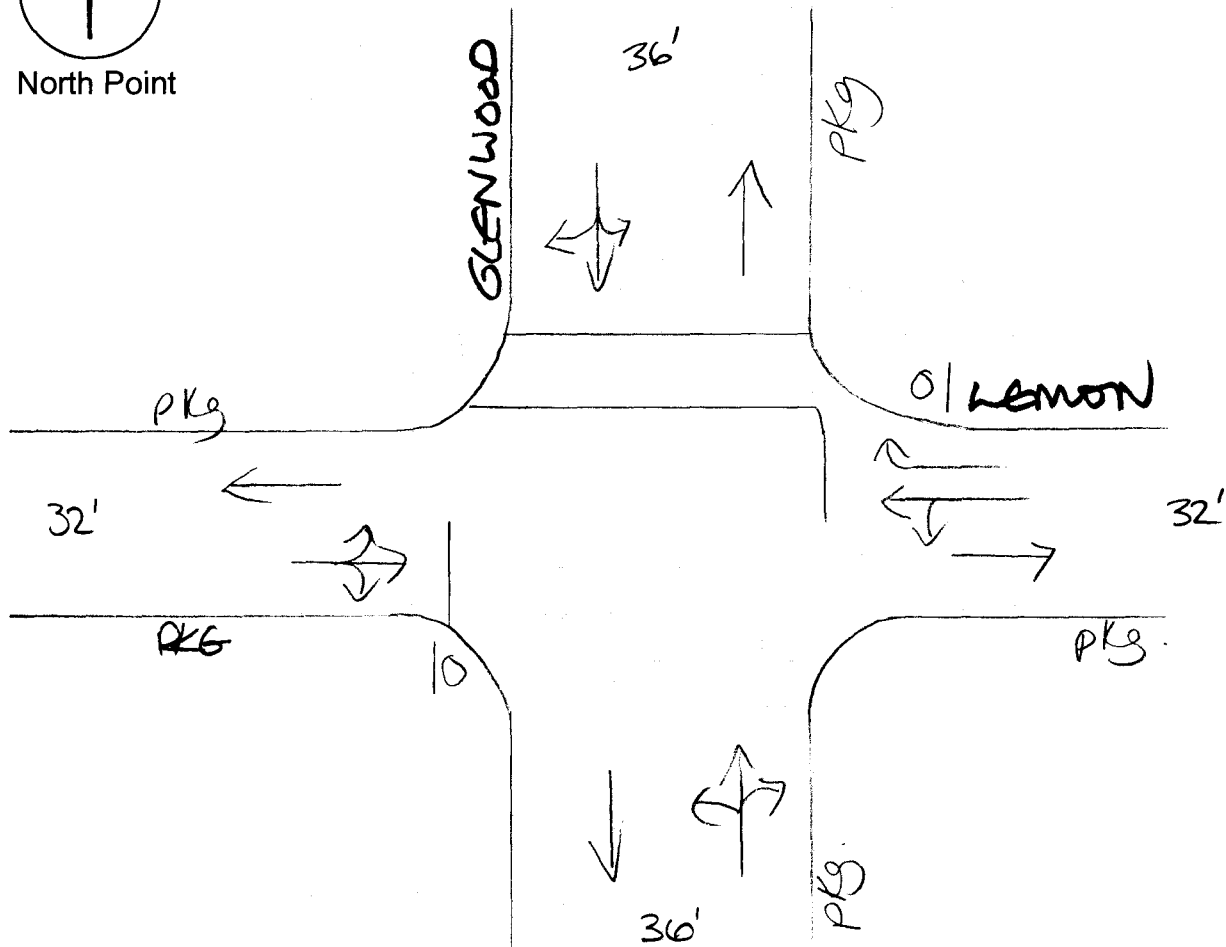
BY: V.W.D

DATE: 10-17-03

Revised 4/25/10



North Point



Phasing:

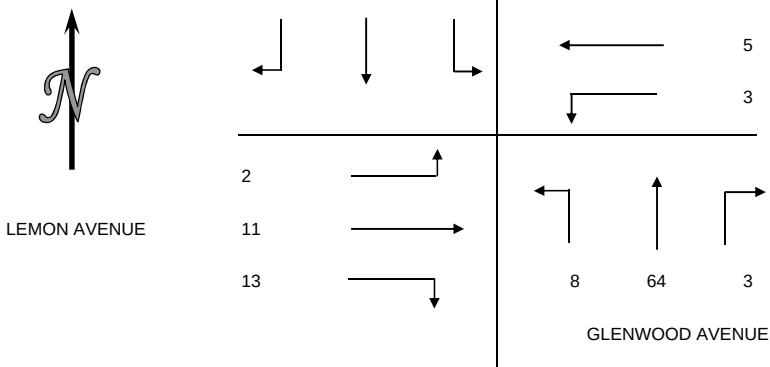
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GLENWOOD AVENUE
 E/W LEMON AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	20	2	1	0	1	1	3	1	1	2	0	32
715-730	0	16	1	1	0	0	0	9	1	5	1	0	34
730-745	0	22	3	0	0	1	0	9	1	5	2	0	43
745-800	1	21	3	2	2	2	0	15	1	3	4	1	55
800-815	2	20	3	1	1	0	1	15	3	3	3	1	53
815-830	1	24	1	1	1	0	1	18	1	4	2	0	54
830-845	1	29	1	0	1	1	1	16	3	3	2	0	58
845-900	3	23	0	0	0	3	1	10	2	1	4	0	47
HOURLY TOTALS													
700-800	1	79	9	4	2	4	1	36	4	14	9	1	164
715-815	3	79	10	4	3	3	1	48	6	16	10	2	185
730-830	4	87	10	4	4	3	2	57	6	15	11	2	205
745-845	5	94	8	4	5	3	3	64	8	13	11	2	220
800-900	7	96	5	2	3	4	4	59	9	11	11	1	212

AM PEAK HOUR
745-845



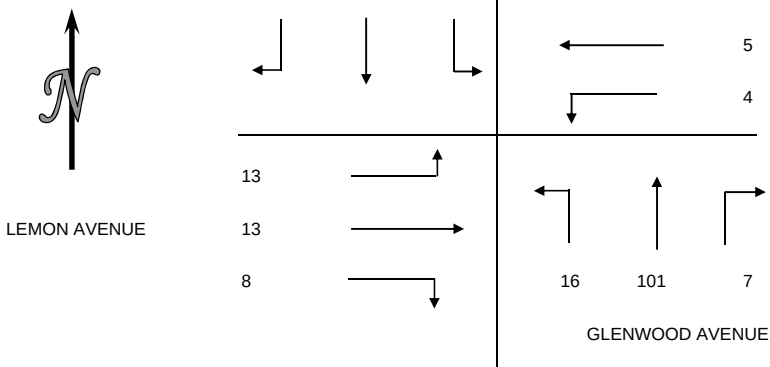
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	1
730-745	0	1	0	2
745-800	0	0	0	0
800-815	0	0	0	1
815-830	0	0	0	0
830-845	0	0	0	0
845-900	0	0	0	0
HOURLY TOTALS				
700-800	0	1	0	3
715-815	0	1	0	4
730-830	0	1	0	3
745-845	0	0	0	1
800-900	0	0	0	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GLENWOOD AVENUE
 E/W LEMON AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	15	2	0	3	0	2	19	2	1	2	2	48
415-430	1	22	0	1	0	1	1	19	6	1	2	2	56
430-445	0	24	4	0	1	0	3	8	2	2	3	3	50
445-500	1	31	6	2	2	1	1	14	4	3	2	2	69
500-515	1	36	4	0	0	2	0	26	1	0	3	3	76
515-530	1	18	3	0	0	1	3	38	9	4	2	2	81
530-545	1	21	2	1	3	0	3	23	2	1	6	6	69
545-600	1	16	6	0	1	0	0	24	2	3	1	1	55
HOURLY TOTALS													
400-500	2	92	12	3	6	2	7	60	14	7	9	9	223
415-515	3	113	14	3	3	4	5	67	13	6	10	10	251
430-530	3	109	17	2	3	4	7	86	16	9	10	10	276
445-545	4	106	15	3	5	4	7	101	16	8	13	13	295
500-600	4	91	15	1	4	3	6	111	14	8	12	12	281

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	0	0	0	2
430-445	0	0	1	0
445-500	0	0	0	0
500-515	0	0	0	0
515-530	0	0	0	0
530-545	1	1	0	1
545-600	0	0	0	0
HOURLY TOTALS				
400-500	0	0	1	2
415-515	0	0	1	2
430-530	0	0	1	0
445-545	1	1	0	1
500-600	1	1	0	1

N/S GLENWOOD AVE

E/W Route 66

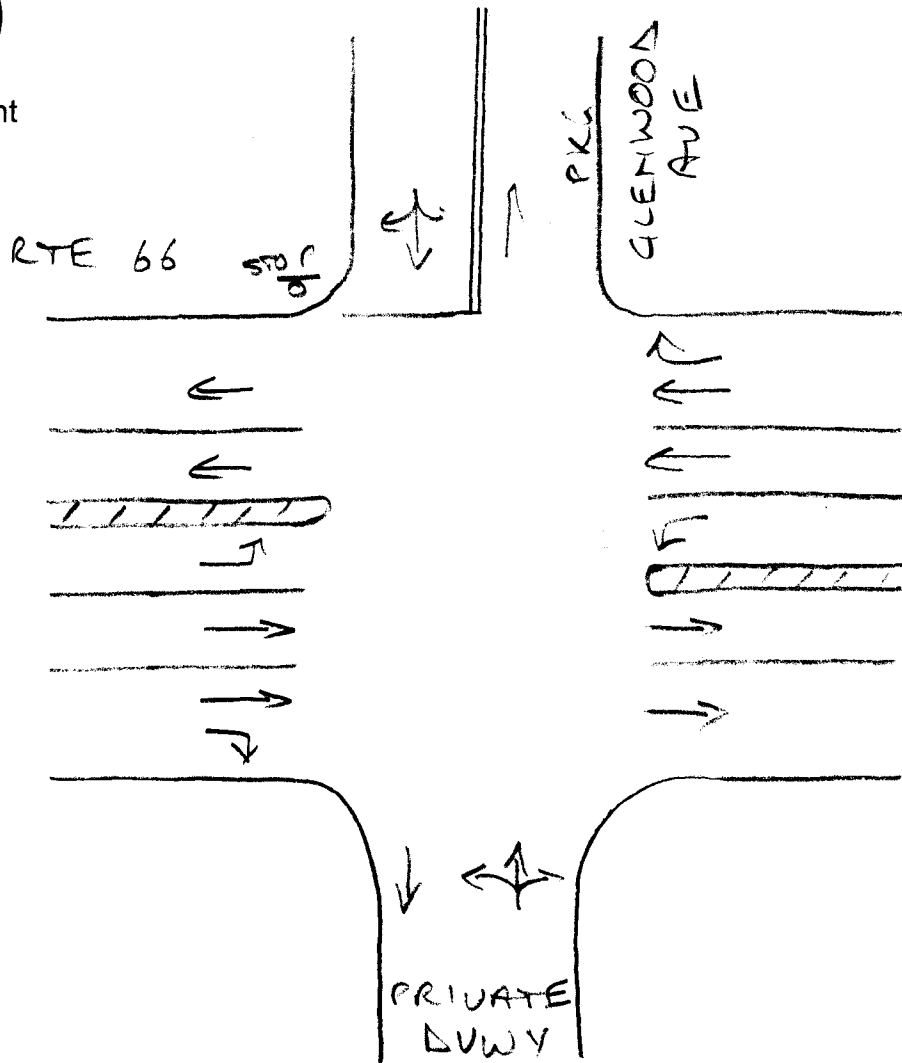
BY: MFW

DATE: 10/14/03

Revised 4/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

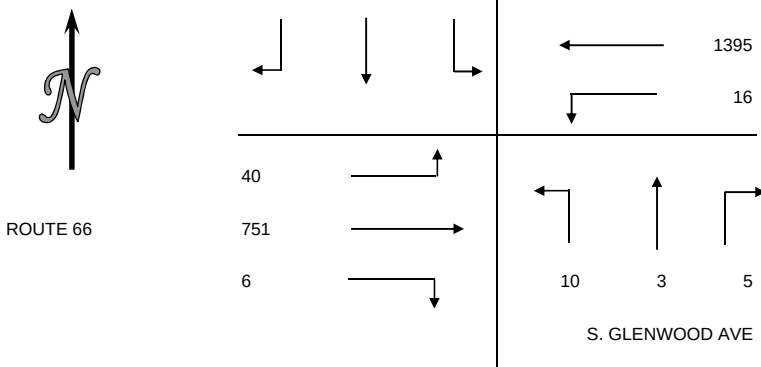
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GLENWOOD AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	6	0	16	3	346	1	2	0	2	1	87	3	467
715-730	6	0	15	8	377	0	3	0	3	0	101	3	516
730-745	12	0	17	7	383	3	1	0	3	0	147	6	579
745-800	9	0	15	4	347	3	0	0	3	1	176	10	568
800-815	11	0	20	13	336	5	3	3	2	3	211	12	619
815-830	12	1	23	11	329	5	1	0	2	2	217	12	615
830-845	13	2	12	8	297	2	1	0	3	1	187	10	536
845-900	15	0	10	10	264	1	3	0	3	1	145	5	457
HOUR TOTALS													
700-800	33	0	63	22	1453	7	6	0	11	2	511	22	2130
715-815	38	0	67	32	1443	11	7	3	11	4	635	31	2282
730-830	44	1	75	35	1395	16	5	3	10	6	751	40	2381
745-845	45	3	70	36	1309	15	5	3	10	7	791	44	2338
800-900	51	3	65	42	1226	13	8	3	10	7	760	39	2227

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	2
715-730	2	1	3	1
730-745	3	0	3	2
745-800	0	0	3	3
800-815	0	1	4	5
815-830	0	1	2	4
830-845	2	0	1	0
845-900	0	0	0	2
HOUR TOTALS				
700-800	5	1	10	8
715-815	5	2	13	11
730-830	3	2	12	14
745-845	2	2	10	12
800-900	2	2	7	11

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

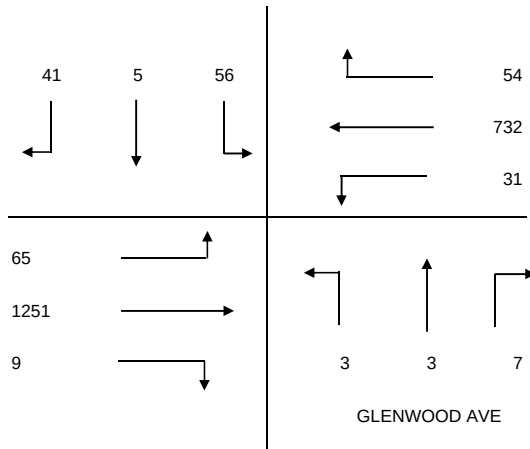
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GLENWOOD AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	5	1	13	10	187	5	2	0	1	0	277	18	519
415-430	13	0	14	17	200	5	0	0	1	3	276	16	545
430-445	12	0	16	8	197	8	0	0	0	1	270	10	522
445-500	11	0	19	10	184	3	1	0	1	4	280	11	524
500-515	11	0	12	9	194	8	2	2	1	3	322	18	582
515-530	15	1	8	19	185	10	2	0	2	2	319	16	579
530-545	11	1	16	16	183	5	2	0	0	0	311	14	559
545-600	4	3	20	10	170	8	1	1	0	4	299	17	537
HOUR TOTALS													
400-500	41	1	62	45	768	21	3	0	3	8	1103	55	2110
415-515	47	0	61	44	775	24	3	2	3	11	1148	55	2173
430-530	49	1	55	46	760	29	5	2	4	10	1191	55	2207
445-545	48	2	55	54	746	26	7	2	4	9	1232	59	2244
500-600	41	5	56	54	732	31	7	3	3	9	1251	65	2257

PM PEAK HOUR
500-600



ROUTE 66



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	2	0	2	2
415-430	6	0	1	1
430-445	1	0	4	1
445-500	3	0	1	4
500-515	2	0	3	1
515-530	4	1	2	0
530-545	1	0	0	0
545-600	2	0	4	1
HOUR TOTALS				
400-500	12	0	8	8
415-515	12	0	9	7
430-530	10	1	10	6
445-545	10	1	6	5
500-600	9	1	9	2

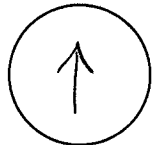
N/S ELWOOD AVE

E/W LEMON AVE

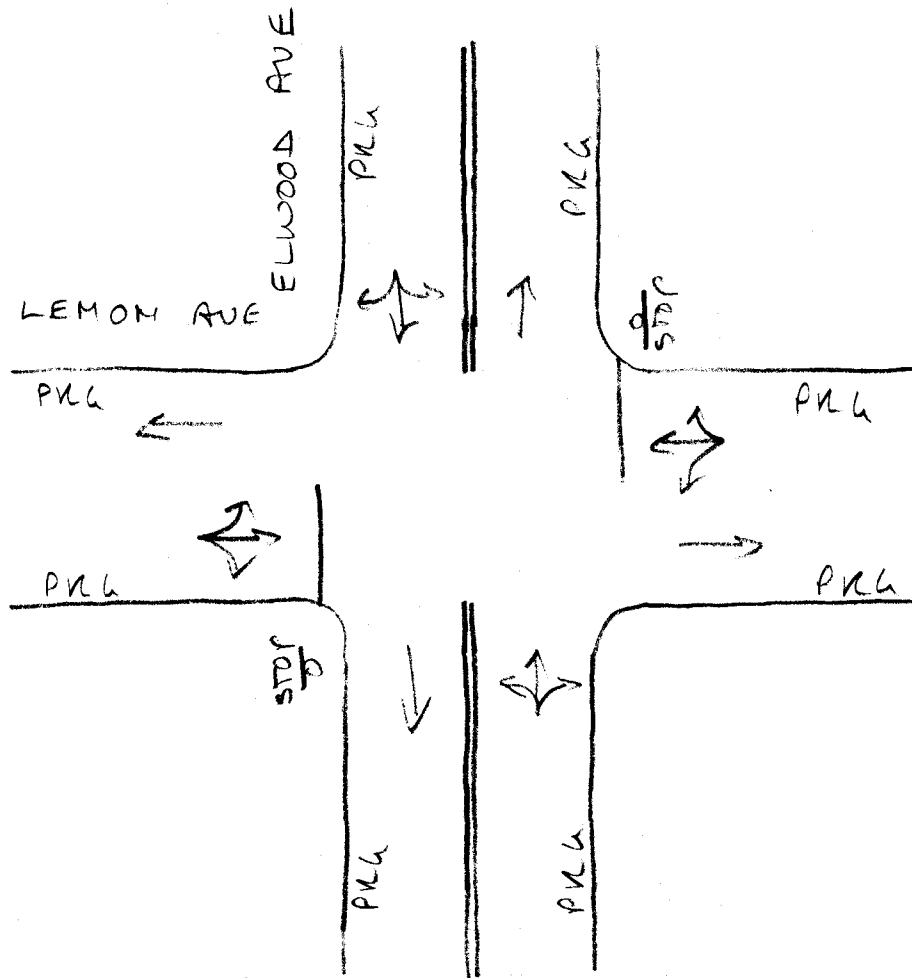
BY: HRW

DATE: 10/14/03

Revised 4/25/10



North Point



Phasing:

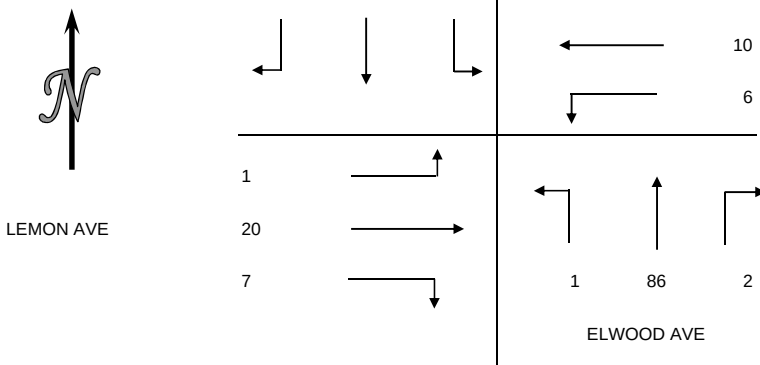
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ELWOOD AVE
 E/W LEMON AVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	16	1	0	1	2	2	10	0	2	5	0	39
715-730	0	27	0	1	0	0	2	9	0	2	1	0	42
730-745	1	18	2	0	0	2	0	11	0	1	4	1	40
745-800	0	22	1	0	2	2	0	17	1	2	7	1	55
800-815	0	25	2	0	1	2	2	19	0	2	5	0	58
815-830	0	28	3	0	4	1	0	21	0	0	6	0	63
830-845	0	18	0	0	3	1	0	29	0	3	2	0	56
845-900	0	15	1	0	1	2	1	28	0	4	3	0	55
HOURLY TOTALS													
700-800	1	83	4	1	3	6	4	47	1	7	17	2	176
715-815	1	92	5	1	3	6	4	56	1	7	17	2	195
730-830	1	93	8	0	7	7	2	68	1	5	22	2	216
745-845	0	93	6	0	10	6	2	86	1	7	20	1	232
800-900	0	86	6	0	9	6	3	97	0	9	16	0	232

AM PEAK HOUR
745-845



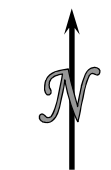
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	1	0	0
715-730	1	0	0	0
730-745	0	0	2	0
745-800	2	2	0	0
800-815	0	0	0	0
815-830	0	1	0	0
830-845	0	2	0	0
845-900	0	0	0	0
HOURLY TOTALS				
700-800	3	3	2	0
715-815	3	2	2	0
730-830	2	3	2	0
745-845	2	5	0	0
800-900	0	3	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

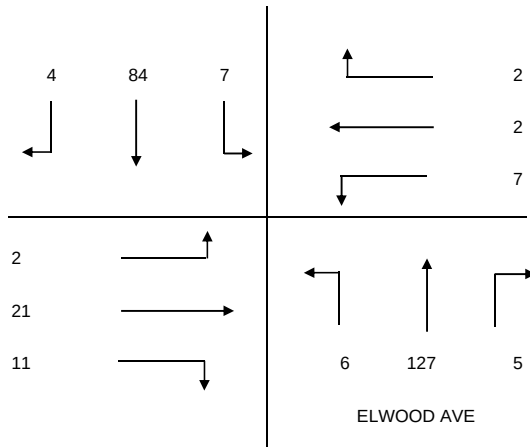
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S ELWOOD AVE
 E/W LEMON AVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	7	1	2	2	0	1	15	2	4	1	1	36
415-430	0	17	1	2	0	1	1	31	1	1	2	0	57
430-445	0	17	1	1	1	3	0	24	1	4	10	0	62
445-500	0	17	0	2	2	0	4	33	1	2	4	0	65
500-515	0	21	2	1	0	3	1	31	1	2	5	1	68
515-530	1	16	2	0	0	0	1	34	1	1	7	1	64
530-545	3	24	2	1	1	2	1	30	4	4	6	0	78
545-600	0	23	1	0	1	2	2	32	0	4	3	0	68
HOURLY TOTALS													
400-500	0	58	3	7	5	4	6	103	5	11	17	1	220
415-515	0	72	4	6	3	7	6	119	4	9	21	1	252
430-530	1	71	5	4	3	6	6	122	4	9	26	2	259
445-545	4	78	6	4	3	5	7	128	7	9	22	2	275
500-600	4	84	7	2	2	7	5	127	6	11	21	2	278

PM PEAK HOUR
500-600



LEMON AVE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	3	0	0
415-430	1	0	0	1
430-445	2	5	0	2
445-500	0	0	0	0
500-515	0	3	0	0
515-530	0	1	0	0
530-545	1	1	0	3
545-600	0	1	0	0
HOURLY TOTALS				
400-500	3	8	0	3
415-515	3	8	0	3
430-530	2	9	0	2
445-545	1	5	0	3
500-600	1	6	0	3

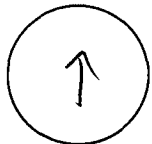
N/S ELWOOD AVE

E/W Route 66

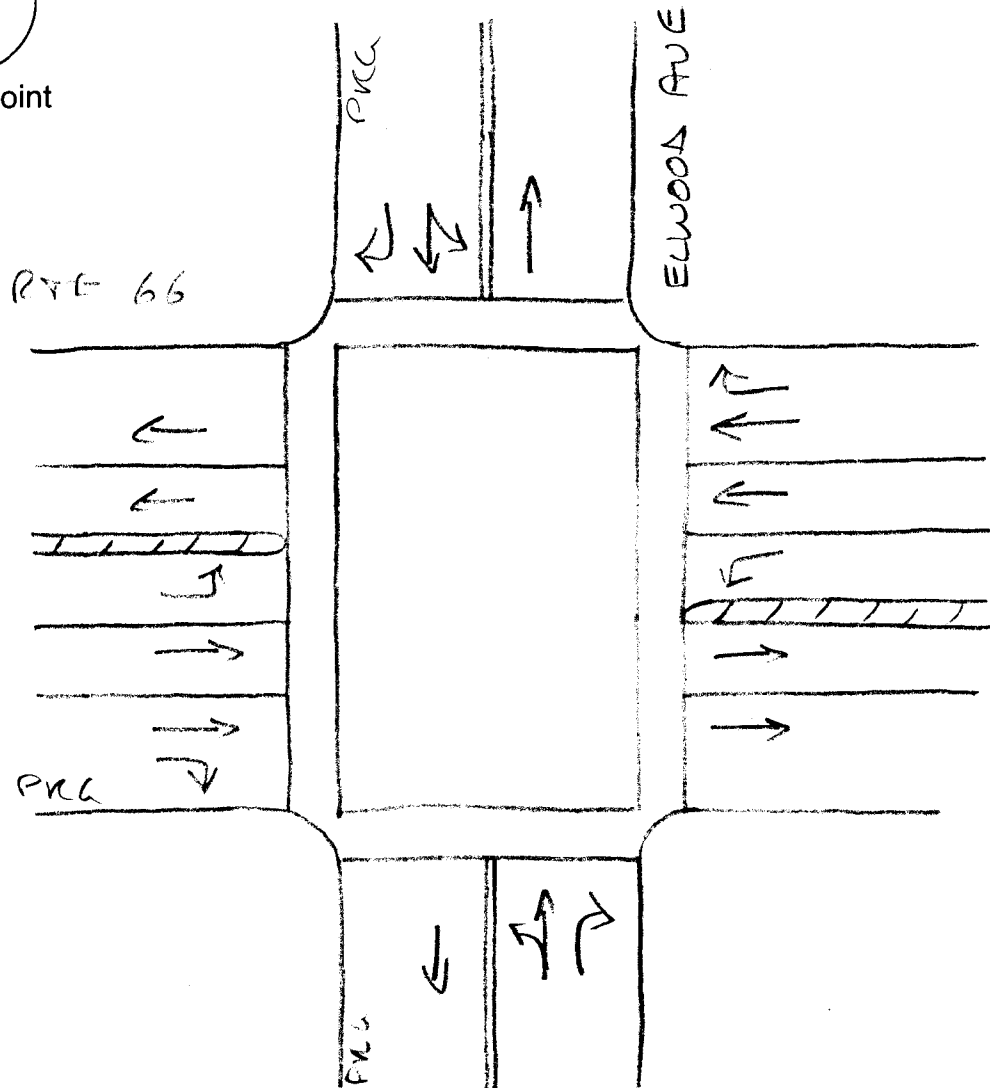
BY: MMW

DATE: 10/14/03

Revised 4/25/10



North Point



Phasing:

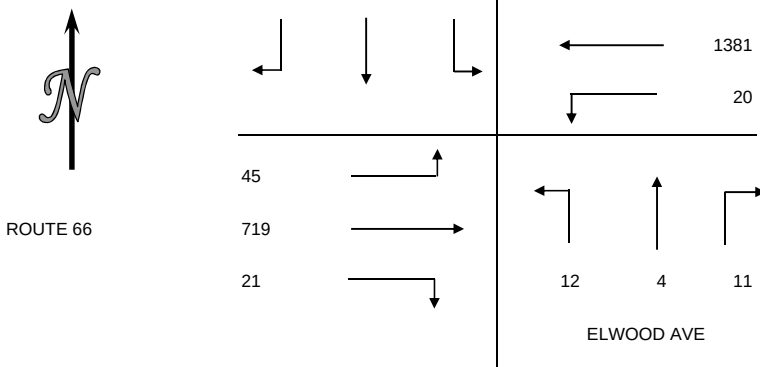
1	2	3	4	5	6
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ELWOOD AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	8	0	12	8	330	4	4	0	6	7	81	13	473
715-730	14	1	14	5	347	4	6	4	8	13	108	10	534
730-745	8	0	9	4	359	3	0	0	2	2	138	10	535
745-800	10	0	15	9	348	1	1	1	3	5	178	11	582
800-815	14	3	10	10	315	6	2	2	2	6	211	15	596
815-830	13	3	20	8	359	10	8	1	5	8	192	9	636
830-845	9	1	12	9	296	4	3	3	9	3	168	10	527
845-900	8	2	12	8	243	7	3	0	6	6	139	12	446
HOURLY TOTALS													
700-800	40	1	50	26	1384	12	11	5	19	27	505	44	2124
715-815	46	4	48	28	1369	14	9	7	15	26	635	46	2247
730-830	45	6	54	31	1381	20	11	4	12	21	719	45	2349
745-845	46	7	57	36	1318	21	14	7	19	22	749	45	2341
800-900	44	9	54	35	1213	27	16	6	22	23	710	46	2205

AM PEAK HOUR
730-830



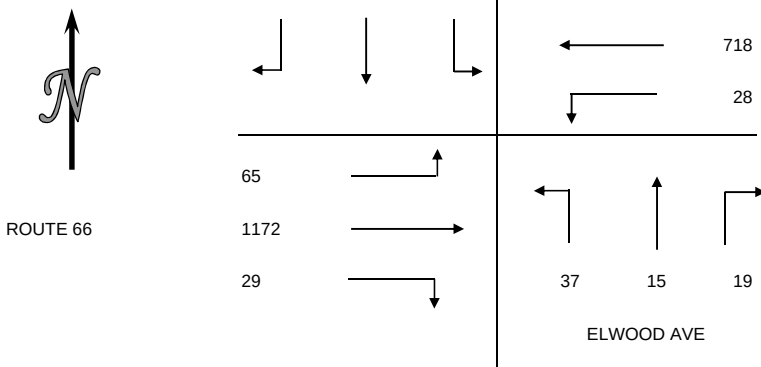
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	2	0	0
715-730	2	2	2	1
730-745	2	2	1	3
745-800	1	2	-1	0
800-815	1	0	12	1
815-830	0	2	0	0
830-845	3	5	1	0
845-900	0	1	0	0
HOURLY TOTALS				
700-800	7	8	2	4
715-815	6	6	14	5
730-830	4	6	12	4
745-845	5	9	12	1
800-900	4	8	13	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S ELWOOD AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	5	0	6	8	137	4	4	2	9	8	208	16	407
415-430	5	4	8	11	156	3	5	2	14	8	249	21	486
430-445	14	1	9	8	163	8	8	4	9	4	245	19	492
445-500	11	5	9	18	186	3	5	2	5	7	289	16	556
500-515	16	1	12	11	176	9	4	3	5	8	297	10	552
515-530	6	4	11	17	178	7	6	5	15	4	295	16	564
530-545	11	3	11	12	178	9	4	5	12	10	291	23	569
545-600	19	3	11	17	178	9	5	1	4	4	269	19	539
HOUR TOTALS													
400-500	35	10	32	45	642	18	22	10	37	27	991	72	1941
415-515	46	11	38	48	681	23	22	11	33	27	1080	66	2086
430-530	47	11	41	54	703	27	23	14	34	23	1126	61	2164
445-545	44	13	43	58	718	28	19	15	37	29	1172	65	2241
500-600	52	11	45	57	710	34	19	14	36	26	1152	68	2224

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	6	1
415-430	6	2	5	9
430-445	0	1	3	4
445-500	3	6	8	3
500-515	4	4	4	1
515-530	3	1	3	2
530-545	2	0	1	3
545-600	5	1	9	1
HOUR TOTALS				
400-500	10	9	22	17
415-515	13	13	20	17
430-530	10	12	18	10
445-545	12	11	16	9
500-600	14	6	17	7

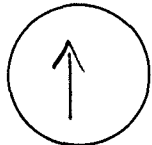
N/S LORAINIE AVE

EW LEMON AVE

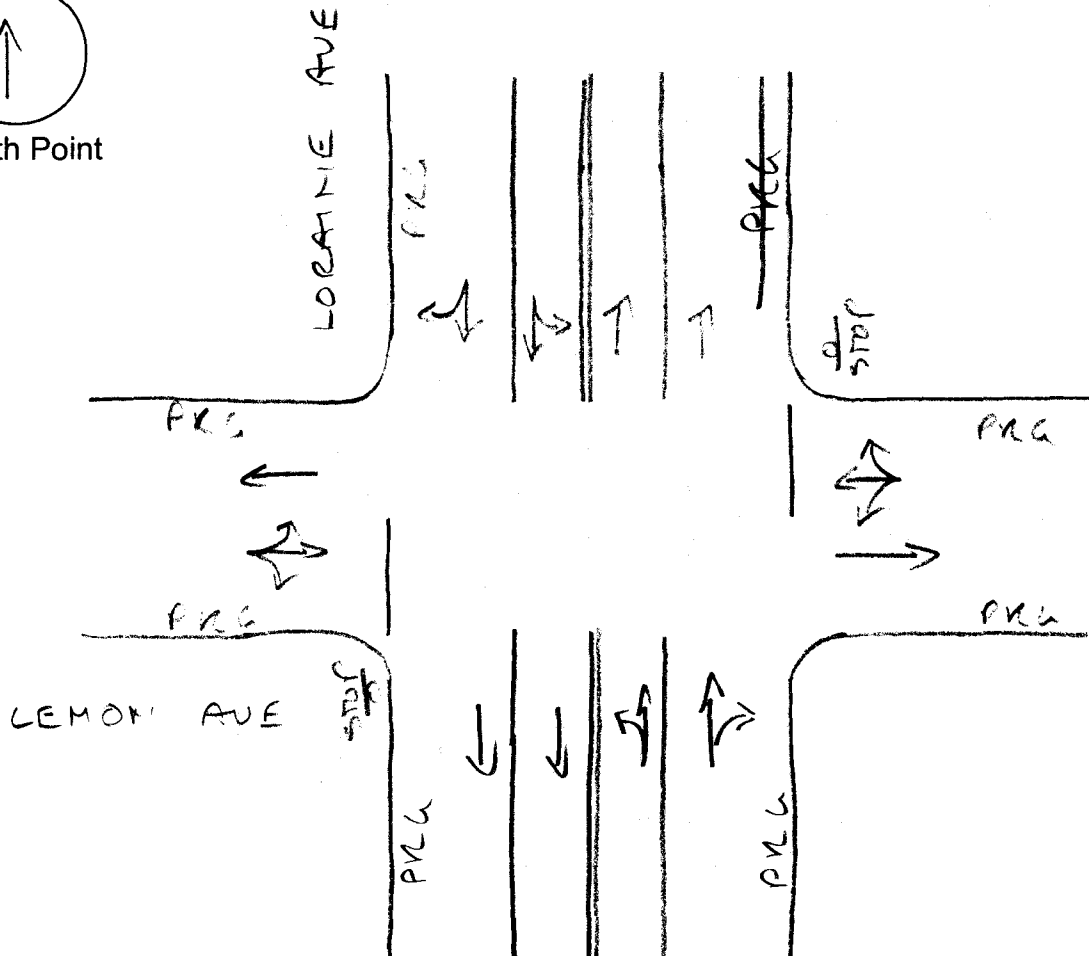
BY: MRW

DATE: 10/14/03

Revised 6/25/10



North Point



Phasing:

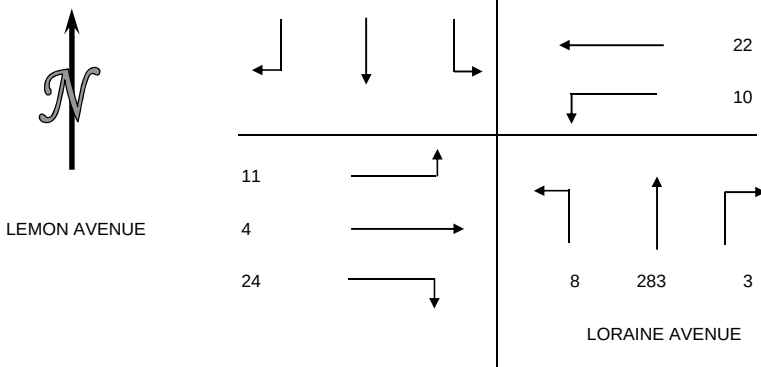
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S LORAIN AVENUE
 E/W LEMON AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	48	0	1	10	1	2	22	1	4	8	2	99
715-730	0	51	0	1	12	2	0	37	1	1	3	0	108
730-745	0	66	0	0	17	1	0	49	0	2	2	5	142
745-800	1	84	1	3	16	3	2	68	2	10	0	2	192
800-815	0	132	2	4	5	2	0	82	1	5	0	4	237
815-830	0	139	2	1	0	4	0	71	2	6	4	4	233
830-845	1	128	1	1	1	1	1	62	3	3	0	1	203
845-900	0	123	0	0	0	3	1	40	2	7	0	0	176
HOUR TOTALS													
700-800	1	249	1	5	55	7	4	176	4	17	13	9	541
715-815	1	333	3	8	50	8	2	236	4	18	5	11	679
730-830	1	421	5	8	38	10	2	270	5	23	6	15	804
745-845	2	483	6	9	22	10	3	283	8	24	4	11	865
800-900	1	522	5	6	6	10	2	255	8	21	4	9	849

AM PEAK HOUR
745-845



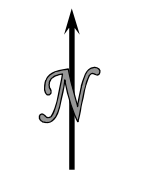
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	1	0	0	0
745-800	0	0	0	0
800-815	3	0	1	1
815-830	3	0	1	0
830-845	1	0	1	0
845-900	2	0	0	0
HOUR TOTALS				
700-800	1	0	0	0
715-815	4	0	1	1
730-830	7	0	2	1
745-845	7	0	3	1
800-900	9	0	3	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

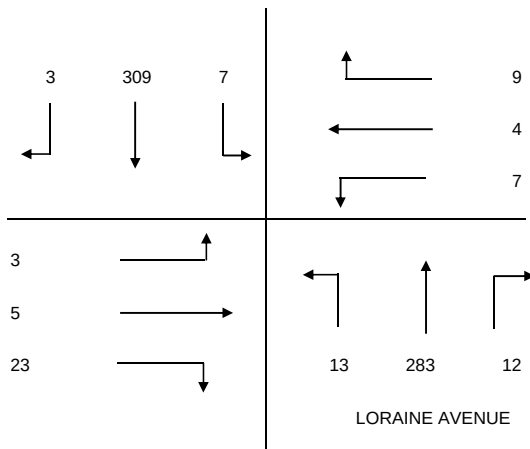
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S LORAIN AVENUE
 E/W LEMON AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	39	1	1	0	0	0	48	2	1	0	0	93
415-430	0	65	1	0	0	1	1	53	3	1	0	3	128
430-445	1	83	1	3	2	3	5	71	3	8	2	1	183
445-500	0	81	5	3	0	3	2	65	1	4	1	2	167
500-515	1	66	0	3	1	0	3	77	6	3	1	0	161
515-530	1	79	1	0	1	1	2	70	3	8	1	0	167
530-545	1	62	0	0	0	0	1	74	3	5	0	4	150
545-600	0	76	1	1	0	2	5	61	6	2	1	0	155
HOURLY TOTALS													
400-500	2	268	8	7	2	7	8	237	9	14	3	6	571
415-515	2	295	7	9	3	7	11	266	13	16	4	6	639
430-530	3	309	7	9	4	7	12	283	13	23	5	3	678
445-545	3	288	6	6	2	4	8	286	13	20	3	6	645
500-600	3	283	2	4	2	3	11	282	18	18	3	4	633

PM PEAK HOUR
430-530



LEMON AVENUE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	2
415-430	0	2	1	1
430-445	0	2	0	3
445-500	0	1	0	3
500-515	0	0	0	5
515-530	0	0	0	8
530-545	0	0	1	2
545-600	0	0	0	0
HOURLY TOTALS				
400-500	1	5	1	9
415-515	0	5	1	12
430-530	0	3	0	19
445-545	0	1	1	18
500-600	0	0	1	15

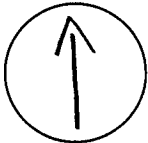
N/S LORRAINE AVE

E/W Route 66

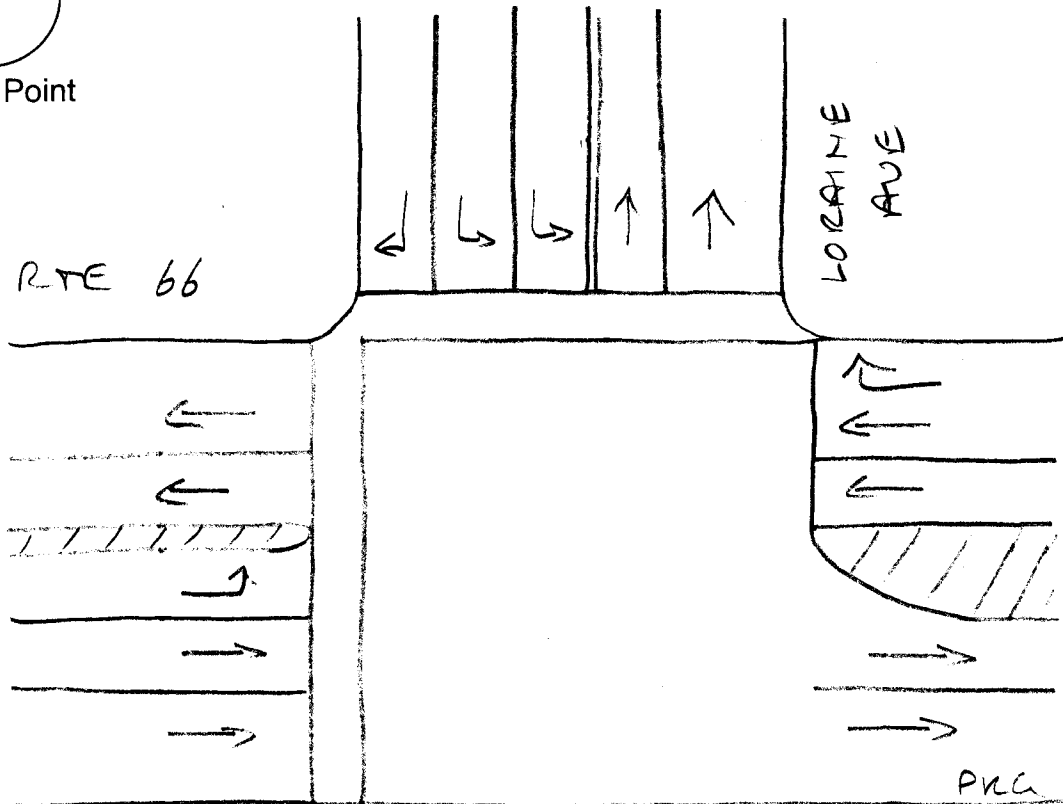
BY: MW

DATE: 10/14/03

Revised 4/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

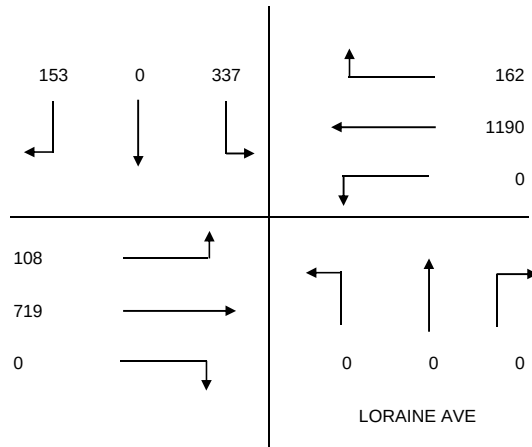
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S LORAIN AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	23	0	48	15	211	0	0	0	0	0	84	18	399
715-730	20	0	69	30	221	0	0	0	0	0	111	16	467
730-745	21	0	67	25	228	0	0	0	0	0	127	21	489
745-800	23	0	76	35	213	0	0	0	0	0	145	27	519
800-815	29	0	90	30	240	0	0	0	0	0	189	38	616
815-830	37	0	113	59	282	0	0	0	0	0	192	25	708
830-845	42	0	73	33	344	0	0	0	0	0	171	22	685
845-900	45	0	61	40	324	0	0	0	0	0	167	23	660
HOURLY TOTALS													
700-800	87	0	260	105	873	0	0	0	0	0	467	82	1874
715-815	93	0	302	120	902	0	0	0	0	0	572	102	2091
730-830	110	0	346	149	963	0	0	0	0	0	653	111	2332
745-845	131	0	352	157	1079	0	0	0	0	0	697	112	2528
800-900	153	0	337	162	1190	0	0	0	0	0	719	108	2669

AM PEAK HOUR
800-900



ROUTE 66



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	0	0	0
800-815	1	0	0	0
815-830	1	2	0	0
830-845	1	2	0	1
845-900	1	2	0	0
HOURLY TOTALS				
700-800	1	0	0	0
715-815	1	0	0	0
730-830	2	2	0	0
745-845	3	4	0	1
800-900	4	6	0	1

WILTEC

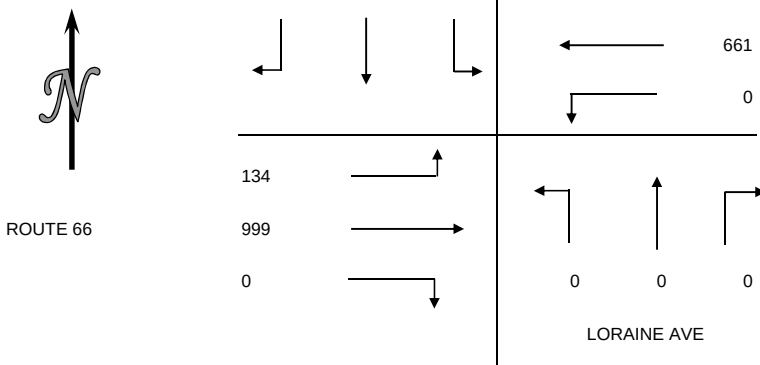
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S LORAIN AVE
 E/W ROUTE 66

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	10	0	36	23	100	0	0	0	0	0	202	29	400
415-430	15	0	45	33	128	0	0	0	0	0	237	25	483
430-445	20	0	66	36	162	0	0	0	0	0	253	26	563
445-500	30	0	55	39	171	0	0	0	0	0	245	35	575
500-515	21	0	63	52	160	0	0	0	0	0	247	37	580
515-530	17	0	69	52	168	0	0	0	0	0	254	36	596
530-545	10	0	45	34	160	0	0	0	0	0	268	36	553
545-600	32	0	59	22	163	0	0	0	0	0	265	35	576
HOUR TOTALS													
400-500	75	0	202	131	561	0	0	0	0	0	937	115	2021
415-515	86	0	229	160	621	0	0	0	0	0	982	123	2201
430-530	88	0	253	179	661	0	0	0	0	0	999	134	2314
445-545	78	0	232	177	659	0	0	0	0	0	1014	144	2304
500-600	80	0	236	160	651	0	0	0	0	0	1034	144	2305

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	3	2	0	1
430-445	4	1	0	0
445-500	1	0	0	0
500-515	2	0	0	0
515-530	0	0	0	0
530-545	1	0	0	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	8	3	0	1
415-515	10	3	0	1
430-530	7	1	0	0
445-545	4	0	0	0
500-600	3	0	0	0

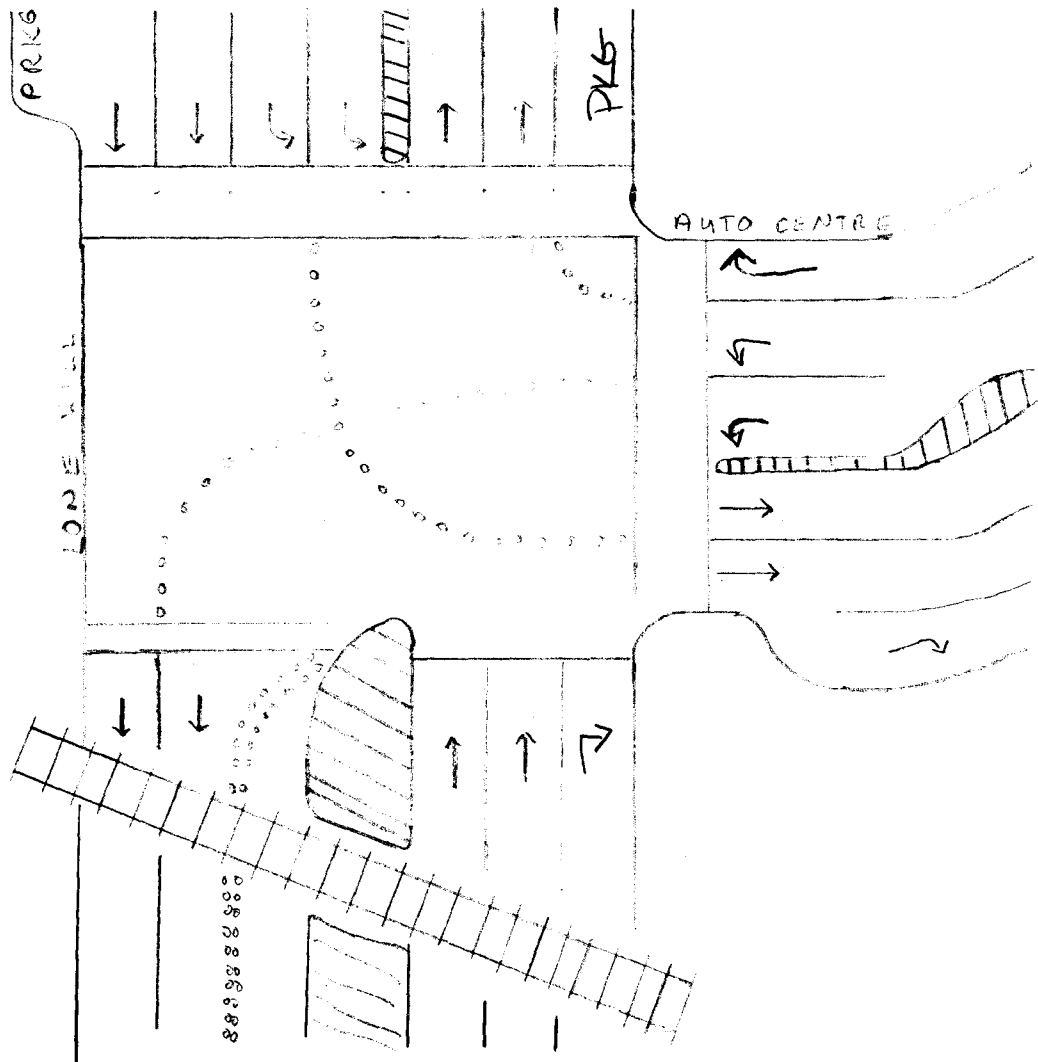
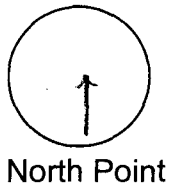
N/S LONE HILL AVE

E/W AUTO CENTRE CR.

BY: C JAMISON

DATE: 10.07.03

Revised 6/25/10



Phasing:

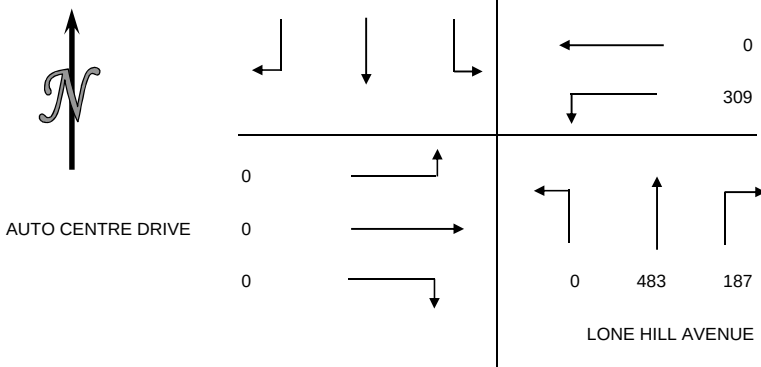
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S LONE HILL AVENUE
 E/W AUTO CENTRE DRIVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	108	132	39	0	31	20	51	0	0	0	0	381
715-730	0	124	130	56	0	48	30	66	0	0	0	0	454
730-745	0	164	151	63	0	76	44	82	0	0	0	0	580
745-800	0	200	166	109	0	90	52	114	0	0	0	0	731
800-815	0	231	159	102	0	108	44	114	0	0	0	0	758
815-830	0	223	161	79	0	67	45	123	0	0	0	0	698
830-845	0	200	145	63	0	44	46	132	0	0	0	0	630
845-900	0	179	136	58	0	65	42	113	0	0	0	0	593
HOUR TOTALS													
700-800	0	596	579	267	0	245	146	313	0	0	0	0	2146
715-815	0	719	606	330	0	322	170	376	0	0	0	0	2523
730-830	0	818	637	353	0	341	185	433	0	0	0	0	2767
745-845	0	854	631	353	0	309	187	483	0	0	0	0	2817
800-900	0	833	601	302	0	284	177	482	0	0	0	0	2679

AM PEAK HOUR
745-845



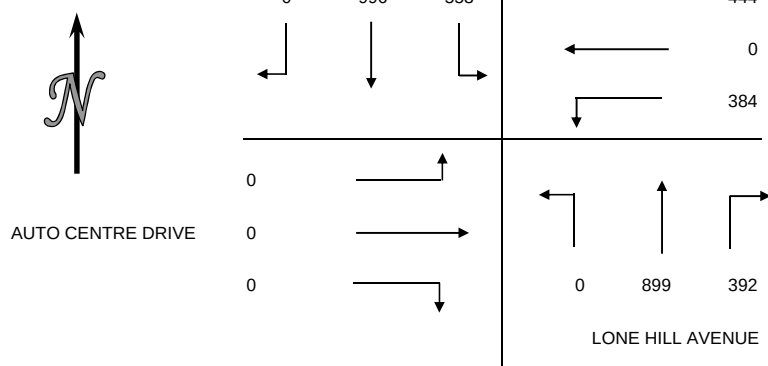
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	0	0	0
800-815	0	2	0	0
815-830	1	1	0	0
830-845	0	0	0	0
845-900	0	1	0	0
HOUR TOTALS				
700-800	0	0	0	0
715-815	0	2	0	0
730-830	1	3	0	0
745-845	1	3	0	0
800-900	1	4	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S LONE HILL AVENUE
 E/W AUTO CENTRE DRIVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	132	88	95	0	75	87	180	0	0	0	0	657
415-430	0	149	98	105	0	87	93	228	0	0	0	0	760
430-445	0	195	131	92	0	84	99	248	0	0	0	0	849
445-500	0	197	117	119	0	119	106	256	0	0	0	0	914
500-515	0	260	147	115	0	86	116	230	0	0	0	0	954
515-530	0	262	149	92	0	81	87	212	0	0	0	0	883
530-545	0	277	140	118	0	98	83	201	0	0	0	0	917
545-600	0	231	148	103	0	82	81	190	0	0	0	0	835
HOUR TOTALS													
400-500	0	673	434	411	0	365	385	912	0	0	0	0	3180
415-515	0	801	493	431	0	376	414	962	0	0	0	0	3477
430-530	0	914	544	418	0	370	408	946	0	0	0	0	3600
445-545	0	996	553	444	0	384	392	899	0	0	0	0	3668
500-600	0	1030	584	428	0	347	367	833	0	0	0	0	3589

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	1	0	0	0
430-445	1	0	0	0
445-500	1	0	0	0
500-515	0	0	0	0
515-530	1	0	0	0
530-545	0	0	0	0
545-600	1	0	0	0
HOUR TOTALS				
400-500	3	0	0	0
415-515	3	0	0	0
430-530	3	0	0	0
445-545	2	0	0	0
500-600	2	0	0	0

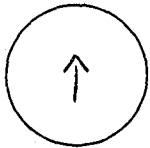
N/S BARRANCA AVE.

EW SIERRA MADRE AVE.

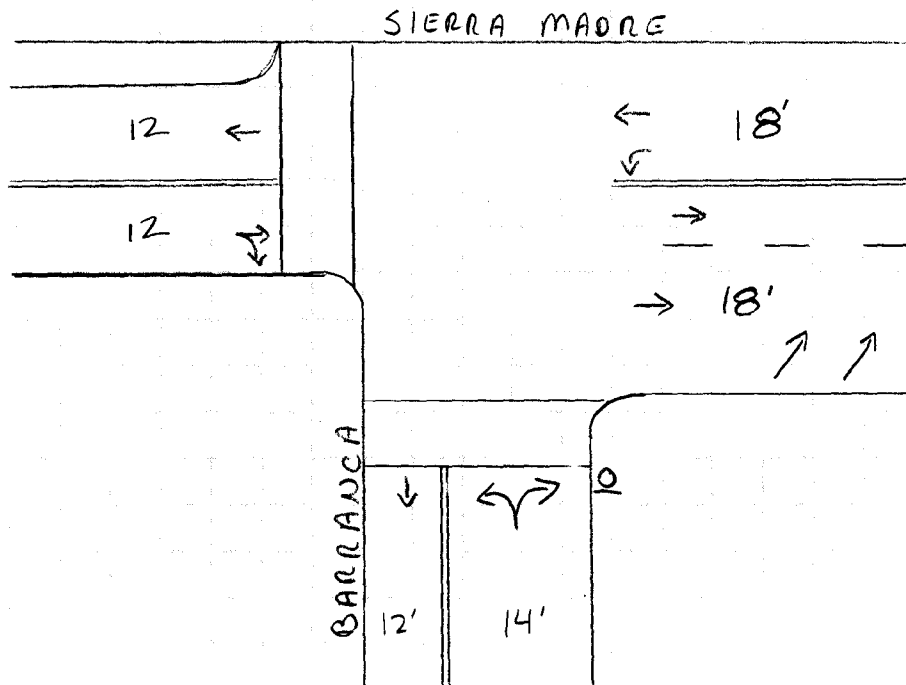
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

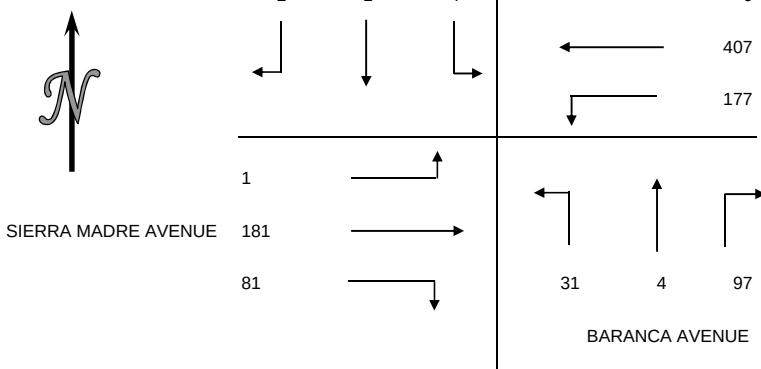
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S BARANCA AVENUE
 E/W SIERRA MADRE AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	1	0	0	124	11	7	0	11	3	20	0	177
715-730	1	0	2	0	116	21	13	1	9	13	28	1	205
730-745	0	0	1	0	95	26	13	1	7	18	34	0	195
745-800	1	1	0	0	99	59	35	1	8	23	58	0	285
800-815	0	0	1	0	97	71	36	1	7	27	61	0	301
815-830	0	1	0	0	83	37	20	1	8	12	31	0	193
830-845	2	0	1	1	58	17	13	0	11	11	21	0	135
845-900	0	0	2	0	46	13	10	0	15	6	28	0	120
HOUR TOTALS													
700-800	2	2	3	0	434	117	68	3	35	57	140	1	862
715-815	2	1	4	0	407	177	97	4	31	81	181	1	986
730-830	1	2	2	0	374	193	104	4	30	80	184	0	974
745-845	3	2	2	1	337	184	104	3	34	73	171	0	914
800-900	2	1	4	1	284	138	79	2	41	56	141	0	749

AM PEAK HOUR
715-815



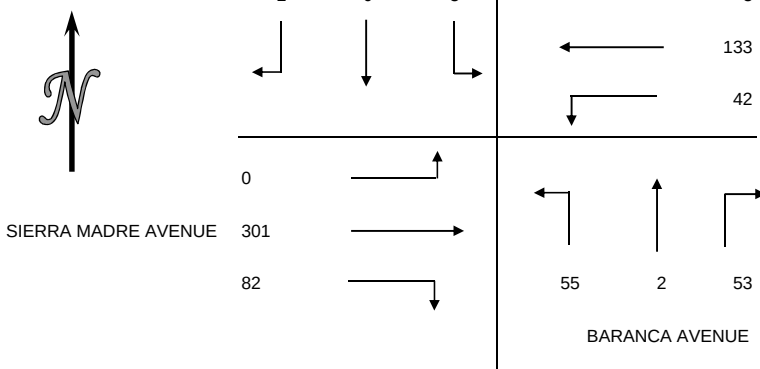
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	0	0	0	1
730-745	0	0	0	0
745-800	1	0	1	1
800-815	0	0	1	1
815-830	0	0	2	0
830-845	4	0	1	2
845-900	0	0	2	1
HOUR TOTALS				
700-800	1	0	2	2
715-815	1	0	2	3
730-830	1	0	4	2
745-845	5	0	5	4
800-900	4	0	6	4

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S BARANCA AVENUE
 E/W SIERRA MADRE AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	1	1	1	31	15	10	0	11	11	59	0	141
415-430	1	0	0	1	35	9	15	0	12	10	64	0	147
430-445	1	0	0	1	33	10	12	1	16	21	78	0	173
445-500	0	0	0	1	41	9	14	0	11	17	56	0	149
500-515	0	0	3	0	35	8	8	1	12	21	73	0	161
515-530	1	0	0	1	24	15	19	0	16	23	94	0	193
530-545	0	0	1	1	32	9	13	0	22	13	68	0	159
545-600	0	0	0	3	25	4	15	2	14	20	74	0	157
HOUR TOTALS													
400-500	3	1	1	4	140	43	51	1	50	59	257	0	610
415-515	2	0	3	3	144	36	49	2	51	69	271	0	630
430-530	2	0	3	3	133	42	53	2	55	82	301	0	676
445-545	1	0	4	3	132	41	54	1	61	74	291	0	662
500-600	1	0	4	5	116	36	55	3	64	77	309	0	670

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	2
415-430	0	0	0	2
430-445	0	0	0	1
445-500	0	0	0	0
500-515	0	0	0	1
515-530	4	0	0	1
530-545	2	0	1	2
545-600	0	0	2	0
HOUR TOTALS				
400-500	0	0	0	5
415-515	0	0	0	4
430-530	4	0	0	3
445-545	6	0	1	4
500-600	6	0	3	4

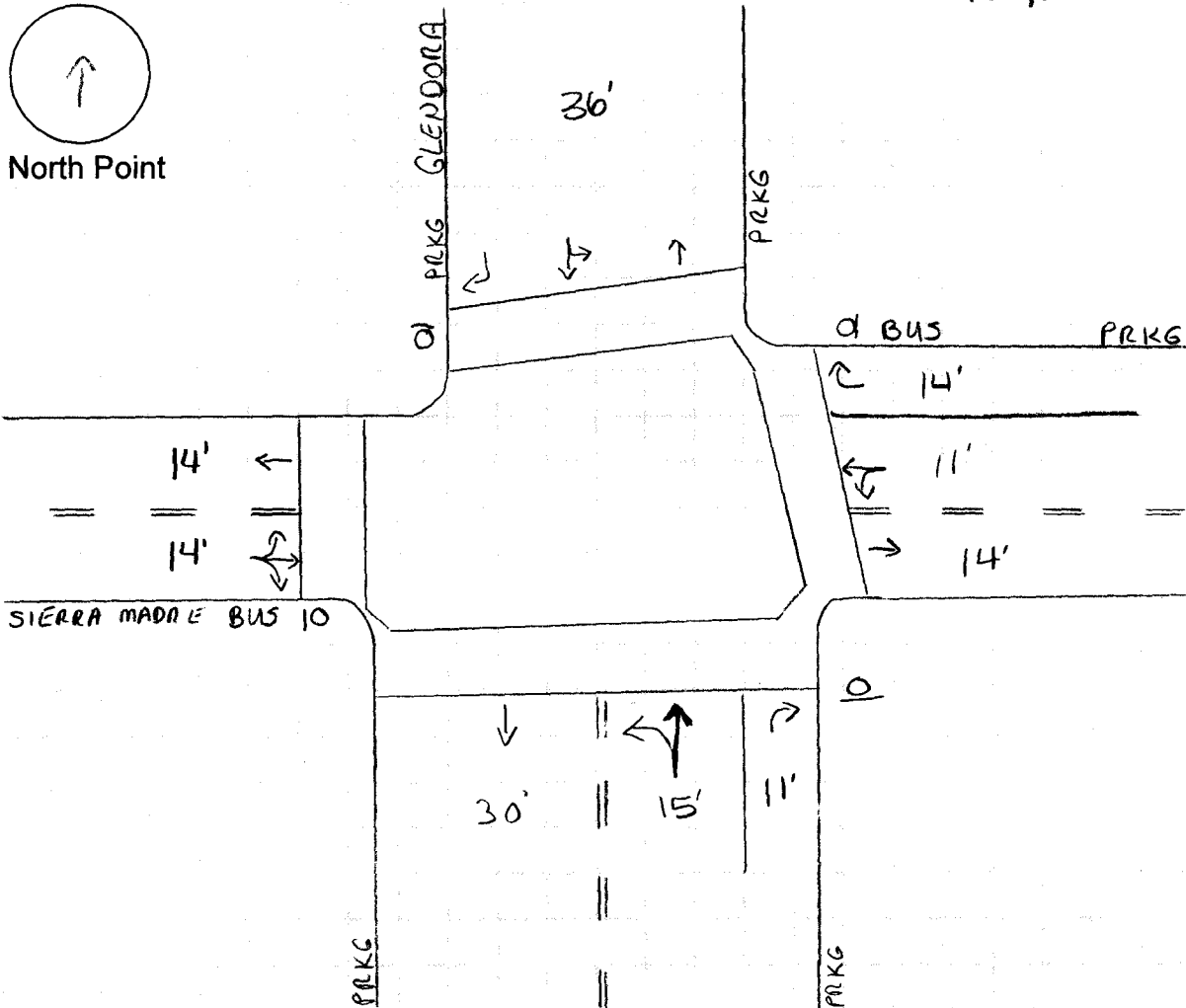
N/S GLENDORA AVE.

EW SIERRA MADRE AVE.

BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



Phasing:

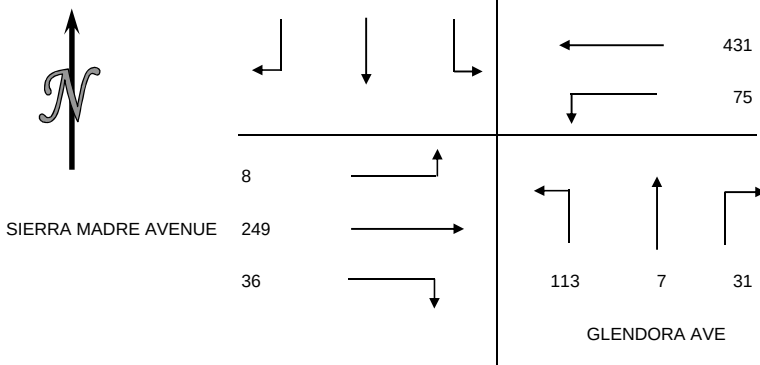
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GLENDORA AVE
 E/W SIERRA MADRE AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	3	2	1	108	7	4	0	16	5	15	1	163
715-730	2	2	1	0	122	11	2	3	29	4	24	0	200
730-745	0	1	0	0	117	5	3	0	27	5	44	0	202
745-800	2	1	0	0	128	15	8	3	32	8	69	1	267
800-815	4	6	5	0	91	22	13	2	31	7	85	4	270
815-830	2	2	1	1	95	33	7	2	23	16	51	3	236
830-845	1	2	1	1	65	12	10	1	19	6	41	1	160
845-900	0	7	3	0	56	14	6	2	10	13	36	2	149
HOUR TOTALS													
700-800	5	7	3	1	475	38	17	6	104	22	152	2	832
715-815	8	10	6	0	458	53	26	8	119	24	222	5	939
730-830	8	10	6	1	431	75	31	7	113	36	249	8	975
745-845	9	11	7	2	379	82	38	8	105	37	246	9	933
800-900	7	17	10	2	307	81	36	7	83	42	213	10	815

AM PEAK HOUR
730-830



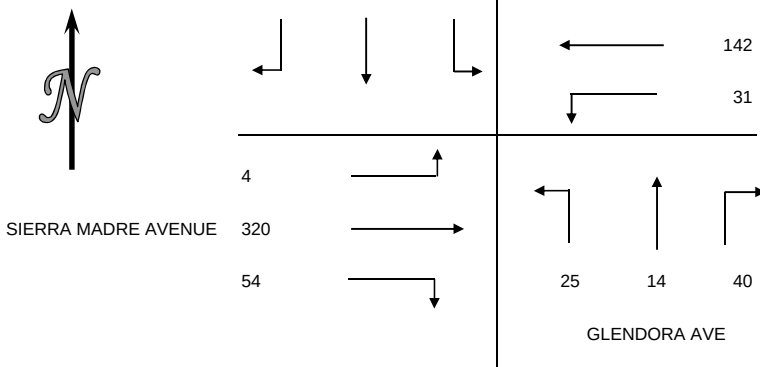
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	0	1	2
715-730	2	2	0	4
730-745	1	1	5	0
745-800	3	2	0	1
800-815	0	0	2	3
815-830	2	0	1	0
830-845	7	4	4	2
845-900	2	1	1	3
HOUR TOTALS				
700-800	8	5	6	7
715-815	6	5	7	8
730-830	6	3	8	4
745-845	12	6	7	6
800-900	11	5	8	8

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GLENDORA AVE
 E/W SIERRA MADRE AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	2	1	0	38	12	5	3	5	12	69	1	149
415-430	0	1	0	1	38	16	16	1	10	11	75	4	173
430-445	1	0	0	2	37	10	6	0	9	8	64	1	138
445-500	1	1	0	0	38	6	13	3	9	9	89	0	169
500-515	0	1	1	3	32	11	13	5	5	13	79	0	163
515-530	3	8	2	3	37	5	6	2	3	18	81	2	170
530-545	2	0	0	1	35	9	8	4	8	14	71	2	154
545-600	0	2	4	2	25	12	6	3	3	11	62	2	132
HOUR TOTALS													
400-500	3	4	1	3	151	44	40	7	33	40	297	6	629
415-515	2	3	1	6	145	43	48	9	33	41	307	5	643
430-530	5	10	3	8	144	32	38	10	26	48	313	3	640
445-545	6	10	3	7	142	31	40	14	25	54	320	4	656
500-600	5	11	7	9	129	37	33	14	19	56	293	6	619

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	2	1
415-430	1	3	7	0
430-445	0	0	1	0
445-500	2	0	1	0
500-515	2	0	3	0
515-530	2	0	2	1
530-545	5	2	3	6
545-600	1	0	2	1
HOUR TOTALS				
400-500	4	3	11	1
415-515	5	3	12	0
430-530	6	0	7	1
445-545	11	2	9	7
500-600	10	2	10	8

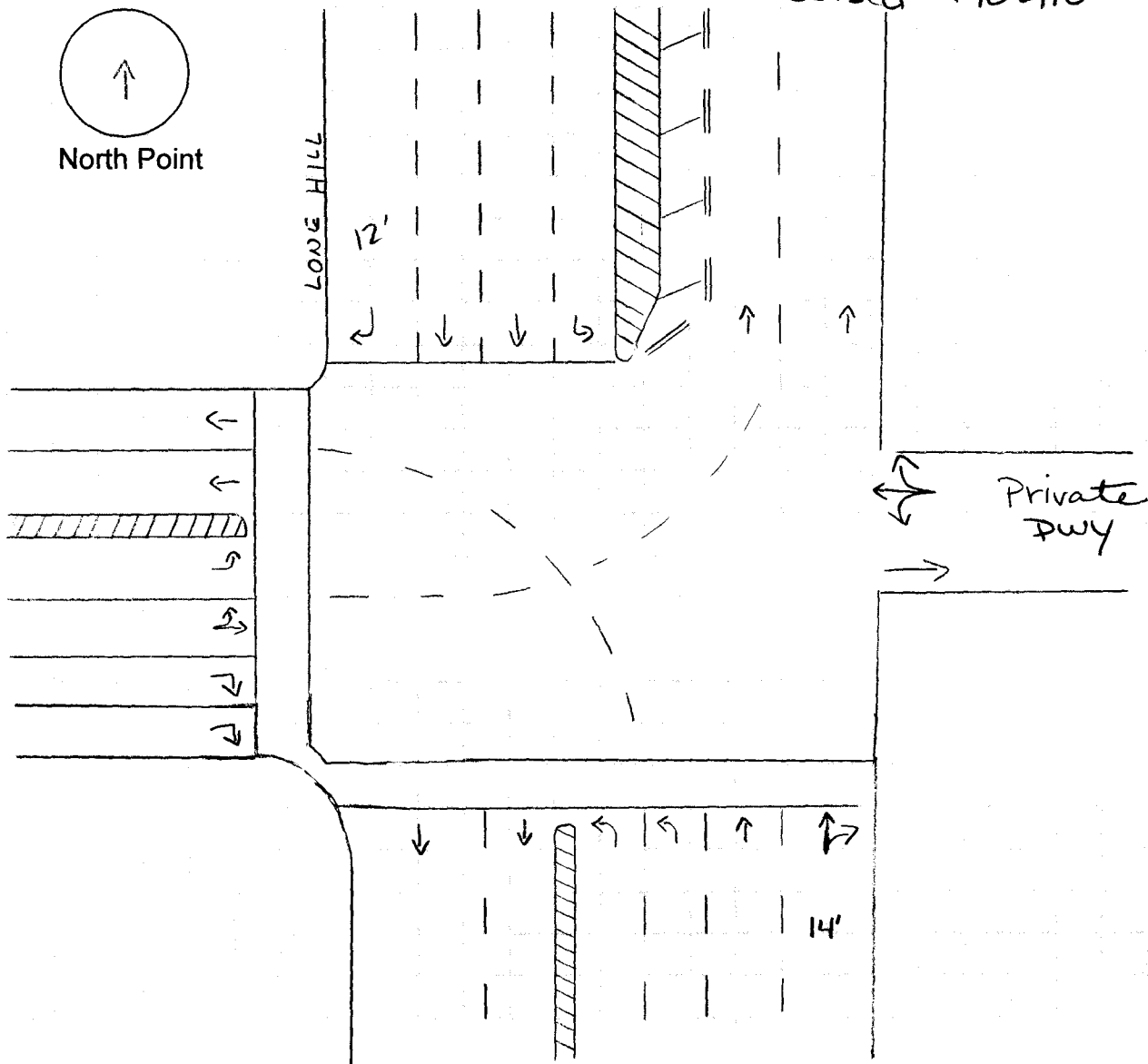
N/S LONE HILL AVE.

EW GLEN DORA MARKET PLACE

BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



Phasing:

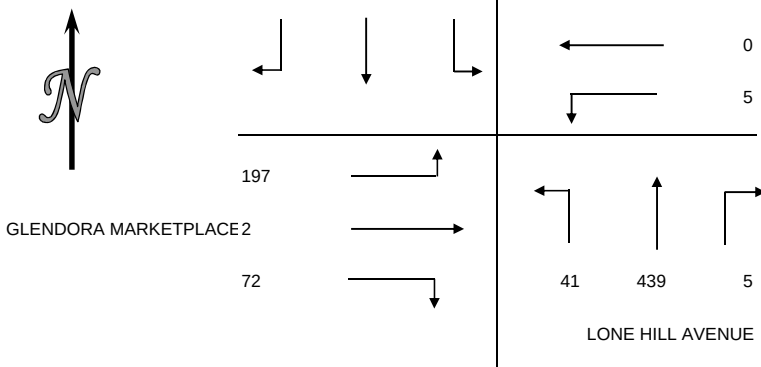
1	2	3	4	5	6
↓ ↘ or ↙ ↑	↙ ↘	↓ ↑	↘ or ↙ →	↘ ↙	← →

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY, MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S LONE HILL AVENUE
 E/W GLENDORA MARKETPLACE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	44	169	7	0	0	0	0	51	2	4	0	20	297
715-730	37	160	2	0	0	0	4	60	8	10	0	29	310
730-745	42	178	9	0	0	5	1	109	11	8	0	42	405
745-800	75	209	11	0	0	3	3	126	7	18	1	43	496
800-815	82	161	9	1	0	1	1	103	9	21	1	51	440
815-830	97	169	6	0	0	1	1	104	14	20	0	41	453
830-845	93	161	7	1	0	0	0	106	11	13	0	62	454
845-900	84	145	3	0	0	0	0	110	13	22	0	62	439
HOUR TOTALS													
700-800	198	716	29	0	0	8	8	346	28	40	1	134	1508
715-815	236	708	31	1	0	9	9	398	35	57	2	165	1651
730-830	296	717	35	1	0	10	6	442	41	67	2	177	1794
745-845	347	700	33	2	0	5	5	439	41	72	2	197	1843
800-900	356	636	25	2	0	2	2	423	47	76	1	216	1786

AM PEAK HOUR
745-845



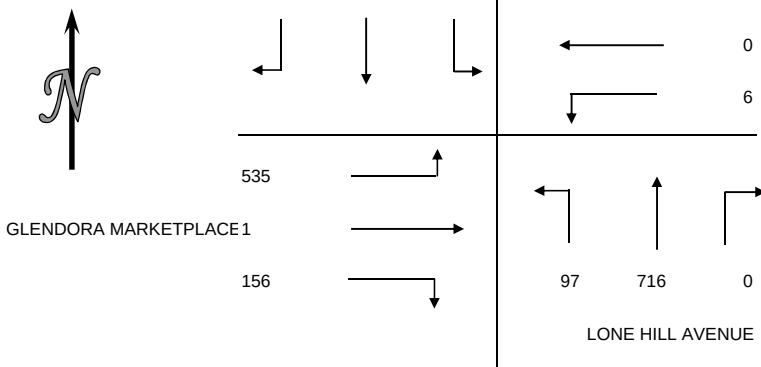
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	1	1	2	0
730-745	0	0	2	2
745-800	1	1	1	1
800-815	0	0	0	0
815-830	1	1	3	2
830-845	1	2	1	0
845-900	0	4	0	0
HOUR TOTALS				
700-800	2	2	5	3
715-815	2	2	5	3
730-830	2	2	6	5
745-845	3	4	5	3
800-900	2	7	4	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY, MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S LONE HILL AVENUE
 E/W GLENDORA MARKETPLACE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	146	135	0	14	0	5	0	179	20	44	0	129	672
415-430	152	162	0	5	0	2	0	166	29	28	0	146	690
430-445	133	170	0	9	1	2	0	165	21	33	1	144	679
445-500	147	155	3	7	0	1	0	201	19	40	1	138	712
500-515	153	135	0	6	0	3	0	174	25	36	0	127	659
515-530	168	155	0	4	0	1	0	178	27	31	0	140	704
530-545	150	167	0	2	0	1	0	163	26	49	0	130	688
545-600	144	148	1	3	0	0	1	151	24	40	0	117	629
HOURLY TOTALS													
400-500	578	622	3	35	1	10	0	711	89	145	2	557	2753
415-515	585	622	3	27	1	8	0	706	94	137	2	555	2740
430-530	601	615	3	26	1	7	0	718	92	140	2	549	2754
445-545	618	612	3	19	0	6	0	716	97	156	1	535	2763
500-600	615	605	1	15	0	5	1	666	102	156	0	514	2680

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	5	0	2	0
430-445	1	0	3	1
445-500	2	1	1	1
500-515	1	0	0	0
515-530	0	0	0	0
530-545	0	1	1	0
545-600	0	0	0	1
HOURLY TOTALS				
400-500	8	1	6	2
415-515	9	1	6	2
430-530	4	1	4	2
445-545	3	2	2	1
500-600	1	1	1	1

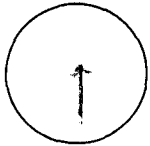
N/S LONE HILL AVE

E/W GLADSTONE ST.

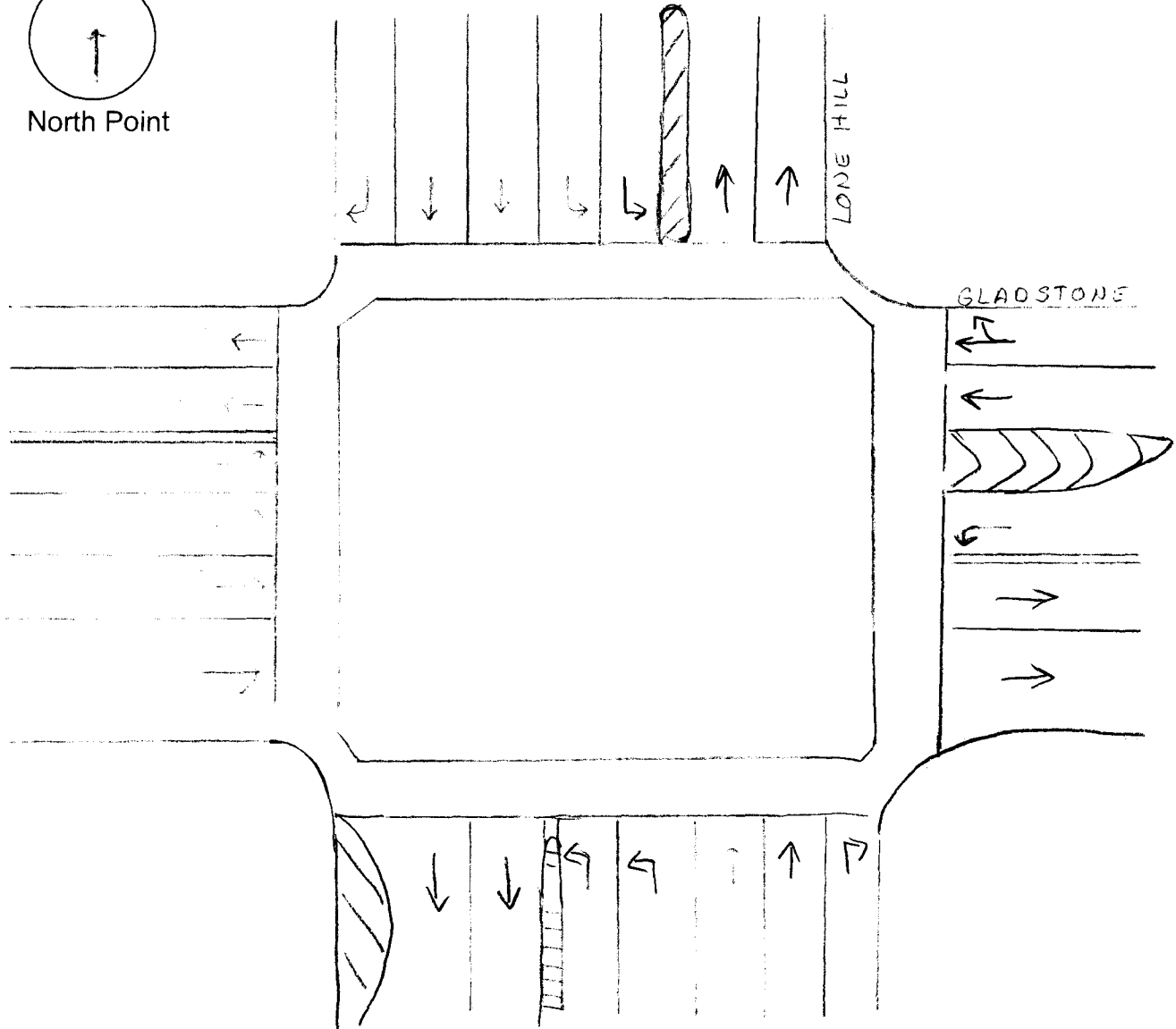
BY: C. J. JAMESON

DATE: 10.07.03

Revised 6/25/16



North Point



Phasing:

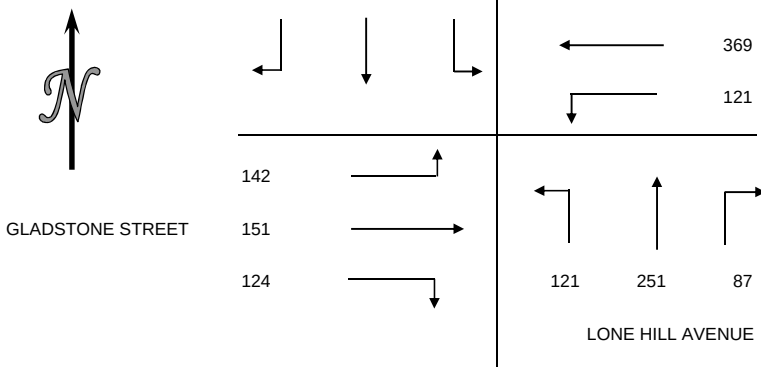
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S LONE HILL AVENUE
 E/W GLADSTONE STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	90	70	21	10	74	28	7	35	20	8	24	19	406
715-730	79	89	11	16	89	42	17	41	22	16	21	18	461
730-745	65	91	22	7	105	17	25	68	25	13	22	32	492
745-800	63	125	33	17	103	28	26	83	41	46	48	50	663
800-815	58	106	35	18	72	34	19	59	33	49	60	42	585
815-830	56	102	25	7	52	26	10	63	21	15	39	34	450
830-845	49	113	29	11	40	40	9	69	23	12	26	39	460
845-900	32	108	13	7	29	23	18	78	20	21	19	36	404
HOUR TOTALS													
700-800	297	375	87	50	371	115	75	227	108	83	115	119	2022
715-815	265	411	101	58	369	121	87	251	121	124	151	142	2201
730-830	242	424	115	49	332	105	80	273	120	123	169	158	2190
745-845	226	446	122	53	267	128	64	274	118	122	173	165	2158
800-900	195	429	102	43	193	123	56	269	97	97	144	151	1899

AM PEAK HOUR
715-815



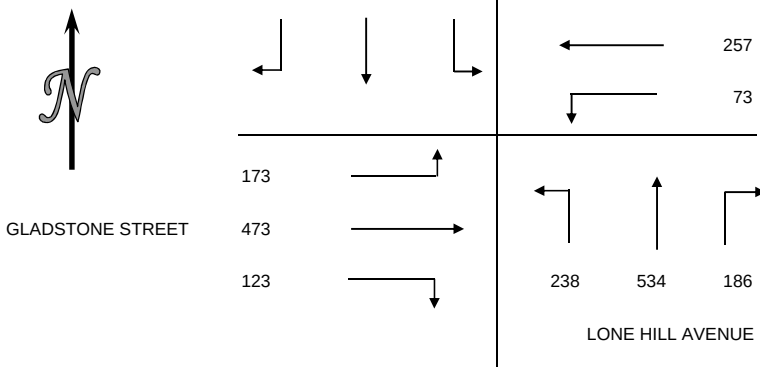
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	3
715-730	0	0	2	1
730-745	1	3	1	0
745-800	0	0	0	0
800-815	2	0	0	0
815-830	0	0	0	0
830-845	0	0	0	0
845-900	3	0	1	4
HOUR TOTALS				
700-800	1	3	3	4
715-815	3	3	3	1
730-830	3	3	1	0
745-845	2	0	0	0
800-900	5	0	1	4

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S LONE HILL AVENUE
 E/W GLADSTONE STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	40	100	56	17	57	15	41	139	66	37	85	51	704
415-430	43	99	60	21	65	20	44	121	48	30	95	46	692
430-445	54	104	62	18	64	25	51	110	57	22	95	50	712
445-500	48	104	52	20	54	15	46	132	56	24	106	45	702
500-515	49	87	43	23	65	19	55	133	71	33	125	46	749
515-530	38	81	61	33	78	21	38	136	57	38	116	38	735
530-545	47	79	65	23	60	18	47	133	54	28	126	44	724
545-600	31	91	63	15	55	16	30	125	65	26	106	40	663
HOUR TOTALS													
400-500	185	407	230	76	240	75	182	502	227	113	381	192	2810
415-515	194	394	217	82	248	79	196	496	232	109	421	187	2855
430-530	189	376	218	94	261	80	190	511	241	117	442	179	2898
445-545	182	351	221	99	257	73	186	534	238	123	473	173	2910
500-600	165	338	232	94	258	74	170	527	247	125	473	168	2871

PM PEAK HOUR
445-545

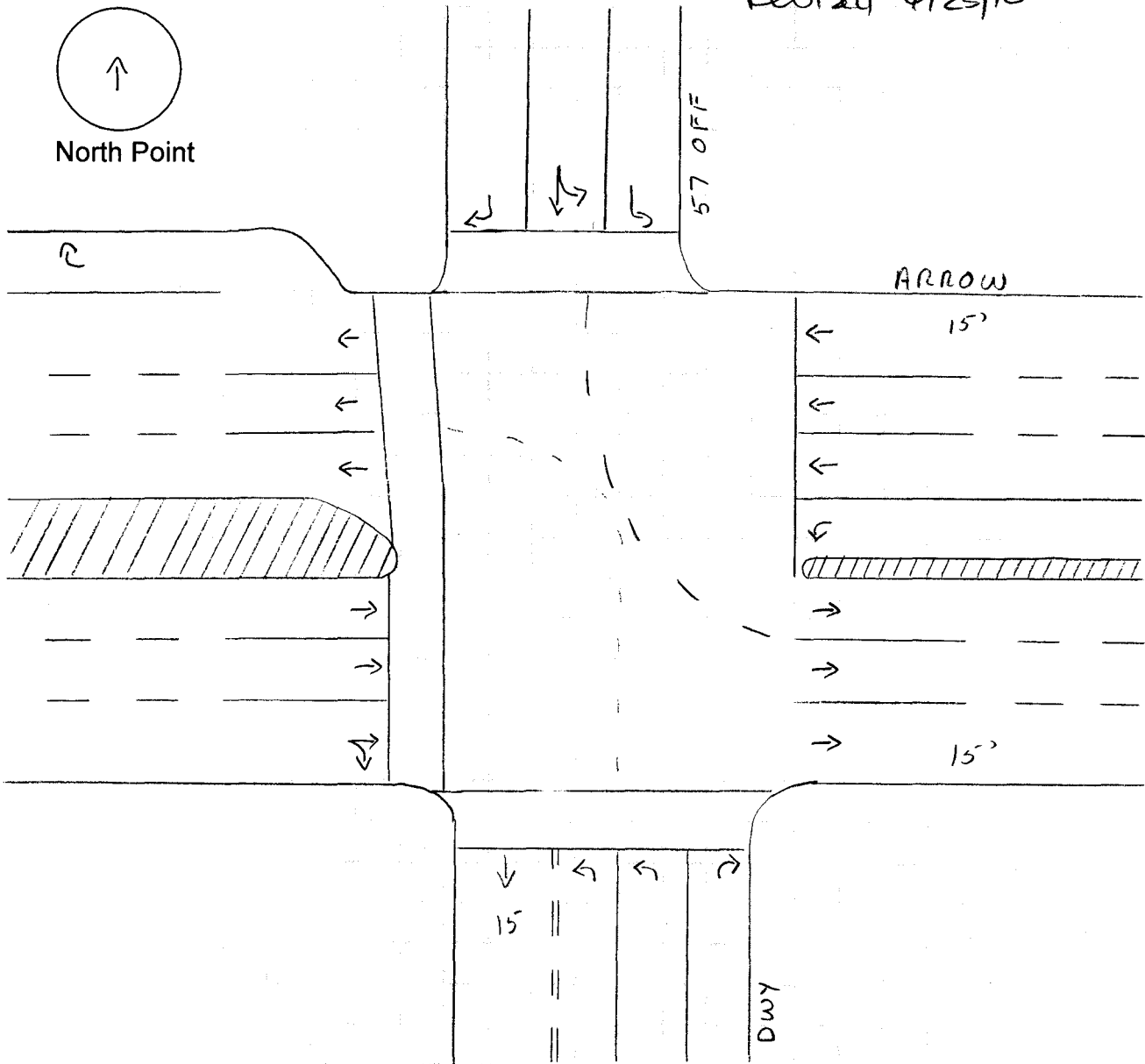


PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	2	0	3	1
415-430	3	1	2	0
430-445	2	2	2	0
445-500	4	1	1	1
500-515	3	0	0	3
515-530	0	0	0	1
530-545	0	0	0	0
545-600	1	2	3	3
HOUR TOTALS				
400-500	11	4	8	2
415-515	12	4	5	4
430-530	9	3	3	5
445-545	7	1	1	5
500-600	4	2	3	7

N/S S.R. 57 S.B. OFF RAMP/DWY E/W ARROW HWY

BY: C. JAMISON DATE: 04.23.05

Revised 4/25/10



Phasing:

1	2	3	4	5	6
↓ ↘	↙ ↘	↙ ↘	↙ ↘ ↘ ↙		

WILTEC

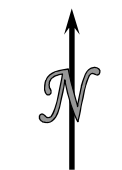
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

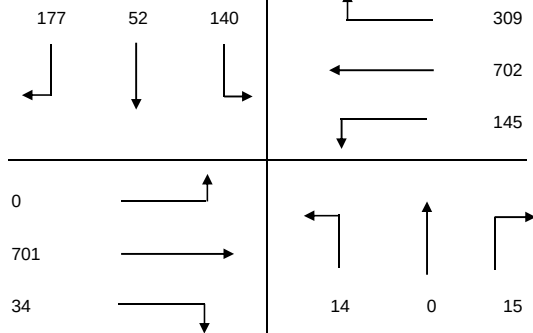
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S SR- 57 SOUTHBOUND RAMPS
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	56	5	29	79	166	30	1	0	5	1	129	0	501
715-730	79	10	42	81	156	30	3	0	5	3	140	0	549
730-745	64	9	44	90	168	45	5	0	5	2	175	0	607
745-800	43	13	42	80	156	27	0	0	2	7	183	0	553
800-815	30	11	21	75	177	34	3	0	2	14	177	0	544
815-830	40	19	33	64	201	39	7	0	5	11	166	0	585
830-845	39	14	45	85	178	37	4	0	5	13	152	0	572
845-900	31	16	43	80	181	36	10	0	11	8	144	0	560
HOUR TOTALS													
700-800	242	37	157	330	646	132	9	0	17	13	627	0	2210
715-815	216	43	149	326	657	136	11	0	14	26	675	0	2253
730-830	177	52	140	309	702	145	15	0	14	34	701	0	2289
745-845	152	57	141	304	712	137	14	0	14	45	678	0	2254
800-900	140	60	142	304	737	146	24	0	23	46	639	0	2261

AM PEAK HOUR
730-830



ARROW HWY



SR- 57 SOUTHBOUND RAMPS

PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	1
715-730	1	0	0	1
730-745	0	0	1	2
745-800	0	0	1	0
800-815	3	0	1	3
815-830	1	0	1	0
830-845	1	0	0	1
845-900	0	0	0	1
HOUR TOTALS				
700-800	1	0	3	4
715-815	4	0	3	6
730-830	4	0	4	5
745-845	5	0	3	4
800-900	5	0	2	5

WILTEC

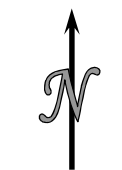
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

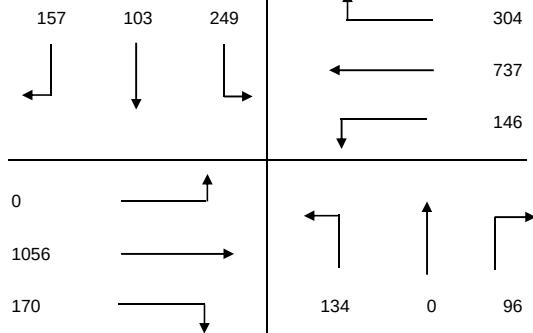
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY, MAY 5TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S SR- 57 SOUTHBOUND RAMPS
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	35	17	45	79	166	30	20	0	31	54	272	0	749
415-430	35	25	56	81	176	30	16	0	35	44	259	0	757
430-445	43	22	50	90	148	45	16	0	27	36	251	0	728
445-500	38	19	38	80	156	27	14	0	29	29	256	0	686
500-515	35	30	57	75	177	34	25	0	31	42	281	0	787
515-530	37	24	62	64	201	39	28	0	32	42	272	0	801
530-545	49	25	59	85	178	37	16	0	33	48	272	0	802
545-600	36	24	71	80	181	36	27	0	38	38	231	0	762
HOUR TOTALS													
400-500	151	83	189	330	646	132	66	0	122	163	1038	0	2920
415-515	151	96	201	326	657	136	71	0	122	151	1047	0	2958
430-530	153	95	207	309	682	145	83	0	119	149	1060	0	3002
445-545	159	98	216	304	712	137	83	0	125	161	1081	0	3076
500-600	157	103	249	304	737	146	96	0	134	170	1056	0	3152

PM PEAK HOUR
500-600



ARROW HWY



SR- 57 SOUTHBOUND RAMPS

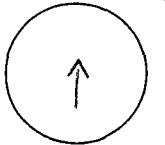
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	4	0	1	4
415-430	0	0	0	2
430-445	6	0	0	4
445-500	0	0	0	0
500-515	0	0	0	2
515-530	7	0	4	8
530-545	1	0	1	1
545-600	1	0	1	2
HOUR TOTALS				
400-500	10	0	1	10
415-515	6	0	0	8
430-530	13	0	4	14
445-545	8	0	5	11
500-600	9	0	6	13

N/S BONITA AVE./S.R 57 N.B ON/OFF RAMPS EW ARROW HWY.

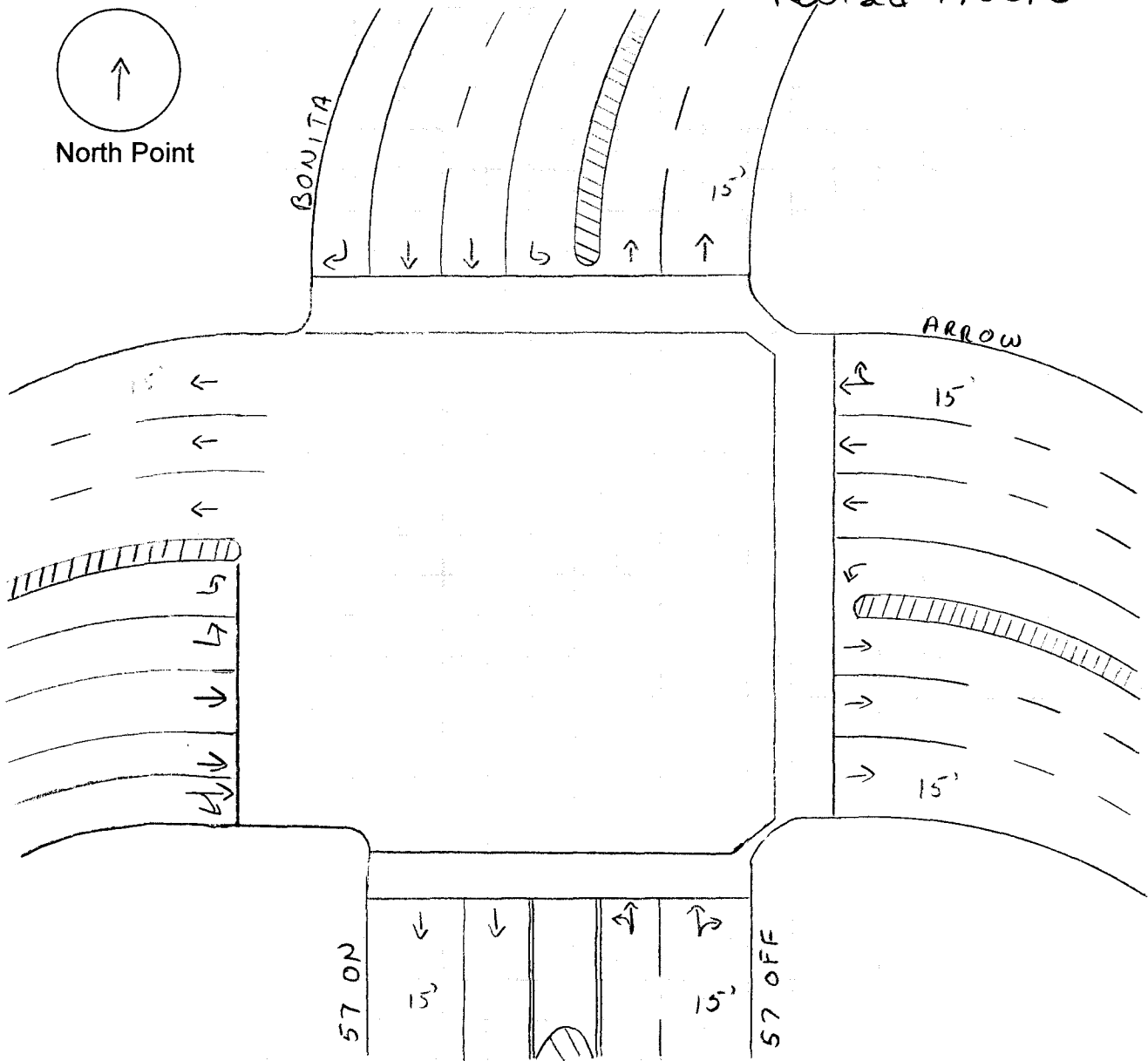
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

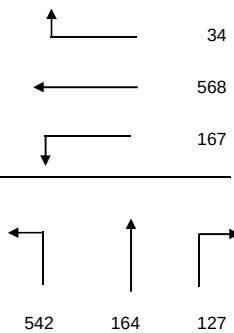
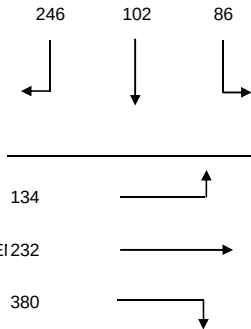
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S SR- 57 NORTHBOUND RAMPS
 E/W ARROW HWY/ BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	56	18	9	9	125	30	17	25	119	76	45	37	566
715-730	53	26	15	10	135	33	18	33	136	118	61	37	675
730-745	71	31	21	8	152	46	31	39	129	76	54	32	690
745-800	66	24	20	8	145	39	28	41	139	93	65	37	705
800-815	66	27	19	9	141	49	39	46	135	84	50	37	702
815-830	43	20	26	9	130	33	29	38	139	127	63	28	685
830-845	57	27	11	14	120	36	31	40	101	117	71	48	673
845-900	62	26	26	3	119	39	30	32	99	103	64	44	647
HOUR TOTALS													
700-800	246	99	65	35	557	148	94	138	523	363	225	143	2636
715-815	256	108	75	35	573	167	116	159	539	371	230	143	2772
730-830	246	102	86	34	568	167	127	164	542	380	232	134	2782
745-845	232	98	76	40	536	157	127	165	514	421	249	150	2765
800-900	228	100	82	35	510	157	129	156	474	431	248	157	2707

AM PEAK HOUR
730-830



ARROW HWY/ BONITA AVE I 232



SR- 57 NORTHBOUND RAMPS

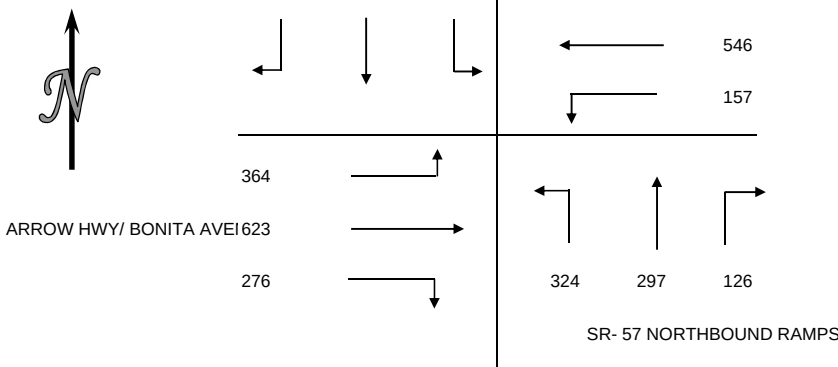
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	0	0	0
715-730	0	2	0	0
730-745	0	0	0	0
745-800	0	0	0	0
800-815	2	1	0	0
815-830	0	0	0	0
830-845	0	1	1	0
845-900	1	1	0	0
HOUR TOTALS				
700-800	1	2	0	0
715-815	2	3	0	0
730-830	2	1	0	0
745-845	2	2	1	0
800-900	3	3	1	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S SR- 57 NORTHBOUND RAMPS
 E/W ARROW HWY/ BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	76	18	9	9	125	30	26	63	90	68	113	95	722
415-430	82	26	15	10	135	33	28	51	89	85	139	95	788
430-445	88	31	26	8	142	46	15	58	66	62	149	92	783
445-500	94	24	15	8	135	39	29	71	74	71	142	87	789
500-515	78	27	19	9	141	49	31	73	83	64	166	102	842
515-530	79	20	26	9	140	36	32	76	88	74	161	93	834
530-545	77	27	11	14	130	33	34	77	79	67	154	82	785
545-600	74	26	26	3	119	39	46	60	85	50	131	72	731
HOUR TOTALS													
400-500	340	99	65	35	537	148	98	243	319	286	543	369	3082
415-515	342	108	75	35	553	167	103	253	312	282	596	376	3202
430-530	339	102	86	34	558	170	107	278	311	271	618	374	3248
445-545	328	98	71	40	546	157	126	297	324	276	623	364	3250
500-600	308	100	82	35	530	157	143	286	335	255	612	349	3192

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	0
415-430	0	0	0	0
430-445	0	0	0	0
445-500	4	4	3	0
500-515	0	1	0	0
515-530	2	1	1	0
530-545	0	0	0	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	5	4	3	0
415-515	4	5	3	0
430-530	6	6	4	0
445-545	6	6	4	0
500-600	2	2	1	0

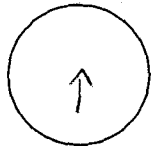
N/S EUCLA AVE.

EW FIFTH ST.

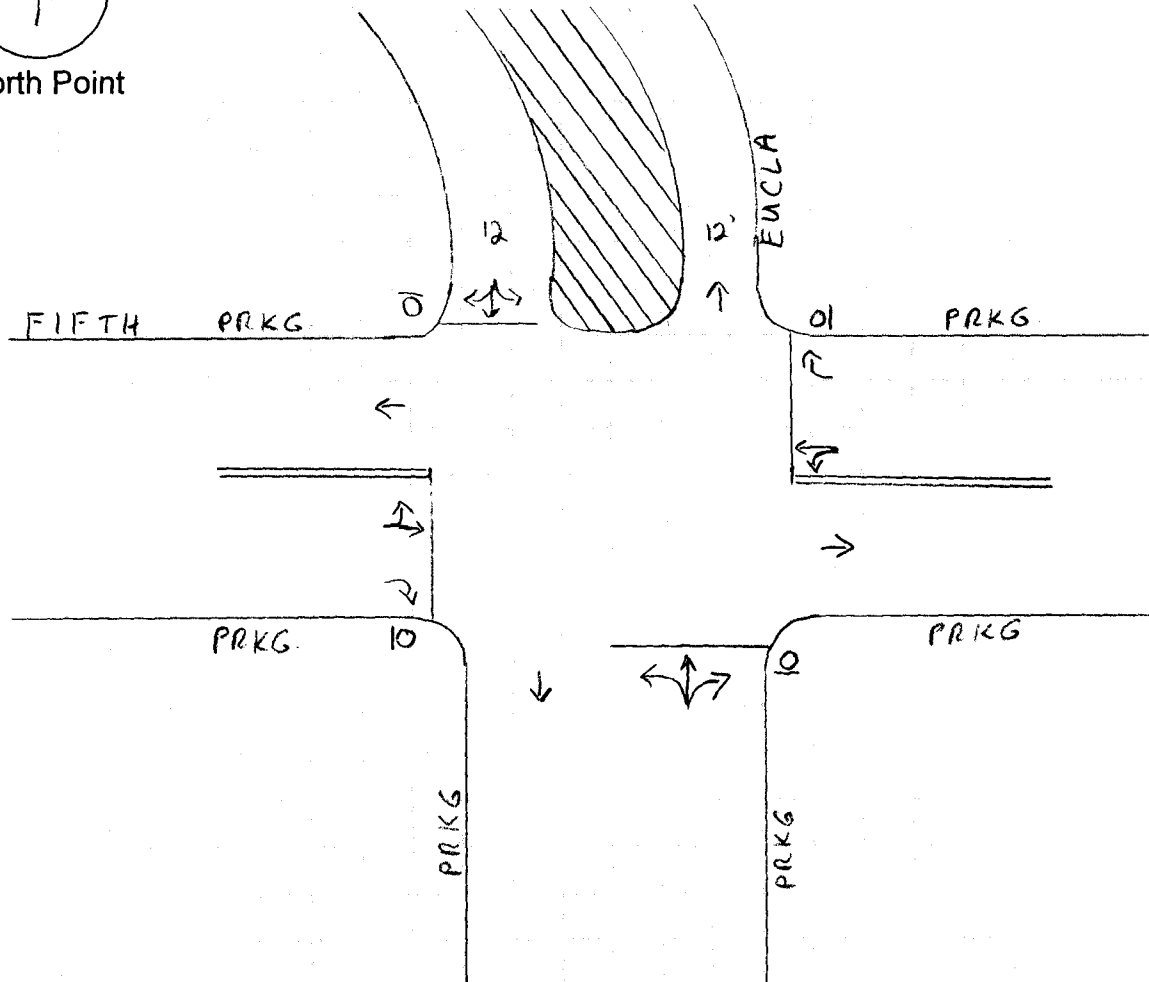
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

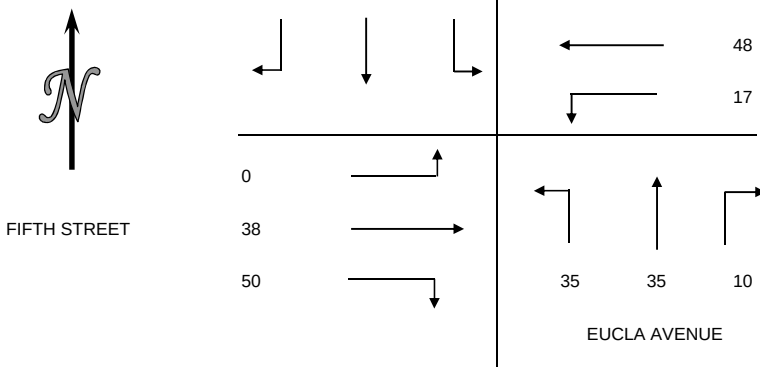
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EUCLA AVENUE
 E/W FIFTH STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	3	1	0	9	1	1	4	4	9	5	1	38
715-730	1	0	1	0	8	3	0	8	8	4	5	0	38
730-745	1	2	0	1	13	2	2	10	10	17	5	0	63
745-800	0	0	0	0	19	6	3	10	10	13	12	0	73
800-815	1	0	0	0	10	4	4	9	9	14	13	0	64
815-830	0	1	0	0	6	5	1	6	6	6	8	0	39
830-845	1	2	0	0	6	0	2	8	8	14	10	1	52
845-900	0	0	0	0	4	2	3	7	7	5	3	0	31
HOUR TOTALS													
700-800	2	5	2	1	49	12	6	32	32	43	27	1	212
715-815	3	2	1	1	50	15	9	37	37	48	35	0	238
730-830	2	3	0	1	48	17	10	35	35	50	38	0	239
745-845	2	3	0	0	41	15	10	33	33	47	43	1	228
800-900	2	3	0	0	26	11	10	30	30	39	34	1	186

AM PEAK HOUR
730-830



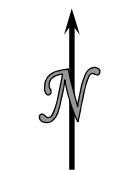
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	1	0	1	0
730-745	0	0	0	0
745-800	1	0	3	0
800-815	3	0	1	1
815-830	1	0	1	1
830-845	0	0	0	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	2	0	4	0
715-815	5	0	5	1
730-830	5	0	5	2
745-845	5	0	5	2
800-900	4	0	2	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

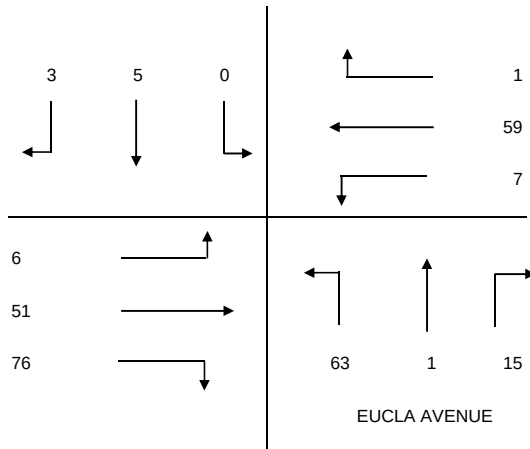
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S EUCLA AVENUE
 E/W FIFTH STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	0	0	1	17	0	4	0	20	15	12	1	71
415-430	0	2	0	0	14	2	2	0	13	19	11	2	65
430-445	0	2	0	0	16	1	6	1	16	26	13	2	83
445-500	2	1	0	0	12	4	3	0	14	16	15	1	68
500-515	0	0	0	0	11	2	10	0	15	12	14	0	64
515-530	0	0	0	0	10	6	3	2	18	12	11	0	62
530-545	0	1	0	0	8	2	5	2	17	16	11	2	64
545-600	1	0	0	2	10	3	3	2	24	19	13	1	78
HOUR TOTALS													
400-500	3	5	0	1	59	7	15	1	63	76	51	6	287
415-515	2	5	0	0	53	9	21	1	58	73	53	5	280
430-530	2	3	0	0	49	13	22	3	63	66	53	3	277
445-545	2	2	0	0	41	14	21	4	64	56	51	3	258
500-600	1	1	0	2	39	13	21	6	74	59	49	3	268

PM PEAK HOUR
400-500



FIFTH STREET



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	2	0	0	0
415-430	0	0	3	0
430-445	0	0	0	0
445-500	1	0	0	0
500-515	0	0	1	0
515-530	0	0	0	0
530-545	0	0	0	0
545-600	0	0	3	0
HOUR TOTALS				
400-500	3	0	3	0
415-515	1	0	4	0
430-530	1	0	1	0
445-545	1	0	1	0
500-600	0	0	4	0

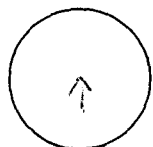
N/S EUCLA AVE.

EW SECOND ST.

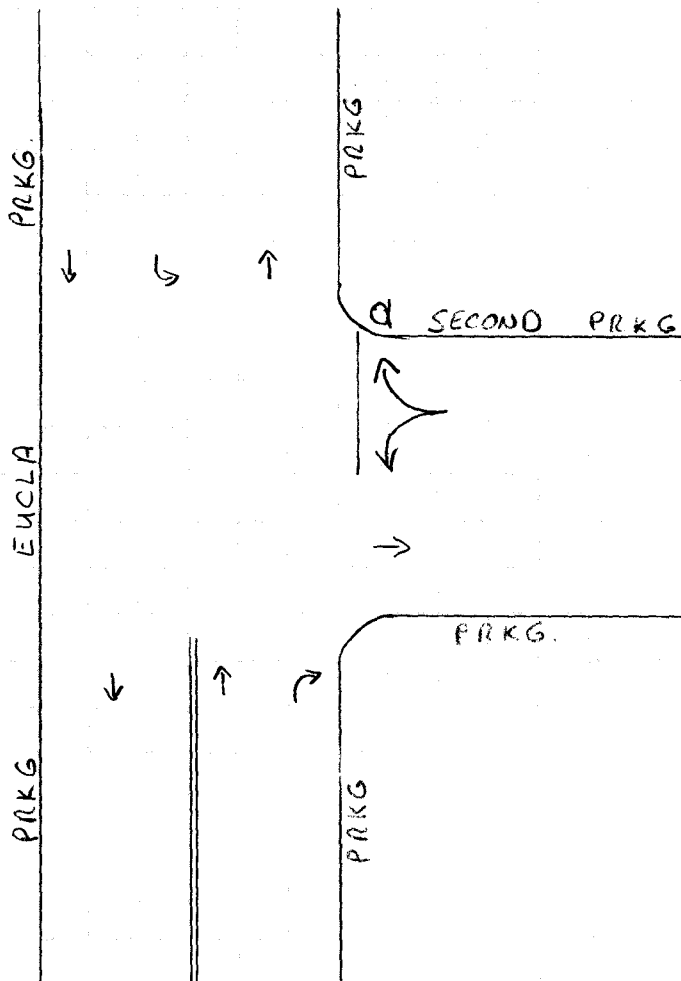
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

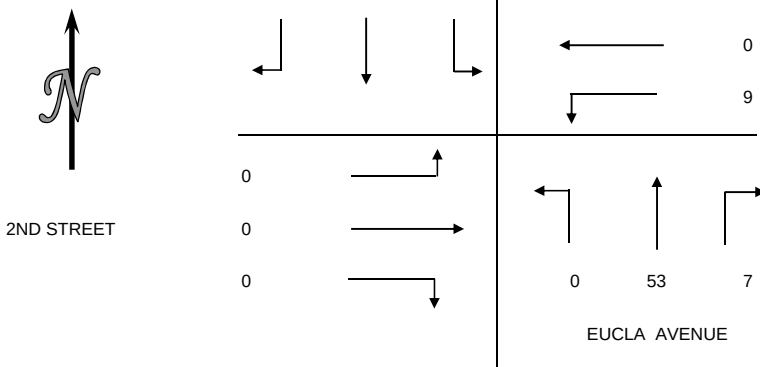
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EUCLA AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	25	1	0	0	3	1	5	0	0	0	0	35
715-730	0	22	0	0	0	2	2	11	0	0	0	0	37
730-745	0	36	0	0	0	2	1	15	0	0	0	0	54
745-800	0	24	2	1	0	1	2	11	0	0	0	0	41
800-815	0	23	2	0	0	4	2	16	0	0	0	0	47
815-830	0	20	0	0	0	2	2	7	0	0	0	0	31
830-845	0	25	0	1	0	2	2	11	0	0	0	0	41
845-900	0	21	2	1	0	2	4	14	0	0	0	0	44
HOUR TOTALS													
700-800	0	107	3	1	0	8	6	42	0	0	0	0	167
715-815	0	105	4	1	0	9	7	53	0	0	0	0	179
730-830	0	103	4	1	0	9	7	49	0	0	0	0	173
745-845	0	92	4	2	0	9	8	45	0	0	0	0	160
800-900	0	89	4	2	0	10	10	48	0	0	0	0	163

AM PEAK HOUR
715-815



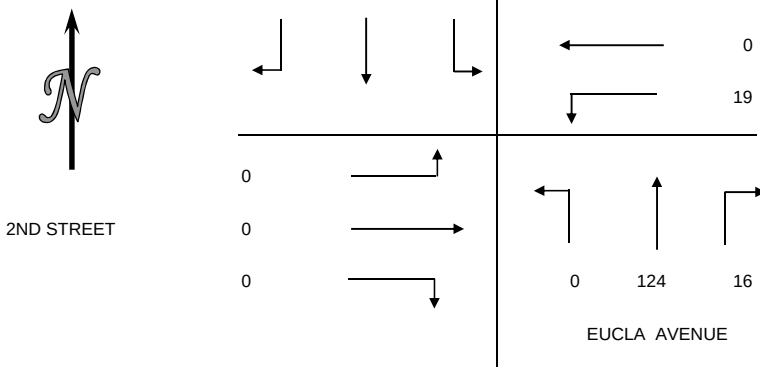
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	4	0	0
730-745	0	1	1	0
745-800	3	3	1	0
800-815	0	2	0	0
815-830	0	2	0	0
830-845	1	4	0	0
845-900	0	3	0	0
HOUR TOTALS				
700-800	3	8	2	0
715-815	3	10	2	0
730-830	3	8	2	0
745-845	4	11	1	0
800-900	1	11	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S EUCLA AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	20	2	2	0	3	3	21	0	0	0	0	51
415-430	0	22	1	2	0	3	1	28	0	0	0	0	57
430-445	0	43	3	1	0	9	6	36	0	0	0	0	98
445-500	0	28	1	0	0	3	3	26	0	0	0	0	61
500-515	0	19	0	0	0	4	2	35	0	0	0	0	60
515-530	0	23	1	2	0	3	5	27	0	0	0	0	61
530-545	0	25	0	0	0	5	7	37	0	0	0	0	74
545-600	0	24	1	1	0	2	2	29	0	0	0	0	59
HOURLY TOTALS													
400-500	0	113	7	5	0	18	13	111	0	0	0	0	267
415-515	0	112	5	3	0	19	12	125	0	0	0	0	276
430-530	0	113	5	3	0	19	16	124	0	0	0	0	280
445-545	0	95	2	2	0	15	17	125	0	0	0	0	256
500-600	0	91	2	3	0	14	16	128	0	0	0	0	254

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	0	0
415-430	0	1	0	0
430-445	0	1	2	0
445-500	0	4	0	0
500-515	0	0	0	0
515-530	0	0	0	0
530-545	0	4	0	0
545-600	1	2	0	0
HOURLY TOTALS				
400-500	0	8	2	0
415-515	0	6	2	0
430-530	0	5	2	0
445-545	0	8	0	0
500-600	1	6	0	0

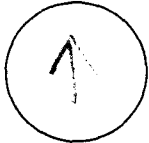
N/S EUCLA AVE

E/W BONITA AVE

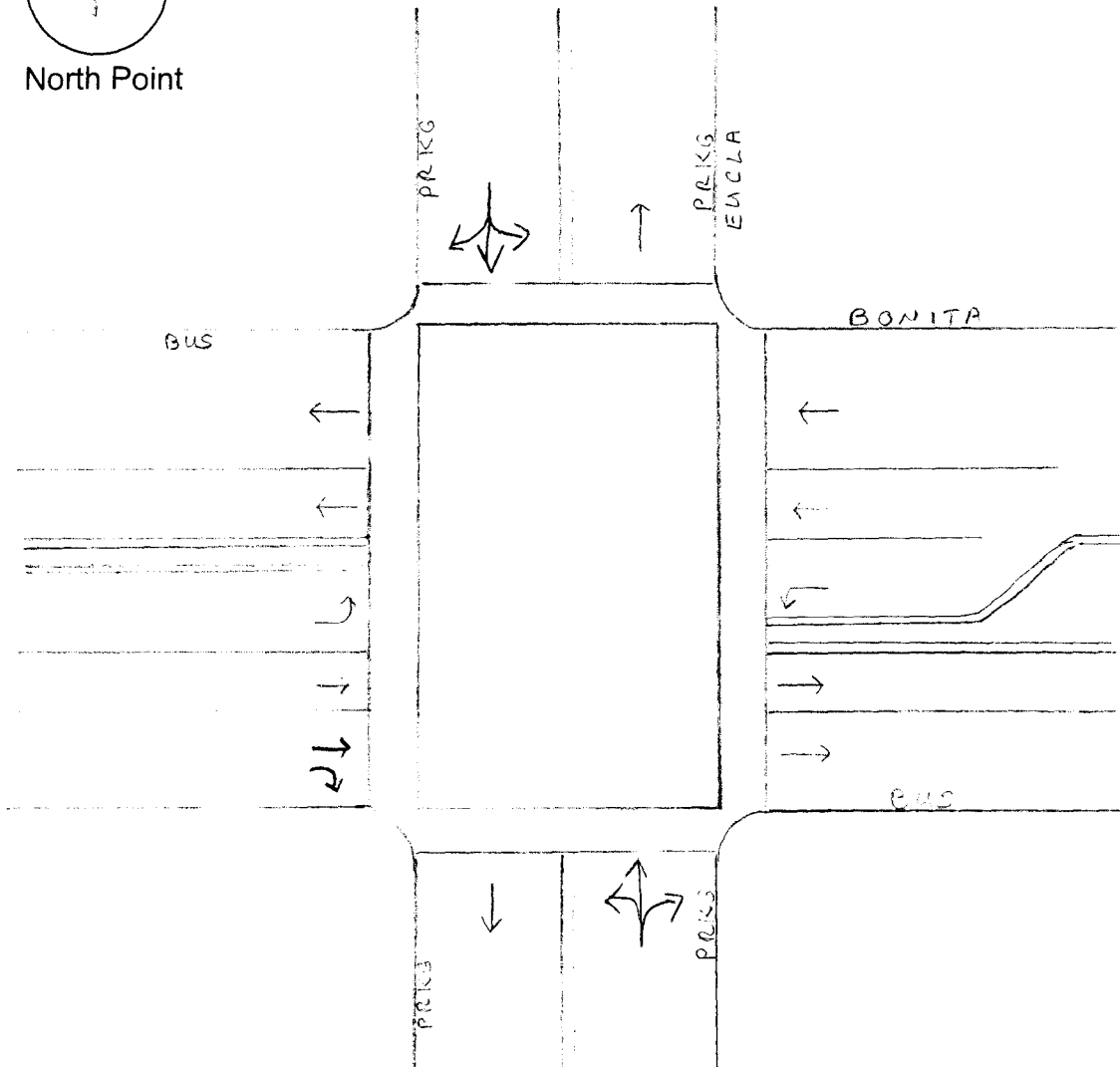
BY: C. J. J. J. J.

DATE: 10.27.03

Revised 6/25/10



North Point



Phasing:

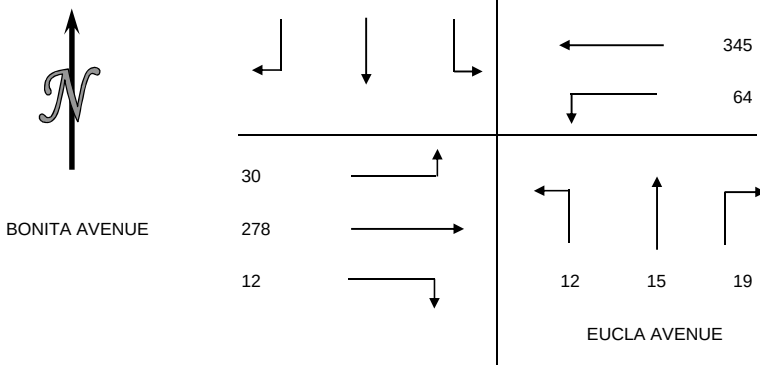
1	2	3	4	5	6
↓↑	←→				

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EUCLA AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	19	12	5	4	77	10	0	3	1	1	34	10	176
715-730	16	9	3	3	88	13	4	6	1	1	13	5	162
730-745	20	13	5	2	98	16	8	10	2	2	32	7	215
745-800	22	14	4	2	91	19	5	2	4	3	50	3	219
800-815	17	11	4	4	81	16	4	6	4	3	55	10	215
815-830	12	7	2	2	89	16	7	3	1	5	95	6	245
830-845	15	13	3	1	84	13	3	4	3	1	78	11	229
845-900	11	10	1	6	81	12	4	5	2	1	56	6	195
HOUR TOTALS													
700-800	77	48	17	11	354	58	17	21	8	7	129	25	772
715-815	75	47	16	11	358	64	21	24	11	9	150	25	811
730-830	71	45	15	10	359	67	24	21	11	13	232	26	894
745-845	66	45	13	9	345	64	19	15	12	12	278	30	908
800-900	55	41	10	13	335	57	18	18	10	10	284	33	884

AM PEAK HOUR
745-845



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	0	0	0
715-730	1	1	0	0
730-745	1	1	0	0
745-800	1	0	0	0
800-815	0	2	0	1
815-830	0	1	0	0
830-845	0	3	0	0
845-900	1	1	1	0
HOUR TOTALS				
700-800	4	2	0	0
715-815	3	4	0	1
730-830	2	4	0	1
745-845	1	6	0	1
800-900	1	7	1	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

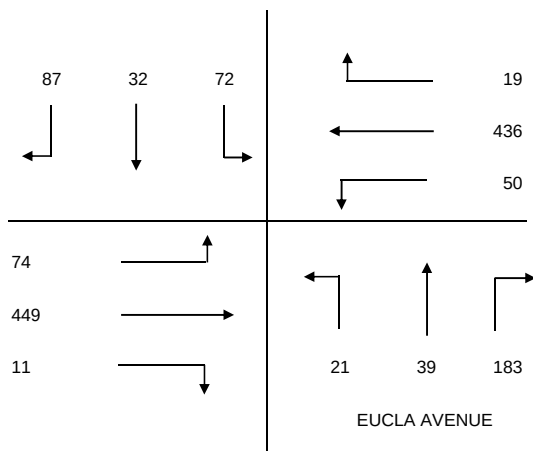
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S EUCLA AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	21	5	22	9	105	15	29	9	3	2	111	12	343
415-430	18	8	13	2	119	11	39	4	7	3	126	18	368
430-445	31	10	20	4	100	10	49	10	6	4	123	18	385
445-500	28	4	20	8	107	17	36	13	5	3	116	16	373
500-515	10	10	19	5	110	12	59	12	3	1	84	22	347
515-530	18	3	12	3	98	17	42	10	2	4	108	18	335
530-545	8	7	14	8	91	11	45	16	1	2	78	21	302
545-600	14	5	10	8	92	5	56	13	1	0	66	20	290
HOUR TOTALS													
400-500	98	27	75	23	431	53	153	36	21	12	476	64	1469
415-515	87	32	72	19	436	50	183	39	21	11	449	74	1473
430-530	87	27	71	20	415	56	186	45	16	12	431	74	1440
445-545	64	24	65	24	406	57	182	51	11	10	386	77	1357
500-600	50	25	55	24	391	45	202	51	7	7	336	81	1274

PM PEAK HOUR
415-515



BONITA AVENUE



PEDESTRIAN COUNTS

PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	2	0	0
415-430	1	1	0	0
430-445	2	4	0	1
445-500	0	1	0	0
500-515	4	8	0	0
515-530	3	1	0	0
530-545	1	1	0	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	4	8	0	1
415-515	7	14	0	1
430-530	9	14	0	1
445-545	8	11	0	0
500-600	8	10	0	0

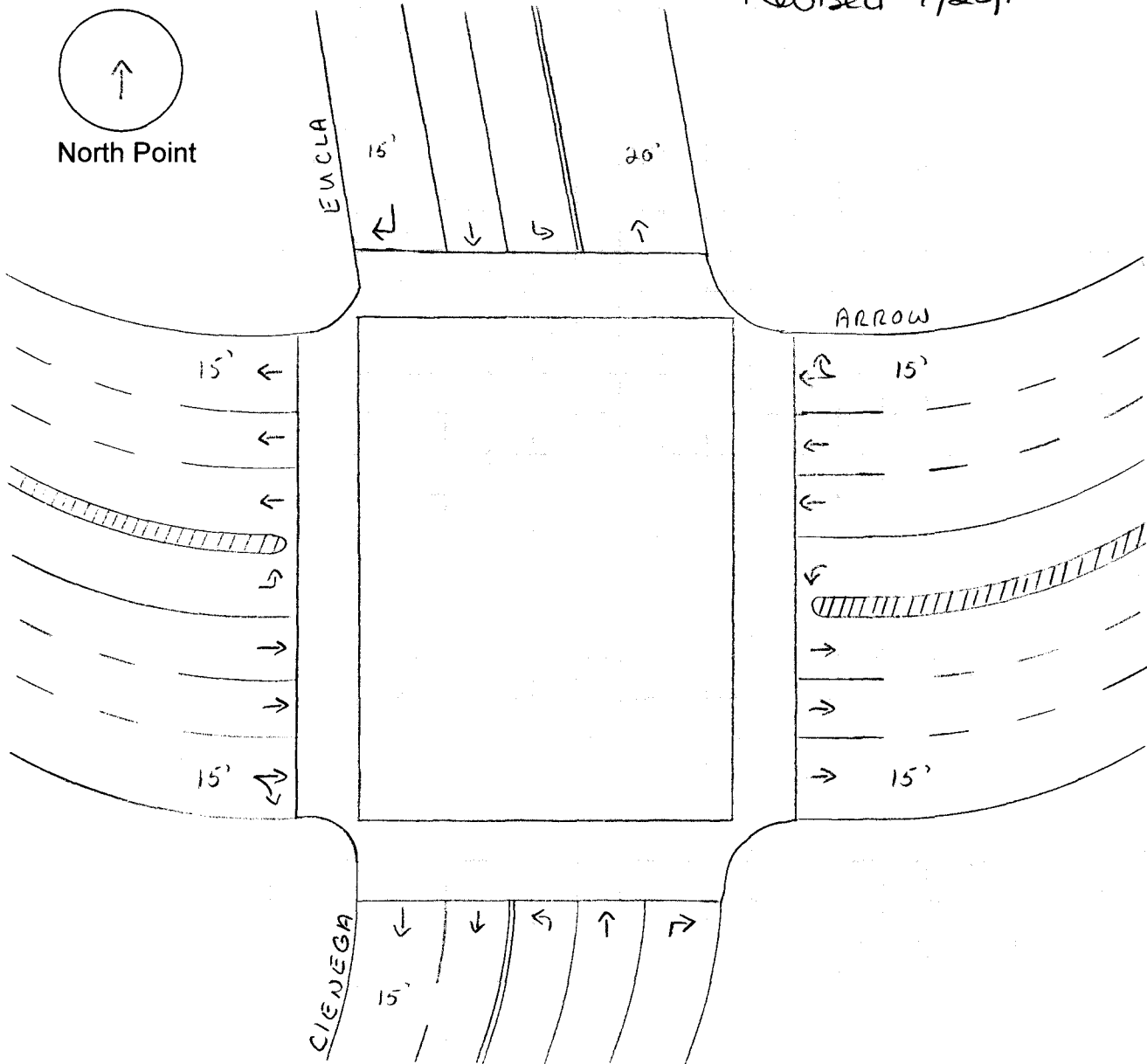
N/S EUCLA AVE / CIENEGA AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



Phasing:

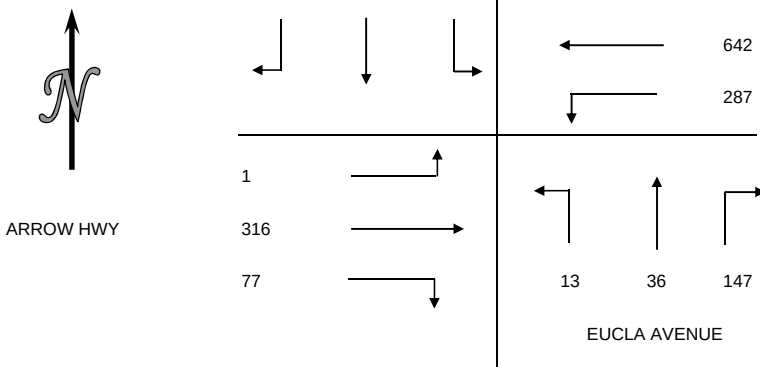
1	2	3	4	5	6
↓ ↑	↖ ↗	↖ ↗ or ↘ ↙	← →		

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S EUCLA AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	26	2	1	155	68	21	2	1	12	55	2	345
715-730	0	29	0	1	168	69	32	9	2	10	66	1	387
730-745	0	24	6	5	165	71	46	13	5	20	72	0	427
745-800	2	30	6	2	157	82	40	7	2	28	98	0	454
800-815	2	16	3	2	152	65	29	7	4	19	80	0	379
815-830	1	26	5	1	112	46	32	10	9	17	78	1	338
830-845	3	19	5	1	93	50	25	7	7	20	76	3	309
845-900	2	25	8	8	108	67	42	9	9	18	61	1	358
HOUR TOTALS													
700-800	2	109	14	9	645	290	139	31	10	70	291	3	1613
715-815	4	99	15	10	642	287	147	36	13	77	316	1	1647
730-830	5	96	20	10	586	264	147	37	20	84	328	1	1598
745-845	8	91	19	6	514	243	126	31	22	84	332	4	1480
800-900	8	86	21	12	465	228	128	33	29	74	295	5	1384

AM PEAK HOUR
715-815



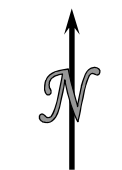
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	1	0	1
730-745	2	1	1	1
745-800	3	1	3	1
800-815	2	2	0	2
815-830	2	2	0	1
830-845	2	4	0	3
845-900	0	1	0	2
HOUR TOTALS				
700-800	5	3	4	3
715-815	7	5	4	5
730-830	9	6	4	5
745-845	9	9	3	7
800-900	6	9	0	8

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

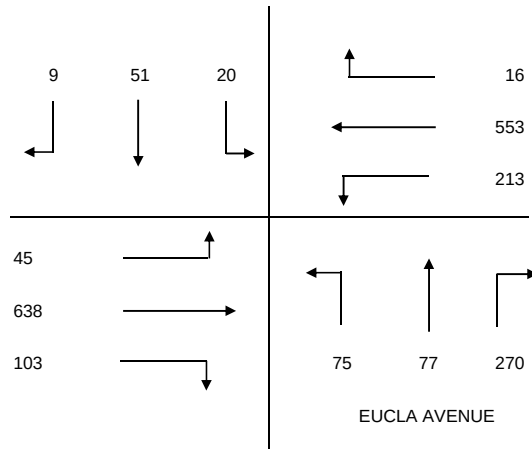
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S EUCLA AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	4	20	5	4	129	63	74	11	18	13	129	6	476
415-430	1	21	1	5	138	60	74	9	15	19	136	7	486
430-445	4	17	6	7	155	68	62	17	18	18	134	3	509
445-500	4	15	8	3	147	56	72	18	10	21	159	10	523
500-515	0	18	6	4	141	58	78	15	24	18	152	7	521
515-530	3	9	8	1	150	53	63	22	18	16	151	9	503
530-545	3	15	2	7	134	57	65	21	19	19	164	13	519
545-600	3	9	4	4	128	45	64	19	14	50	171	16	527
HOUR TOTALS													
400-500	13	73	20	19	569	247	282	55	61	71	558	26	1994
415-515	9	71	21	19	581	242	286	59	67	76	581	27	2039
430-530	11	59	28	15	593	235	275	72	70	73	596	29	2056
445-545	10	57	24	15	572	224	278	76	71	74	626	39	2066
500-600	9	51	20	16	553	213	270	77	75	103	638	45	2070

PM PEAK HOUR
500-600



ARROW HWY



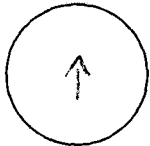
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	2	2	1	2
415-430	0	6	2	7
430-445	2	2	2	3
445-500	0	2	1	1
500-515	1	0	1	1
515-530	2	1	2	2
530-545	0	6	0	2
545-600	0	3	1	1
HOUR TOTALS				
400-500	4	12	6	13
415-515	3	10	6	12
430-530	5	5	6	7
445-545	3	9	4	6
500-600	3	10	4	6

N/S ACACIA ST.

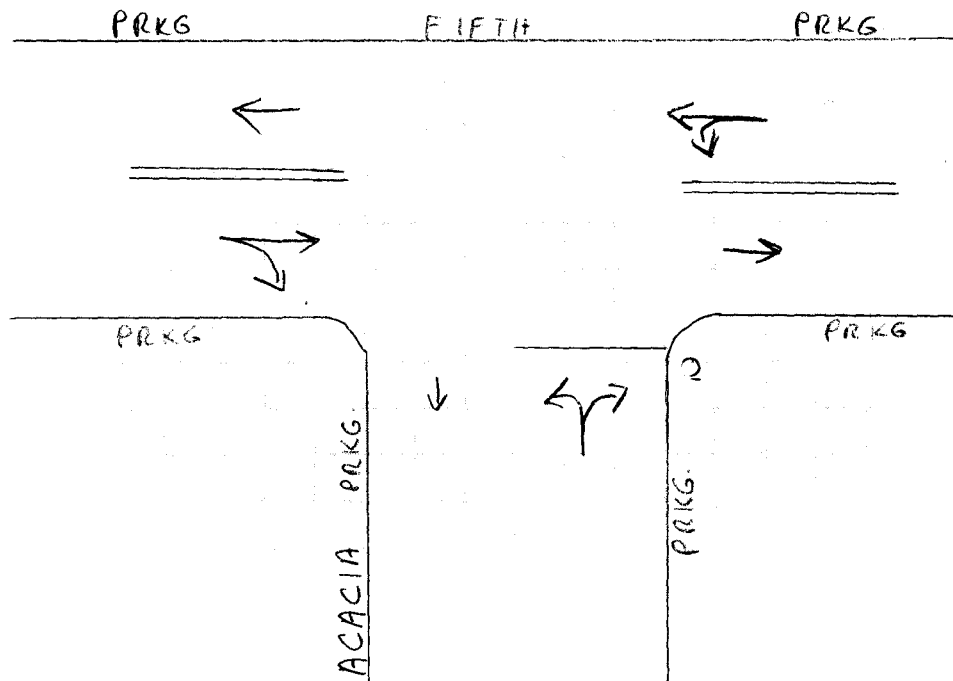
EW FIFTH ST.

BY: C JAMISON

DATE: 04.23.05



North Point



Phasing:

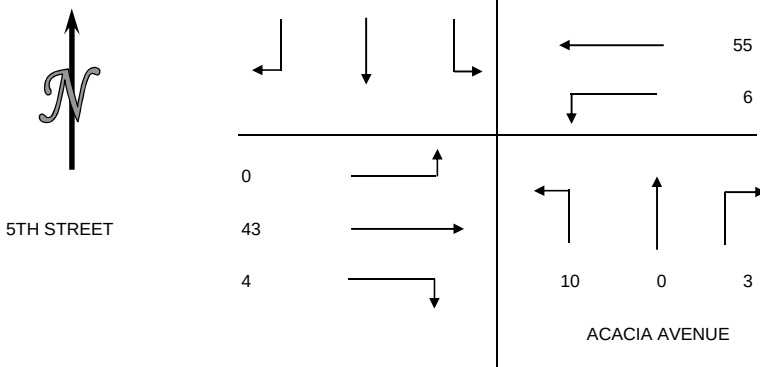
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ACACIA AVENUE
 E/W 5TH STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	0	0	0	8	1	1	0	3	0	9	0	22
715-730	0	0	0	0	5	0	1	0	3	0	6	0	15
730-745	0	0	0	0	12	0	0	0	2	0	6	0	20
745-800	0	0	0	0	18	2	2	0	6	1	17	0	46
800-815	0	0	0	0	16	2	1	0	0	3	10	0	32
815-830	0	0	0	0	9	2	0	0	2	0	10	0	23
830-845	0	0	0	0	4	0	0	0	1	0	12	0	17
845-900	0	0	0	0	4	0	1	0	2	1	4	0	12
HOURLY TOTALS													
700-800	0	0	0	0	43	3	4	0	14	1	38	0	103
715-815	0	0	0	0	51	4	4	0	11	4	39	0	113
730-830	0	0	0	0	55	6	3	0	10	4	43	0	121
745-845	0	0	0	0	47	6	3	0	9	4	49	0	118
800-900	0	0	0	0	33	4	2	0	5	4	36	0	84

AM PEAK HOUR
730-830



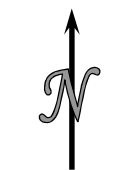
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	1	0
745-800	0	0	0	0
800-815	0	0	1	0
815-830	0	0	1	0
830-845	0	0	0	0
845-900	0	0	1	0
HOURLY TOTALS				
700-800	0	0	1	0
715-815	0	0	2	0
730-830	0	0	3	0
745-845	0	0	2	0
800-900	0	0	3	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

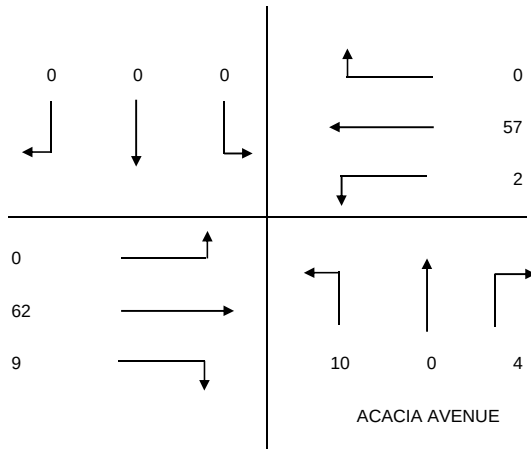
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S ACACIA AVENUE
 E/W 5TH STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	0	0	0	17	0	0	0	0	2	17	0	36
415-430	0	0	0	0	16	0	1	0	1	3	11	0	32
430-445	0	0	0	0	13	1	3	0	5	1	18	0	41
445-500	0	0	0	0	11	1	0	0	4	3	16	0	35
500-515	0	0	0	0	11	0	2	0	1	3	17	0	34
515-530	0	0	0	0	13	1	0	0	0	3	10	0	27
530-545	0	0	0	0	10	0	0	0	2	2	14	0	28
545-600	0	0	0	0	11	1	0	0	1	1	16	0	30
HOUR TOTALS													
400-500	0	0	0	0	57	2	4	0	10	9	62	0	144
415-515	0	0	0	0	51	2	6	0	11	10	62	0	142
430-530	0	0	0	0	48	3	5	0	10	10	61	0	137
445-545	0	0	0	0	45	2	2	0	7	11	57	0	124
500-600	0	0	0	0	45	2	2	0	4	9	57	0	119

PM PEAK HOUR
400-500



5TH STREET



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	1	0
415-430	0	0	3	0
430-445	0	0	1	0
445-500	0	0	1	0
500-515	0	0	2	0
515-530	0	0	1	0
530-545	0	0	1	0
545-600	0	0	2	0
HOUR TOTALS				
400-500	0	0	6	0
415-515	0	0	7	0
430-530	0	0	5	0
445-545	0	0	5	0
500-600	0	0	6	0

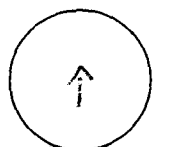
N/S ACACIA ST.

EW SECOND ST.

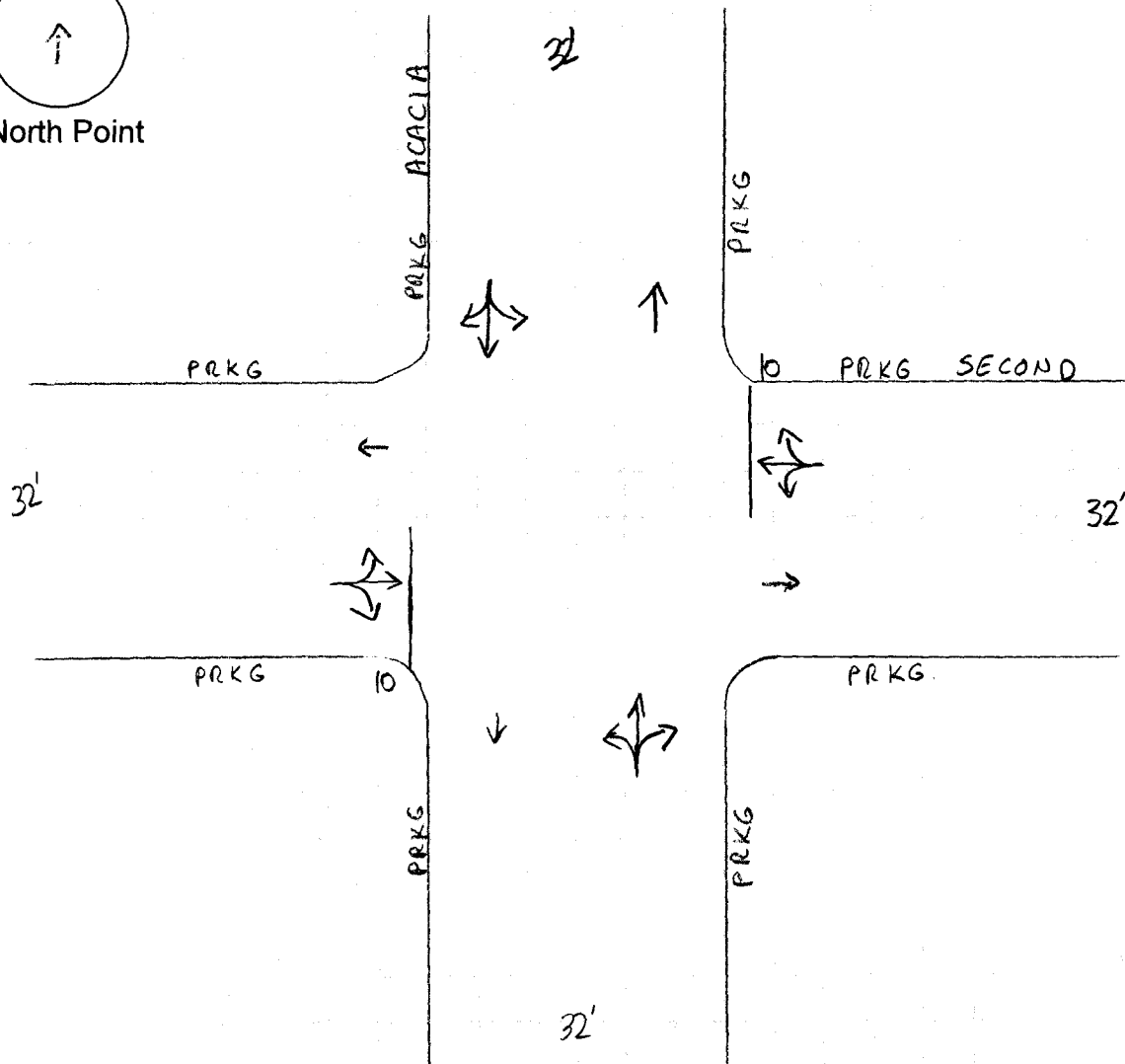
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

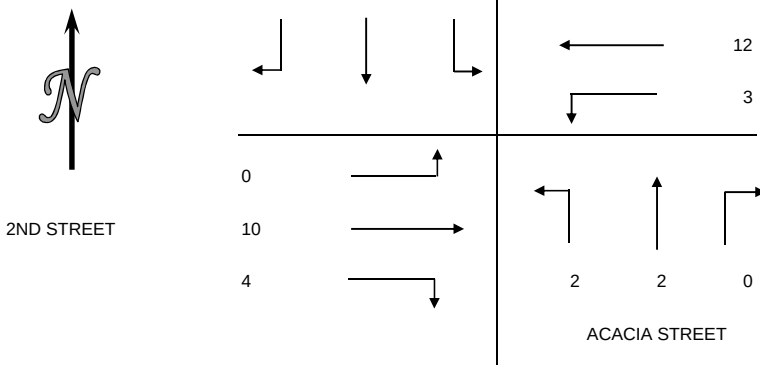
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ACACIA STREET
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	0	0	0	1	0	0	0	0	0	0	0	2
715-730	1	0	0	2	2	0	0	0	1	0	1	0	7
730-745	0	0	0	0	4	1	1	0	0	3	2	0	11
745-800	1	0	0	0	1	2	0	2	0	2	3	0	11
800-815	1	1	0	0	4	0	0	0	1	1	3	0	11
815-830	0	0	1	0	4	0	0	0	0	0	0	0	5
830-845	2	0	1	2	3	1	0	0	1	1	4	0	15
845-900	1	0	0	2	3	0	0	0	0	1	1	0	8
HOURLY TOTALS													
700-800	3	0	0	2	8	3	1	2	1	5	6	0	31
715-815	3	1	0	2	11	3	1	2	2	6	9	0	40
730-830	2	1	1	0	13	3	1	2	1	6	8	0	38
745-845	4	1	2	2	12	3	0	2	2	4	10	0	42
800-900	4	1	2	4	14	1	0	0	2	3	8	0	39

AM PEAK HOUR
745-845



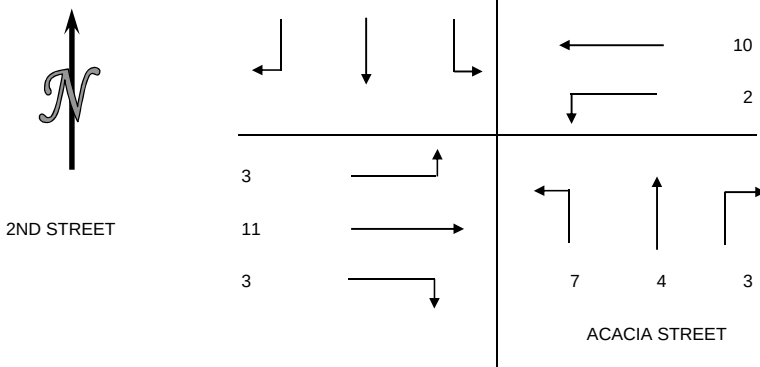
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	4
715-730	1	0	0	0
730-745	0	0	0	0
745-800	1	0	0	2
800-815	0	0	0	1
815-830	0	0	0	0
830-845	0	0	0	1
845-900	0	1	1	0
HOURLY TOTALS				
700-800	2	0	0	6
715-815	2	0	0	3
730-830	1	0	0	3
745-845	1	0	0	4
800-900	0	1	1	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S ACACIA STREET
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	1	0	1	4	1	2	2	1	1	4	1	19
415-430	2	1	0	0	0	0	0	1	2	1	4	0	11
430-445	1	0	1	1	2	1	1	0	2	1	1	1	12
445-500	0	1	2	0	4	0	0	1	2	0	2	1	13
500-515	2	1	0	2	2	1	1	0	0	0	3	0	12
515-530	0	0	1	0	2	0	0	1	1	0	5	0	10
530-545	0	2	0	2	4	0	0	0	3	0	1	1	13
545-600	0	0	0	1	2	0	0	0	0	1	3	0	7
HOURLY TOTALS													
400-500	4	3	3	2	10	2	3	4	7	3	11	3	55
415-515	5	3	3	3	8	2	2	2	6	2	10	2	48
430-530	3	2	4	3	10	2	2	2	5	1	11	2	47
445-545	2	4	3	4	12	1	1	2	6	0	11	2	48
500-600	2	3	1	5	10	1	1	1	4	1	12	1	42

PM PEAK HOUR
400-500



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	0	2	0
415-430	0	0	0	0
430-445	0	0	0	1
445-500	2	0	0	0
500-515	0	0	2	0
515-530	0	0	0	0
530-545	2	0	1	0
545-600	4	0	0	0
HOURLY TOTALS				
400-500	5	0	2	1
415-515	2	0	2	1
430-530	2	0	2	1
445-545	4	0	3	0
500-600	6	0	3	0

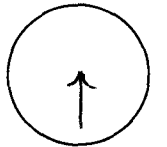
N/S ACACIA ST

E/W BONITA AVE

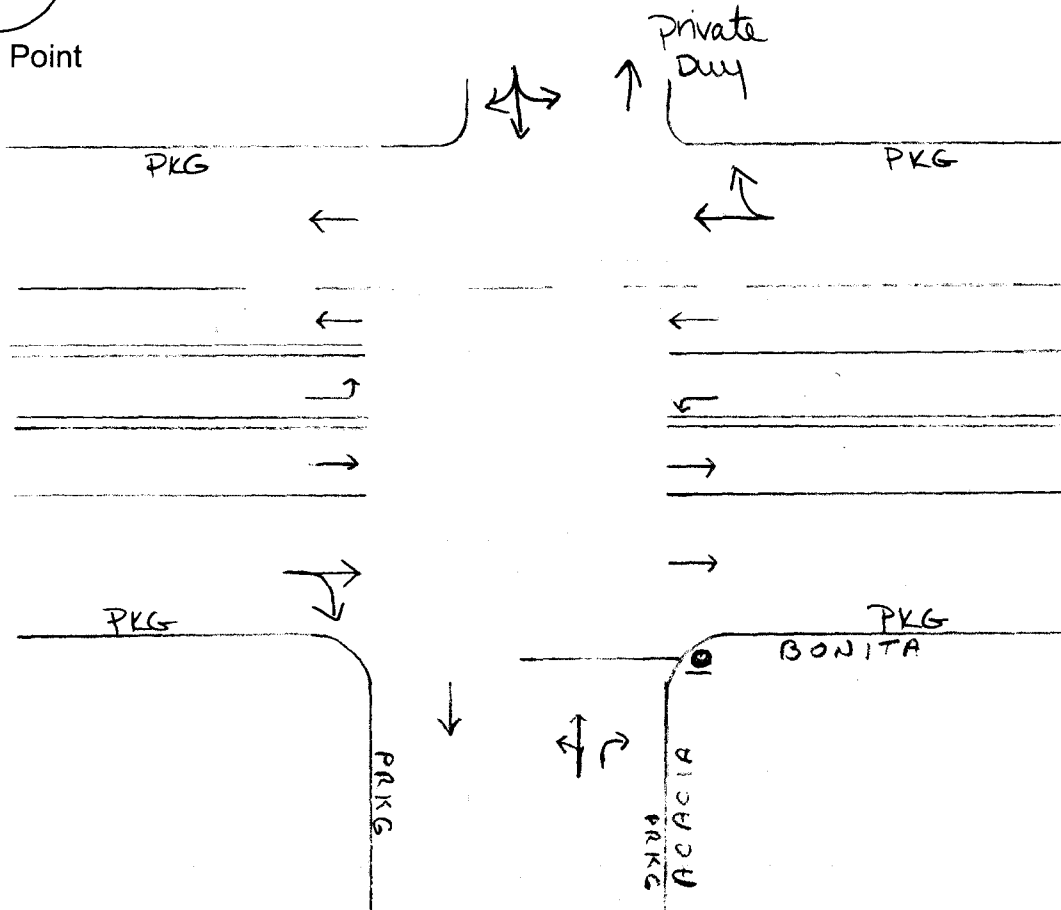
BY: C. CAMPBELL

DATE: 10.07.09

Revised 6/25/10



North Point



Phasing:

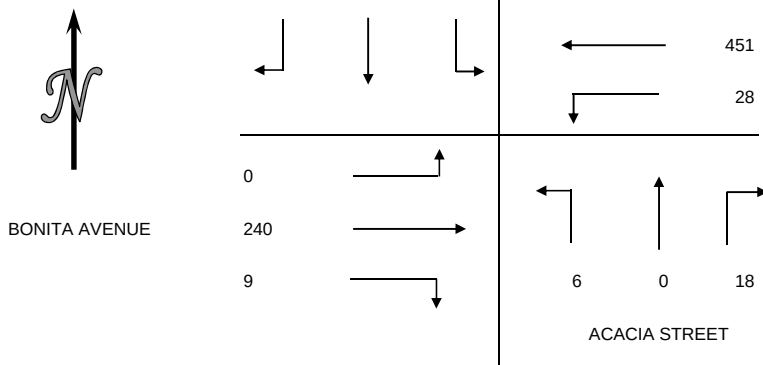
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S ACACIA STREET
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	0	0	0	80	3	0	0	3	2	38	0	126
715-730	0	0	0	0	114	3	4	0	3	0	48	0	172
730-745	1	0	0	0	110	3	3	0	0	2	66	0	185
745-800	0	0	0	0	115	11	11	0	2	3	71	0	213
800-815	0	0	0	0	112	11	0	0	1	4	55	0	183
815-830	0	0	0	0	95	2	3	0	1	4	61	0	166
830-845	0	1	0	0	98	8	0	0	2	2	58	0	169
845-900	0	0	0	0	106	3	4	0	1	3	67	0	184
HOURLY TOTALS													
700-800	1	0	0	0	419	20	18	0	8	7	223	0	696
715-815	1	0	0	0	451	28	18	0	6	9	240	0	753
730-830	1	0	0	0	432	27	17	0	4	13	253	0	747
745-845	0	1	0	0	420	32	14	0	6	13	245	0	731
800-900	0	1	0	0	411	24	7	0	5	13	241	0	702

AM PEAK HOUR
715-815



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	1	0
730-745	0	0	1	0
745-800	0	0	0	0
800-815	0	0	0	0
815-830	0	0	1	0
830-845	0	0	1	0
845-900	0	0	1	0
HOURLY TOTALS				
700-800	0	0	2	0
715-815	0	0	2	0
730-830	0	0	2	0
745-845	0	0	2	0
800-900	0	0	3	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

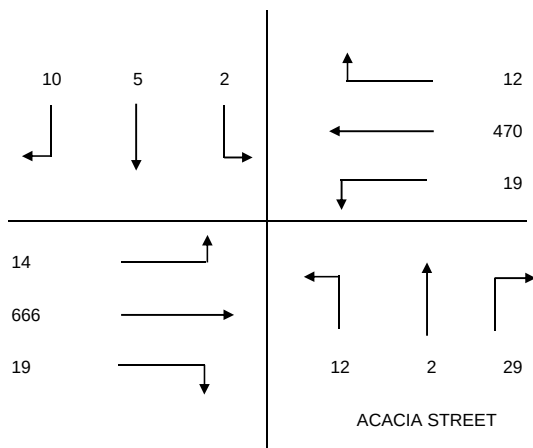
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 6TH, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S ACACIA STREET
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	0	0	0	121	3	7	0	3	3	126	2	266
415-430	1	0	0	0	128	3	6	0	3	2	147	2	292
430-445	2	1	0	0	117	7	5	1	1	3	165	0	302
445-500	3	0	1	7	129	1	8	0	4	6	172	4	335
500-515	2	0	0	2	124	7	10	1	6	6	164	7	329
515-530	3	4	1	3	100	4	6	0	1	4	165	3	294
530-545	0	0	0	0	96	6	3	0	2	0	162	4	273
545-600	3	5	1	3	91	5	5	0	5	5	155	6	284
HOURLY TOTALS													
400-500	7	1	1	7	495	14	26	1	11	14	610	8	1195
415-515	8	1	1	9	498	18	29	2	14	17	648	13	1258
430-530	10	5	2	12	470	19	29	2	12	19	666	14	1260
445-545	8	4	2	12	449	18	27	1	13	16	663	18	1231
500-600	8	9	2	8	411	22	24	1	14	15	646	20	1180

PM PEAK HOUR
430-530



BONITA AVENUE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	0	0	2	0
430-445	0	0	0	0
445-500	0	0	2	0
500-515	0	0	1	0
515-530	0	0	5	0
530-545	0	0	1	0
545-600	0	0	7	0
HOURLY TOTALS				
400-500	0	0	4	0
415-515	0	0	5	0
430-530	0	0	8	0
445-545	0	0	9	0
500-600	0	0	14	0

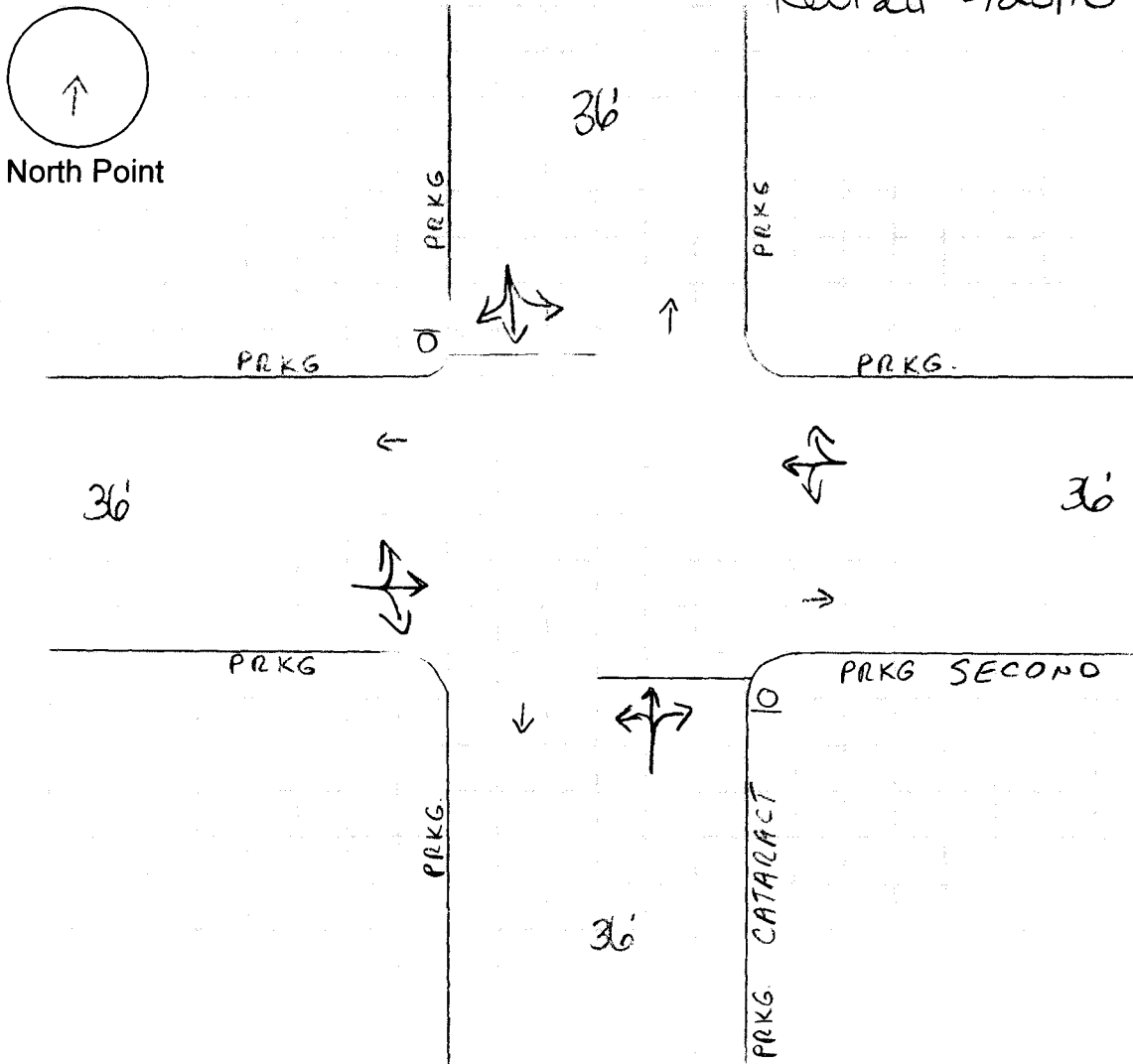
N/S CATARACT AVE.

EW SECOND ST.

BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



Phasing:

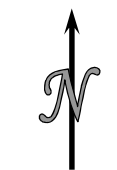
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

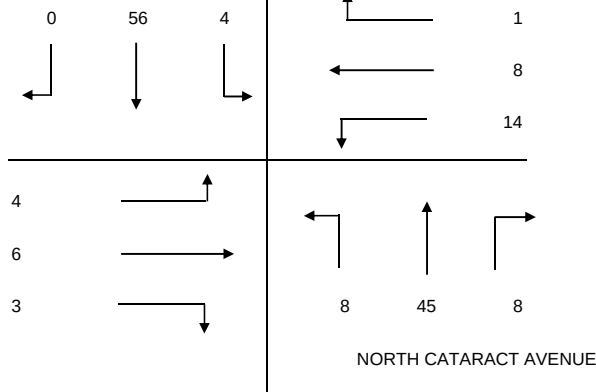
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH CATARACT AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	16	0	0	1	3	1	6	0	0	0	0	27
715-730	0	12	0	0	2	9	2	8	5	0	2	0	40
730-745	0	13	1	0	4	1	4	16	1	2	1	1	44
745-800	0	18	1	0	0	2	1	14	2	1	1	1	41
800-815	0	13	2	1	2	2	1	7	0	1	2	1	32
815-830	0	6	0	0	3	2	1	5	3	1	0	1	22
830-845	0	10	0	1	4	1	2	9	3	1	2	0	33
845-900	0	6	0	0	2	1	2	8	1	2	0	0	22
HOURLY TOTALS													
700-800	0	59	2	0	7	15	8	44	8	3	4	2	152
715-815	0	56	4	1	8	14	8	45	8	4	6	3	157
730-830	0	50	4	1	9	7	7	42	6	5	4	4	139
745-845	0	47	3	2	9	7	5	35	8	4	5	3	128
800-900	0	35	2	2	11	6	6	29	7	5	4	2	109

AM PEAK HOUR
715-815



2ND STREET



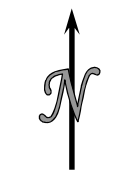
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	0	1
715-730	0	1	0	1
730-745	0	1	0	2
745-800	0	0	0	1
800-815	0	2	0	0
815-830	0	0	0	0
830-845	0	0	0	0
845-900	0	0	0	0
HOURLY TOTALS				
700-800	1	3	0	5
715-815	0	4	0	4
730-830	0	3	0	3
745-845	0	2	0	1
800-900	0	2	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

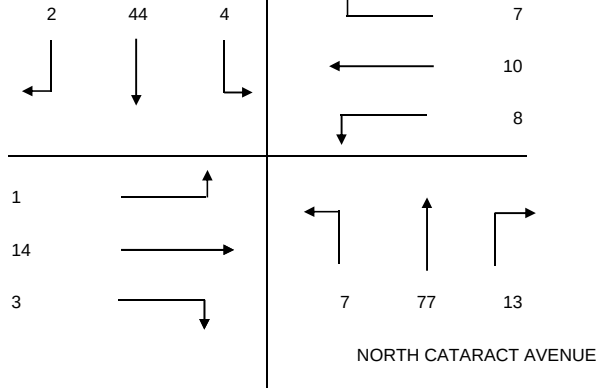
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH CATARACT AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	7	0	1	1	1	3	15	2	1	3	0	34
415-430	0	13	0	2	0	3	2	15	0	1	4	0	40
430-445	0	17	3	4	2	1	4	18	2	1	2	1	55
445-500	1	5	1	0	4	1	3	23	1	1	2	0	42
500-515	1	9	0	1	4	3	4	21	4	0	6	0	53
515-530	0	4	0	2	2	1	2	14	0	1	3	3	32
530-545	0	2	0	1	3	0	4	21	2	2	1	0	36
545-600	0	7	1	1	1	2	1	18	2	2	0	1	36
HOURLY TOTALS													
400-500	1	42	4	7	7	6	12	71	5	4	11	1	171
415-515	2	44	4	7	10	8	13	77	7	3	14	1	190
430-530	2	35	4	7	12	6	13	76	7	3	13	4	182
445-545	2	20	1	4	13	5	13	79	7	4	12	3	163
500-600	1	22	1	5	10	6	11	74	8	5	10	4	157

PM PEAK HOUR
415-430



2ND STREET



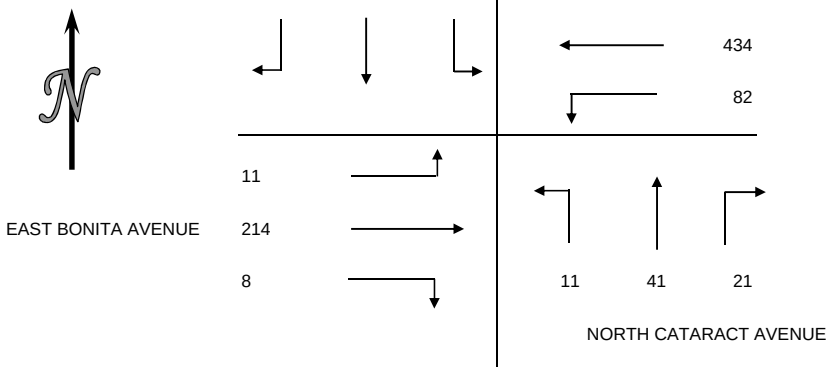
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	5	1	2
415-430	4	4	2	1
430-445	0	5	2	1
445-500	2	0	0	0
500-515	0	0	0	1
515-530	3	4	0	0
530-545	1	4	0	6
545-600	3	1	1	0
HOURLY TOTALS				
400-500	6	14	5	4
415-515	6	9	4	3
430-530	5	9	2	2
445-545	6	8	0	7
500-600	7	9	1	7

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH CATARACT AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	5	15	2	0	89	23	4	4	4	3	32	1	182
715-730	4	13	2	2	94	28	7	15	1	1	46	3	216
730-745	7	9	2	2	113	18	6	10	3	4	50	2	226
745-800	7	8	1	2	112	16	4	12	2	2	66	5	237
800-815	10	10	2	2	115	20	4	4	5	1	52	1	226
815-830	6	4	1	3	98	17	8	6	3	4	63	2	215
830-845	6	11	0	3	87	17	9	7	1	4	54	6	205
845-900	6	10	1	1	93	10	10	11	6	5	68	12	233
HOUR TOTALS													
700-800	23	45	7	6	408	85	21	41	10	10	194	11	861
715-815	28	40	7	8	434	82	21	41	11	8	214	11	905
730-830	30	31	6	9	438	71	22	32	13	11	231	10	904
745-845	29	33	4	10	412	70	25	29	11	11	235	14	883
800-900	28	35	4	9	393	64	31	28	15	14	237	21	879

AM PEAK HOUR
715-815



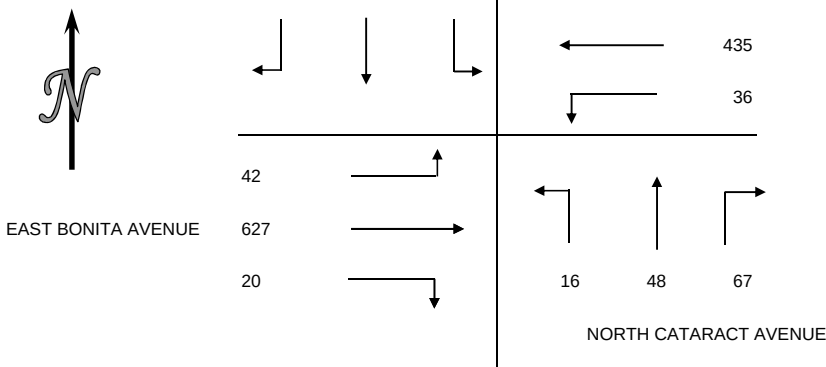
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	0	0	2
715-730	1	5	2	3
730-745	0	0	0	0
745-800	2	0	1	0
800-815	0	1	0	1
815-830	3	0	0	0
830-845	0	1	4	0
845-900	1	2	2	0
HOUR TOTALS				
700-800	4	5	3	5
715-815	3	6	3	4
730-830	5	1	1	1
745-845	5	2	5	1
800-900	4	4	6	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH CATARACT AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	14	2	1	10	111	12	14	14	1	6	154	9	348
415-430	11	2	0	6	106	12	11	11	5	4	148	6	322
430-445	11	5	4	14	110	6	16	12	4	6	146	9	343
445-500	10	3	3	14	112	11	19	10	4	3	175	14	378
500-515	15	5	3	14	107	7	21	15	3	7	158	13	368
515-530	4	1	1	4	103	6	26	10	5	6	145	10	321
530-545	5	4	2	10	98	5	17	7	1	10	131	19	309
545-600	3	5	2	7	89	19	15	14	6	9	122	9	300
HOUR TOTALS													
400-500	46	12	8	44	439	41	60	47	14	19	623	38	1391
415-515	47	15	10	48	435	36	67	48	16	20	627	42	1411
430-530	40	14	11	46	432	30	82	47	16	22	624	46	1410
445-545	34	13	9	42	420	29	83	42	13	26	609	56	1376
500-600	27	15	8	35	397	37	79	46	15	32	556	51	1298

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	6	5	5
415-430	2	3	0	2
430-445	0	2	1	2
445-500	0	1	1	0
500-515	0	0	5	1
515-530	1	3	2	4
530-545	9	3	2	1
545-600	6	1	3	3
HOUR TOTALS				
400-500	2	12	7	9
415-515	2	6	7	5
430-530	1	6	9	7
445-545	10	7	10	6
500-600	16	7	12	9

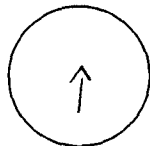
N/S MONTE VISTA AVE.

E/W SECOND ST.

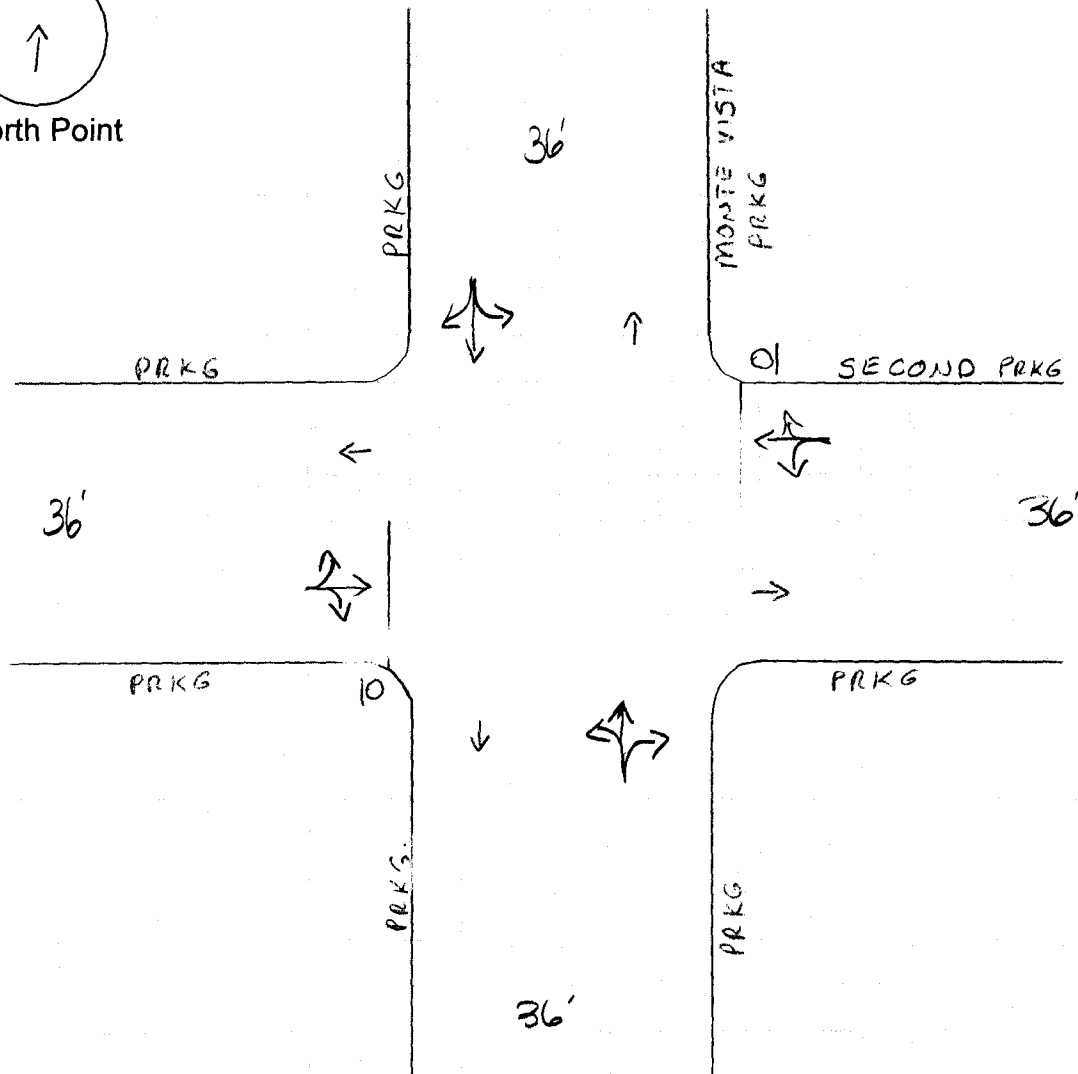
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

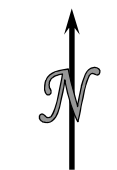
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

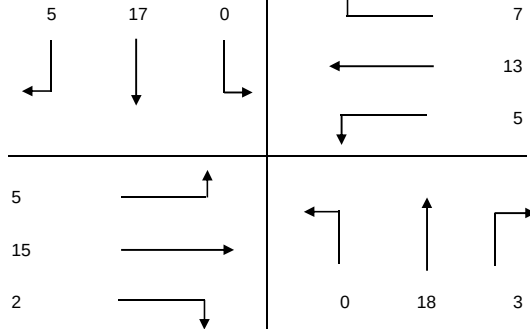
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH MONTE VISTA AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	6	0	0	1	0	1	1	1	0	0	1	12
715-730	2	7	0	1	4	0	1	3	0	1	2	0	21
730-745	1	4	0	2	3	1	0	5	0	0	5	1	22
745-800	0	4	0	2	3	1	1	6	0	0	2	3	22
800-815	2	2	0	2	3	3	1	4	0	1	6	1	25
815-830	1	8	1	0	3	1	0	3	1	0	1	1	20
830-845	1	2	0	0	5	0	1	9	0	1	3	1	23
845-900	1	2	0	1	2	0	0	2	0	0	2	0	10
HOUR TOTALS													
700-800	4	21	0	5	11	2	3	15	1	1	9	5	77
715-815	5	17	0	7	13	5	3	18	0	2	15	5	90
730-830	4	18	1	6	12	6	2	18	1	1	14	6	89
745-845	4	16	1	4	14	5	3	22	1	2	12	6	90
800-900	5	14	1	3	13	4	2	18	1	2	12	3	78

AM PEAK HOUR
715-815



2ND STREET



NORTH MONTE VISTA AVENUE

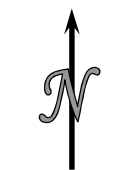
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	0	0	0
800-815	0	0	0	0
815-830	0	2	0	0
830-845	0	0	0	0
845-900	0	1	0	1
HOUR TOTALS				
700-800	0	0	0	0
715-815	0	0	0	0
730-830	0	2	0	0
745-845	0	2	0	0
800-900	0	3	0	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

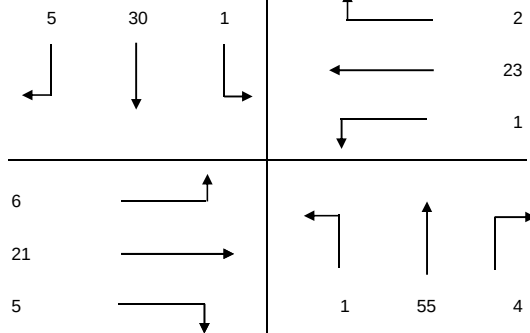
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH MONTE VISTA AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	4	1	2	2	1	2	11	0	1	3	3	30
415-430	1	5	2	2	3	2	1	14	0	0	7	0	37
430-445	2	5	0	0	7	0	0	10	0	2	6	1	33
445-500	1	10	1	0	5	0	0	14	0	0	5	3	39
500-515	2	6	0	1	6	0	1	17	1	1	6	1	42
515-530	0	9	0	1	5	1	3	14	0	2	4	1	40
530-545	3	8	0	1	2	0	0	9	0	0	1	2	26
545-600	1	3	0	1	3	3	1	9	1	0	1	0	23
HOUR TOTALS													
400-500	4	24	4	4	17	3	3	49	0	3	21	7	139
415-515	6	26	3	3	21	2	2	55	1	3	24	5	151
430-530	5	30	1	2	23	1	4	55	1	5	21	6	154
445-545	6	33	1	3	18	1	4	54	1	3	16	7	147
500-600	6	26	0	4	16	4	5	49	2	3	12	4	131

PM PEAK HOUR
430-530



2ND STREET



NORTH MONTE VISTA AVENUE

PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	1
415-430	2	1	0	0
430-445	1	0	0	0
445-500	0	0	2	0
500-515	0	0	0	0
515-530	3	0	0	0
530-545	1	1	0	0
545-600	0	0	1	0
HOUR TOTALS				
400-500	4	1	2	1
415-515	3	1	2	0
430-530	4	0	2	0
445-545	4	1	2	0
500-600	4	1	1	0

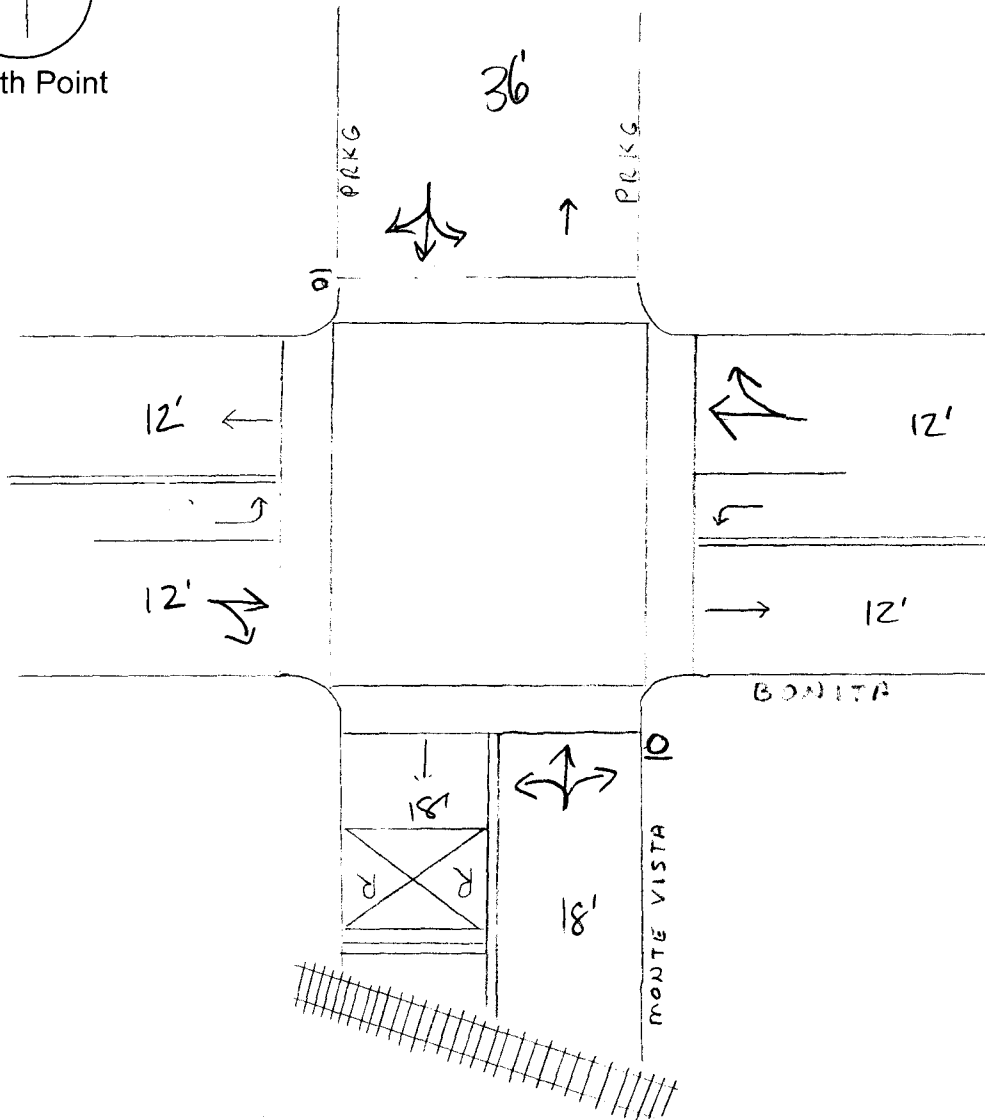
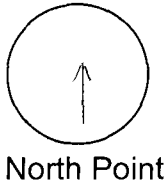
N/S MONTÉ VISTA AVE

E/W BONITA AVE

BY: C JAMISON

DATE: 10.07.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

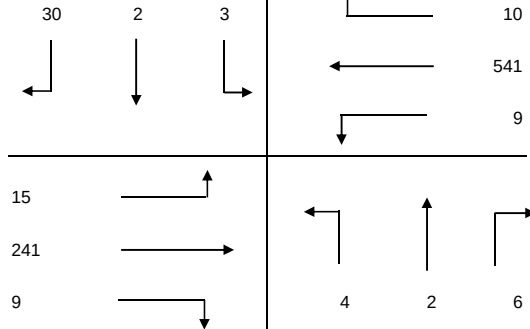
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH MONTE VISTA AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	2	2	0	0	116	2	0	1	0	1	40	1	165
715-730	5	0	1	0	147	2	1	1	0	0	56	2	215
730-745	5	0	1	3	141	2	1	0	2	1	65	4	225
745-800	6	2	0	3	132	1	3	1	2	6	68	4	228
800-815	14	0	1	4	121	4	1	0	0	2	52	5	204
815-830	6	1	0	5	113	4	2	0	0	5	63	6	205
830-845	12	0	3	4	97	4	1	1	2	4	60	5	193
845-900	2	1	0	4	67	2	2	0	0	2	59	5	144
HOUR TOTALS													
700-800	18	4	2	6	536	7	5	3	4	8	229	11	833
715-815	30	2	3	10	541	9	6	2	4	9	241	15	872
730-830	31	3	2	15	507	11	7	1	4	14	248	19	862
745-845	38	3	4	16	463	13	7	2	4	17	243	20	830
800-900	34	2	4	17	398	14	6	1	2	13	234	21	746

AM PEAK HOUR
715-815

EAST BONITA AVENUE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	0	1	0
715-730	1	2	1	0
730-745	0	0	0	0
745-800	4	0	4	1
800-815	3	0	2	1
815-830	5	3	0	0
830-845	6	2	0	0
845-900	5	3	5	1
HOUR TOTALS				
700-800	6	2	6	1
715-815	8	2	7	2
730-830	12	3	6	2
745-845	18	5	6	2
800-900	19	8	7	2

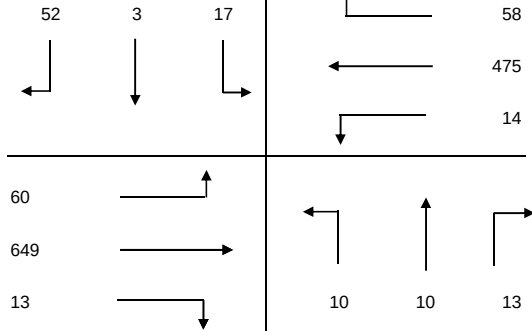
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH MONTE VISTA AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	16	0	4	12	116	4	6	1	1	2	156	11	329
415-430	10	0	6	13	127	8	1	1	2	2	151	16	337
430-445	15	2	6	17	121	0	3	1	2	1	160	14	342
445-500	12	0	4	13	111	2	3	0	3	4	168	16	336
500-515	15	1	1	15	116	4	6	8	3	6	170	14	359
515-530	13	3	1	13	109	5	4	2	3	2	152	8	315
530-545	15	2	3	8	89	4	3	0	2	2	133	7	268
545-600	20	0	0	8	75	3	6	0	2	0	121	6	241
HOUR TOTALS													
400-500	53	2	20	55	475	14	13	3	8	9	635	57	1344
415-515	52	3	17	58	475	14	13	10	10	13	649	60	1374
430-530	55	6	12	58	457	11	16	11	11	13	650	52	1352
445-545	55	6	9	49	425	15	16	10	11	14	623	45	1278
500-600	63	6	5	44	389	16	19	10	10	10	576	35	1183

PM PEAK HOUR
415-515

EAST BONITA AVENUE



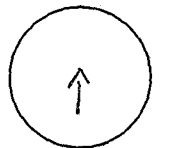
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	13	6	3	0
415-430	5	1	0	0
430-445	4	5	1	0
445-500	3	5	1	0
500-515	1	3	8	0
515-530	3	2	1	0
530-545	7	3	5	1
545-600	8	0	7	0
HOUR TOTALS				
400-500	25	17	5	0
415-515	13	14	10	0
430-530	11	15	11	0
445-545	14	13	15	1
500-600	19	8	21	1

N/S SAN DIMAS AVE.

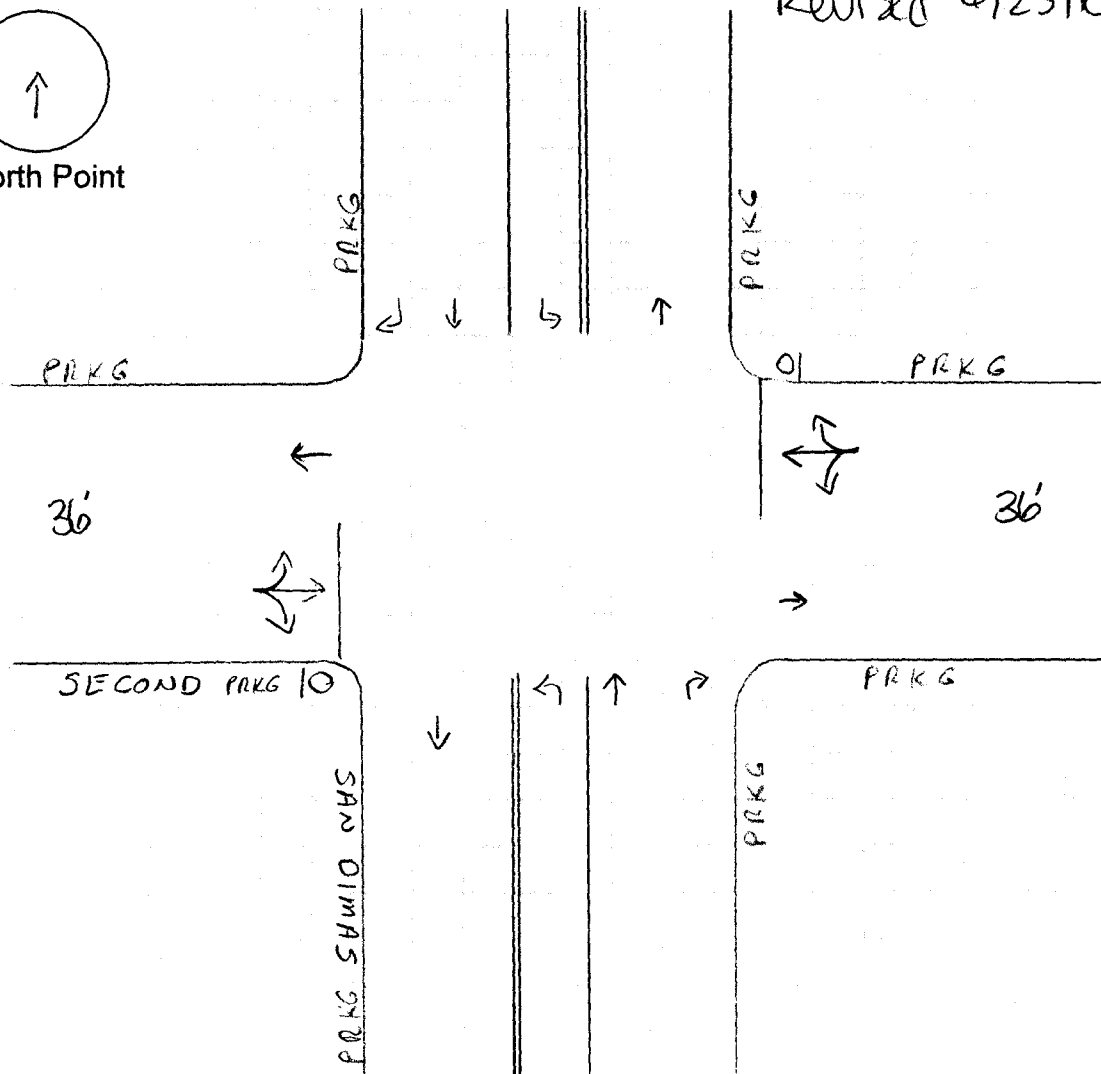
EW SECOND ST.

BY: C. JAMISON

DATE: 04.23.05



North Point



Phasing:

1	2	3	4	5	6

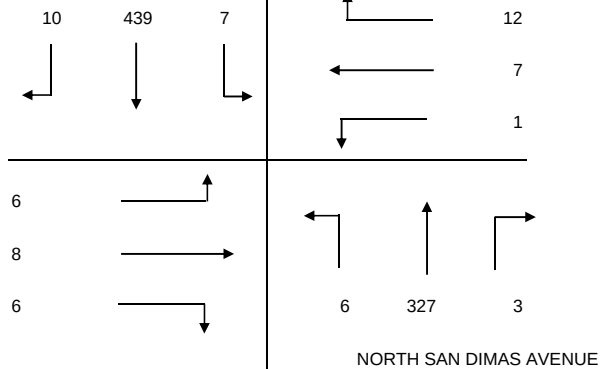
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH SAN DIMAS AVENUE
 E/W EAST 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	79	2	0	1	1	0	42	0	2	0	0	128
715-730	0	76	0	2	3	3	0	60	1	2	1	2	150
730-745	1	99	2	2	1	1	1	72	3	3	0	0	185
745-800	1	121	0	5	4	0	0	107	2	0	4	1	245
800-815	3	117	2	5	0	0	1	76	3	4	3	0	214
815-830	3	103	1	2	2	0	0	71	0	1	1	2	186
830-845	3	98	4	0	1	1	2	73	1	1	0	3	187
845-900	1	94	2	1	1	1	1	61	1	0	0	2	165
HOUR TOTALS													
700-800	3	375	4	9	9	5	1	281	6	7	5	3	708
715-815	5	413	4	14	8	4	2	315	9	9	8	3	794
730-830	8	440	5	14	7	1	2	326	8	8	8	3	830
745-845	10	439	7	12	7	1	3	327	6	6	8	6	832
800-900	10	412	9	8	4	2	4	281	5	6	4	7	752

AM PEAK HOUR
715-815

EAST 2ND STREET



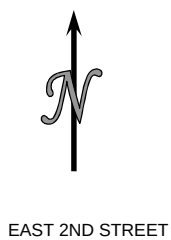
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	2	1	1
715-730	0	3	1	1
730-745	0	2	1	0
745-800	0	4	0	1
800-815	1	1	2	1
815-830	0	5	0	0
830-845	0	0	0	0
845-900	0	3	3	0
HOUR TOTALS				
700-800	1	11	3	3
715-815	1	10	4	3
730-830	1	12	3	2
745-845	1	10	2	2
800-900	1	9	5	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

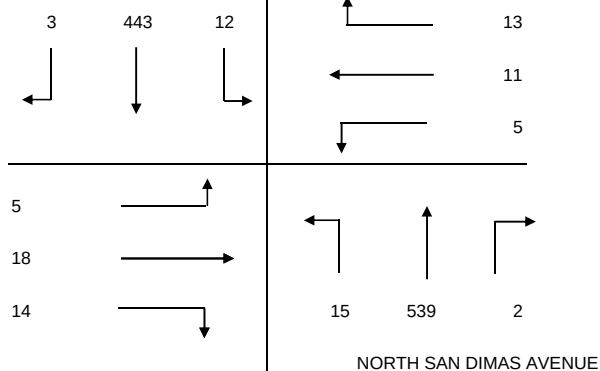
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH SAN DIMAS AVENUE
 E/W EAST 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	3	119	4	3	1	3	3	134	1	2	4	1	278
415-430	0	118	3	3	2	2	0	132	6	6	3	1	276
430-445	1	106	2	3	3	1	1	133	2	3	2	1	258
445-500	1	99	2	0	1	1	1	121	3	2	6	1	238
500-515	1	120	5	7	5	1	0	153	4	3	7	2	308
515-530	1	106	1	2	2	1	1	132	3	1	3	3	256
530-545	0	97	4	2	3	0	2	130	0	0	2	0	240
545-600	6	90	1	1	1	0	2	114	4	3	0	1	223
HOURLY TOTALS													
400-500	5	442	11	9	7	7	5	520	12	13	15	4	1050
415-515	3	443	12	13	11	5	2	539	15	14	18	5	1080
430-530	4	431	10	12	11	4	3	539	12	9	18	7	1060
445-545	3	422	12	11	11	3	4	536	10	6	18	6	1042
500-600	8	413	11	12	11	2	5	529	11	7	12	6	1027

PM PEAK HOUR
415-515



EAST 2ND STREET



NORTH SAN DIMAS AVENUE

PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	2	4
415-430	0	0	0	0
430-445	0	0	0	1
445-500	0	2	2	1
500-515	0	1	1	2
515-530	0	2	0	5
530-545	0	2	0	4
545-600	0	0	1	2
HOURLY TOTALS				
400-500	0	2	4	6
415-515	0	3	3	4
430-530	0	5	3	9
445-545	0	7	3	12
500-600	0	5	2	13

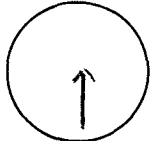
N/S SAN DIMAS AVE

E/W BONITA AVE

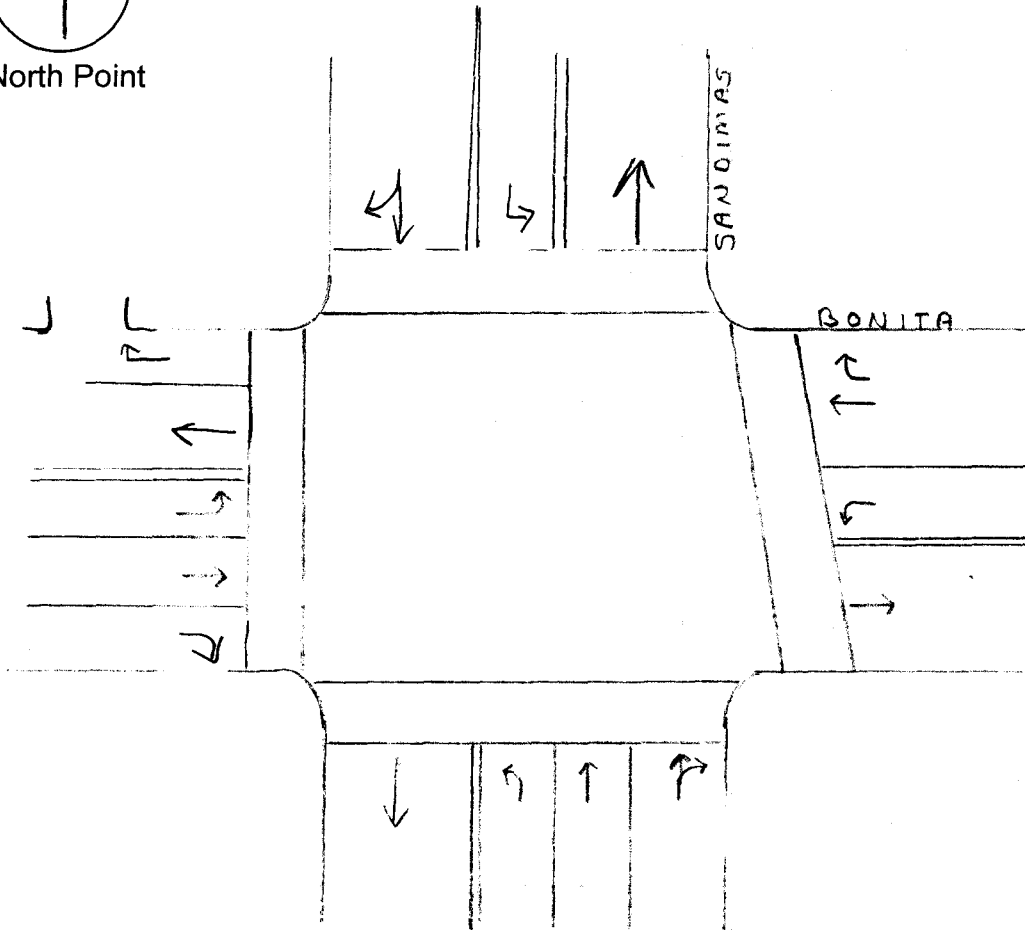
BY: C. CAMERSON

DATE: 10.07.03

Revised 9/25/10



North Point



Phasing:

1	2	3	4	5	6

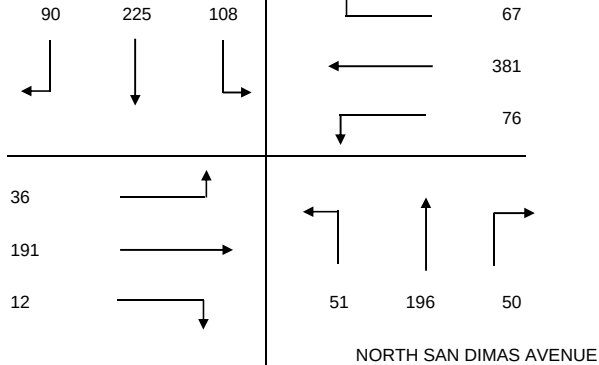
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH SAN DIMAS AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	18	28	16	7	86	16	12	54	13	4	46	17	317
715-730	19	41	19	16	100	15	5	57	11	3	48	7	341
730-745	26	54	26	12	104	21	16	42	18	2	52	7	380
745-800	15	64	28	19	107	21	9	47	11	3	58	11	393
800-815	21	62	30	14	94	15	10	65	6	4	40	7	368
815-830	28	45	24	22	76	19	15	42	16	3	41	11	342
830-845	19	37	36	13	89	14	11	48	12	5	47	9	340
845-900	11	43	22	19	70	11	18	32	18	1	54	11	310
HOUR TOTALS													
700-800	78	187	89	54	397	73	42	200	53	12	204	42	1431
715-815	81	221	103	61	405	72	40	211	46	12	198	32	1482
730-830	90	225	108	67	381	76	50	196	51	12	191	36	1483
745-845	83	208	118	68	366	69	45	202	45	15	186	38	1443
800-900	79	187	112	68	329	59	54	187	52	13	182	38	1360

AM PEAK HOUR
730-830

EAST BONITA AVENUE



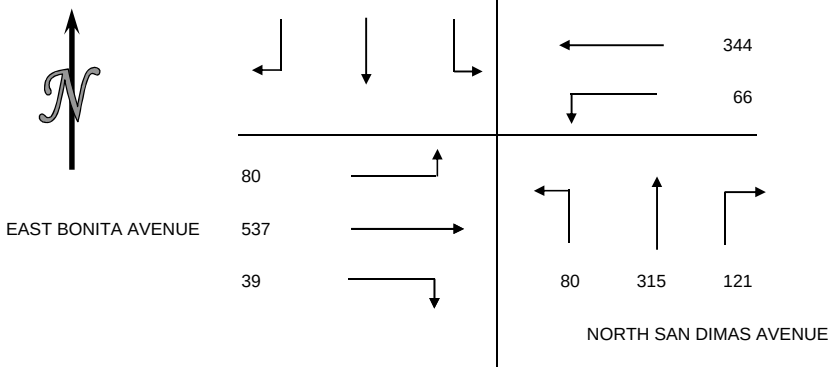
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	7	1
715-730	0	0	2	2
730-745	0	0	7	5
745-800	0	2	5	1
800-815	0	0	5	2
815-830	0	0	4	0
830-845	0	0	1	0
845-900	1	0	4	0
HOUR TOTALS				
700-800	0	2	21	9
715-815	0	2	19	10
730-830	0	2	21	8
745-845	0	2	15	3
800-900	1	0	14	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH SAN DIMAS AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	18	45	46	25	112	11	25	76	19	6	110	20	513
415-430	29	49	47	28	90	19	24	75	20	14	120	21	536
430-445	15	43	52	25	87	13	27	85	20	6	130	14	517
445-500	27	50	42	20	80	17	27	66	18	12	139	20	518
500-515	21	45	42	40	87	17	43	89	22	7	148	25	586
515-530	17	61	40	25	83	9	38	71	16	10	131	24	525
530-545	18	41	40	19	80	9	20	73	9	7	119	20	455
545-600	23	47	34	16	79	9	23	73	12	6	125	22	469
HOUR TOTALS													
400-500	89	187	187	98	369	60	103	302	77	38	499	75	2084
415-515	92	187	183	113	344	66	121	315	80	39	537	80	2157
430-530	80	199	176	110	337	56	135	311	76	35	548	83	2146
445-545	83	197	164	104	330	52	128	299	65	36	537	89	2084
500-600	79	194	156	100	329	44	124	306	59	30	523	91	2035

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	1	2	0	0
430-445	1	0	0	0
445-500	0	0	0	0
500-515	2	0	0	0
515-530	0	1	0	0
530-545	3	0	0	0
545-600	0	1	0	0
HOUR TOTALS				
400-500	2	2	0	0
415-515	4	2	0	0
430-530	3	1	0	0
445-545	5	1	0	0
500-600	5	2	0	0

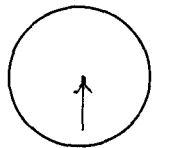
N/S SAN DIMAS AVE

E/W ARROW HWY

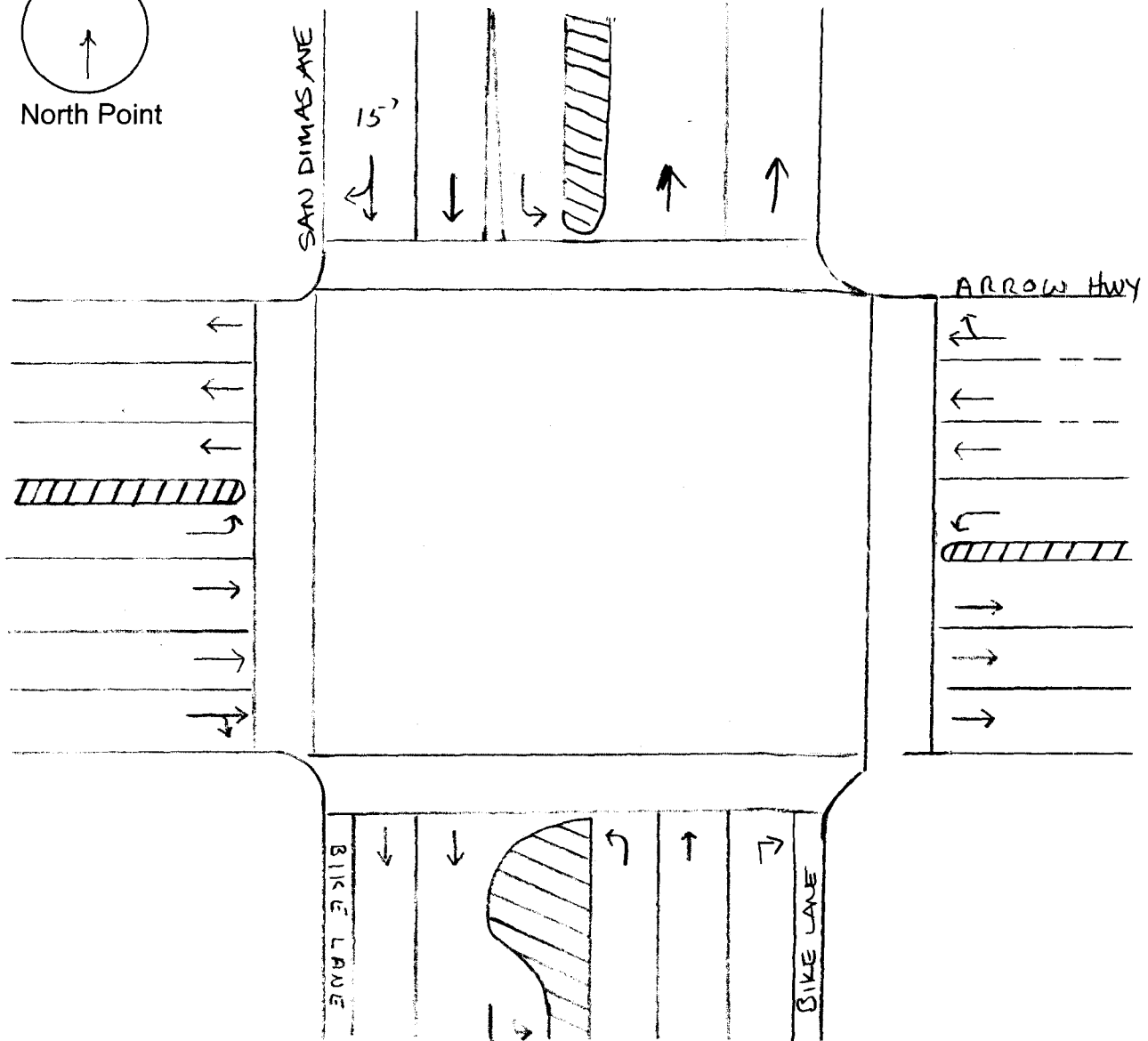
BY: C. JAMSON

DATE: 10.07.03

Revised 6/25/10



North Point



Phasing:

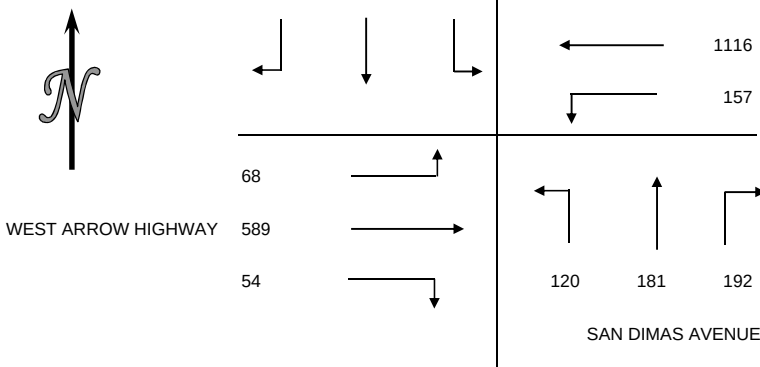
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S SAN DIMAS AVENUE
 E/W WEST ARROW HIGHWAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	18	19	15	13	254	28	25	22	26	4	127	7	558
715-730	18	20	19	13	294	32	55	44	34	13	147	21	710
730-745	19	35	19	13	298	50	67	48	28	10	170	16	773
745-800	13	30	15	13	284	37	52	52	34	14	153	11	708
800-815	22	42	35	18	240	38	18	37	24	17	119	20	630
815-830	16	33	16	8	182	16	15	30	33	26	114	15	504
830-845	22	32	24	10	178	27	22	28	24	17	98	12	494
845-900	29	24	12	14	166	17	18	19	23	20	87	16	445
HOUR TOTALS													
700-800	68	104	68	52	1130	147	199	166	122	41	597	55	2749
715-815	72	127	88	57	1116	157	192	181	120	54	589	68	2821
730-830	70	140	85	52	1004	141	152	167	119	67	556	62	2615
745-845	73	137	90	49	884	118	107	147	115	74	484	58	2336
800-900	89	131	87	50	766	98	73	114	104	80	418	63	2073

AM PEAK HOUR
715-815



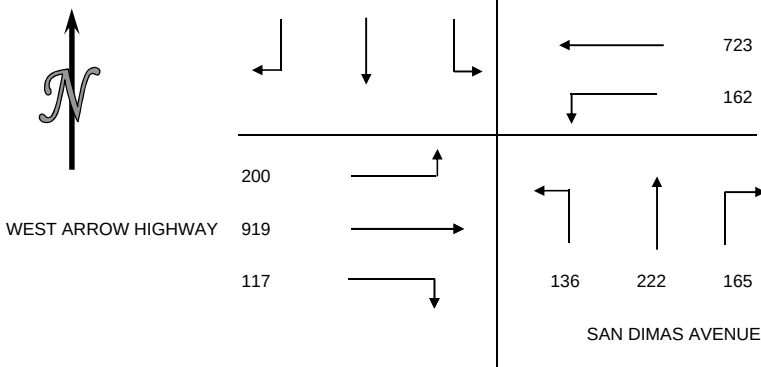
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	3	1
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	2	0	4
800-815	2	4	1	3
815-830	0	0	0	2
830-845	0	0	0	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	0	2	3	5
715-815	2	6	1	7
730-830	2	6	1	9
745-845	2	6	1	9
800-900	2	4	1	5

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S SAN DIMAS AVENUE
 E/W WEST ARROW HIGHWAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	25	50	25	18	182	30	33	49	24	33	210	50	729
415-430	18	52	19	12	160	34	35	50	31	42	213	55	721
430-445	15	41	14	20	179	47	40	45	35	33	245	51	765
445-500	17	49	17	15	164	23	37	52	25	35	244	46	724
500-515	35	39	20	18	187	50	38	66	45	28	223	54	803
515-530	20	59	23	17	193	42	50	59	31	21	207	49	771
530-545	17	40	17	17	129	32	38	52	36	43	181	38	640
545-600	18	42	16	16	163	32	33	48	25	29	174	37	633
HOUR TOTALS													
400-500	75	192	75	65	685	134	145	196	115	143	912	202	2939
415-515	85	181	70	65	690	154	150	213	136	138	925	206	3013
430-530	87	188	74	70	723	162	165	222	136	117	919	200	3063
445-545	89	187	77	67	673	147	163	229	137	127	855	187	2938
500-600	90	180	76	68	672	156	159	225	137	121	785	178	2847

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	5	1	3
415-430	0	0	2	1
430-445	0	0	2	0
445-500	0	0	0	0
500-515	0	0	1	0
515-530	0	0	1	0
530-545	0	2	2	6
545-600	0	0	0	0
HOUR TOTALS				
400-500	1	5	5	4
415-515	0	0	5	1
430-530	0	0	4	0
445-545	0	2	4	6
500-600	0	2	4	6

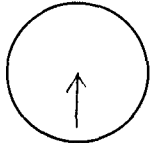
N/S WALNUT AVE

E/W BONITA AVE

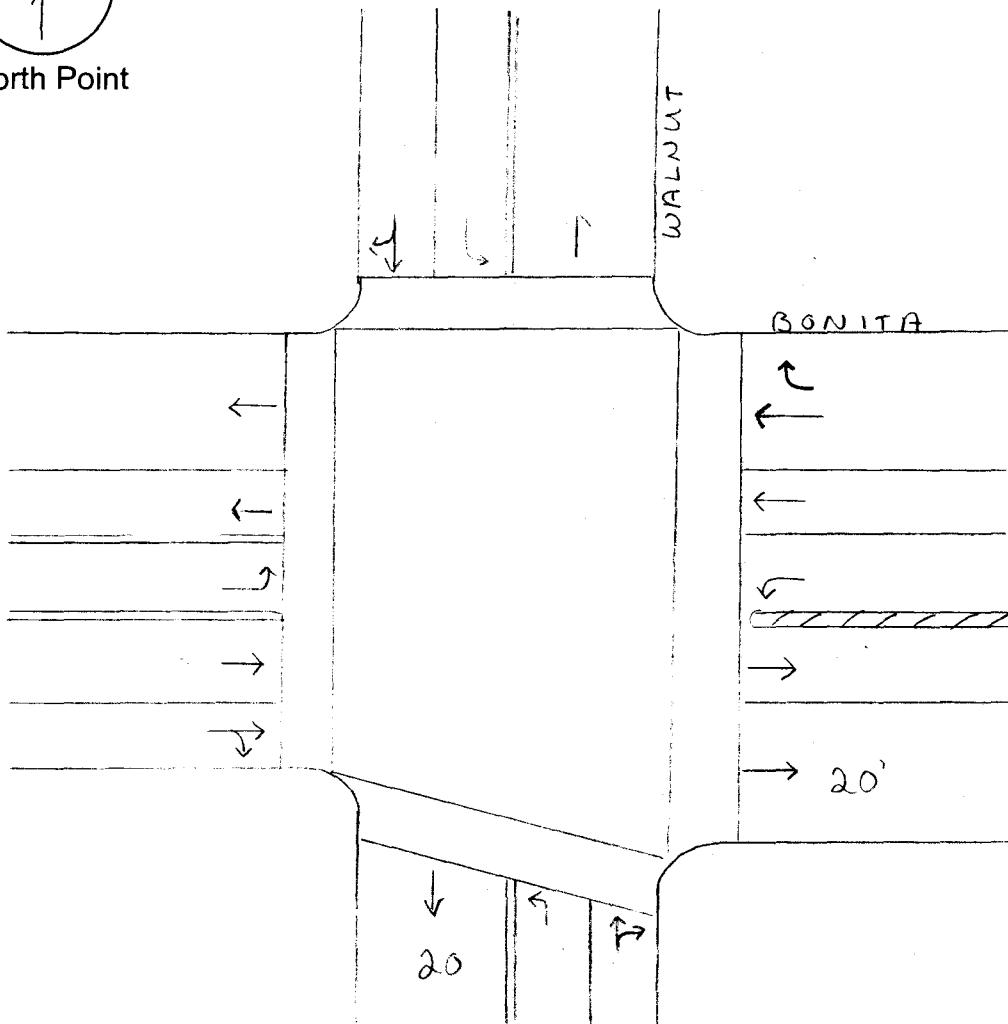
BY: C. J. AND SON

DATE: 10.07.03

Revised 4/25/10



North Point



Phasing:

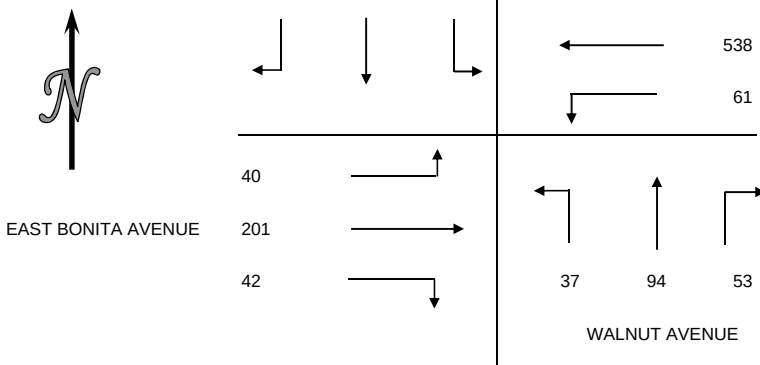
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WALNUT AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	20	19	5	0	103	14	13	11	10	13	42	7	257
715-730	23	22	12	5	130	15	15	26	9	14	33	7	311
730-745	18	23	11	11	138	10	15	16	11	4	71	10	338
745-800	18	20	15	18	141	19	16	42	12	15	52	12	380
800-815	31	23	18	14	129	17	7	10	5	9	45	11	319
815-830	19	20	11	7	115	10	6	6	8	6	61	8	277
830-845	15	16	9	5	88	17	21	11	11	9	71	15	288
845-900	17	9	11	2	93	6	6	5	3	5	47	3	207
HOUR TOTALS													
700-800	79	84	43	34	512	58	59	95	42	46	198	36	1286
715-815	90	88	56	48	538	61	53	94	37	42	201	40	1348
730-830	86	86	55	50	523	56	44	74	36	34	229	41	1314
745-845	83	79	53	44	473	63	50	69	36	39	229	46	1264
800-900	82	68	49	28	425	50	40	32	27	29	224	37	1091

AM PEAK HOUR
715-815



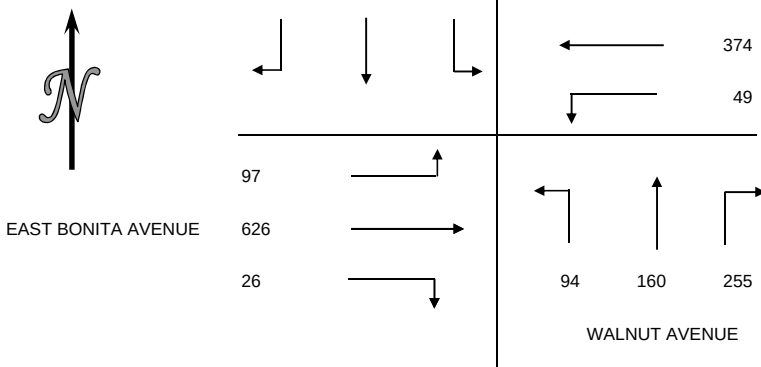
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	7	2	4	0
715-730	4	1	3	2
730-745	7	1	3	1
745-800	5	1	3	1
800-815	3	0	6	0
815-830	3	1	2	0
830-845	6	2	1	2
845-900	2	6	8	0
HOUR TOTALS				
700-800	23	5	13	4
715-815	19	3	15	4
730-830	18	3	14	2
745-845	17	4	12	3
800-900	14	9	17	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WALNUT AVENUE
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	16	22	25	17	129	18	49	35	16	8	137	28	500
415-430	27	18	22	15	109	16	43	37	12	6	145	19	469
430-445	13	16	21	15	84	10	75	47	23	6	169	31	510
445-500	15	20	20	14	96	10	63	37	22	6	153	23	479
500-515	22	26	28	17	85	13	74	39	37	8	159	24	532
515-530	18	15	20	14	84	13	67	40	20	8	145	23	467
530-545	21	14	11	9	80	5	62	16	12	13	156	21	420
545-600	19	6	7	8	92	4	59	33	7	4	143	20	402
HOUR TOTALS													
400-500	71	76	88	61	418	54	230	156	73	26	604	101	1958
415-515	77	80	91	61	374	49	255	160	94	26	626	97	1990
430-530	68	77	89	60	349	46	279	163	102	28	626	101	1988
445-545	76	75	79	54	345	41	266	132	91	35	613	91	1898
500-600	80	61	66	48	341	35	262	128	76	33	603	88	1821

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	5	1	1	5
415-430	10	5	8	0
430-445	1	5	12	0
445-500	7	8	8	0
500-515	1	4	3	1
515-530	3	6	3	1
530-545	4	6	3	0
545-600	3	3	11	3
HOUR TOTALS				
400-500	23	19	29	5
415-515	19	22	31	1
430-530	12	23	26	2
445-545	15	24	17	2
500-600	11	19	20	5

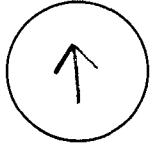
N/S WALNUT AVE

E/W ARROW HWY

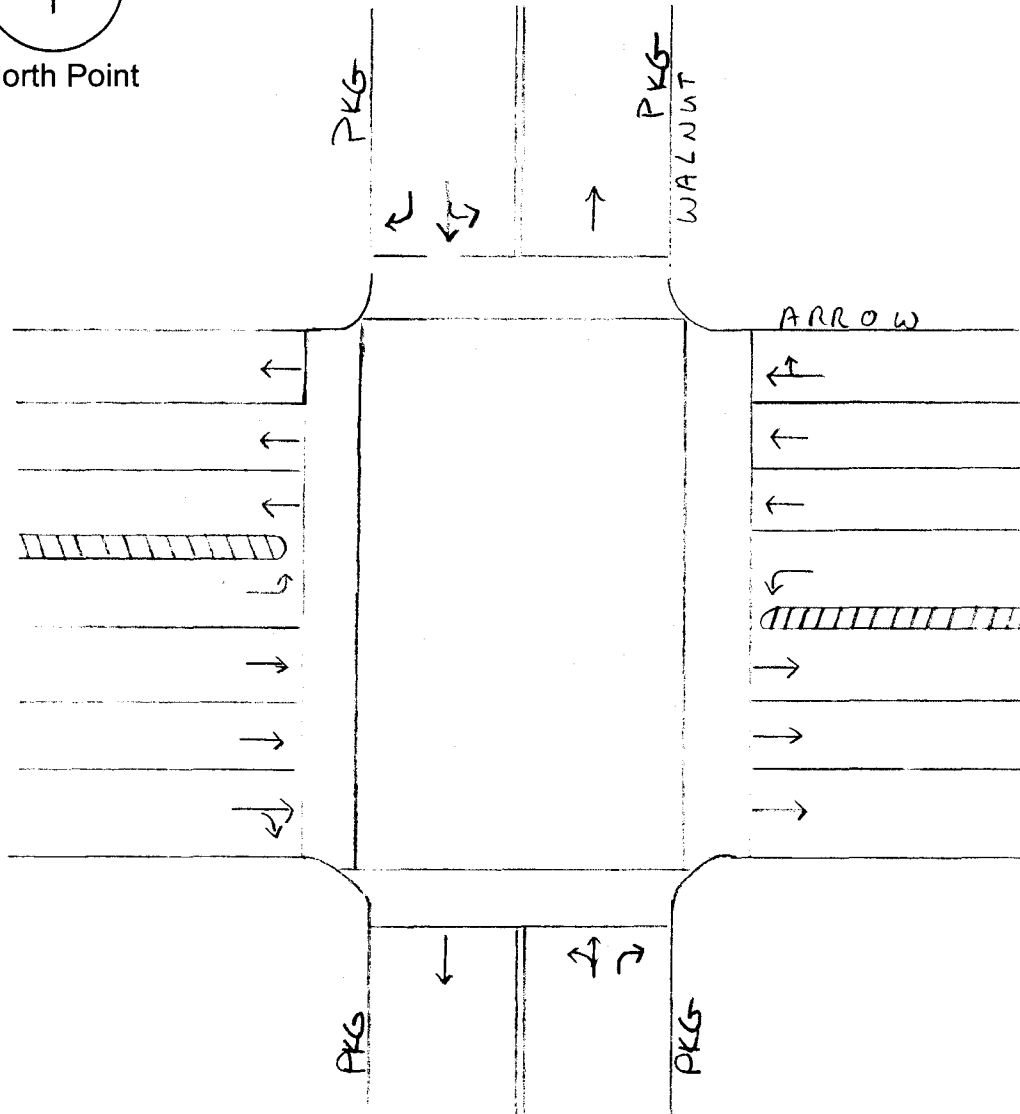
BY: C. J. FARMERSON

DATE: 10.07.03

Revised 6/25/10



North Point



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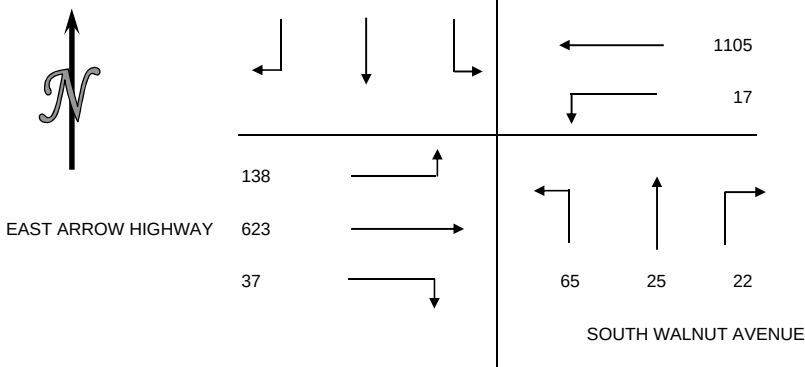
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S SOUTH WALNUT AVENUE
 E/W EAST ARROW HIGHWAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	33	13	3	4	237	0	0	2	19	17	114	22	464
715-730	26	4	6	7	250	3	3	5	21	11	147	36	519
730-745	34	1	6	2	293	4	5	8	20	9	172	29	583
745-800	34	5	8	14	306	8	11	9	15	10	174	47	641
800-815	29	5	8	6	256	2	3	3	9	7	130	26	484
815-830	27	2	5	2	211	1	2	3	8	5	133	23	422
830-845	24	3	7	7	191	0	3	6	8	8	122	21	400
845-900	29	2	5	6	183	4	2	1	11	8	126	30	407
HOUR TOTALS													
700-800	127	23	23	27	1086	15	19	24	75	47	607	134	2207
715-815	123	15	28	29	1105	17	22	25	65	37	623	138	2227
730-830	124	13	27	24	1066	15	21	23	52	31	609	125	2130
745-845	114	15	28	29	964	11	19	21	40	30	559	117	1947
800-900	109	12	25	21	841	7	10	13	36	28	511	100	1713

AM PEAK HOUR
715-815



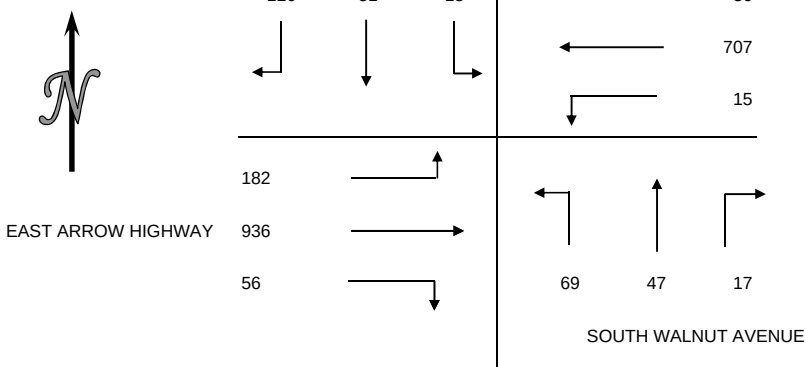
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	1	0	1	2
730-745	0	1	0	0
745-800	0	0	0	0
800-815	0	0	0	0
815-830	0	0	0	1
830-845	0	2	0	1
845-900	1	0	0	0
HOUR TOTALS				
700-800	1	1	2	2
715-815	1	1	1	2
730-830	0	1	0	1
745-845	0	2	0	2
800-900	1	2	0	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S SOUTH WALNUT AVENUE
 E/W EAST ARROW HIGHWAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	39	12	10	13	163	2	2	8	13	4	176	44	486
415-430	26	5	8	11	164	2	5	7	15	8	196	39	486
430-445	37	8	10	13	180	3	9	13	23	9	201	43	549
445-500	29	12	5	9	173	3	3	15	19	16	210	47	541
500-515	43	13	6	13	186	3	6	14	14	14	229	47	588
515-530	36	14	5	7	176	5	4	6	18	13	250	41	575
530-545	18	12	2	7	172	4	4	12	18	13	247	47	556
545-600	15	6	3	5	165	1	3	6	14	15	243	51	527
HOUR TOTALS													
400-500	131	37	33	46	680	10	19	43	70	37	783	173	2062
415-515	135	38	29	46	703	11	23	49	71	47	836	176	2164
430-530	145	47	26	42	715	14	22	48	74	52	890	178	2253
445-545	126	51	18	36	707	15	17	47	69	56	936	182	2260
500-600	112	45	16	32	699	13	17	38	64	55	969	186	2246

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	1	1
415-430	0	2	4	0
430-445	1	2	1	2
445-500	0	0	0	2
500-515	1	3	0	3
515-530	1	1	2	6
530-545	1	1	0	1
545-600	1	0	0	0
HOUR TOTALS				
400-500	1	6	6	5
415-515	2	7	5	7
430-530	3	6	3	13
445-545	3	5	2	12
500-600	4	5	2	10

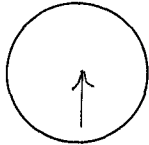
N/S SAN OLIVAS CANYON RD

E/W BONITA AVE

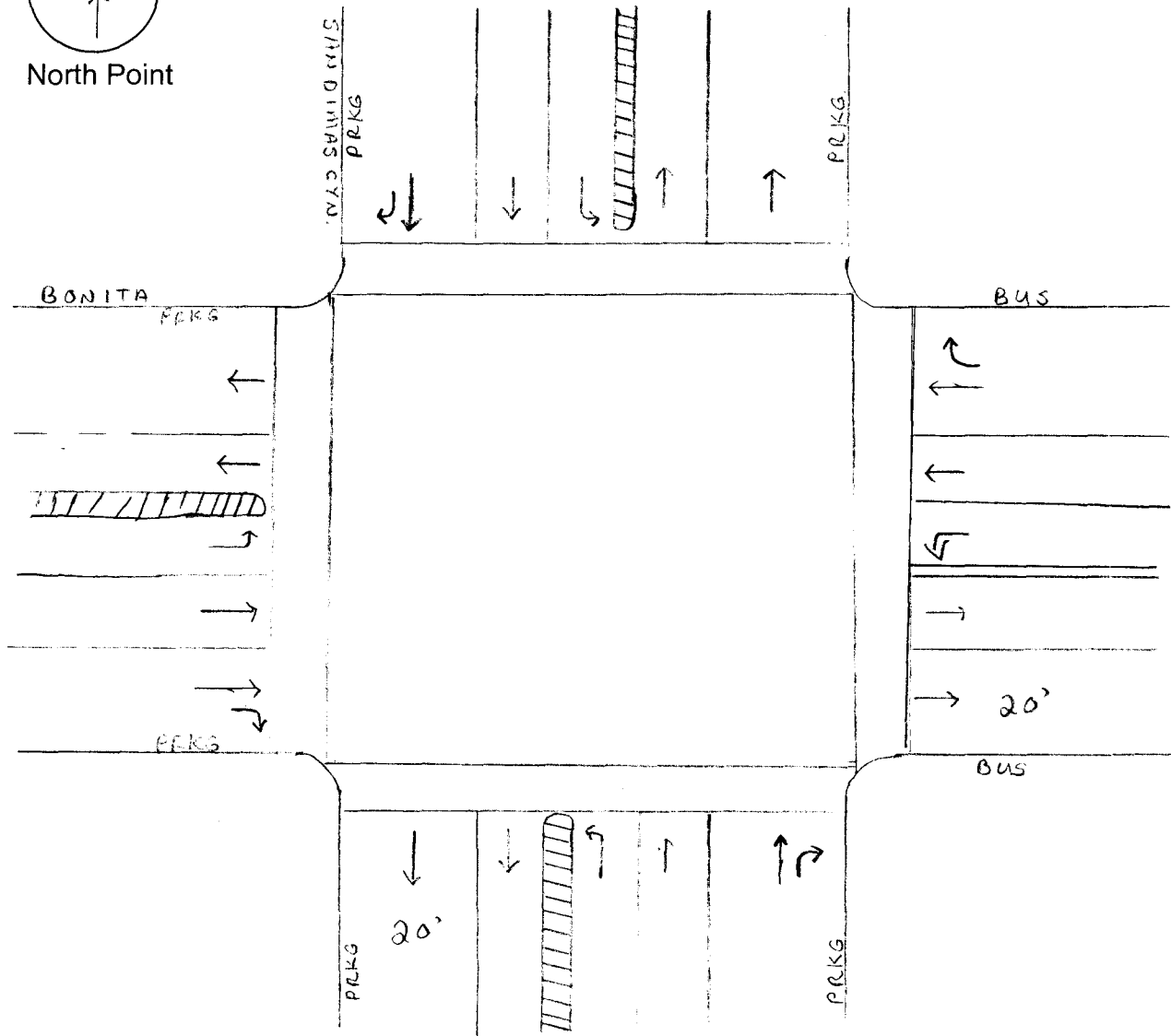
BY: C. JAMISON

DATE: 10.27.03

Revised 4/25/10



North Point



Phasing:

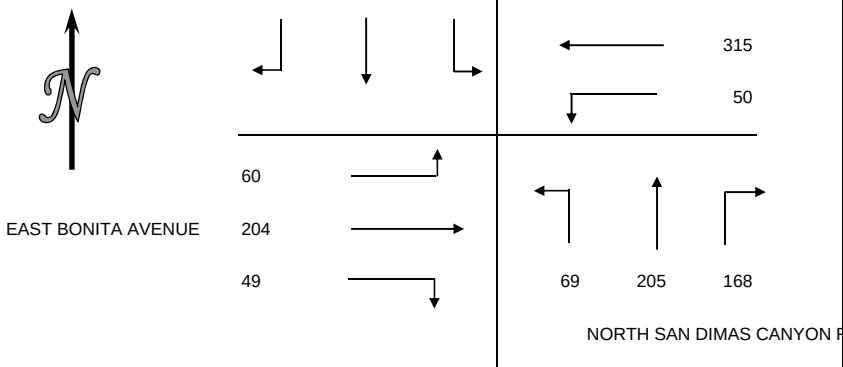
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S NORTH SAN DIMAS CANYON ROAD
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	21	32	29	12	58	4	22	28	13	7	31	10	267
715-730	30	38	38	14	71	8	28	38	10	12	42	12	341
730-745	13	33	46	22	88	17	65	53	22	15	66	11	451
745-800	26	43	48	30	77	14	50	61	23	10	57	24	463
800-815	35	41	13	24	79	11	25	53	14	12	39	13	359
815-830	20	29	27	20	57	4	16	36	7	6	49	12	283
830-845	20	36	18	14	57	10	12	35	11	8	43	13	277
845-900	16	42	12	9	51	6	12	39	9	8	34	20	258
HOUR TOTALS													
700-800	90	146	161	78	294	43	165	180	68	44	196	57	1522
715-815	104	155	145	90	315	50	168	205	69	49	204	60	1614
730-830	94	146	134	96	301	46	156	203	66	43	211	60	1556
745-845	101	149	106	88	270	39	103	185	55	36	188	62	1382
800-900	91	148	70	67	244	31	65	163	41	34	165	58	1177

AM PEAK HOUR
715-815



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	3	1
715-730	2	0	1	3
730-745	3	3	5	4
745-800	5	0	3	3
800-815	3	2	0	2
815-830	0	1	3	0
830-845	3	3	4	1
845-900	6	1	1	2
HOUR TOTALS				
700-800	11	4	12	11
715-815	13	5	9	12
730-830	11	6	11	9
745-845	11	6	10	6
800-900	12	7	8	5

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S NORTH SAN DIMES CANYON ROAD
 E/W EAST BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	22	36	25	21	61	10	19	54	12	19	123	40	442
415-430	25	30	25	19	63	15	19	59	11	19	120	33	438
430-445	25	28	13	12	73	7	14	42	11	28	136	38	427
445-500	24	45	17	25	68	4	14	61	11	22	151	42	484
500-515	18	42	34	13	77	6	19	67	9	27	173	47	532
515-530	14	55	33	17	64	6	18	51	11	25	164	36	494
530-545	15	44	23	25	64	11	20	46	12	27	145	31	463
545-600	21	45	27	20	52	9	16	43	11	26	143	48	461
HOUR TOTALS													
400-500	96	139	80	77	265	36	66	216	45	88	530	153	1791
415-515	92	145	89	69	281	32	66	229	42	96	580	160	1881
430-530	81	170	97	67	282	23	65	221	42	102	624	163	1937
445-545	71	186	107	80	273	27	71	225	43	101	633	156	1973
500-600	68	186	117	75	257	32	73	207	43	105	625	162	1950

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	1	0	2
415-430	4	0	4	0
430-445	1	1	2	0
445-500	1	2	1	0
500-515	2	1	4	4
515-530	4	0	2	0
530-545	1	1	5	0
545-600	3	3	5	3
HOUR TOTALS				
400-500	7	4	7	2
415-515	8	4	11	4
430-530	8	4	9	4
445-545	8	4	12	4
500-600	10	5	16	7

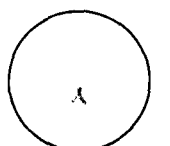
N/S SAN DIMAS CANYON RD.

EW ARROW HWY

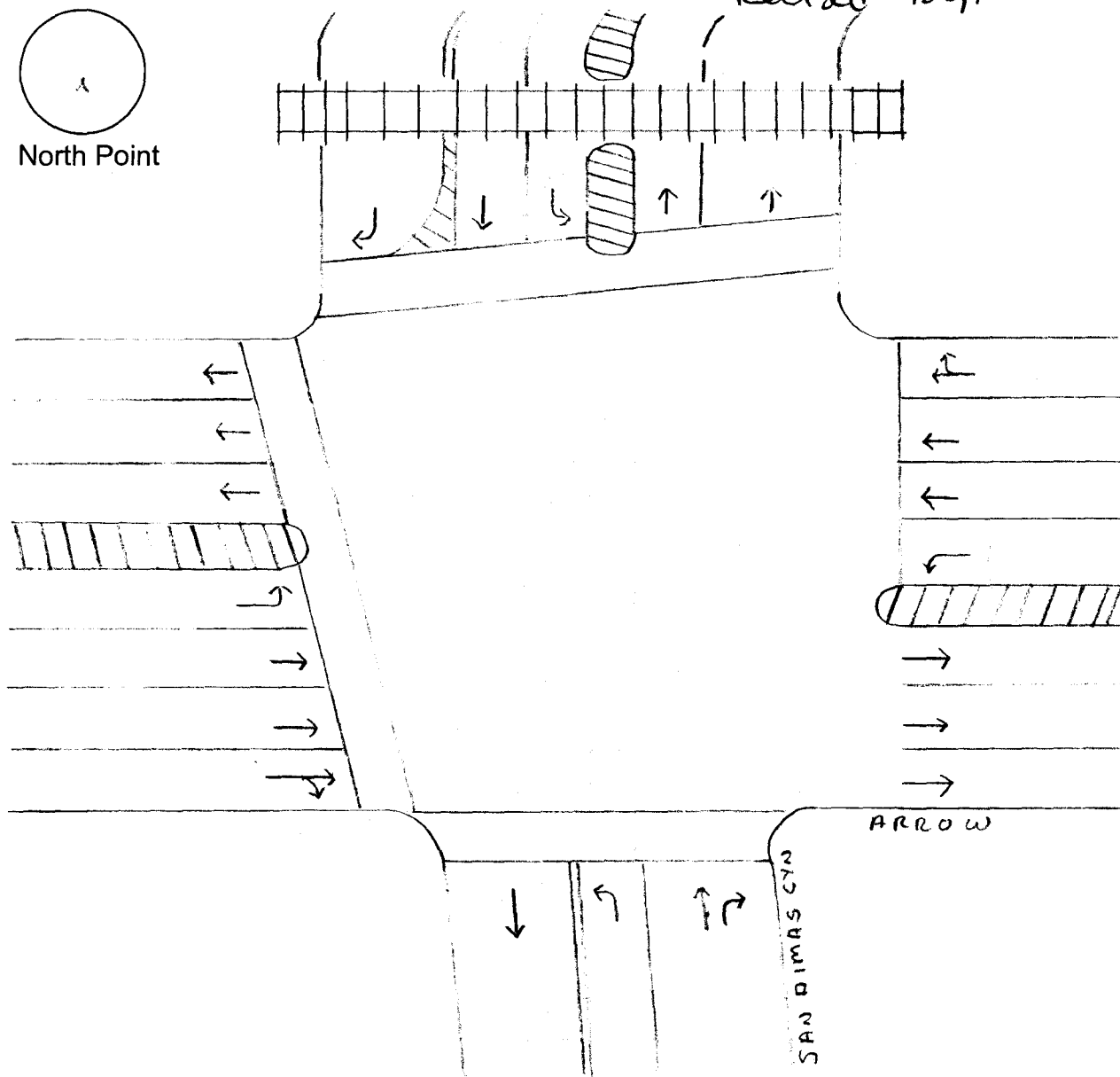
BY: C. J. PRISON

DATE: 10.07.03

Revised 9/25/10



North Point



Phasing:

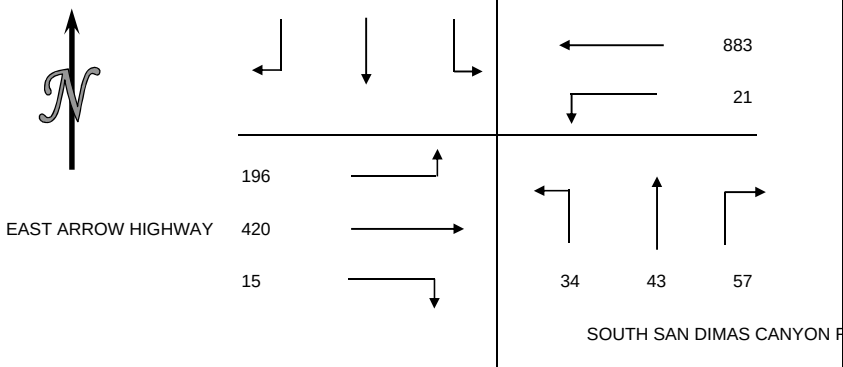
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S SOUTH SAN DIMAS CANYON ROAD
 E/W EAST ARROW HIGHWAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	20	2	17	16	134	1	4	2	3	2	40	27	268
715-730	33	1	10	18	158	2	7	2	4	3	66	48	352
730-745	40	4	24	31	174	3	17	11	8	3	81	55	451
745-800	63	9	34	33	222	3	22	18	8	4	104	67	587
800-815	61	12	30	31	259	14	10	7	7	4	117	40	592
815-830	56	3	22	10	228	1	8	7	11	4	118	34	502
830-845	45	6	17	14	191	3	3	5	7	3	123	32	449
845-900	43	8	16	8	168	4	4	11	5	2	122	41	432
HOUR TOTALS													
700-800	156	16	85	98	688	9	50	33	23	12	291	197	1658
715-815	197	26	98	113	813	22	56	38	27	14	368	210	1982
730-830	220	28	110	105	883	21	57	43	34	15	420	196	2132
745-845	225	30	103	88	900	21	43	37	33	15	462	173	2130
800-900	205	29	85	63	846	22	25	30	30	13	480	147	1975

AM PEAK HOUR
730-830



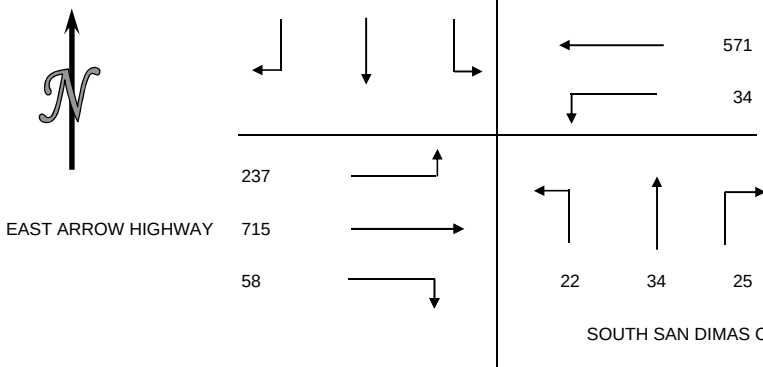
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	1	1
745-800	1	2	0	0
800-815	0	4	0	5
815-830	0	0	1	0
830-845	0	0	2	11
845-900	0	0	0	1
HOUR TOTALS				
700-800	1	2	1	1
715-815	1	6	1	6
730-830	1	6	2	6
745-845	1	6	3	16
800-900	0	4	3	17

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S SOUTH SAN DIMAS CANYON ROAD
 E/W EAST ARROW HIGHWAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	49	9	19	35	141	3	5	10	5	15	157	49	497
415-430	36	10	23	24	164	4	2	11	1	7	156	41	479
430-445	42	9	17	42	157	6	6	8	2	8	154	43	494
445-500	44	11	37	29	159	5	4	6	4	9	162	56	526
500-515	40	12	27	37	152	9	5	6	5	17	172	62	544
515-530	40	8	25	34	124	11	7	13	2	16	199	59	538
530-545	59	9	26	36	136	9	9	9	11	16	182	60	562
545-600	32	8	20	26	103	5	8	11	5	9	187	52	466
HOUR TOTALS													
400-500	171	39	96	130	621	18	17	35	12	39	629	189	1996
415-515	162	42	104	132	632	24	17	31	12	41	644	202	2043
430-530	166	40	106	142	592	31	22	33	13	50	687	220	2102
445-545	183	40	115	136	571	34	25	34	22	58	715	237	2170
500-600	171	37	98	133	515	34	29	39	23	58	740	233	2110

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	4	4
415-430	6	0	0	4
430-445	0	0	2	0
445-500	0	0	5	9
500-515	0	0	1	3
515-530	0	0	1	8
530-545	0	0	1	2
545-600	0	0	0	1
HOUR TOTALS				
400-500	6	0	11	17
415-515	6	0	8	16
430-530	0	0	9	20
445-545	0	0	8	22
500-600	0	0	3	14

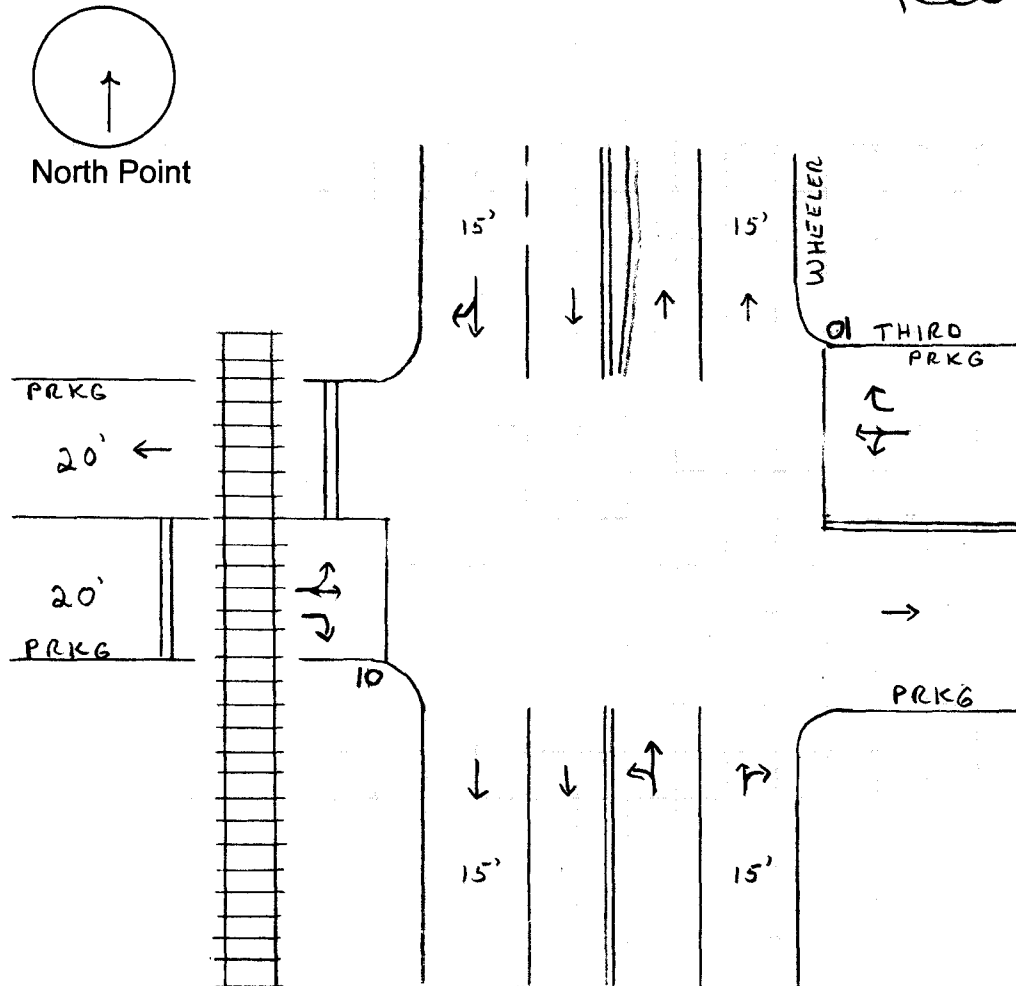
N/S WHEELER AVE

E/W THIRD ST.

BY: C. JAMISON

DATE: 10.08.03

Revised 6/25/10



Phasing:

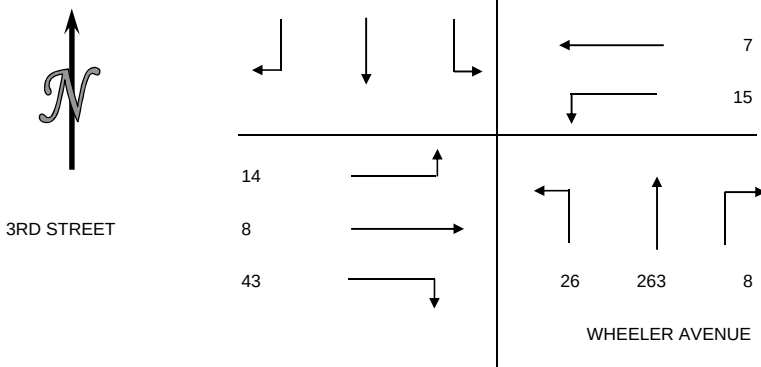
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHEELER AVENUE
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	106	5	5	2	6	0	51	2	4	1	1	184
715-730	0	113	8	6	1	3	0	43	3	13	3	6	199
730-745	4	116	10	8	1	3	2	75	7	13	0	4	243
745-800	0	125	14	12	4	6	3	81	13	13	1	3	275
800-815	5	115	14	8	1	3	3	64	3	4	4	1	225
815-830	4	89	9	8	0	4	0	63	3	2	1	1	184
830-845	3	67	7	9	1	5	1	62	7	6	3	1	172
845-900	1	74	5	9	1	4	4	63	8	4	1	2	176
HOUR TOTALS													
700-800	5	460	37	31	8	18	5	250	25	43	5	14	901
715-815	9	469	46	34	7	15	8	263	26	43	8	14	942
730-830	13	445	47	36	6	16	8	283	26	32	6	9	927
745-845	12	396	44	37	6	18	7	270	26	25	9	6	856
800-900	13	345	35	34	3	16	8	252	21	16	9	5	757

AM PEAK HOUR
715-815



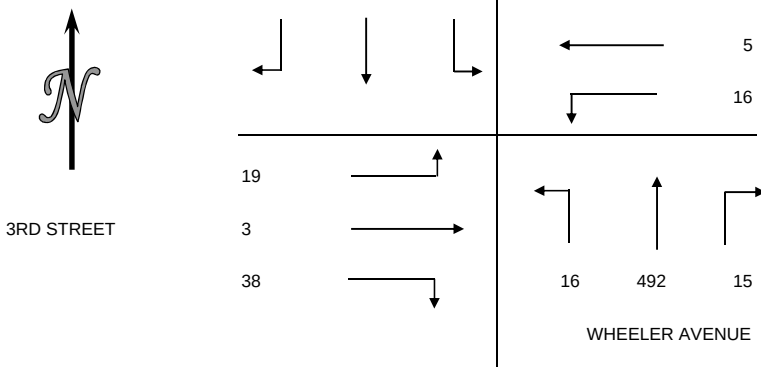
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	1	0	0
745-800	0	0	1	0
800-815	0	3	0	0
815-830	0	0	1	0
830-845	0	0	0	0
845-900	4	6	1	0
HOUR TOTALS				
700-800	0	1	1	0
715-815	0	4	1	0
730-830	0	4	2	0
745-845	0	3	2	0
800-900	4	9	2	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 11, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHEELER AVENUE
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	75	8	11	5	4	3	97	7	11	5	4	232
415-430	6	76	15	10	1	4	3	103	4	8	1	4	235
430-445	2	75	4	11	4	1	9	134	5	13	1	1	260
445-500	5	76	12	13	0	7	3	107	2	6	2	6	239
500-515	3	64	6	14	1	7	1	140	6	7	0	7	256
515-530	1	81	12	16	0	1	2	111	3	12	0	5	244
530-545	4	60	15	11	2	6	4	109	6	15	2	7	241
545-600	6	66	9	12	1	2	6	104	2	9	1	4	222
HOUR TOTALS													
400-500	15	302	39	45	10	16	18	441	18	38	9	15	966
415-515	16	291	37	48	6	19	16	484	17	34	4	18	990
430-530	11	296	34	54	5	16	15	492	16	38	3	19	999
445-545	13	281	45	54	3	21	10	467	17	40	4	25	980
500-600	14	271	42	53	4	16	13	464	17	43	3	23	963

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	3	0
415-430	2	1	8	1
430-445	0	5	1	0
445-500	0	4	1	0
500-515	0	0	0	3
515-530	0	1	0	0
530-545	1	0	2	0
545-600	1	0	0	1
HOUR TOTALS				
400-500	2	10	13	1
415-515	2	10	10	4
430-530	0	10	2	3
445-545	1	5	3	3
500-600	2	1	2	4

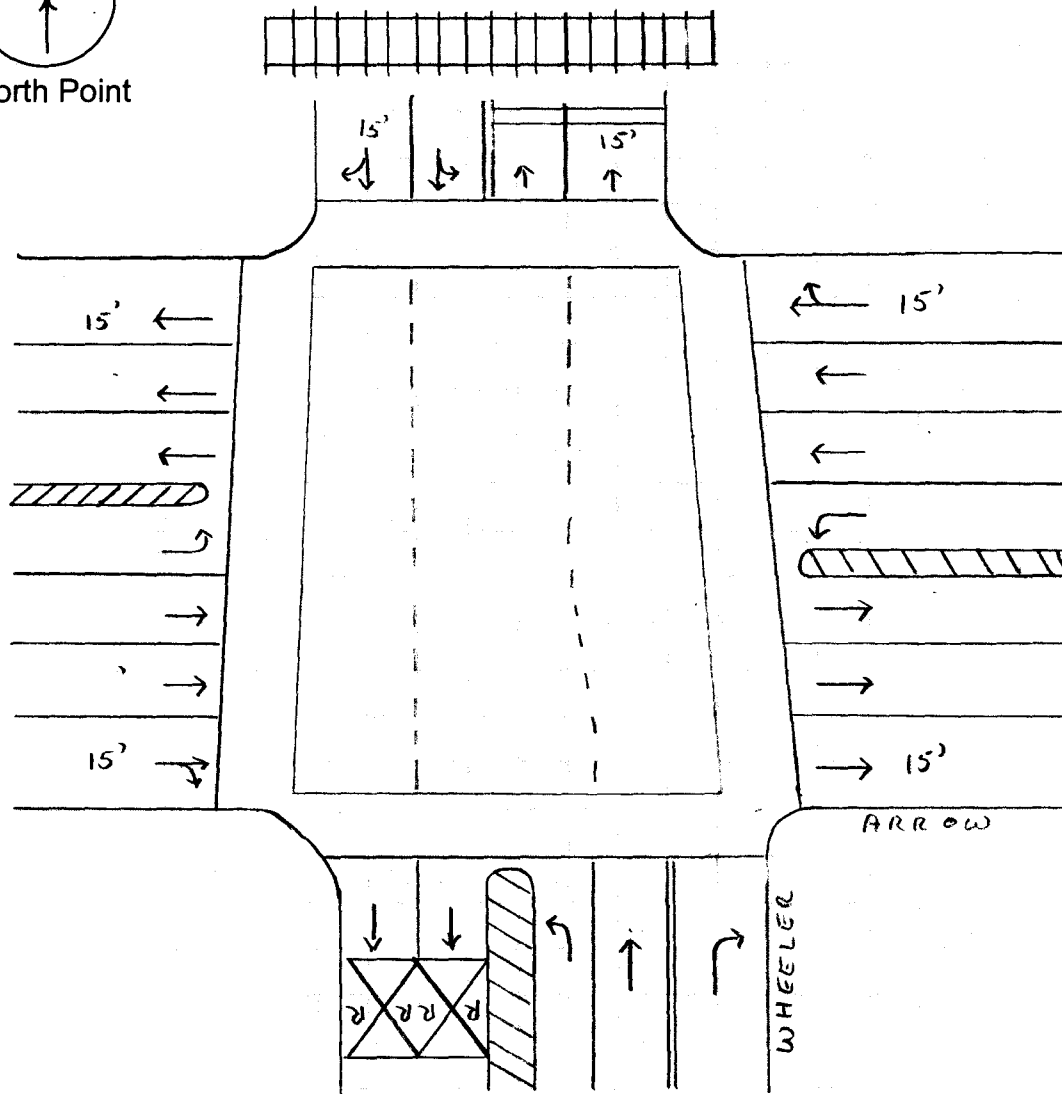
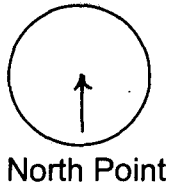
N/S WHEELER AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 10.08.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6
↓ ↑	↘ ↗	↗ ↘ ↓ ↑	↙ ↘		

WILTEC

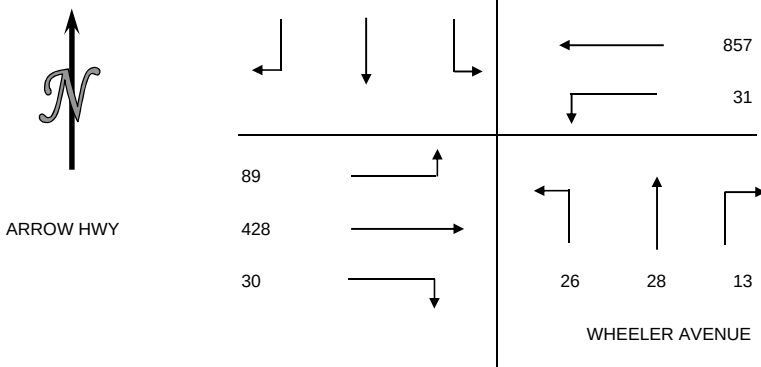
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHEELER AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	30	17	36	56	209	7	2	3	3	7	86	7	463
715-730	34	20	65	72	221	7	3	2	7	7	96	14	548
730-745	43	12	77	96	247	7	3	11	7	10	112	22	647
745-800	37	24	86	77	214	7	2	12	7	5	118	25	614
800-815	41	30	64	55	175	10	5	3	5	8	102	28	526
815-830	33	28	46	46	138	7	4	5	5	8	106	13	439
830-845	21	18	46	65	123	4	0	4	4	4	83	13	385
845-900	25	16	47	54	110	7	5	4	9	10	84	18	389
HOUR TOTALS													
700-800	144	73	264	301	891	28	10	28	24	29	412	68	2272
715-815	155	86	292	300	857	31	13	28	26	30	428	89	2335
730-830	154	94	273	274	774	31	14	31	24	31	438	88	2226
745-845	132	100	242	243	650	28	11	24	21	25	409	79	1964
800-900	120	92	203	220	546	28	14	16	23	30	375	72	1739

AM PEAK HOUR
715-815



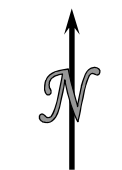
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	2	0	0	0
730-745	0	0	1	0
745-800	0	0	0	0
800-815	0	0	0	0
815-830	0	0	1	0
830-845	0	0	0	0
845-900	0	1	0	0
HOUR TOTALS				
700-800	2	0	2	0
715-815	2	0	1	0
730-830	0	0	2	0
745-845	0	0	1	0
800-900	0	1	1	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

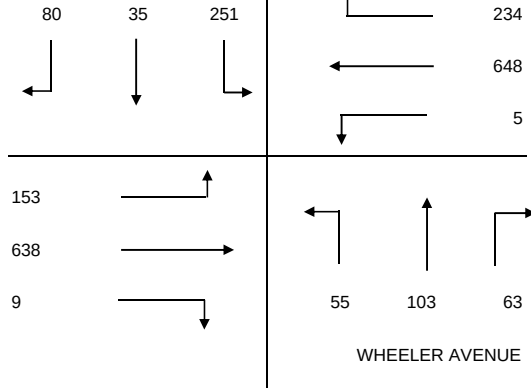
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHEELER AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	25	5	51	41	140	0	21	18	14	3	164	26	508
415-430	19	9	56	51	166	1	24	22	16	6	174	32	576
430-445	17	11	64	56	162	3	14	27	20	0	150	34	558
445-500	18	3	58	61	167	0	7	21	10	3	147	33	528
500-515	23	11	64	52	174	0	21	28	15	4	169	45	606
515-530	22	10	65	65	145	2	21	27	10	2	172	41	582
530-545	10	9	69	44	141	1	20	20	12	2	179	44	551
545-600	14	14	65	60	124	0	12	26	10	7	163	38	533
HOUR TOTALS													
400-500	79	28	229	209	635	4	66	88	60	12	635	125	2170
415-515	77	34	242	220	669	4	66	98	61	13	640	144	2268
430-530	80	35	251	234	648	5	63	103	55	9	638	153	2274
445-545	73	33	256	222	627	3	69	96	47	11	667	163	2267
500-600	69	44	263	221	584	3	74	101	47	15	683	168	2272

PM PEAK HOUR
430-530



ARROW HWY

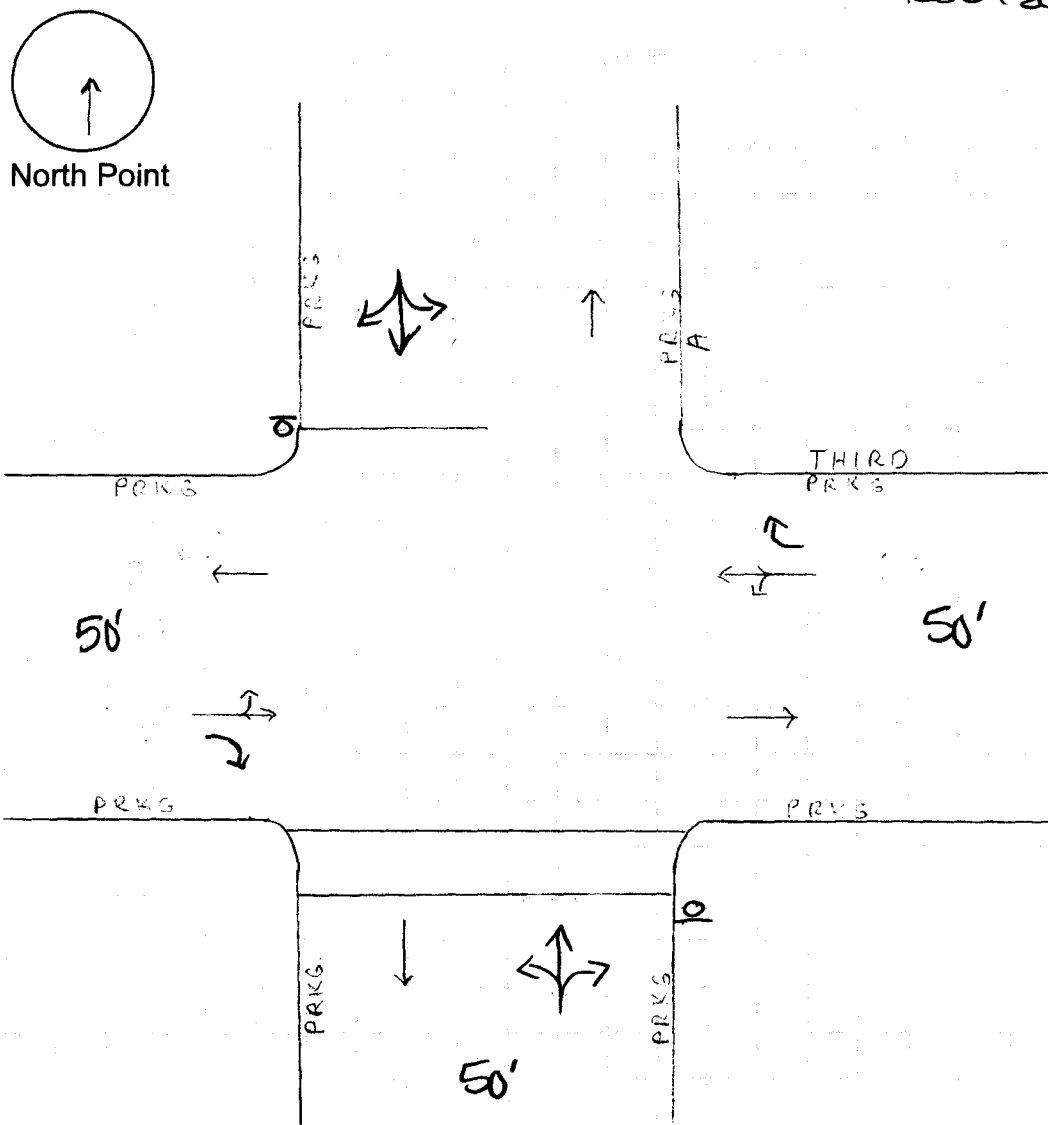


PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	1	0
415-430	0	0	1	0
430-445	0	0	1	1
445-500	0	0	1	0
500-515	0	0	2	1
515-530	0	0	1	1
530-545	0	0	0	0
545-600	0	0	1	1
HOUR TOTALS				
400-500	0	0	4	1
415-515	0	0	5	2
430-530	0	0	5	3
445-545	0	0	4	2
500-600	0	0	4	3

EW THIRD ST.

DATE: 10.05.03

Revised 4/25/10



Phasing:

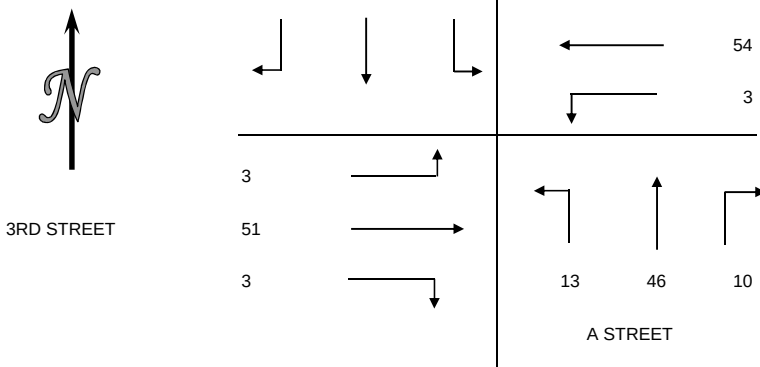
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S A STREET
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	7	0	1	5	0	3	7	2	1	11	0	37
715-730	2	12	0	0	7	2	2	14	1	1	6	2	49
730-745	4	12	0	0	24	0	1	11	3	0	9	0	64
745-800	1	6	0	1	11	1	3	13	4	1	18	0	59
800-815	2	12	0	1	12	0	4	8	5	1	18	1	64
815-830	0	4	2	0	10	1	1	5	0	0	9	0	32
830-845	0	5	0	0	10	1	0	6	3	2	3	0	30
845-900	1	6	2	1	9	0	3	5	1	1	14	2	45
HOUR TOTALS													
700-800	7	37	0	2	47	3	9	45	10	3	44	2	209
715-815	9	42	0	2	54	3	10	46	13	3	51	3	236
730-830	7	34	2	2	57	2	9	37	12	2	54	1	219
745-845	3	27	2	2	43	3	8	32	12	4	48	1	185
800-900	3	27	4	2	41	2	8	24	9	4	44	3	171

AM PEAK HOUR
715-815



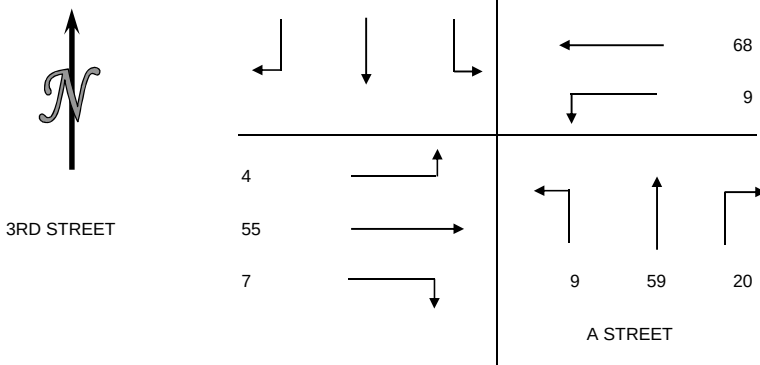
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	0	4	0
715-730	0	0	1	0
730-745	0	0	0	0
745-800	1	0	5	1
800-815	0	0	8	0
815-830	0	0	1	0
830-845	2	0	0	3
845-900	5	1	1	0
HOUR TOTALS				
700-800	3	0	10	1
715-815	1	0	14	1
730-830	1	0	14	1
745-845	3	0	14	4
800-900	7	1	10	3

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S A STREET
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	3	2	0	0	15	0	2	14	0	3	10	2	51
415-430	0	4	2	0	14	1	3	12	2	3	11	0	52
430-445	2	3	0	2	11	1	2	10	2	1	10	0	44
445-500	1	4	0	1	14	1	5	12	1	2	13	0	54
500-515	1	6	0	3	26	3	3	13	4	2	10	2	73
515-530	2	3	2	0	12	3	2	14	3	2	19	0	62
530-545	0	2	1	2	19	3	7	13	1	2	11	2	63
545-600	0	4	1	1	11	0	8	19	1	1	15	0	61
HOURLY TOTALS													
400-500	6	13	2	3	54	3	12	48	5	9	44	2	201
415-515	4	17	2	6	65	6	13	47	9	8	44	2	223
430-530	6	16	2	6	63	8	12	49	10	7	52	2	233
445-545	4	15	3	6	71	10	17	52	9	8	53	4	252
500-600	3	15	4	6	68	9	20	59	9	7	55	4	259

PM PEAK HOUR
500-600



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	4	0
415-430	3	0	3	0
430-445	6	1	1	0
445-500	1	0	1	1
500-515	0	0	4	0
515-530	1	0	3	2
530-545	0	0	3	0
545-600	0	0	5	0
HOURLY TOTALS				
400-500	11	1	9	1
415-515	10	1	9	1
430-530	8	1	9	3
445-545	2	0	11	3
500-600	1	0	15	2

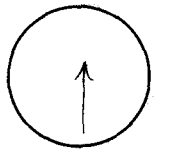
N/S A ST.

E/W FIRST ST.

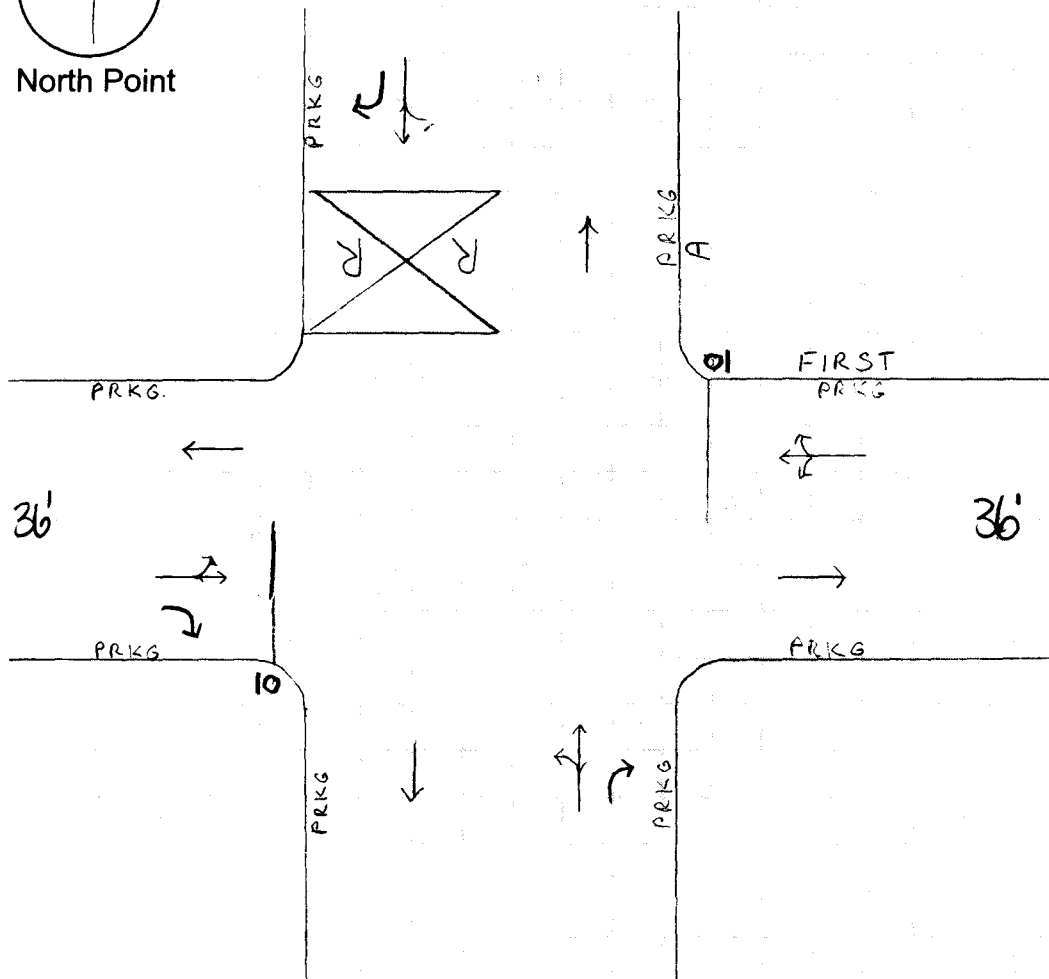
BY: C. JAMISON

DATE: 10.03.03

Revised 4/25/10



North Point



Phasing:

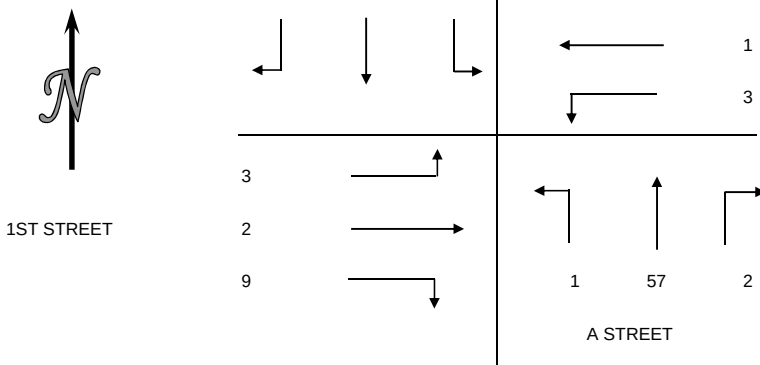
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S A STREET
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	8	0	0	0	0	1	7	0	1	2	0	19
715-730	3	10	1	0	0	2	1	18	0	6	0	1	42
730-745	0	11	0	0	0	1	0	10	0	1	0	0	23
745-800	1	8	2	1	1	0	1	18	0	1	1	1	35
800-815	0	13	0	1	0	0	0	11	1	1	1	1	29
815-830	0	4	0	1	0	0	1	7	1	0	0	1	15
830-845	1	7	0	0	1	0	0	6	0	2	0	0	17
845-900	1	5	0	2	1	0	0	7	0	3	4	2	25
HOURLY TOTALS													
700-800	4	37	3	1	1	3	3	53	0	9	3	2	119
715-815	4	42	3	2	1	3	2	57	1	9	2	3	129
730-830	1	36	2	3	1	1	2	46	2	3	2	3	102
745-845	2	32	2	3	2	0	2	42	2	4	2	3	96
800-900	2	29	0	4	2	0	1	31	2	6	5	4	86

AM PEAK HOUR
715-815



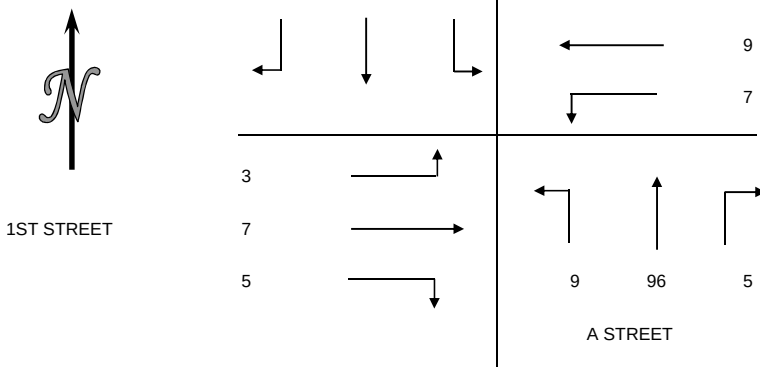
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	1	0	1	0
800-815	0	0	0	0
815-830	0	0	0	0
830-845	0	0	0	0
845-900	0	1	0	0
HOURLY TOTALS				
700-800	1	0	1	0
715-815	1	0	1	0
730-830	1	0	1	0
745-845	1	0	1	0
800-900	0	1	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S A STREET
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	1	1	1	1	2	2	17	2	0	0	1	28
415-430	2	4	1	1	1	3	0	20	2	2	1	0	37
430-445	0	5	0	0	0	2	1	10	1	2	1	1	23
445-500	0	5	1	0	1	1	1	18	1	3	0	0	31
500-515	2	8	0	1	4	2	1	24	3	4	2	1	52
515-530	3	3	0	0	2	3	1	18	2	0	1	0	33
530-545	1	4	1	0	1	1	1	23	2	0	1	0	35
545-600	0	4	1	0	2	1	2	31	2	1	3	2	49
HOUR TOTALS													
400-500	2	15	3	2	3	8	4	65	6	7	2	2	119
415-515	4	22	2	2	6	8	3	72	7	11	4	2	143
430-530	5	21	1	1	7	8	4	70	7	9	4	2	139
445-545	6	20	2	1	8	7	4	83	8	7	4	1	151
500-600	6	19	2	1	9	7	5	96	9	5	7	3	169

PM PEAK HOUR
500-600



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	0
415-430	0	0	0	0
430-445	0	0	0	0
445-500	2	0	1	0
500-515	0	0	1	4
515-530	0	0	1	0
530-545	1	0	0	0
545-600	0	0	1	0
HOUR TOTALS				
400-500	3	0	1	0
415-515	2	0	2	4
430-530	2	0	3	4
445-545	3	0	3	4
500-600	1	0	3	4

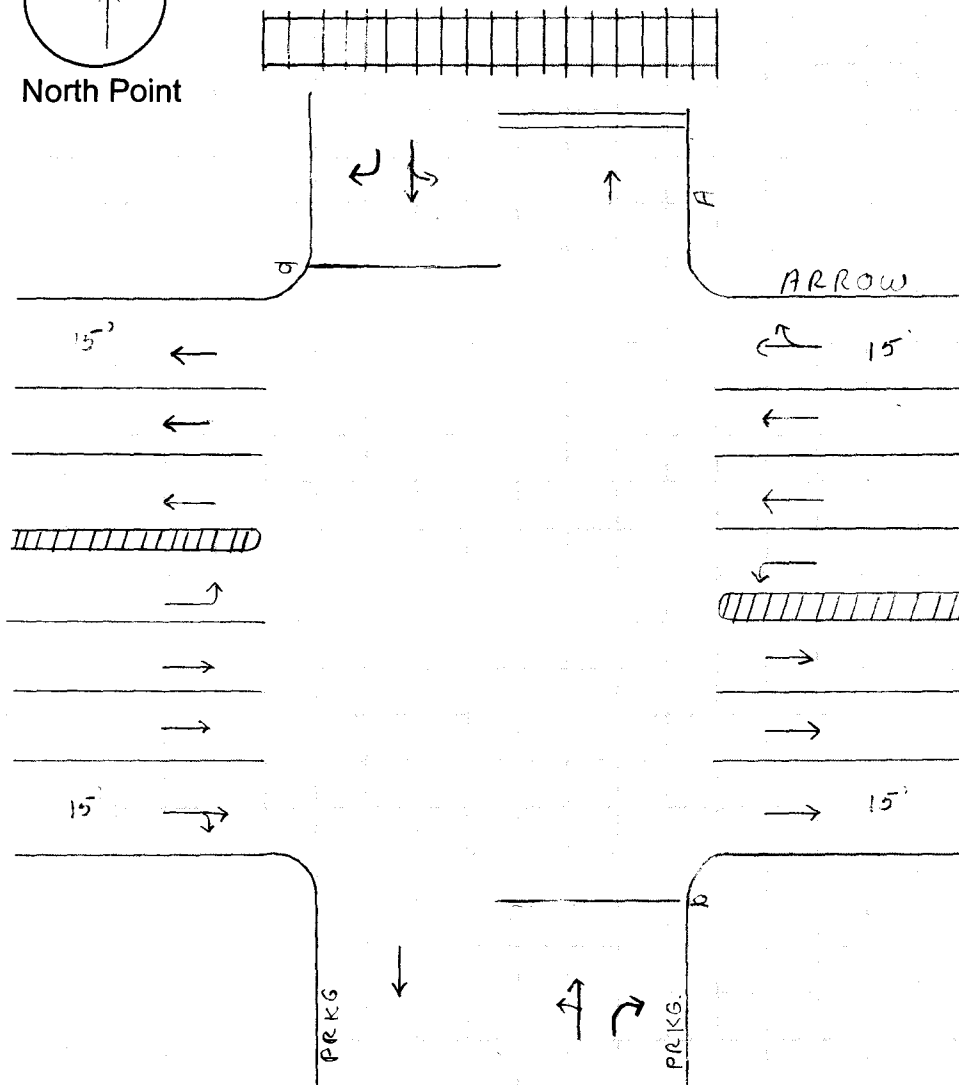
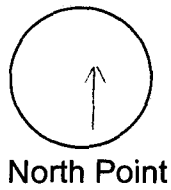
N/S A ST.

E/W ARROW RDY

BY: C. JAMISON

DATE: 10.08.03

Revised 6/25/10



Phasing:

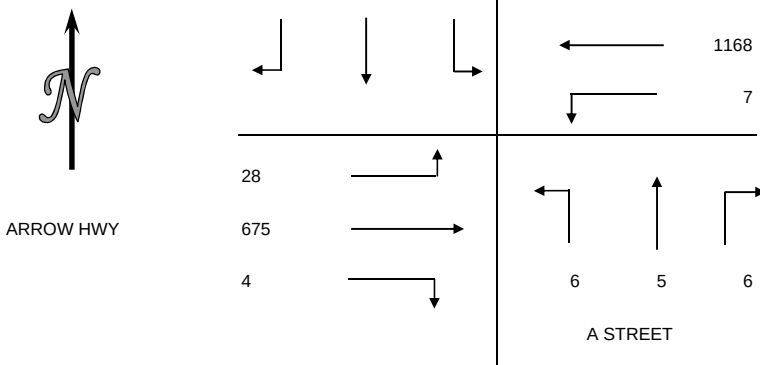
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S A STREET
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	6	0	5	3	299	1	2	0	0	2	107	6	431
715-730	7	1	9	5	307	1	0	1	1	0	144	12	488
730-745	9	1	7	1	338	3	4	2	1	2	172	8	548
745-800	2	0	5	11	276	2	1	1	2	1	180	6	487
800-815	4	0	7	6	247	1	1	1	2	1	179	2	451
815-830	2	1	4	7	226	2	2	0	2	2	151	1	400
830-845	4	1	2	3	175	2	2	1	4	2	133	3	332
845-900	3	0	5	4	155	0	0	0	0	1	122	3	293
HOUR TOTALS													
700-800	24	2	26	20	1220	7	7	4	4	5	603	32	1954
715-815	22	2	28	23	1168	7	6	5	6	4	675	28	1974
730-830	17	2	23	25	1087	8	8	4	7	6	682	17	1886
745-845	12	2	18	27	924	7	6	3	10	6	643	12	1670
800-900	13	2	18	20	803	5	5	2	8	6	585	9	1476

AM PEAK HOUR
715-815



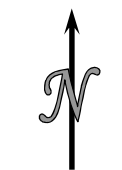
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	0	0	0	0
730-745	0	0	1	0
745-800	0	1	2	0
800-815	0	0	0	0
815-830	0	0	1	0
830-845	0	0	0	0
845-900	0	1	0	0
HOUR TOTALS				
700-800	0	1	4	0
715-815	0	1	3	0
730-830	0	1	4	0
745-845	0	1	3	0
800-900	0	1	1	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

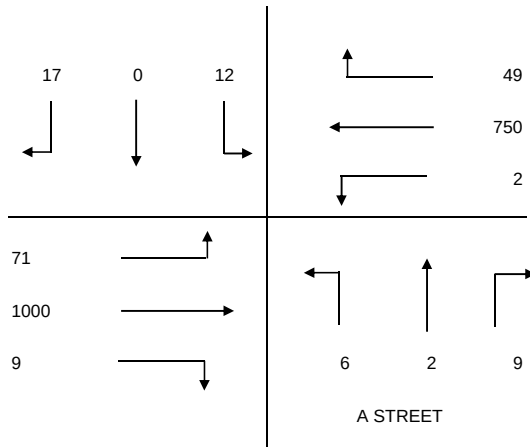
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S A STREET
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	0	1	10	204	1	2	1	0	0	214	10	445
415-430	6	0	2	8	200	1	2	0	2	2	224	13	460
430-445	2	0	4	6	214	2	1	0	3	1	229	6	468
445-500	4	0	4	4	201	2	1	1	1	3	228	12	461
500-515	4	0	7	10	212	0	2	0	2	3	229	17	486
515-530	6	0	1	10	194	0	3	0	0	3	268	14	499
530-545	3	0	1	9	168	1	3	2	1	0	263	17	468
545-600	4	0	3	20	176	1	1	0	3	3	240	23	474
HOUR TOTALS													
400-500	14	0	11	28	819	6	6	2	6	6	895	41	1834
415-515	16	0	17	28	827	5	6	1	8	9	910	48	1875
430-530	16	0	16	30	821	4	7	1	6	10	954	49	1914
445-545	17	0	13	33	775	3	9	3	4	9	988	60	1914
500-600	17	0	12	49	750	2	9	2	6	9	1000	71	1927

PM PEAK HOUR
500-600



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	1	2	1
415-430	0	0	1	0
430-445	1	2	2	2
445-500	1	0	0	0
500-515	0	0	1	0
515-530	0	0	1	0
530-545	0	0	0	0
545-600	1	0	1	0
HOUR TOTALS				
400-500	2	3	5	3
415-515	2	2	4	2
430-530	2	2	4	2
445-545	1	0	2	0
500-600	1	0	3	0

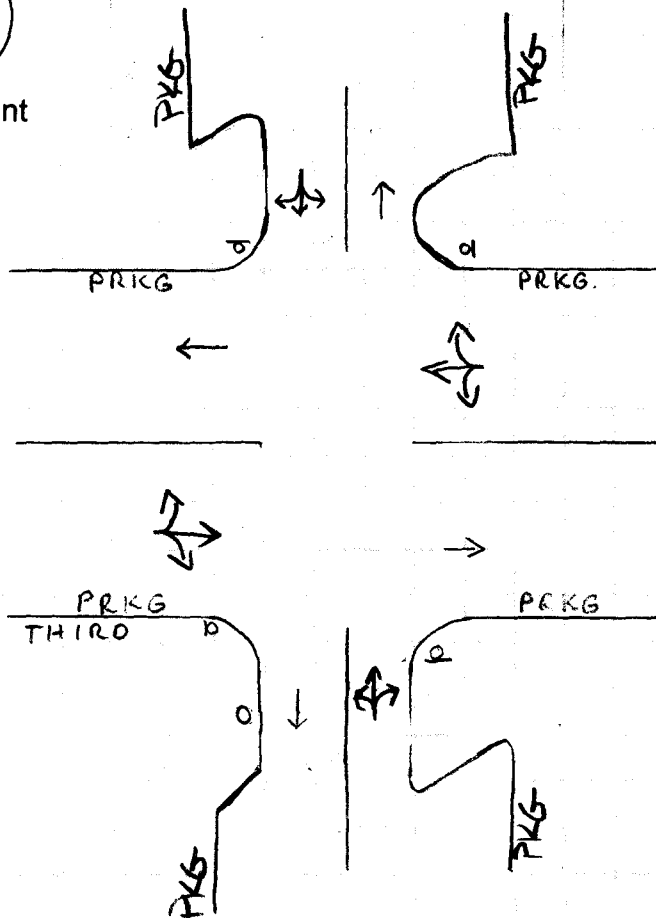
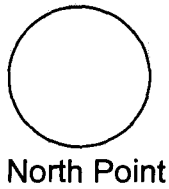
N/S D ST.

EW THIRD ST.

BY: C. JAMISON

DATE: 10.08.03

Revised 4/25/10



Phasing:

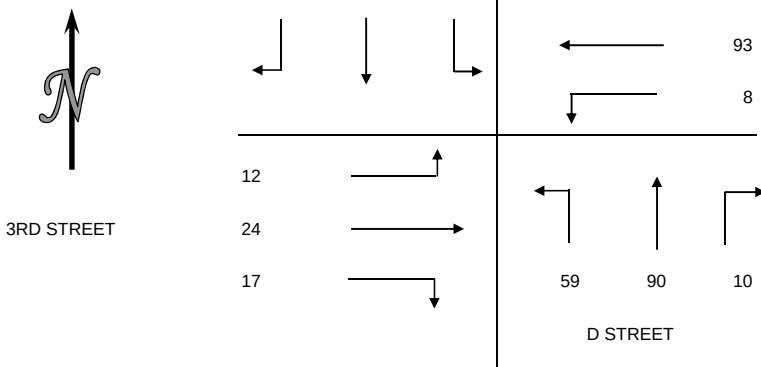
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S D STREET
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	2	22	5	4	6	3	0	14	6	2	4	1	69
715-730	7	26	5	9	10	0	2	38	6	2	1	1	107
730-745	8	40	8	8	17	2	1	21	17	3	5	4	134
745-800	20	37	2	7	27	0	3	27	13	2	4	1	143
800-815	8	29	5	5	30	5	5	24	15	9	10	6	151
815-830	6	38	2	6	19	1	1	18	14	3	5	1	114
830-845	7	27	10	3	10	1	4	18	10	6	2	3	101
845-900	13	27	2	8	12	1	1	26	16	6	4	5	121
HOUR TOTALS													
700-800	37	125	20	28	60	5	6	100	42	9	14	7	453
715-815	43	132	20	29	84	7	11	110	51	16	20	12	535
730-830	42	144	17	26	93	8	10	90	59	17	24	12	542
745-845	41	131	19	21	86	7	13	87	52	20	21	11	509
800-900	34	121	19	22	71	8	11	86	55	24	21	15	487

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	2	0	0
715-730	1	10	2	2
730-745	0	4	1	0
745-800	3	4	1	2
800-815	4	9	8	1
815-830	5	10	1	2
830-845	2	3	5	4
845-900	1	4	3	3
HOUR TOTALS				
700-800	4	20	4	4
715-815	8	27	12	5
730-830	12	27	11	5
745-845	14	26	15	9
800-900	12	26	17	10

WILTEC

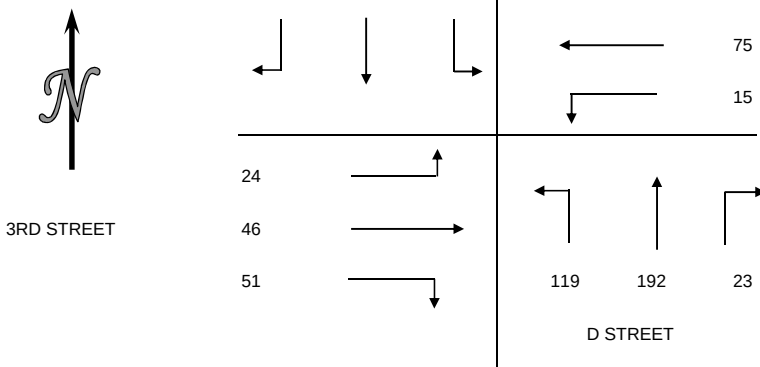
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S D STREET
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	9	27	7	10	16	1	9	50	19	12	11	9	180
415-430	8	37	3	7	11	2	2	50	13	3	8	3	147
430-445	11	26	6	7	13	3	13	42	19	7	9	3	159
445-500	14	34	2	9	16	3	7	42	8	7	10	7	159
500-515	17	34	5	11	20	2	2	47	26	18	11	9	202
515-530	14	26	5	7	22	1	6	49	16	8	14	4	172
530-545	18	39	0	10	23	5	9	51	34	13	10	5	217
545-600	11	40	5	11	10	7	6	45	43	12	11	6	207
HOUR TOTALS													
400-500	42	124	18	33	56	9	31	184	59	29	38	22	645
415-515	50	131	16	34	60	10	24	181	66	35	38	22	667
430-530	56	120	18	34	71	9	28	180	69	40	44	23	692
445-545	63	133	12	37	81	11	24	189	84	46	45	25	750
500-600	60	139	15	39	75	15	23	192	119	51	46	24	798

PM PEAK HOUR
500-600



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	5	7	6	11
415-430	15	10	10	1
430-445	7	22	14	5
445-500	2	3	4	11
500-515	12	10	12	7
515-530	7	8	9	14
530-545	6	5	4	10
545-600	9	9	12	13
HOUR TOTALS				
400-500	29	42	34	28
415-515	36	45	40	24
430-530	28	43	39	37
445-545	27	26	29	42
500-600	34	32	37	44

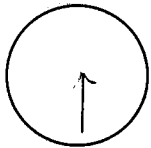
N/S D ST

E/W FIRST ST

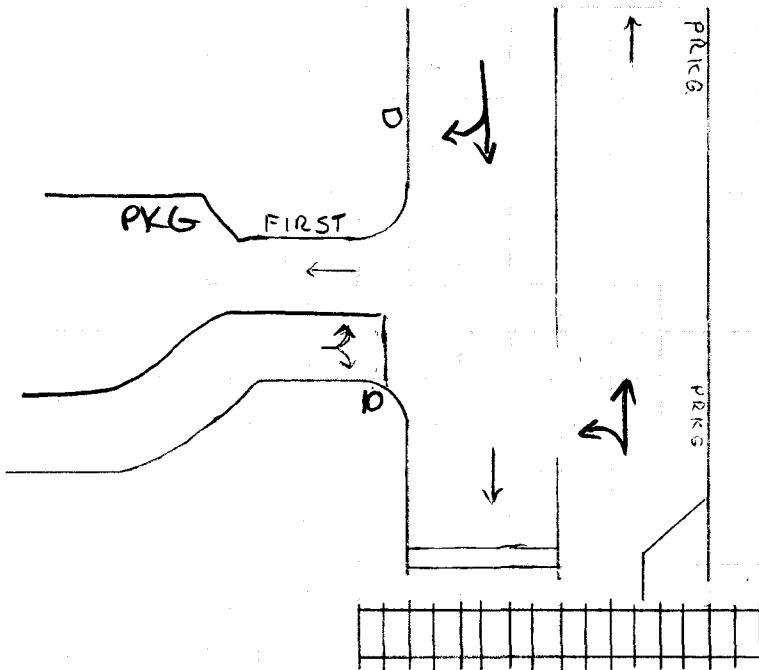
BY: C JAMISON

DATE: 10.25.08

Revised 6/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

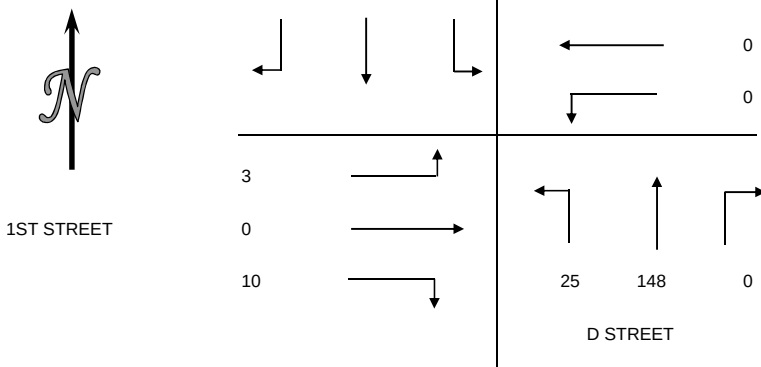
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S D STREET
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	23	0	0	0	0	0	16	2	1	0	0	43
715-730	0	28	0	0	0	0	0	32	0	3	0	1	64
730-745	1	53	0	0	0	0	0	32	1	2	0	0	89
745-800	2	24	0	0	0	0	0	39	12	2	0	0	79
800-815	4	27	0	0	0	0	0	38	5	4	0	2	80
815-830	1	33	0	0	0	0	0	39	7	2	0	1	83
830-845	1	25	0	0	0	0	0	26	2	0	0	0	54
845-900	3	17	0	0	0	0	0	31	8	4	0	4	67
HOUR TOTALS													
700-800	4	128	0	0	0	0	0	119	15	8	0	1	275
715-815	7	132	0	0	0	0	0	141	18	11	0	3	312
730-830	8	137	0	0	0	0	0	148	25	10	0	3	331
745-845	8	109	0	0	0	0	0	142	26	8	0	3	296
800-900	9	102	0	0	0	0	0	134	22	10	0	7	284

AM PEAK HOUR
730-830



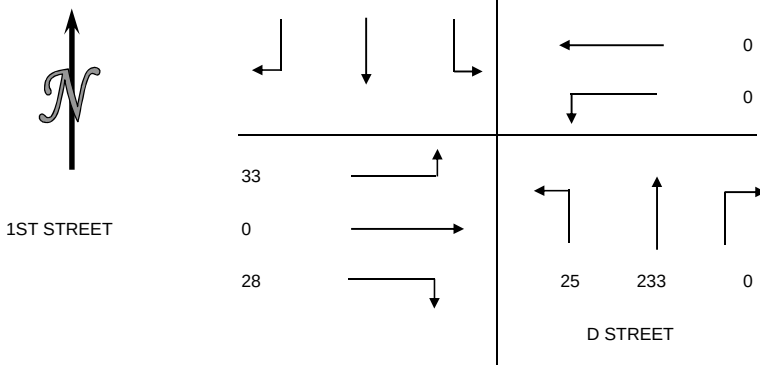
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	1
730-745	0	0	0	0
745-800	0	0	0	1
800-815	5	0	0	0
815-830	1	0	0	0
830-845	1	0	0	0
845-900	2	0	2	1
HOUR TOTALS				
700-800	0	0	0	2
715-815	5	0	0	2
730-830	6	0	0	1
745-845	7	0	0	1
800-900	9	0	2	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S D STREET
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	7	33	0	0	0	0	0	64	2	12	0	5	123
415-430	9	33	0	0	0	0	0	45	2	7	0	5	101
430-445	3	22	0	0	0	0	0	41	3	5	0	3	77
445-500	8	29	0	0	0	0	0	48	3	3	0	2	93
500-515	4	32	0	0	0	0	0	46	3	9	0	11	105
515-530	6	28	0	0	0	0	0	50	4	5	0	11	104
530-545	14	30	0	0	0	0	0	62	8	11	0	3	128
545-600	7	27	0	0	0	0	0	75	10	3	0	8	130
HOUR TOTALS													
400-500	27	117	0	0	0	0	0	198	10	27	0	15	394
415-515	24	116	0	0	0	0	0	180	11	24	0	21	376
430-530	21	111	0	0	0	0	0	185	13	22	0	27	379
445-545	32	119	0	0	0	0	0	206	18	28	0	27	430
500-600	31	117	0	0	0	0	0	233	25	28	0	33	467

PM PEAK HOUR
500-600



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	8	0	0	1
415-430	4	0	0	1
430-445	4	0	1	2
445-500	2	0	1	9
500-515	7	0	0	3
515-530	5	0	0	2
530-545	4	0	0	2
545-600	4	0	0	0
HOUR TOTALS				
400-500	18	0	2	13
415-515	17	0	2	15
430-530	18	0	2	16
445-545	18	0	1	16
500-600	20	0	0	7

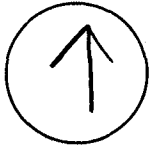
N/S D ST

E/W ARROW HWY

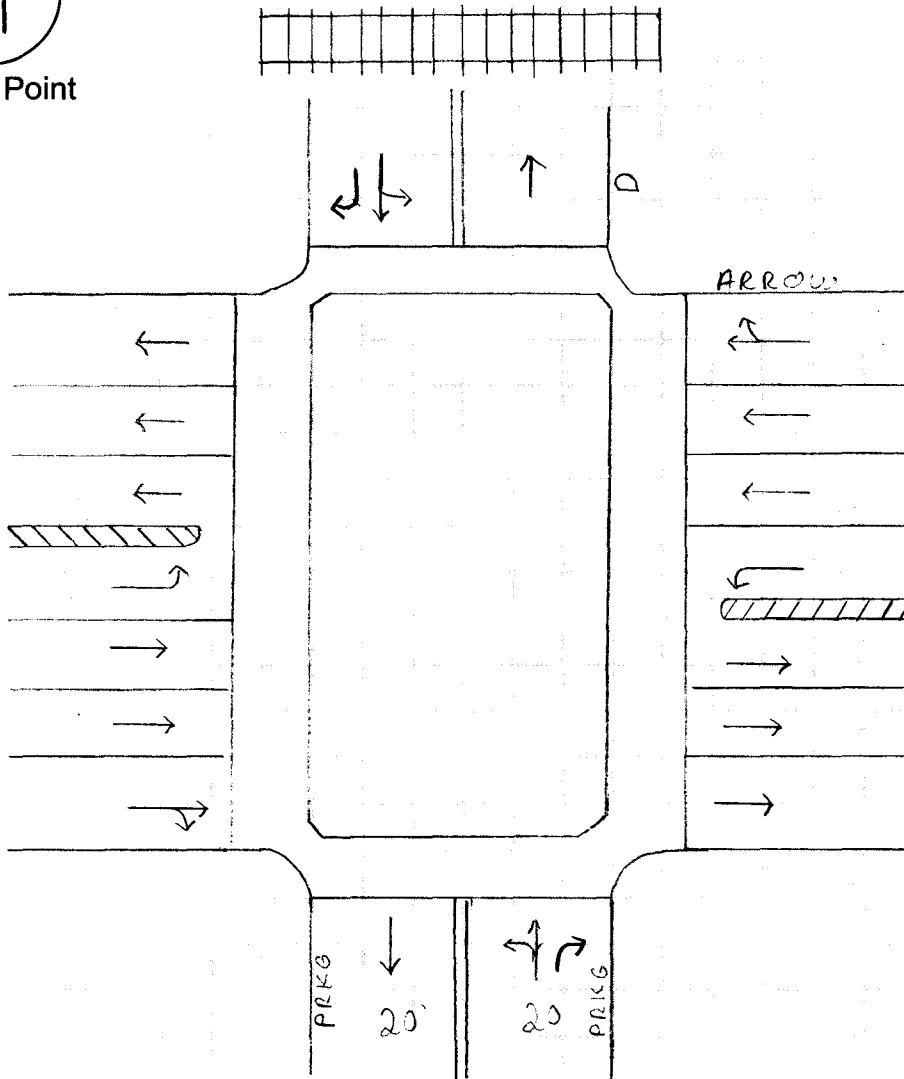
BY: C. JAMISON

DATE: 10.08.03

Revised 4/25/10



North Point



Phasing:

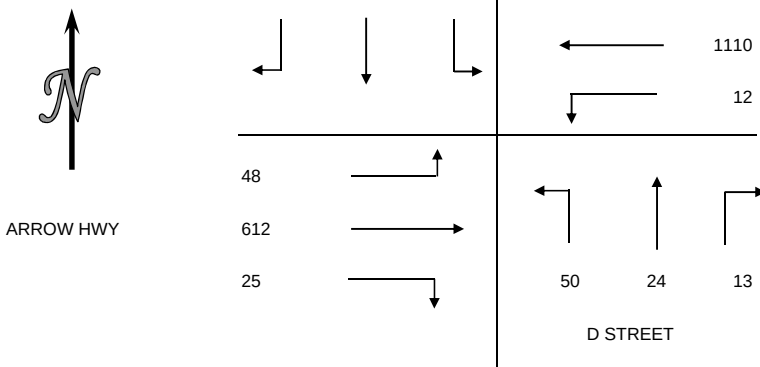
1	2	3	4	5	6
↓↑	↔				

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S D STREET
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	15	7	10	13	257	1	0	0	4	1	111	6	425
715-730	12	9	11	12	276	2	4	6	9	5	127	17	490
730-745	12	12	24	15	306	5	3	3	19	4	160	7	570
745-800	7	7	14	33	290	2	4	7	15	10	172	10	571
800-815	10	6	9	23	238	3	2	8	7	6	153	14	479
815-830	6	7	15	29	213	5	7	1	4	6	124	17	434
830-845	8	4	11	15	185	3	2	4	4	6	119	11	372
845-900	7	6	13	21	145	2	3	4	2	2	108	13	326
HOUR TOTALS													
700-800	46	35	59	73	1129	10	11	16	47	20	570	40	2056
715-815	41	34	58	83	1110	12	13	24	50	25	612	48	2110
730-830	35	32	62	100	1047	15	16	19	45	26	609	48	2054
745-845	31	24	49	100	926	13	15	20	30	28	568	52	1856
800-900	31	23	48	88	781	13	14	17	17	20	504	55	1611

AM PEAK HOUR
715-815



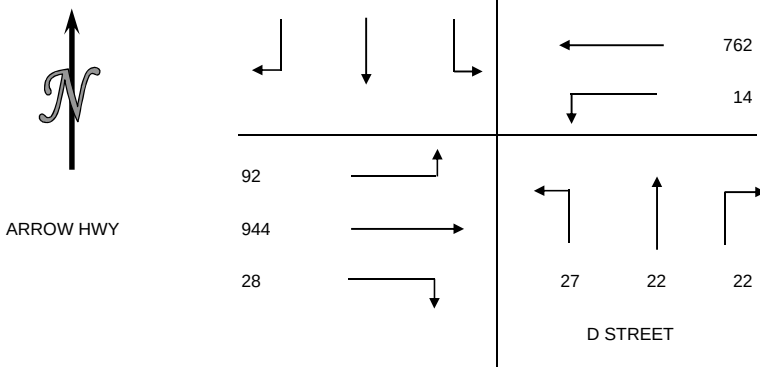
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	0	0	2
800-815	0	1	0	1
815-830	0	0	0	0
830-845	0	0	0	0
845-900	0	2	1	0
HOUR TOTALS				
700-800	0	0	0	2
715-815	0	1	0	3
730-830	0	1	0	3
745-845	0	1	0	3
800-900	0	3	1	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S D STREET
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	8	7	29	35	198	6	6	5	11	7	202	26	540
415-430	4	3	21	23	189	7	5	3	7	2	211	19	494
430-445	7	4	22	29	225	4	6	7	7	5	215	21	552
445-500	6	8	16	18	201	3	4	5	5	4	224	17	511
500-515	14	7	39	25	199	3	6	8	11	10	235	19	576
515-530	7	1	17	40	186	2	4	2	7	6	251	21	544
530-545	7	5	22	44	193	2	6	7	2	6	242	30	566
545-600	11	7	16	40	184	7	6	5	7	6	216	22	527
HOUR TOTALS													
400-500	25	22	88	105	813	20	21	20	30	18	852	83	2097
415-515	31	22	98	95	814	17	21	23	30	21	885	76	2133
430-530	34	20	94	112	811	12	20	22	30	25	925	78	2183
445-545	34	21	94	127	779	10	20	22	25	26	952	87	2197
500-600	39	20	94	149	762	14	22	22	27	28	944	92	2213

PM PEAK HOUR
500-600



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	1	0	0
415-430	0	1	0	0
430-445	0	1	0	0
445-500	0	0	2	0
500-515	0	1	0	0
515-530	0	2	0	0
530-545	0	1	0	0
545-600	0	1	0	0
HOUR TOTALS				
400-500	0	3	2	0
415-515	0	3	2	0
430-530	0	4	2	0
445-545	0	4	2	0
500-600	0	5	0	0

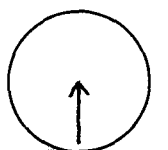
N/S E ST

EW THIRD ST

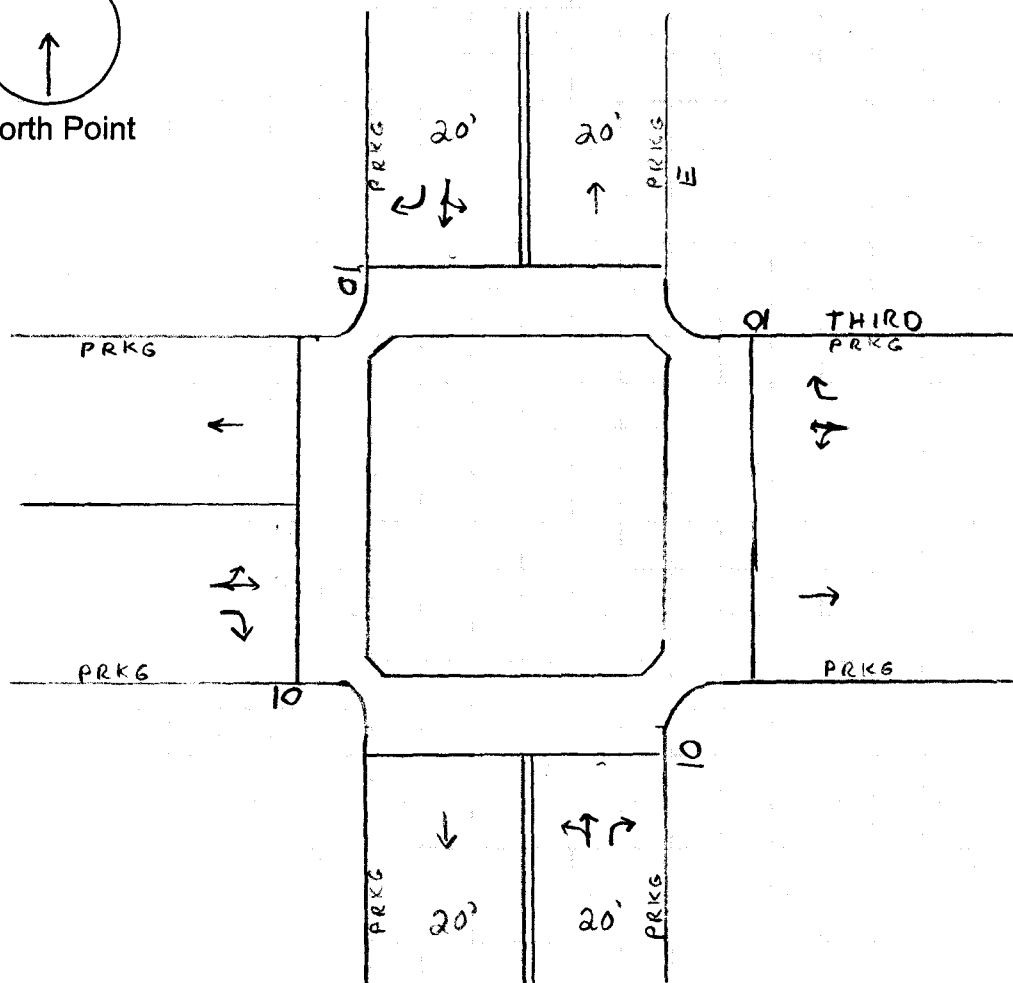
BY: C JAMISON

DATE: 10.09.03

Revised 4/25/10



North Point



Phasing:

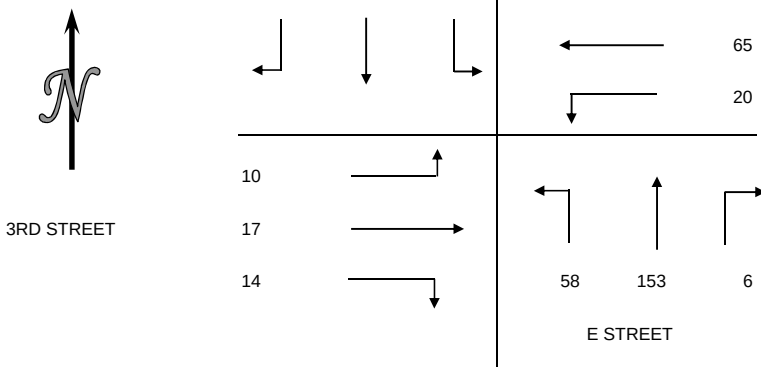
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S E STREET
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	46	1	0	2	4	0	33	7	4	4	2	104
715-730	0	46	1	7	11	5	0	40	6	2	4	3	125
730-745	2	57	2	6	17	5	1	33	16	3	3	3	148
745-800	2	54	1	4	23	8	1	36	16	2	5	1	153
800-815	3	38	4	4	14	2	4	44	20	7	5	3	148
815-830	2	38	0	2	16	1	0	29	14	2	3	2	109
830-845	2	37	1	3	5	3	1	36	11	5	4	3	111
845-900	3	32	1	2	11	0	0	21	10	4	2	1	87
HOUR TOTALS													
700-800	5	203	5	17	53	22	2	142	45	11	16	9	530
715-815	7	195	8	21	65	20	6	153	58	14	17	10	574
730-830	9	187	7	16	70	16	6	142	66	14	16	9	558
745-845	9	167	6	13	58	14	6	145	61	16	17	9	521
800-900	10	145	6	11	46	6	5	130	55	18	14	9	455

AM PEAK HOUR
715-815



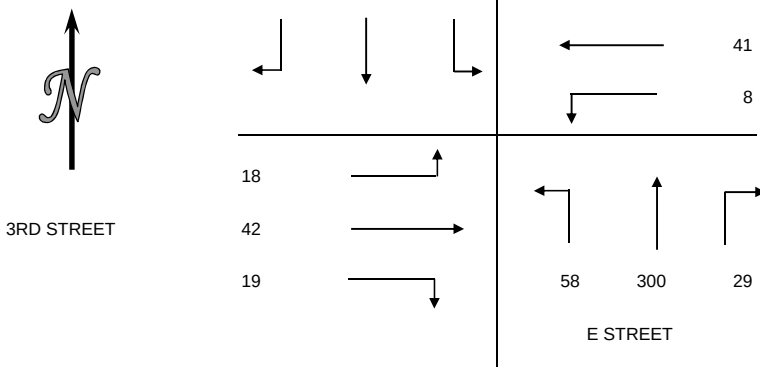
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	1	1	0
715-730	1	0	0	0
730-745	0	0	1	2
745-800	0	0	4	7
800-815	12	3	3	6
815-830	6	0	1	13
830-845	8	0	2	4
845-900	4	0	0	5
HOUR TOTALS				
700-800	3	1	6	9
715-815	13	3	8	15
730-830	18	3	9	28
745-845	26	3	10	30
800-900	30	3	6	28

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S E STREET
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	31	1	3	11	10	1	63	15	3	12	8	160
415-430	0	23	0	0	8	5	4	77	10	6	7	2	142
430-445	2	31	0	0	8	3	9	67	14	8	6	6	154
445-500	4	31	1	2	11	2	6	74	16	5	14	4	170
500-515	2	21	6	4	7	3	8	84	13	5	8	4	165
515-530	2	32	1	1	8	1	8	82	17	3	9	8	172
530-545	4	32	1	3	15	2	7	60	12	6	11	2	155
545-600	1	30	0	0	11	4	6	57	9	9	5	7	139
HOUR TOTALS													
400-500	8	116	2	5	38	20	20	281	55	22	39	20	626
415-515	8	106	7	6	34	13	27	302	53	24	35	16	631
430-530	10	115	8	7	34	9	31	307	60	21	37	22	661
445-545	12	116	9	10	41	8	29	300	58	19	42	18	662
500-600	9	115	8	8	41	10	29	283	51	23	33	21	631

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	2	1	1
415-430	6	4	4	3
430-445	2	1	4	2
445-500	1	2	3	6
500-515	9	5	3	2
515-530	6	9	2	7
530-545	2	4	2	10
545-600	2	5	3	8
HOUR TOTALS				
400-500	12	9	12	12
415-515	18	12	14	13
430-530	18	17	12	17
445-545	18	20	10	25
500-600	19	23	10	27

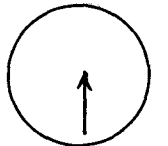
N/S E ST.

EW SECOND ST

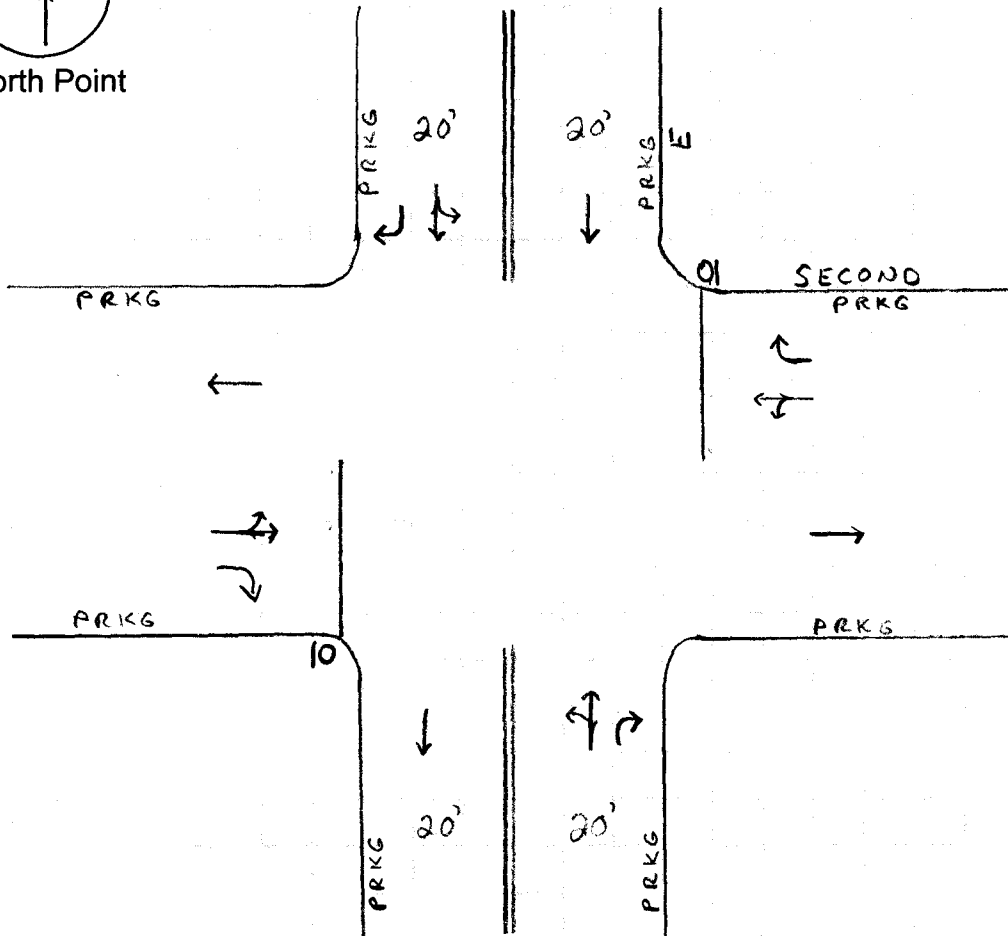
BY: C JAMISON

DATE: 10.09.03

Revised 4/25/10



North Point



Phasing:

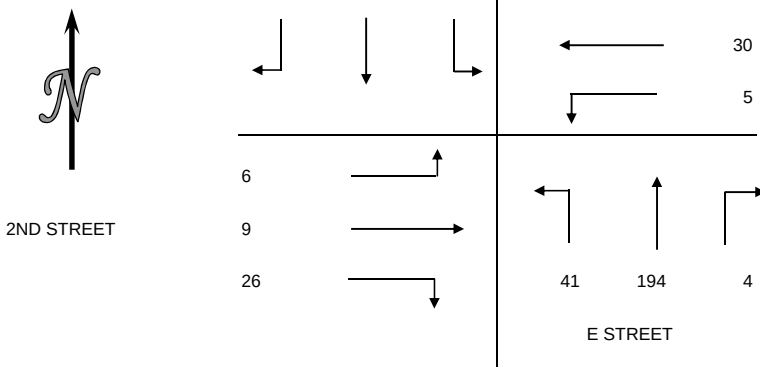
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S E STREET
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	4	43	0	2	5	2	0	35	4	3	1	0	99
715-730	4	48	0	3	10	0	1	42	5	4	2	0	119
730-745	5	64	0	4	7	3	1	44	11	10	0	2	151
745-800	2	57	0	4	6	2	0	50	12	7	4	0	144
800-815	4	54	1	0	7	0	2	58	13	5	3	4	151
815-830	2	37	3	0	5	2	0	49	10	6	2	3	119
830-845	3	33	1	5	4	1	2	38	6	2	2	5	102
845-900	3	33	1	1	4	1	0	30	8	4	1	1	87
HOUR TOTALS													
700-800	15	212	0	13	28	7	2	171	32	24	7	2	513
715-815	15	223	1	11	30	5	4	194	41	26	9	6	565
730-830	13	212	4	8	25	7	3	201	46	28	9	9	565
745-845	11	181	5	9	22	5	4	195	41	20	11	12	516
800-900	12	157	6	6	20	4	4	175	37	17	8	13	459

AM PEAK HOUR
715-815



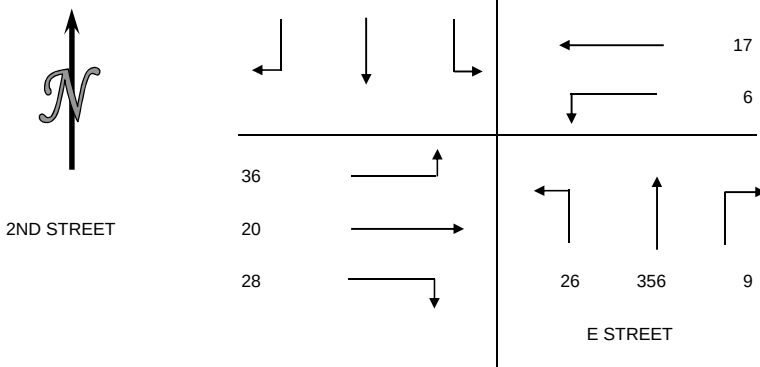
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	0	2	2	0
730-745	0	0	0	4
745-800	3	4	0	5
800-815	3	0	0	8
815-830	2	0	1	11
830-845	4	1	1	4
845-900	0	1	1	0
HOUR TOTALS				
700-800	3	6	3	9
715-815	6	6	2	17
730-830	8	4	1	28
745-845	12	5	2	28
800-900	9	2	3	23

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S E STREET
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	4	37	1	2	5	2	4	72	12	3	6	5	153
415-430	1	25	1	1	6	0	1	82	3	5	2	3	130
430-445	4	38	0	2	4	2	1	80	4	2	3	4	144
445-500	4	27	1	1	2	1	3	94	5	5	3	5	151
500-515	1	28	0	1	5	0	2	92	8	6	7	7	157
515-530	2	31	1	4	5	1	3	91	6	10	5	7	166
530-545	12	41	2	1	5	4	1	79	7	7	5	17	181
545-600	8	38	2	4	7	1	2	54	11	9	5	9	150
HOUR TOTALS													
400-500	13	127	3	6	17	5	9	328	24	15	14	17	578
415-515	10	118	2	5	17	3	7	348	20	18	15	19	582
430-530	11	124	2	8	16	4	9	357	23	23	18	23	618
445-545	19	127	4	7	17	6	9	356	26	28	20	36	655
500-600	23	138	5	10	22	6	8	316	32	32	22	40	654

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	1	3	3
415-430	1	0	4	6
430-445	2	1	3	4
445-500	2	2	0	8
500-515	1	7	2	8
515-530	2	11	6	4
530-545	1	3	4	6
545-600	0	1	2	11
HOUR TOTALS				
400-500	6	4	10	21
415-515	6	10	9	26
430-530	7	21	11	24
445-545	6	23	12	26
500-600	4	22	14	29

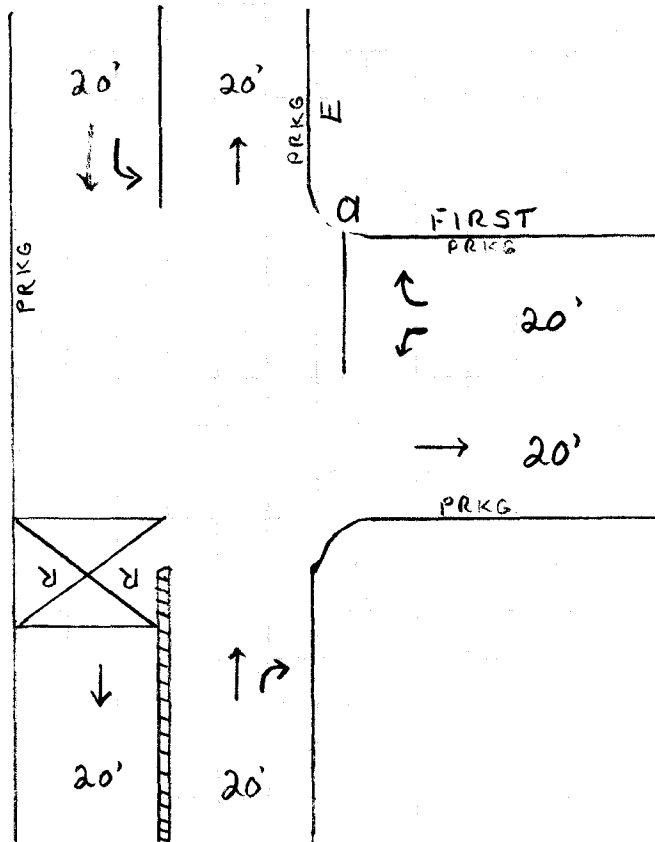
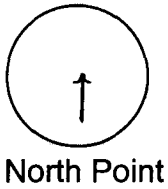
N/S E ST

E/W FIRST ST

BY: C. JAMISON

DATE: 10.09.03

Revised 4/25/10



Phasing:

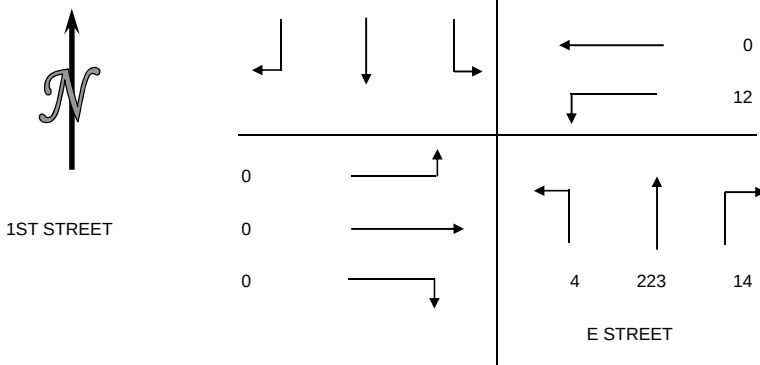
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S E STREET
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	62	1	2	0	2	0	45	1	0	0	0	113
715-730	0	51	5	3	0	2	1	49	1	0	0	0	112
730-745	0	66	8	2	0	5	3	55	2	0	0	0	141
745-800	0	65	6	4	0	2	4	60	1	0	0	0	142
800-815	0	45	4	3	0	3	6	59	0	0	0	0	120
815-830	0	35	1	5	0	0	3	53	0	0	0	0	97
830-845	0	31	2	1	0	1	1	46	0	0	0	0	82
845-900	0	33	3	2	0	3	7	32	0	0	0	0	80
HOUR TOTALS													
700-800	0	244	20	11	0	11	8	209	5	0	0	0	508
715-815	0	227	23	12	0	12	14	223	4	0	0	0	515
730-830	0	211	19	14	0	10	16	227	3	0	0	0	500
745-845	0	176	13	13	0	6	14	218	1	0	0	0	441
800-900	0	144	10	11	0	7	17	190	0	0	0	0	379

AM PEAK HOUR
715-815



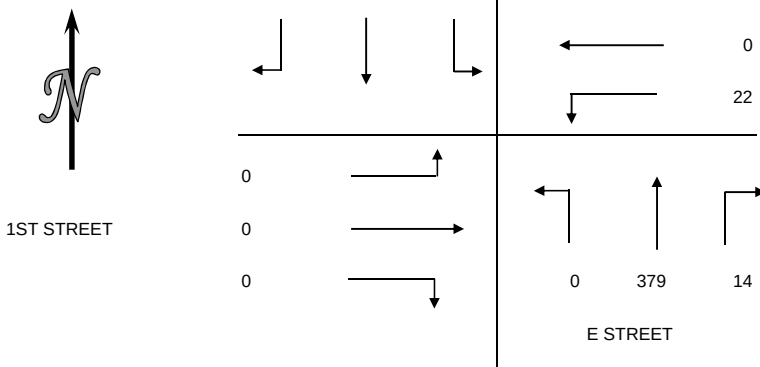
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	3	0
715-730	0	1	0	0
730-745	1	3	0	0
745-800	0	7	0	0
800-815	7	15	0	0
815-830	1	11	0	0
830-845	3	3	0	0
845-900	1	1	0	0
HOUR TOTALS				
700-800	1	11	3	0
715-815	8	26	0	0
730-830	9	36	0	0
745-845	11	36	0	0
800-900	12	30	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S E STREET
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	38	4	7	0	6	4	75	0	0	0	0	134
415-430	0	40	3	6	0	6	5	103	0	0	0	0	163
430-445	0	41	3	2	0	7	4	95	0	0	0	0	152
445-500	0	29	2	5	0	4	1	87	0	0	0	0	128
500-515	0	32	1	4	0	5	4	94	0	0	0	0	140
515-530	0	38	0	1	0	2	3	83	0	0	0	0	127
530-545	0	43	1	5	0	7	4	72	0	0	0	0	132
545-600	0	34	1	5	0	1	0	66	0	0	0	0	107
HOUR TOTALS													
400-500	0	148	12	20	0	23	14	360	0	0	0	0	577
415-515	0	142	9	17	0	22	14	379	0	0	0	0	583
430-530	0	140	6	12	0	18	12	359	0	0	0	0	547
445-545	0	142	4	15	0	18	12	336	0	0	0	0	527
500-600	0	147	3	15	0	15	11	315	0	0	0	0	506

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	2	3	5	0
415-430	2	4	1	0
430-445	4	8	0	0
445-500	1	4	0	0
500-515	0	13	2	0
515-530	1	17	0	0
530-545	1	7	0	0
545-600	0	2	0	0
HOUR TOTALS				
400-500	9	19	6	0
415-515	7	29	3	0
430-530	6	42	2	0
445-545	3	41	2	0
500-600	2	39	2	0

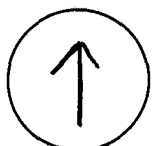
N/S E ST. / FAIRPLEX DR.

E/W ARROW RD.

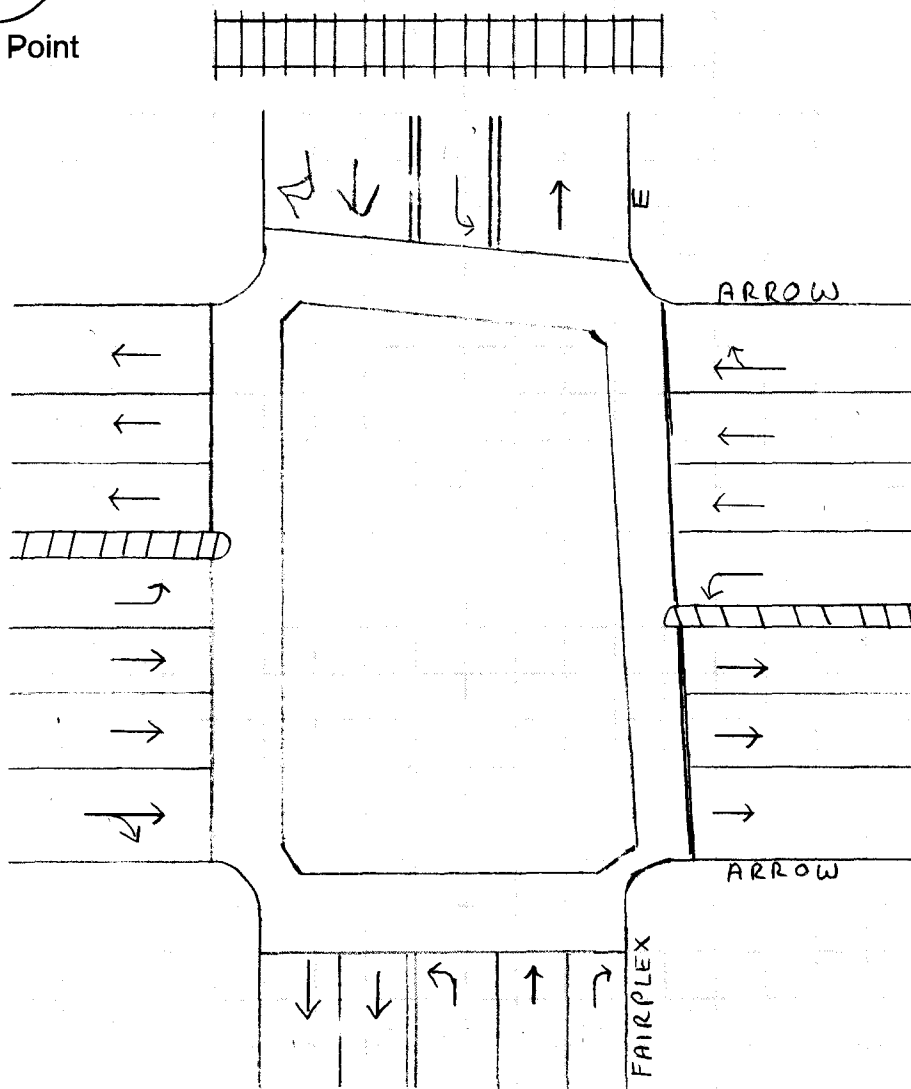
BY: C. CHAMBERS

DATE: 10.15.12

Revised 4/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

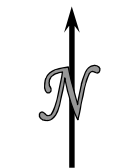
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

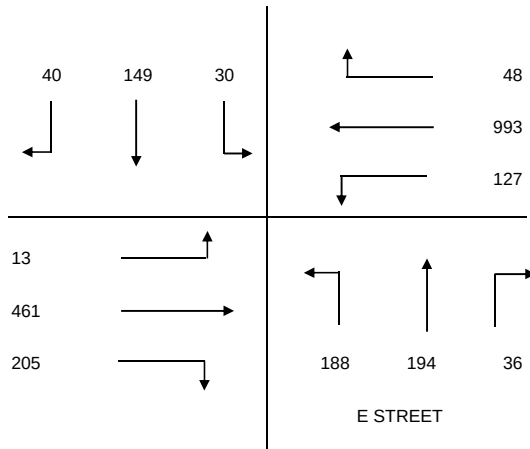
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S E STREET
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	7	38	3	2	245	20	8	36	45	34	93	3	534
715-730	12	36	7	7	252	31	13	40	34	46	109	3	590
730-745	6	38	8	10	254	29	9	56	58	65	128	0	661
745-800	10	42	7	12	256	36	9	51	58	53	114	4	652
800-815	12	33	8	19	231	31	5	47	38	41	110	6	581
815-830	7	25	4	8	213	28	10	48	49	46	116	7	561
830-845	4	43	0	4	138	23	4	35	35	30	93	10	419
845-900	6	35	5	8	118	15	9	38	40	33	92	3	402
HOUR TOTALS													
700-800	35	154	25	31	1007	116	39	183	195	198	444	10	2437
715-815	40	149	30	48	993	127	36	194	188	205	461	13	2484
730-830	35	138	27	49	954	124	33	202	203	205	468	17	2455
745-845	33	143	19	43	838	118	28	181	180	170	433	27	2213
800-900	29	136	17	39	700	97	28	168	162	150	411	26	1963

AM PEAK HOUR
715-815



ARROW HWY



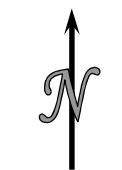
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	1
715-730	0	0	2	0
730-745	0	0	0	2
745-800	1	2	1	0
800-815	0	0	1	0
815-830	1	0	0	4
830-845	0	1	0	0
845-900	0	1	0	1
HOUR TOTALS				
700-800	1	2	4	3
715-815	1	2	4	2
730-830	2	2	2	6
745-845	2	3	2	4
800-900	1	2	1	5

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

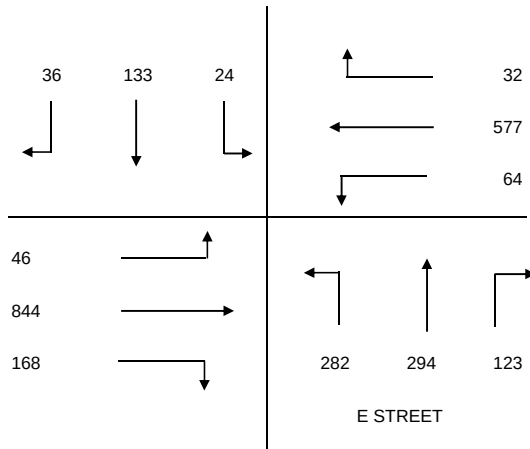
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S E STREET
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	10	18	11	6	146	21	28	67	68	40	190	8	613
415-430	11	15	7	3	139	18	22	75	74	40	211	13	628
430-445	5	23	4	4	154	20	34	84	88	38	202	10	666
445-500	8	27	1	13	151	28	34	66	55	37	197	8	625
500-515	6	28	8	6	136	10	34	83	81	48	211	17	668
515-530	14	34	6	5	143	15	28	85	70	32	214	10	656
530-545	8	44	9	8	147	11	27	60	76	51	222	11	674
545-600	5	39	4	1	152	13	27	44	79	41	205	9	619
HOUR TOTALS													
400-500	34	83	23	26	590	87	118	292	285	155	800	39	2532
415-515	30	93	20	26	580	76	124	308	298	163	821	48	2587
430-530	33	112	19	28	584	73	130	318	294	155	824	45	2615
445-545	36	133	24	32	577	64	123	294	282	168	844	46	2623
500-600	33	145	27	20	578	49	116	272	306	172	852	47	2617

PM PEAK HOUR
445-545



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	2	0
415-430	0	2	6	2
430-445	0	2	0	2
445-500	1	3	2	2
500-515	0	3	4	3
515-530	3	6	5	2
530-545	1	2	1	2
545-600	0	2	2	1
HOUR TOTALS				
400-500	1	7	10	6
415-515	1	10	12	9
430-530	4	14	11	9
445-545	5	14	12	9
500-600	4	13	12	8

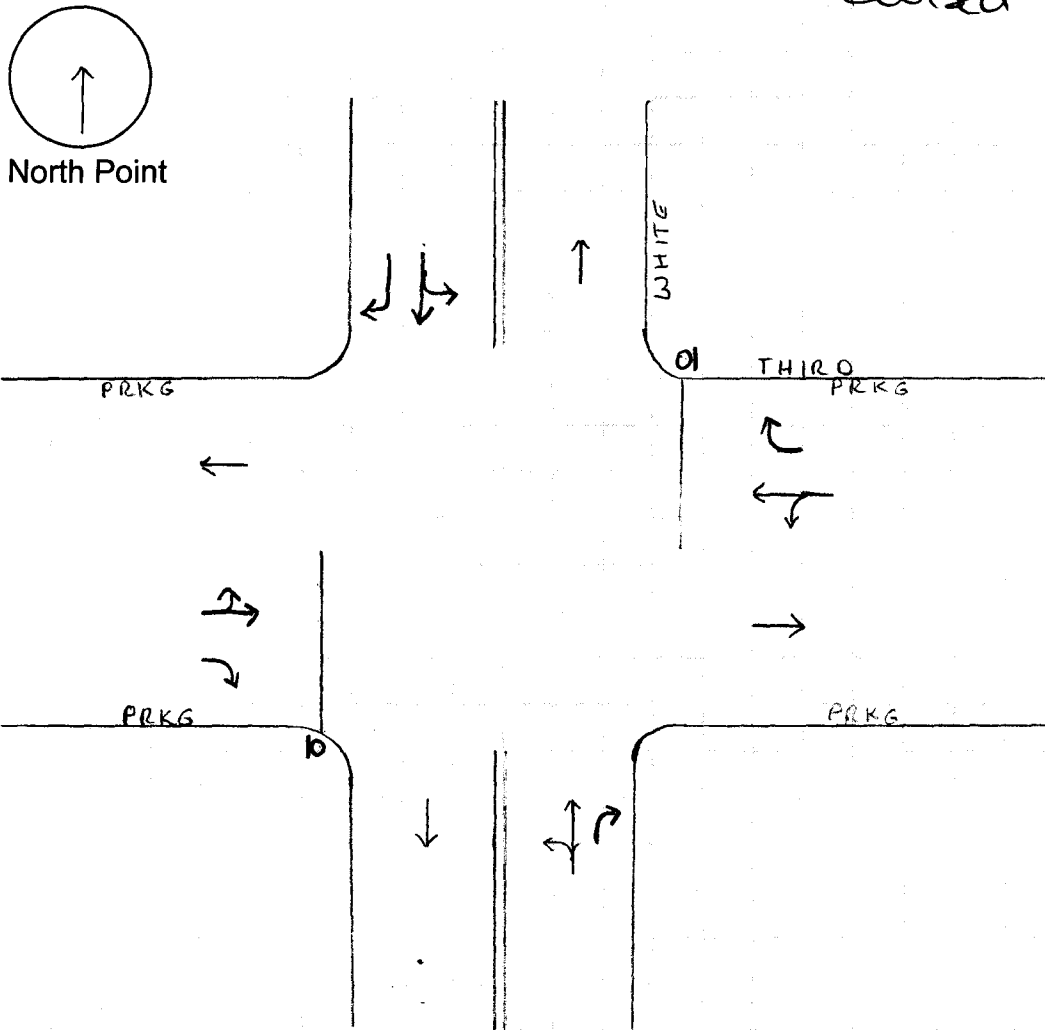
N/S WHITE AVE.

E/W THIRD ST

BY: C. JAMISON

DATE: 10.09.03

Revised 6/25/10



Phasing:

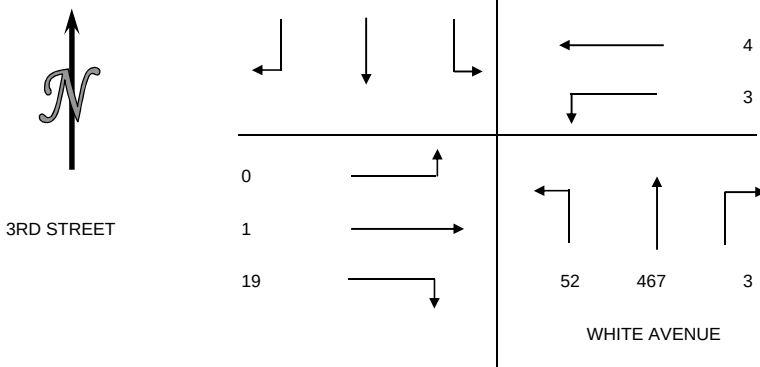
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	6	122	2	2	3	2	4	90	5	5	0	0	241
715-730	5	153	0	3	1	0	1	125	12	6	1	0	307
730-745	10	160	2	2	0	3	0	106	10	2	0	0	295
745-800	7	161	0	4	3	0	2	110	18	7	0	0	312
800-815	7	145	0	8	0	0	0	126	12	4	0	0	302
815-830	8	140	1	1	1	0	2	102	7	0	5	0	267
830-845	5	109	0	3	4	2	0	85	4	1	0	0	213
845-900	5	90	0	1	0	2	2	87	5	3	1	2	198
HOUR TOTALS													
700-800	28	596	4	11	7	5	7	431	45	20	1	0	1155
715-815	29	619	2	17	4	3	3	467	52	19	1	0	1216
730-830	32	606	3	15	4	3	4	444	47	13	5	0	1176
745-845	27	555	1	16	8	2	4	423	41	12	5	0	1094
800-900	25	484	1	13	5	4	4	400	28	8	6	2	980

AM PEAK HOUR
715-815



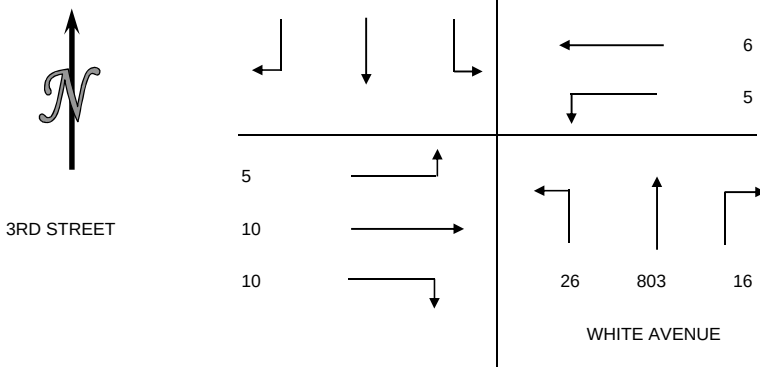
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	5	1	0
715-730	0	2	2	1
730-745	2	2	1	3
745-800	0	0	1	2
800-815	2	2	1	1
815-830	0	0	0	0
830-845	0	0	1	3
845-900	1	5	0	0
HOUR TOTALS				
700-800	3	9	5	6
715-815	4	6	5	7
730-830	4	4	3	6
745-845	2	2	3	6
800-900	3	7	2	4

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W 3RD STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	138	5	2	0	0	5	158	7	5	2	3	327
415-430	3	136	1	1	0	0	1	163	8	3	5	1	322
430-445	5	148	0	1	1	0	2	194	8	1	4	0	364
445-500	2	145	4	4	5	1	4	206	10	3	2	1	387
500-515	5	136	3	5	0	3	5	207	6	5	3	2	380
515-530	3	116	3	3	0	1	5	196	2	1	1	2	333
530-545	3	119	0	3	0	2	2	183	4	5	3	2	326
545-600	2	121	0	1	0	0	0	161	6	1	2	1	295
HOURLY TOTALS													
400-500	12	567	10	8	6	1	12	721	33	12	13	5	1400
415-515	15	565	8	11	6	4	12	770	32	12	14	4	1453
430-530	15	545	10	13	6	5	16	803	26	10	10	5	1464
445-545	13	516	10	15	5	7	16	792	22	14	9	7	1426
500-600	13	492	6	12	0	6	12	747	18	12	9	7	1334

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	1
415-430	0	0	0	0
430-445	1	1	0	2
445-500	0	0	0	0
500-515	0	0	0	2
515-530	0	0	0	4
530-545	2	2	0	2
545-600	0	2	1	3
HOURLY TOTALS				
400-500	1	1	0	3
415-515	1	1	0	4
430-530	1	1	0	8
445-545	2	2	0	8
500-600	2	4	1	11

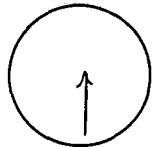
N/S WHITE AVE

E/W SECOND ST

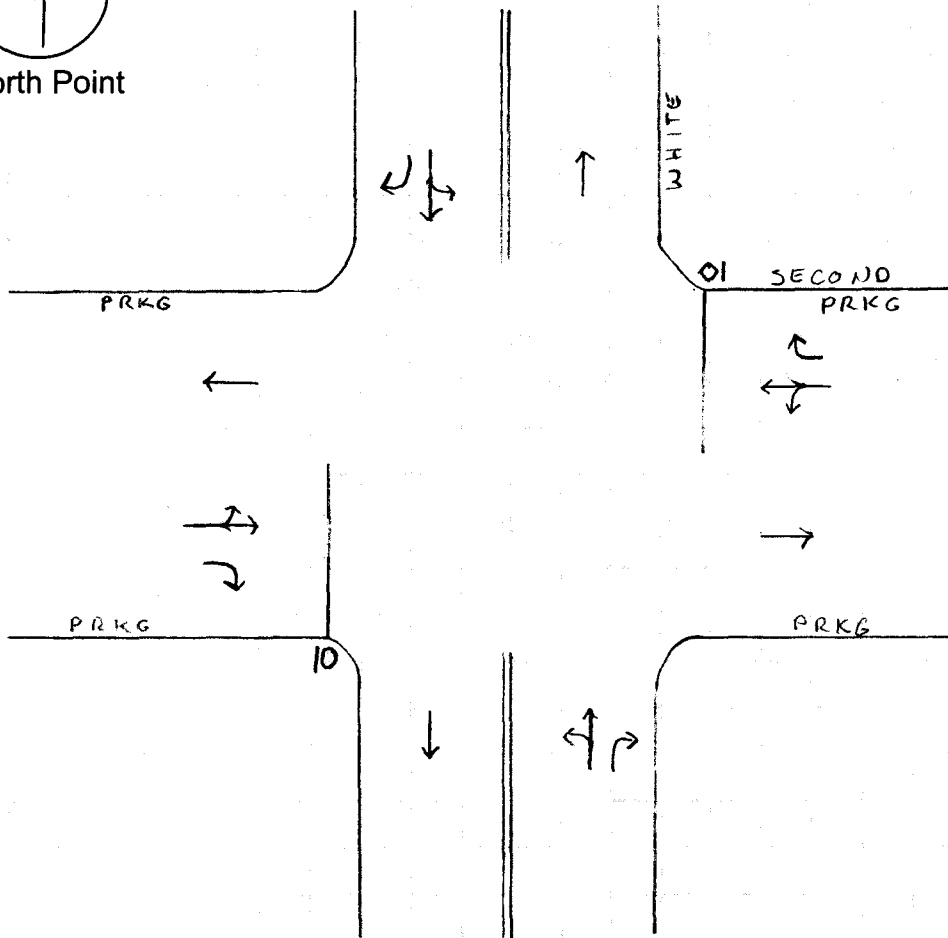
BY: C. JAMISON

DATE: 10.09.03

Revised 6/25/10



North Point



Phasing:

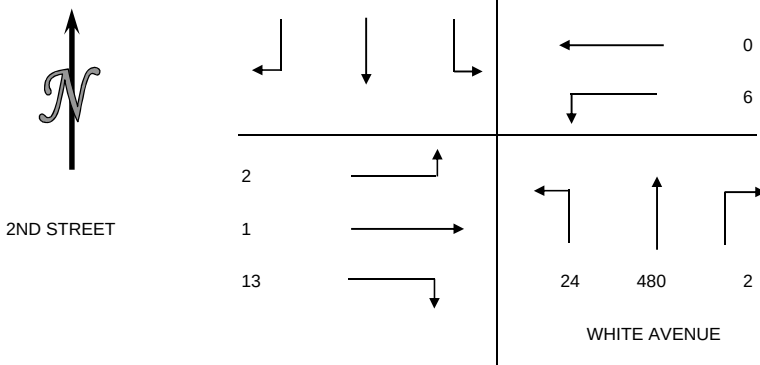
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	134	3	3	0	2	1	109	4	5	1	0	263
715-730	3	150	0	7	0	0	0	118	5	2	0	0	285
730-745	3	177	2	2	0	5	2	113	5	1	0	1	311
745-800	2	155	2	4	0	0	0	119	10	6	0	1	299
800-815	4	141	6	3	0	1	0	130	4	4	1	0	294
815-830	1	128	2	4	1	2	1	109	6	2	1	2	259
830-845	0	103	1	3	1	1	3	96	6	4	0	0	218
845-900	4	105	1	3	0	0	1	97	6	2	0	3	222
HOURLY TOTALS													
700-800	9	616	7	16	0	7	3	459	24	14	1	2	1158
715-815	12	623	10	16	0	6	2	480	24	13	1	2	1189
730-830	10	601	12	13	1	8	3	471	25	13	2	4	1163
745-845	7	527	11	14	2	4	4	454	26	16	2	3	1070
800-900	9	477	10	13	2	4	5	432	22	12	2	5	993

AM PEAK HOUR
715-815



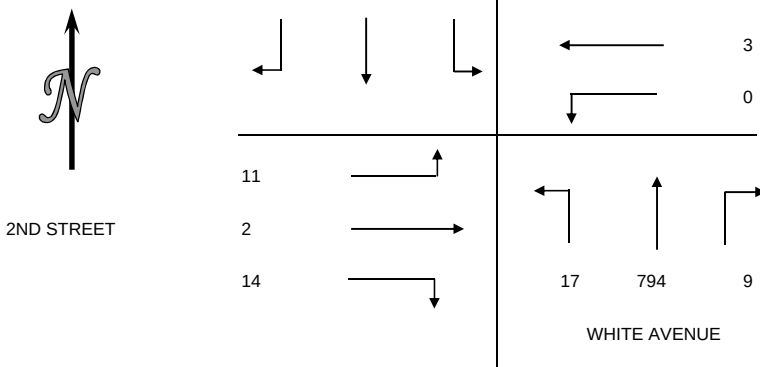
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	1	1	0
715-730	0	6	0	1
730-745	1	2	0	0
745-800	3	2	0	1
800-815	1	3	0	0
815-830	0	0	1	0
830-845	0	0	0	2
845-900	0	0	0	0
HOURLY TOTALS				
700-800	4	11	1	2
715-815	5	13	0	2
730-830	5	7	1	1
745-845	4	5	1	3
800-900	1	3	1	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W 2ND STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	154	4	3	0	1	1	166	1	4	2	3	341
415-430	3	144	2	3	1	0	4	186	5	3	0	2	353
430-445	4	147	3	3	1	0	2	195	5	3	1	1	365
445-500	1	130	1	1	1	0	2	200	3	3	1	2	345
500-515	0	139	1	1	0	0	2	203	2	2	0	2	352
515-530	4	124	3	4	1	0	3	196	7	6	0	6	354
530-545	4	119	0	1	0	1	0	191	2	4	1	2	325
545-600	5	119	1	1	1	2	4	170	5	6	0	4	318
HOURLY TOTALS													
400-500	10	575	10	10	3	1	9	747	14	13	4	8	1404
415-515	8	560	7	8	3	0	10	784	15	11	2	7	1415
430-530	9	540	8	9	3	0	9	794	17	14	2	11	1416
445-545	9	512	5	7	2	1	7	790	14	15	2	12	1376
500-600	13	501	5	7	2	3	9	760	16	18	1	14	1349

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	1
415-430	0	1	0	0
430-445	0	0	1	1
445-500	0	3	0	0
500-515	0	0	0	3
515-530	1	0	0	7
530-545	1	1	0	0
545-600	0	4	1	0
HOURLY TOTALS				
400-500	0	4	1	2
415-515	0	4	1	4
430-530	1	3	1	11
445-545	2	4	0	10
500-600	2	5	1	10

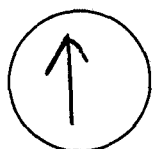
N/S WHITE AVE

E/W FIRST ST

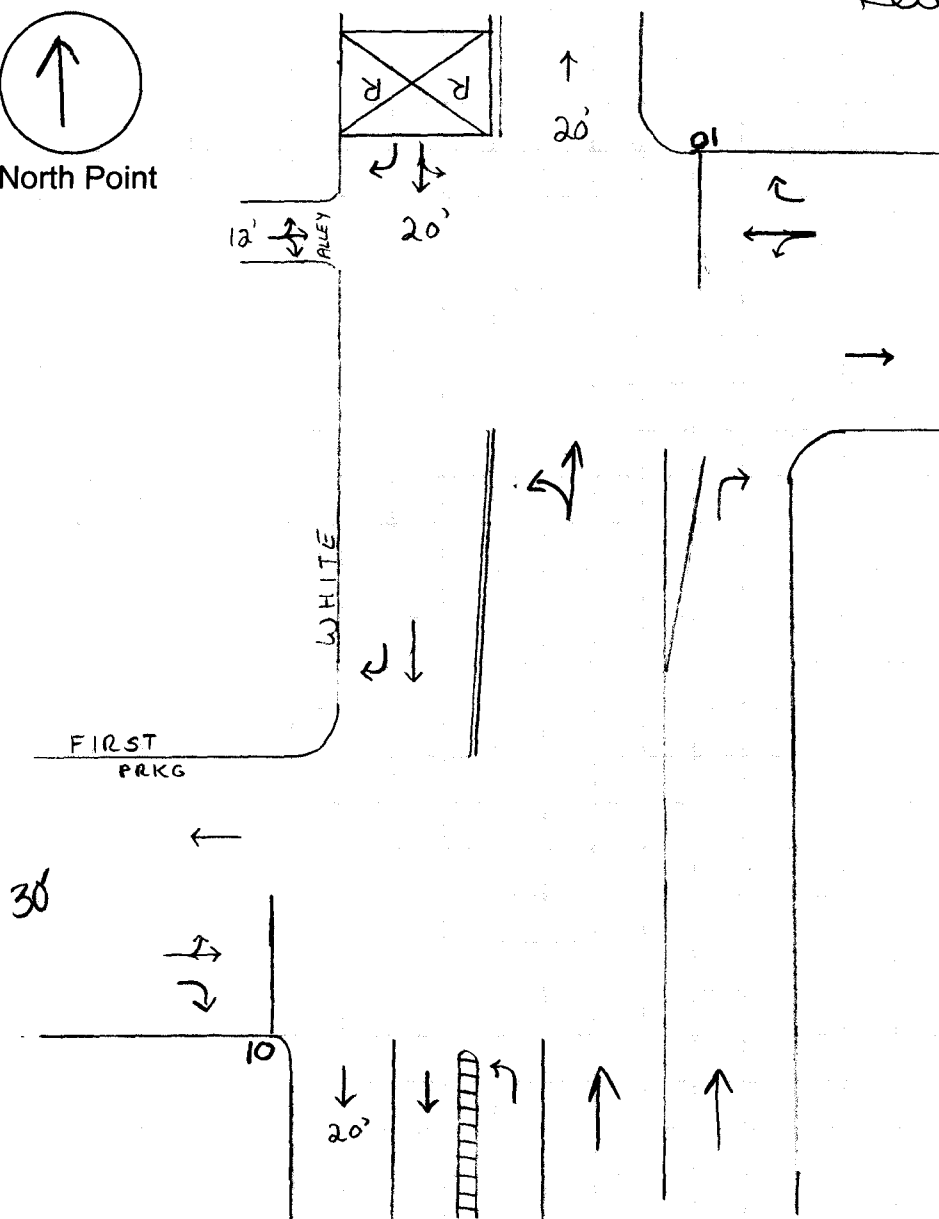
BY: C. JAMISON

DATE: 10.09.03

Revised 4/25/10



North Point



Phasing:

1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W 1ST STREET

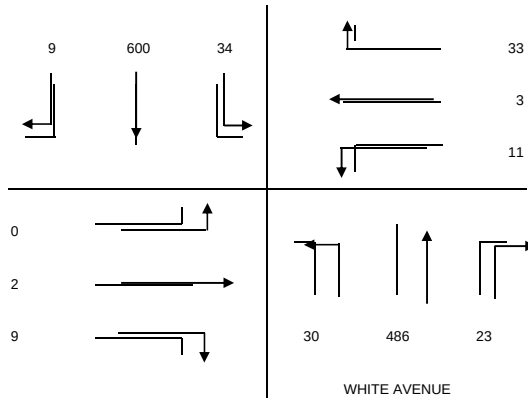
15 MIN COUNTS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
PERIOD	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-715	2	123	8	8	1	5	4	85	3	3	0	0	242
715-730	1	142	12	8	1	4	1	123	5	1	1	0	299
730-745	2	179	3	5	0	4	9	116	6	5	0	0	329
745-800	1	151	11	11	1	1	6	116	10	1	1	0	310
800-815	5	128	8	9	1	2	7	131	9	2	0	0	302
815-830	3	129	10	1	0	3	6	112	3	7	0	2	276
830-845	0	100	6	6	0	4	4	96	1	2	1	1	221
845-900	3	96	8	8	0	4	5	85	5	1	0	3	218
HOURLY TOTALS													
700-800	6	595	34	32	3	14	20	440	24	10	2	0	1180
715-815	9	600	34	33	3	11	23	486	30	9	2	0	1240
730-830	11	587	32	26	2	10	28	475	26	15	1	2	1217
745-845	9	508	35	27	2	10	23	455	23	12	2	3	1109
800-900	11	453	32	24	1	13	22	424	18	12	1	6	1017

AM PEAK HOUR

715-815



1ST STREET



PEDESTRIAN COUNTS

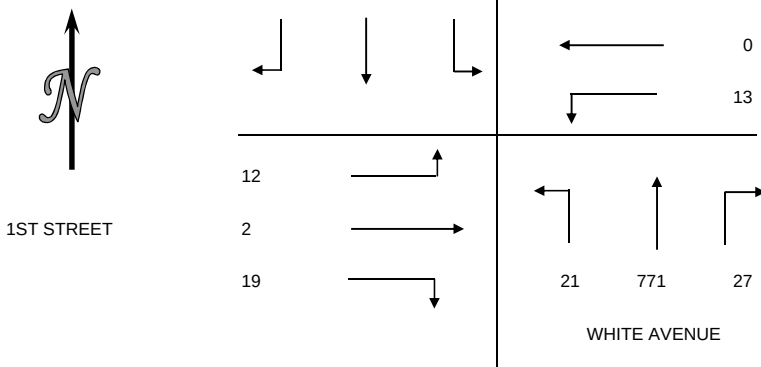
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	2	1	0
715-730	0	1	0	2
730-745	0	3	1	0
745-800	0	2	0	1
800-815	1	2	0	0
815-830	0	1	0	0
830-845	0	0	0	0
845-900	1	1	2	1
HOURLY TOTALS				
700-800	0	8	2	3
715-815	1	8	1	3
730-830	1	8	1	1
745-845	1	5	0	1
800-900	2	4	2	1

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W 1ST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	155	4	18	0	6	2	133	5	6	0	1	332
415-430	7	133	2	12	0	1	3	174	7	4	1	2	346
430-445	2	133	2	7	0	5	7	186	7	3	1	3	356
445-500	5	129	5	2	0	2	4	194	4	5	0	0	350
500-515	1	139	5	11	0	4	10	184	3	8	1	5	371
515-530	2	121	7	6	0	2	6	207	7	3	0	4	365
530-545	4	112	2	6	0	1	3	197	8	8	1	5	347
545-600	8	113	0	10	0	0	4	179	2	4	0	7	327
HOUR TOTALS													
400-500	16	550	13	39	0	14	16	687	23	18	2	6	1384
415-515	15	534	14	32	0	12	24	738	21	20	3	10	1423
430-530	10	522	19	26	0	13	27	771	21	19	2	12	1442
445-545	12	501	19	25	0	9	23	782	22	24	2	14	1433
500-600	15	485	14	33	0	7	23	767	20	23	2	21	1410

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	1	0
415-430	0	0	0	2
430-445	1	1	1	2
445-500	0	0	0	0
500-515	0	0	0	2
515-530	0	0	1	2
530-545	0	1	0	0
545-600	0	4	0	1
HOUR TOTALS				
400-500	1	1	2	4
415-515	1	1	1	6
430-530	1	1	2	6
445-545	0	1	1	4
500-600	0	5	1	5

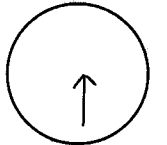
N/S WHITE AVE.

E/W SIERRA WAY

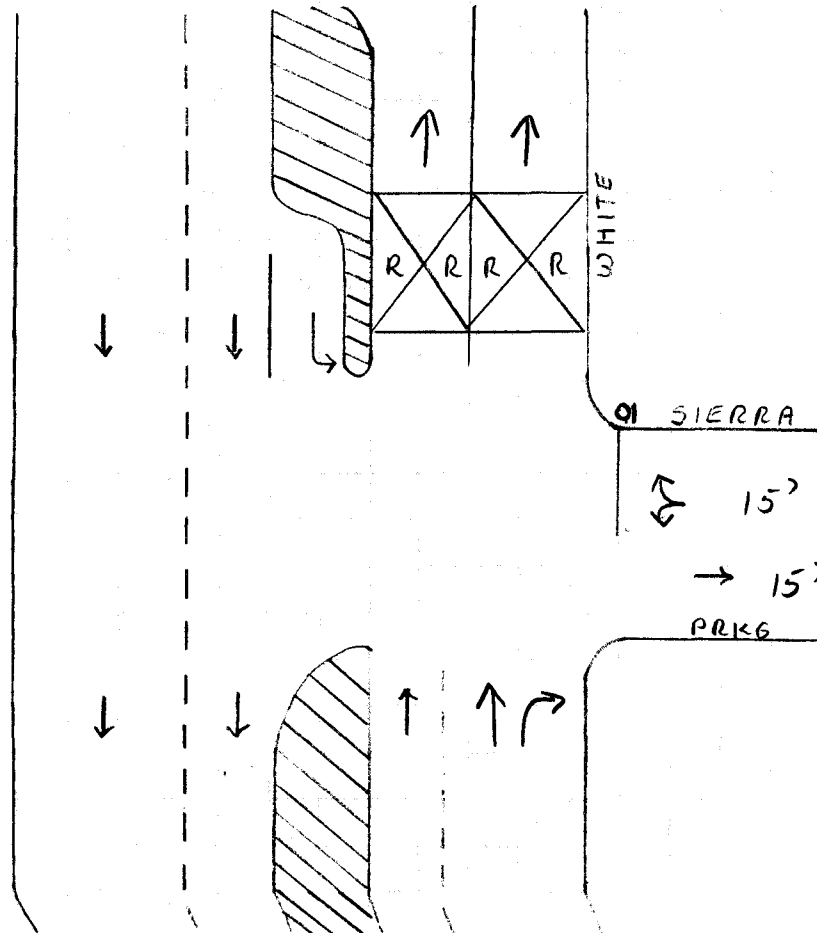
BY: C. JAMISON

DATE: 10.09.03

Revised 6/25/10



North Point



Phasing:

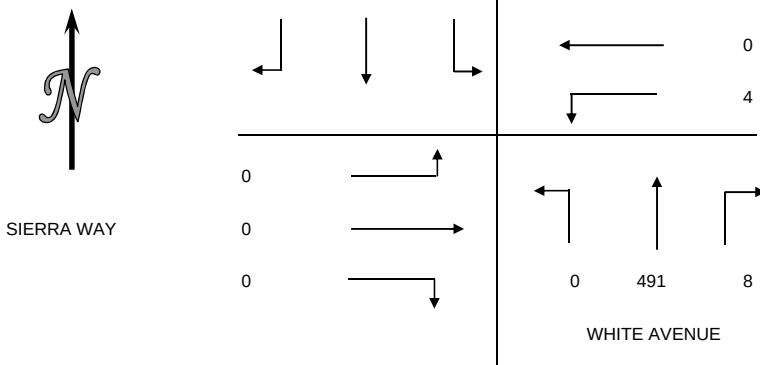
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W SIERRA WAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	117	3	3	0	4	2	106	0	0	0	0	235
715-730	0	156	4	7	0	2	1	122	0	0	0	0	292
730-745	0	166	6	4	0	2	2	115	0	0	0	0	295
745-800	0	133	5	4	0	0	2	116	0	0	0	0	260
800-815	0	140	7	7	0	0	3	138	0	0	0	0	295
815-830	0	123	4	0	0	0	0	112	0	0	0	0	239
830-845	0	103	1	3	0	2	0	96	0	0	0	0	205
845-900	0	94	5	2	0	0	1	95	0	0	0	0	197
HOURLY TOTALS													
700-800	0	572	18	18	0	8	7	459	0	0	0	0	1082
715-815	0	595	22	22	0	4	8	491	0	0	0	0	1142
730-830	0	562	22	15	0	2	7	481	0	0	0	0	1089
745-845	0	499	17	14	0	2	5	462	0	0	0	0	999
800-900	0	460	17	12	0	2	4	441	0	0	0	0	936

AM PEAK HOUR
715-815



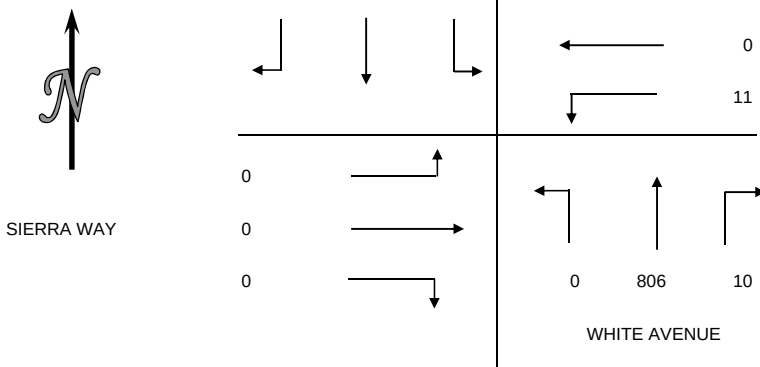
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	3	0	0
715-730	0	2	0	0
730-745	0	1	0	0
745-800	0	1	0	0
800-815	0	2	0	0
815-830	0	2	0	0
830-845	0	1	0	0
845-900	0	1	0	0
HOURLY TOTALS				
700-800	0	7	0	0
715-815	0	6	0	0
730-830	0	6	0	0
745-845	0	6	0	0
800-900	0	6	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W SIERRA WAY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	147	4	7	0	3	6	150	0	0	0	0	317
415-430	0	149	10	3	0	0	1	178	0	0	0	0	341
430-445	0	152	10	6	0	4	4	211	0	0	0	0	387
445-500	0	121	9	3	0	5	3	200	0	0	0	0	341
500-515	0	124	5	3	0	2	1	196	0	0	0	0	331
515-530	0	139	2	3	0	0	2	199	0	0	0	0	345
530-545	0	119	5	2	0	0	0	194	0	0	0	0	320
545-600	0	113	3	2	0	0	2	170	0	0	0	0	290
HOUR TOTALS													
400-500	0	569	33	19	0	12	14	739	0	0	0	0	1386
415-515	0	546	34	15	0	11	9	785	0	0	0	0	1400
430-530	0	536	26	15	0	11	10	806	0	0	0	0	1404
445-545	0	503	21	11	0	7	6	789	0	0	0	0	1337
500-600	0	495	15	10	0	2	5	759	0	0	0	0	1286

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	0	0
415-430	0	3	0	0
430-445	0	3	0	0
445-500	0	0	0	0
500-515	2	6	0	0
515-530	0	5	0	0
530-545	0	1	0	0
545-600	0	6	0	0
HOUR TOTALS				
400-500	0	8	0	0
415-515	2	12	0	0
430-530	2	14	0	0
445-545	2	12	0	0
500-600	2	18	0	0

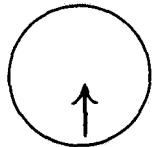
N/S WHITE AVE

EW ARROW HWY

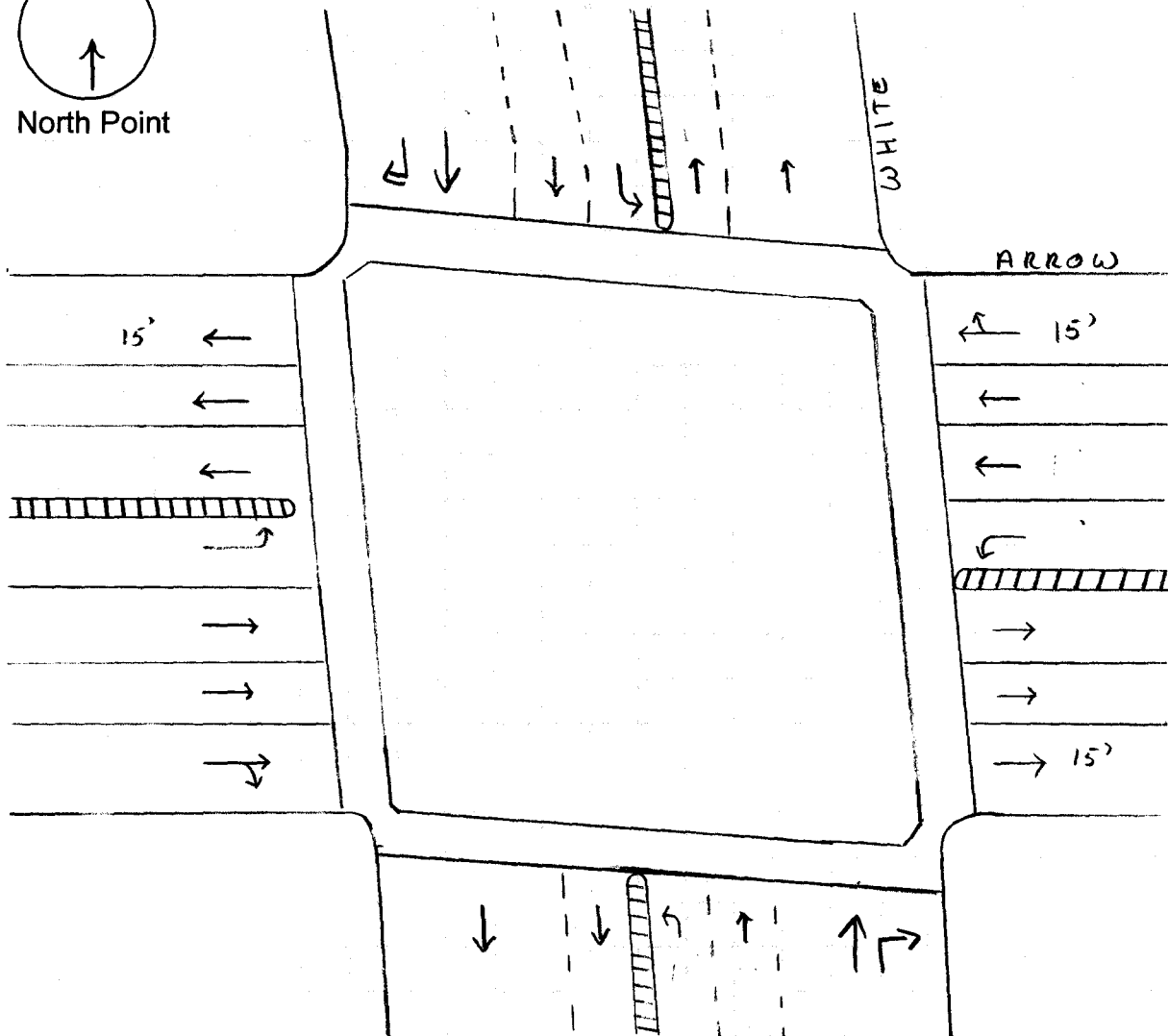
BY: C JAMISON

DATE: 10.09.03

Revised 4/25/10



North Point



Phasing:

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WILTEC

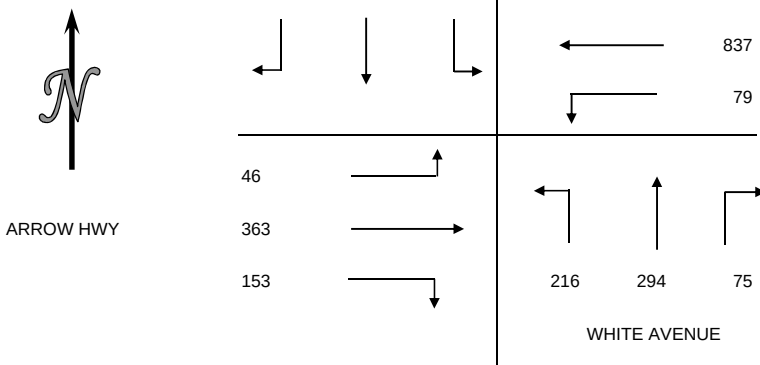
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	14	78	14	23	170	14	12	52	36	12	62	7	494
715-730	27	96	12	47	201	19	12	72	52	26	73	10	647
730-745	34	104	29	26	239	21	16	75	53	38	98	15	748
745-800	32	96	28	40	224	22	30	84	61	55	110	8	790
800-815	25	90	24	51	173	17	17	63	50	34	82	13	639
815-830	19	84	25	25	161	8	23	77	36	28	89	9	584
830-845	20	52	22	32	122	12	10	60	42	20	76	7	475
845-900	11	70	19	30	112	11	16	49	36	20	67	17	458
HOUR TOTALS													
700-800	107	374	83	136	834	76	70	283	202	131	343	40	2679
715-815	118	386	93	164	837	79	75	294	216	153	363	46	2824
730-830	110	374	106	142	797	68	86	299	200	155	379	45	2761
745-845	96	322	99	148	680	59	80	284	189	137	357	37	2488
800-900	75	296	90	138	568	48	66	249	164	102	314	46	2156

AM PEAK HOUR
715-815



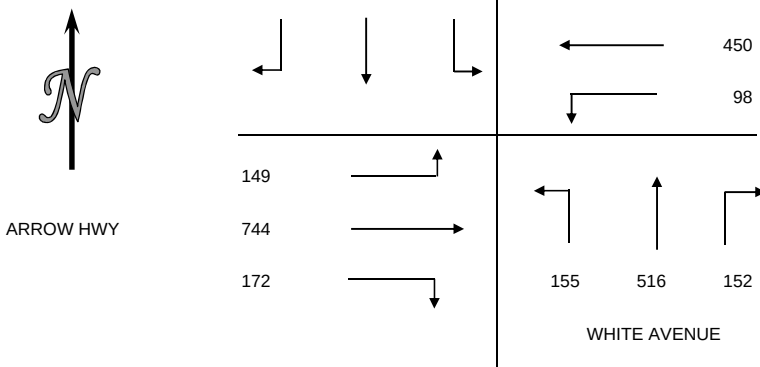
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	3	2	2
715-730	1	2	3	3
730-745	0	0	3	0
745-800	0	0	0	0
800-815	0	2	1	2
815-830	0	0	0	0
830-845	4	0	0	0
845-900	0	1	2	2
HOUR TOTALS				
700-800	2	5	8	5
715-815	1	4	7	5
730-830	0	2	4	2
745-845	4	2	1	2
800-900	4	3	3	4

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	18	103	41	37	125	19	29	88	43	37	174	20	734
415-430	14	90	45	43	111	21	30	113	31	24	147	33	702
430-445	19	91	33	43	107	20	24	106	33	30	172	31	709
445-500	13	76	40	38	105	25	38	119	47	46	164	37	748
500-515	18	89	31	36	123	27	39	111	36	36	175	39	760
515-530	11	75	27	29	109	23	38	152	34	50	203	34	785
530-545	10	86	25	36	113	23	37	134	38	40	202	39	783
545-600	25	65	36	43	108	28	32	107	30	32	189	33	728
HOUR TOTALS													
400-500	64	360	159	161	448	85	121	426	154	137	657	121	2893
415-515	64	346	149	160	446	93	131	449	147	136	658	140	2919
430-530	61	331	131	146	444	95	139	488	150	162	714	141	3002
445-545	52	326	123	139	450	98	152	516	155	172	744	149	3076
500-600	64	315	119	144	453	101	146	504	138	158	769	145	3056

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	4	2	2	2
415-430	0	0	1	6
430-445	0	0	2	0
445-500	1	1	0	0
500-515	2	0	0	0
515-530	0	1	1	3
530-545	0	1	7	2
545-600	4	4	1	0
HOUR TOTALS				
400-500	5	3	5	8
415-515	3	1	3	6
430-530	3	2	3	3
445-545	3	3	8	5
500-600	6	6	9	5

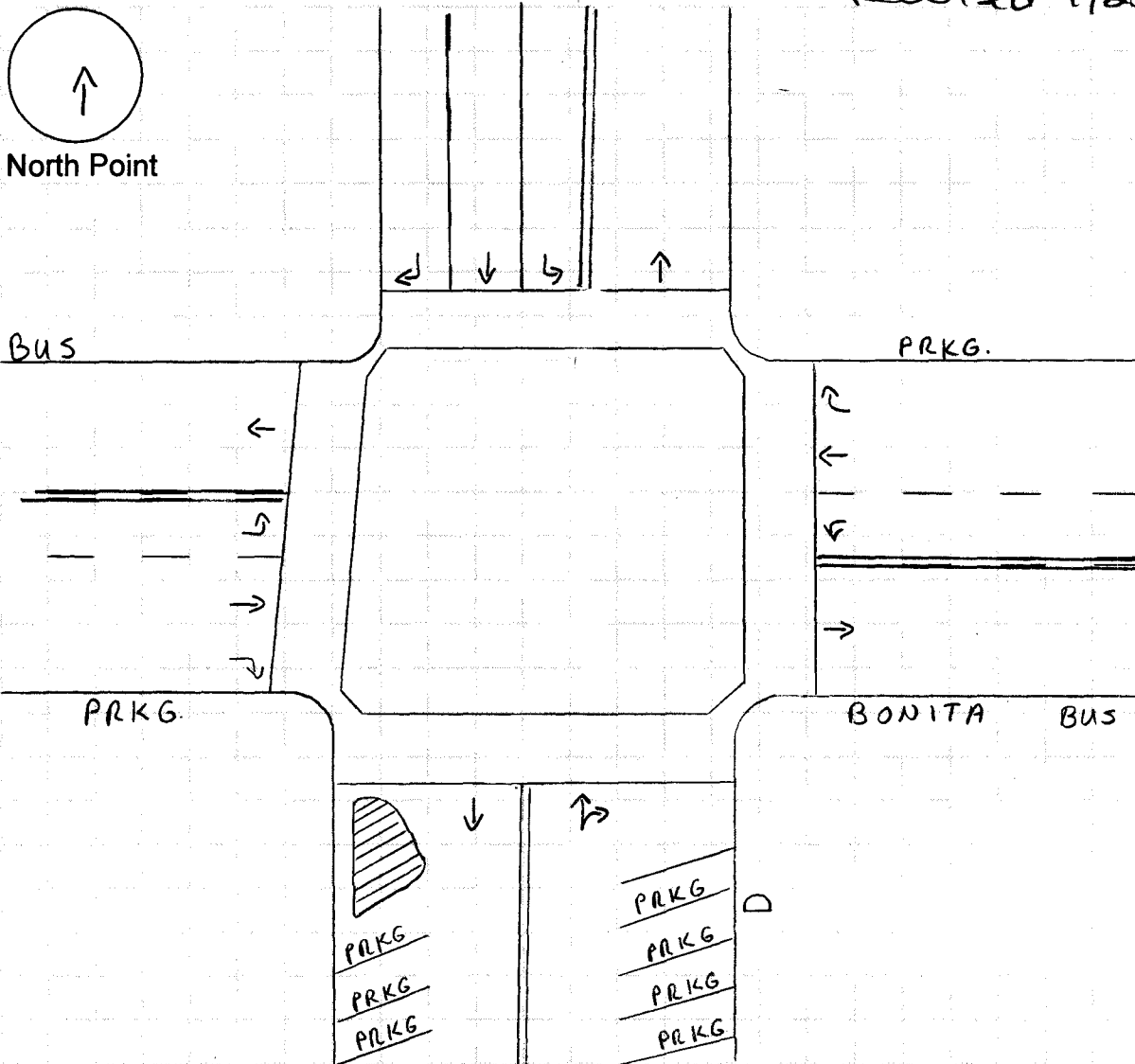
N/S D. ST.

EW BONITA AVE.

BY: C. JAMISON

DATE: 04.23.05

Revised 4/25/10



Phasing:

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WILTEC

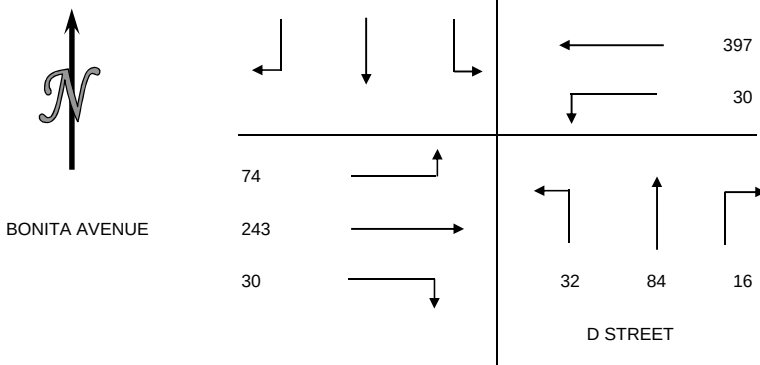
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S D STREET
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	23	20	21	28	111	8	1	20	4	7	38	15	296
715-730	42	30	36	22	110	9	4	21	11	7	42	20	354
730-745	34	39	23	23	106	9	3	25	9	7	64	18	360
745-800	27	35	18	18	90	10	4	19	10	11	64	14	320
800-815	27	29	16	12	91	2	5	19	2	5	73	22	303
815-830	27	22	22	13	88	10	4	17	9	10	69	16	307
830-845	18	18	12	12	84	6	6	19	2	6	58	15	256
845-900	15	29	17	10	80	8	3	22	9	4	65	15	277
HOUR TOTALS													
700-800	126	124	98	91	417	36	12	85	34	32	208	67	1330
715-815	130	133	93	75	397	30	16	84	32	30	243	74	1337
730-830	115	125	79	66	375	31	16	80	30	33	270	70	1290
745-845	99	104	68	55	353	28	19	74	23	32	264	67	1186
800-900	87	98	67	47	343	26	18	77	22	25	265	68	1143

AM PEAK HOUR
715-815



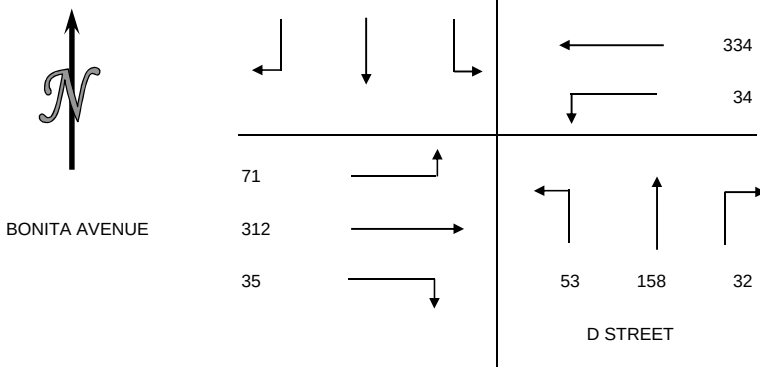
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	1	4
715-730	6	13	6	8
730-745	3	4	1	8
745-800	2	3	3	1
800-815	3	6	1	0
815-830	0	5	5	7
830-845	3	8	4	11
845-900	2	2	8	2
HOUR TOTALS				
700-800	12	21	11	21
715-815	14	26	11	17
730-830	8	18	10	16
745-845	8	22	13	19
800-900	8	21	18	20

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S D STREET
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	22	28	22	23	86	4	14	40	5	8	87	27	366
415-430	20	30	27	27	83	11	8	47	9	7	74	24	367
430-445	29	24	28	21	85	6	12	40	9	9	72	19	354
445-500	28	39	25	25	80	5	6	41	12	11	75	16	363
500-515	28	37	26	26	87	11	13	33	17	11	75	23	387
515-530	37	37	30	29	97	11	5	43	12	4	83	17	405
530-545	32	44	21	22	70	7	8	41	12	9	79	15	360
545-600	34	35	21	18	51	7	6	39	18	11	76	20	336
HOUR TOTALS													
400-500	99	121	102	96	334	26	40	168	35	35	308	86	1450
415-515	105	130	106	99	335	33	39	161	47	38	296	82	1471
430-530	122	137	109	101	349	33	36	157	50	35	305	75	1509
445-545	125	157	102	102	334	34	32	158	53	35	312	71	1515
500-600	131	153	98	95	305	36	32	156	59	35	313	75	1488

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	4	8	4	6
415-430	1	9	8	12
430-445	1	8	9	6
445-500	2	4	8	5
500-515	0	2	6	3
515-530	2	4	11	5
530-545	0	8	8	9
545-600	0	2	6	2
HOUR TOTALS				
400-500	8	29	29	29
415-515	4	23	31	26
430-530	5	18	34	19
445-545	4	18	33	22
500-600	2	16	31	19

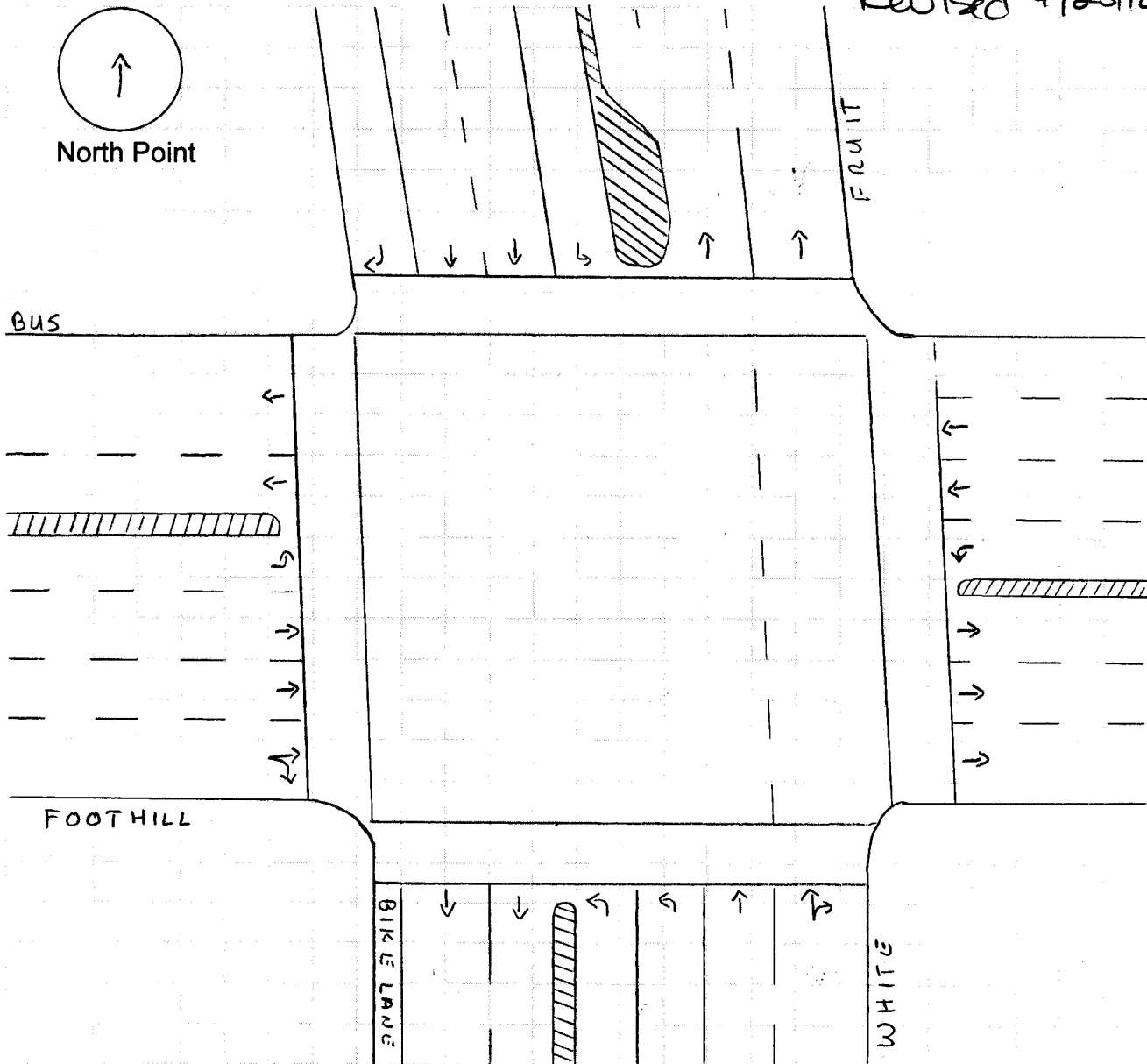
N/S FRUIT ST. / WHITE AVE

EW FOOTHILL BLVD.

BY: C. JAMISON

DATE: 04.23.05

Revised 4/25/10



Phasing:

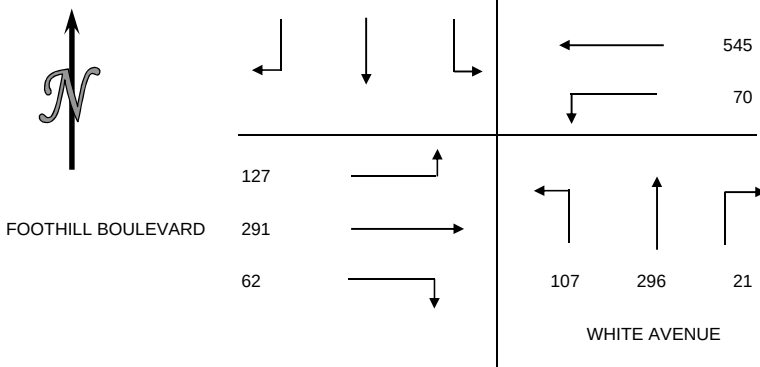
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W FOOTHILL BOULEVARD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	49	94	28	35	122	11	1	60	23	11	47	18	499
715-730	57	110	34	45	140	23	2	65	24	12	53	29	594
730-745	63	124	34	47	136	22	4	72	24	13	66	33	638
745-800	42	142	49	45	147	17	9	78	24	13	70	28	664
800-815	52	108	49	44	132	15	2	77	22	18	78	28	625
815-830	42	101	55	45	130	16	6	69	37	18	77	38	634
830-845	41	76	60	47	119	11	5	50	27	19	86	31	572
845-900	30	67	49	33	101	9	3	58	33	16	84	38	521
HOURLY TOTALS													
700-800	211	470	145	172	545	73	16	275	95	49	236	108	2395
715-815	214	484	166	181	555	77	17	292	94	56	267	118	2521
730-830	199	475	187	181	545	70	21	296	107	62	291	127	2561
745-845	177	427	213	181	528	59	22	274	110	68	311	125	2495
800-900	165	352	213	169	482	51	16	254	119	71	325	135	2352

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	3
715-730	0	7	6	5
730-745	0	1	0	2
745-800	5	0	1	4
800-815	0	1	1	1
815-830	1	1	2	2
830-845	2	0	1	0
845-900	0	1	0	1
HOURLY TOTALS				
700-800	5	8	8	14
715-815	5	9	8	12
730-830	6	3	4	9
745-845	8	2	5	7
800-900	3	3	4	4

WILTEC

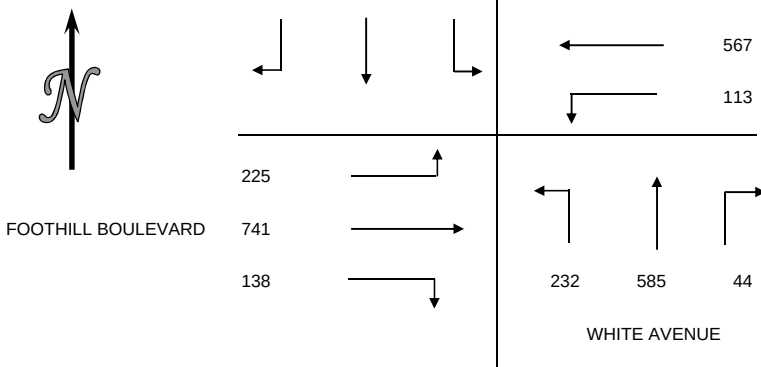
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 12, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W FOOTHILL BOULEVARD

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	38	76	76	53	108	10	13	99	39	39	186	65	802
415-430	34	84	79	51	130	5	10	115	56	43	211	60	878
430-445	42	85	77	52	144	7	13	107	52	33	212	52	876
445-500	49	84	59	47	140	17	11	137	75	26	187	45	877
500-515	32	78	47	48	145	22	10	141	53	37	185	61	859
515-530	41	77	47	47	154	24	16	141	43	32	189	65	876
530-545	42	81	50	49	141	27	10	151	60	41	193	56	901
545-600	42	87	59	42	127	40	8	152	76	28	174	43	878
HOURLY TOTALS													
400-500	163	329	291	203	522	39	47	458	222	141	796	222	3433
415-515	157	331	262	198	559	51	44	500	236	139	795	218	3490
430-530	164	324	230	194	583	70	50	526	223	128	773	223	3488
445-545	164	320	203	191	580	90	47	570	231	136	754	227	3513
500-600	157	323	203	186	567	113	44	585	232	138	741	225	3514

PM PEAK HOUR
500-600



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	0	8	4
415-430	1	0	4	3
430-445	5	2	4	1
445-500	10	4	5	2
500-515	5	0	5	6
515-530	1	0	6	6
530-545	1	5	5	1
545-600	2	0	1	3
HOURLY TOTALS				
400-500	19	6	21	10
415-515	21	6	18	12
430-530	21	6	20	15
445-545	17	9	21	15
500-600	9	5	17	16

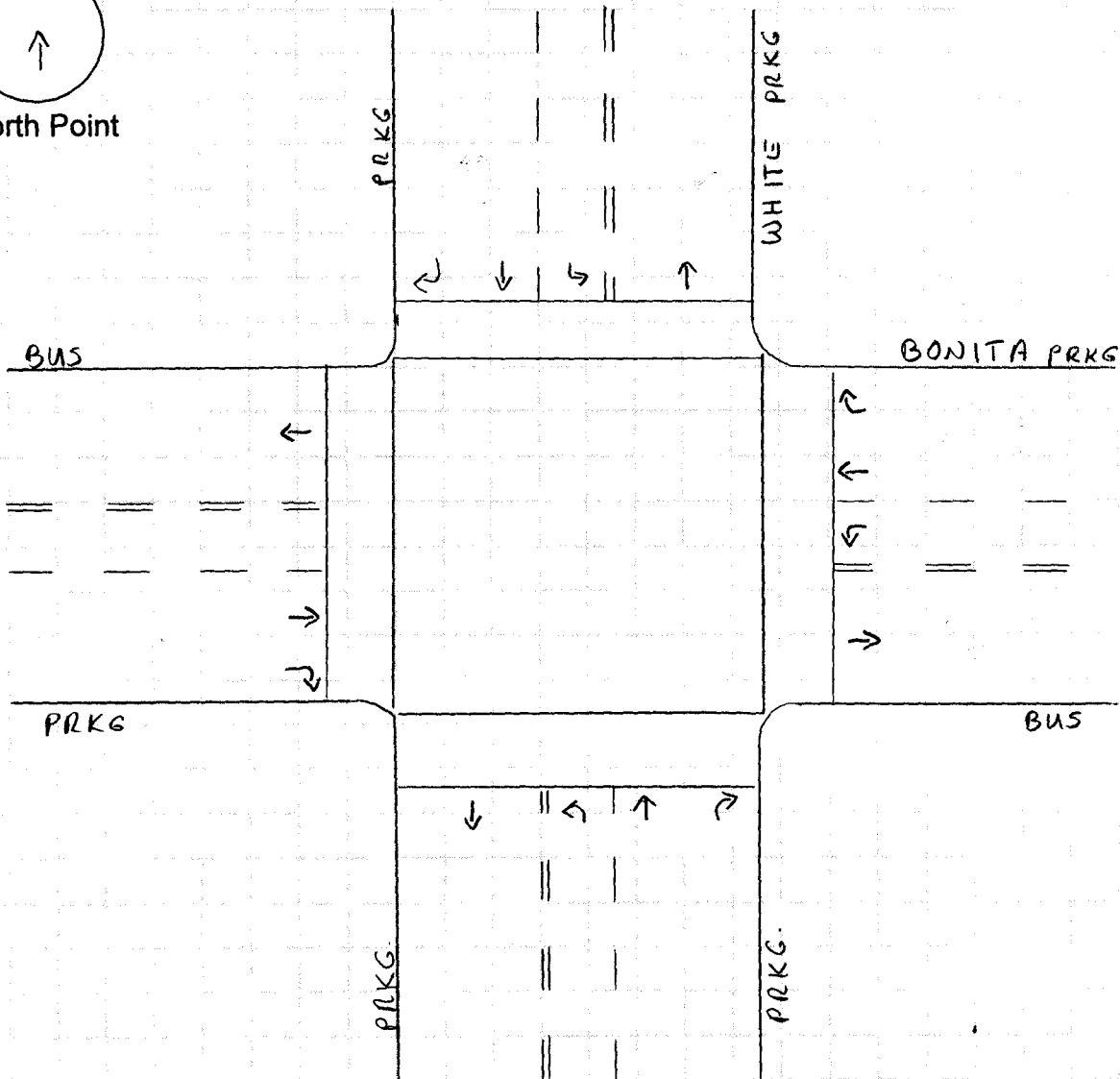
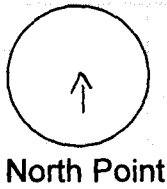
N/S WHITE AVE.

EW BONITA AVE.

BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



Phasing:

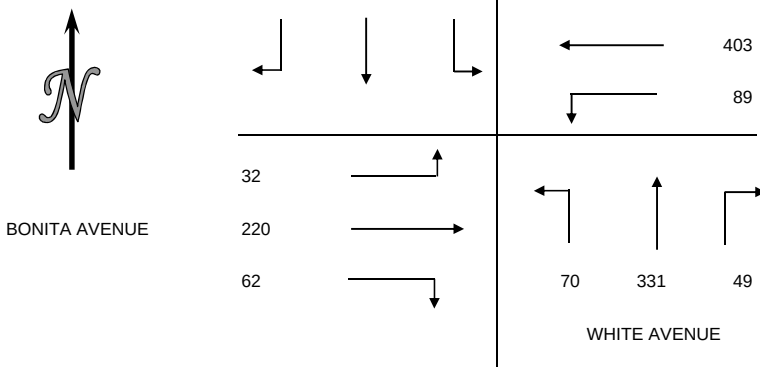
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	12	96	11	11	91	25	10	67	15	8	34	4	384
715-730	20	107	9	19	105	20	10	89	25	6	52	8	470
730-745	23	110	18	14	124	26	14	74	20	21	61	4	509
745-800	25	111	17	19	100	19	10	78	10	21	45	6	461
800-815	20	121	22	23	74	24	15	90	15	14	62	14	494
815-830	24	126	16	13	58	12	13	83	10	18	48	12	433
830-845	22	100	13	17	62	19	18	73	12	13	57	9	415
845-900	20	77	18	14	43	14	16	56	14	10	41	7	330
HOUR TOTALS													
700-800	80	424	55	63	420	90	44	308	70	56	192	22	1824
715-815	88	449	66	75	403	89	49	331	70	62	220	32	1934
730-830	92	468	73	69	356	81	52	325	55	74	216	36	1897
745-845	91	458	68	72	294	74	56	324	47	66	212	41	1803
800-900	86	424	69	67	237	69	62	302	51	55	208	42	1672

AM PEAK HOUR
715-815



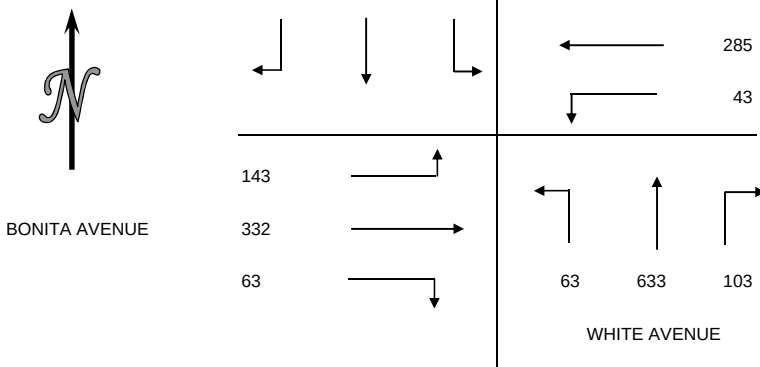
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	4	3	1	1
730-745	1	0	0	2
745-800	4	0	1	0
800-815	3	0	0	0
815-830	0	0	1	0
830-845	0	0	1	3
845-900	3	2	1	2
HOUR TOTALS				
700-800	9	3	3	3
715-815	12	3	2	3
730-830	8	0	2	2
745-845	7	0	3	3
800-900	6	2	3	5

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	23	101	16	24	71	11	19	139	16	34	80	30	564
415-430	16	115	19	19	73	12	23	135	15	28	71	35	561
430-445	20	120	14	25	70	6	22	134	13	23	73	40	560
445-500	20	117	20	28	63	6	29	146	16	16	70	33	564
500-515	14	106	15	33	86	15	20	175	18	18	90	36	626
515-530	28	102	13	28	68	10	29	160	14	16	86	37	591
530-545	24	94	14	24	68	12	25	152	15	13	86	37	564
545-600	23	85	14	27	69	13	23	135	18	20	67	27	521
HOUR TOTALS													
400-500	79	453	69	96	277	35	93	554	60	101	294	138	2249
415-515	70	458	68	105	292	39	94	590	62	85	304	144	2311
430-530	82	445	62	114	287	37	100	615	61	73	319	146	2341
445-545	86	419	62	113	285	43	103	633	63	63	332	143	2345
500-600	89	387	56	112	291	50	97	622	65	67	329	137	2302

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	3	1
415-430	0	4	2	1
430-445	0	6	3	1
445-500	0	1	3	1
500-515	0	0	1	1
515-530	7	0	5	1
530-545	0	0	2	2
545-600	0	0	5	0
HOUR TOTALS				
400-500	0	13	11	4
415-515	0	11	9	4
430-530	7	7	12	4
445-545	7	1	11	5
500-600	7	0	13	4

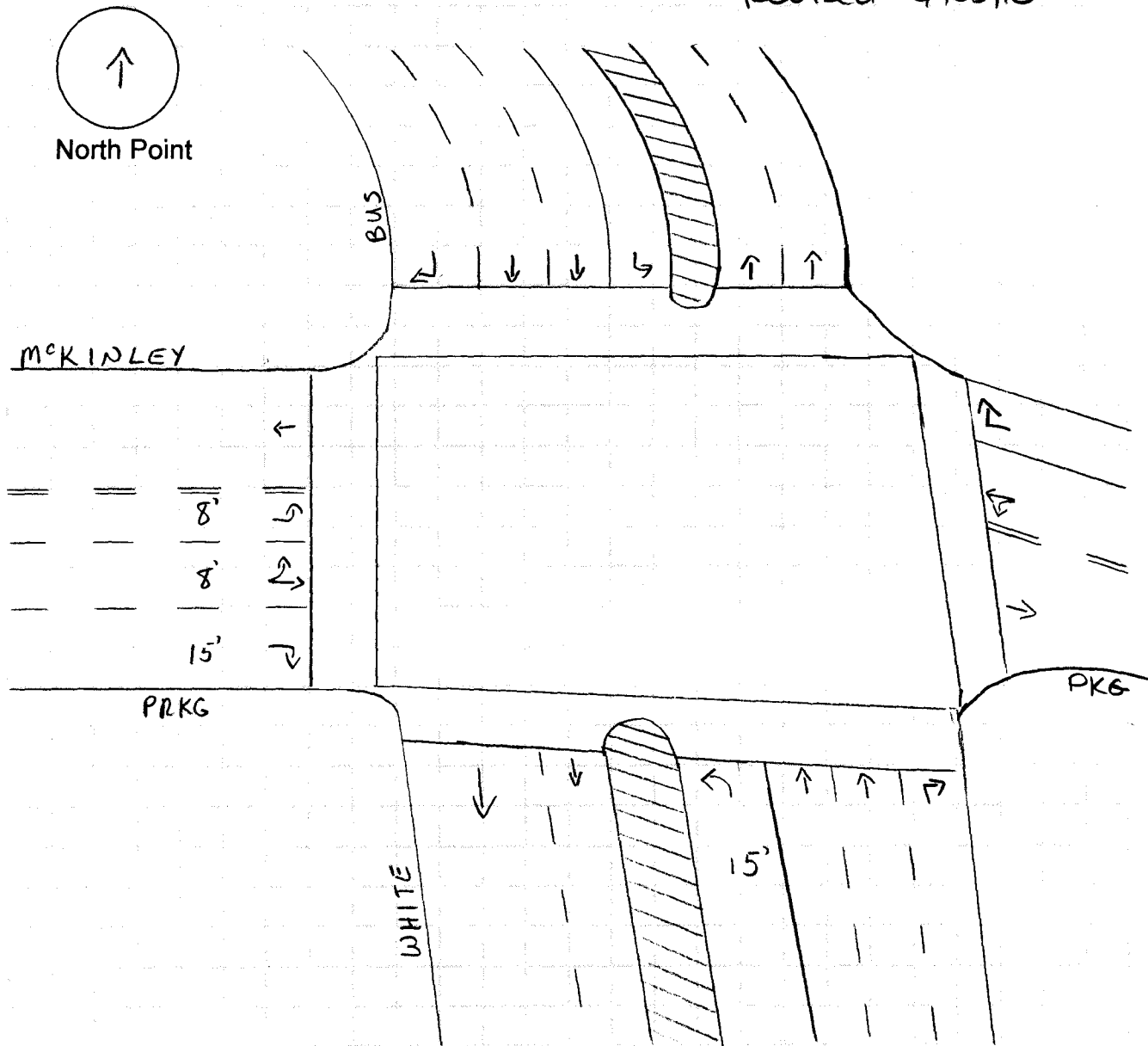
N/S WHITE AVE.

EW MCKINLEY AVE.

BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



Phasing:

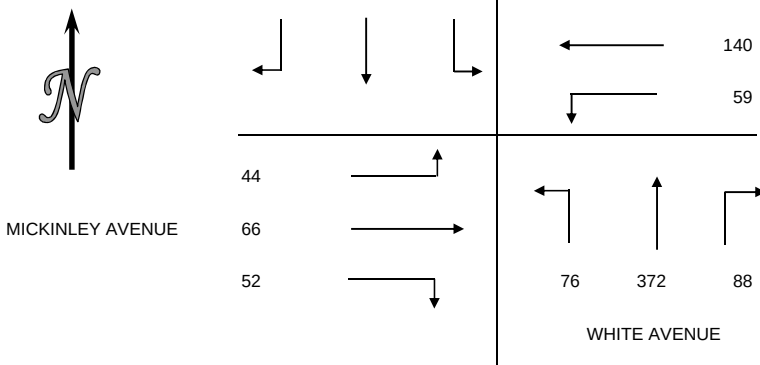
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S WHITE AVENUE
 E/W MICKINLEY AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	19	85	3	14	20	11	15	74	18	11	9	10	289
715-730	25	100	2	16	28	10	16	92	15	12	14	8	338
730-745	26	128	1	18	39	14	26	110	21	18	20	13	434
745-800	33	118	2	10	40	19	21	82	20	12	10	13	380
800-815	32	105	1	11	33	16	25	88	20	10	22	10	373
815-830	27	86	0	9	30	16	22	77	23	10	20	18	338
830-845	19	73	2	10	21	10	15	67	16	9	20	12	274
845-900	19	81	4	7	26	12	13	61	15	8	18	9	273
HOUR TOTALS													
700-800	103	431	8	58	127	54	78	358	74	53	53	44	1441
715-815	116	451	6	55	140	59	88	372	76	52	66	44	1525
730-830	118	437	4	48	142	65	94	357	84	50	72	54	1525
745-845	111	382	5	40	124	61	83	314	79	41	72	53	1365
800-900	97	345	7	37	110	54	75	293	74	37	80	49	1258

AM PEAK HOUR
715-815



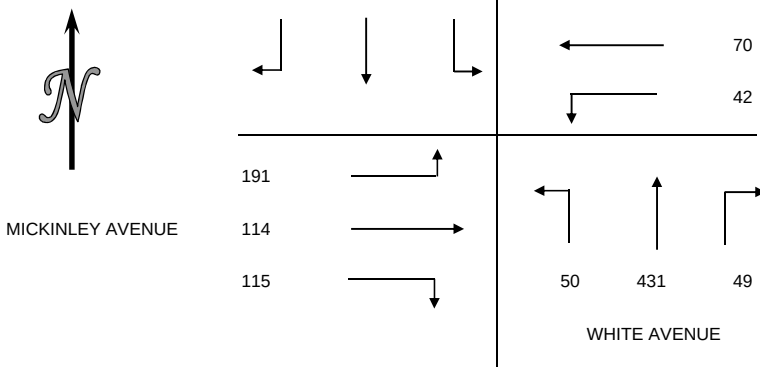
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	0	0	0
715-730	2	0	0	0
730-745	1	2	2	0
745-800	1	2	0	0
800-815	0	0	1	0
815-830	0	2	1	0
830-845	0	1	0	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	6	4	2	0
715-815	4	4	3	0
730-830	2	6	4	0
745-845	1	5	2	0
800-900	0	3	2	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S WHITE AVENUE
 E/W MICKINLEY AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	14	129	35	8	15	6	19	103	15	21	21	28	414
415-430	8	127	33	17	13	8	13	92	12	22	28	26	399
430-445	9	133	27	14	18	9	14	84	16	23	28	26	401
445-500	17	151	25	11	19	8	10	101	13	23	25	36	439
500-515	23	138	15	12	17	8	11	121	21	35	35	51	487
515-530	19	133	25	19	18	16	15	109	6	30	30	57	477
530-545	12	113	23	15	16	10	13	100	10	27	24	47	410
545-600	19	105	24	21	11	8	13	99	14	16	23	41	394
HOUR TOTALS													
400-500	48	540	120	50	65	31	56	380	56	89	102	116	1653
415-515	57	549	100	54	67	33	48	398	62	103	116	139	1726
430-530	68	555	92	56	72	41	50	415	56	111	118	170	1804
445-545	71	535	88	57	70	42	49	431	50	115	114	191	1813
500-600	73	489	87	67	62	42	52	429	51	108	112	196	1768

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	0
415-430	1	0	0	0
430-445	1	0	5	0
445-500	1	0	3	1
500-515	5	1	0	0
515-530	1	0	1	1
530-545	1	0	7	7
545-600	0	3	3	0
HOUR TOTALS				
400-500	4	0	8	1
415-515	8	1	8	1
430-530	8	1	9	2
445-545	8	1	11	9
500-600	7	4	11	8

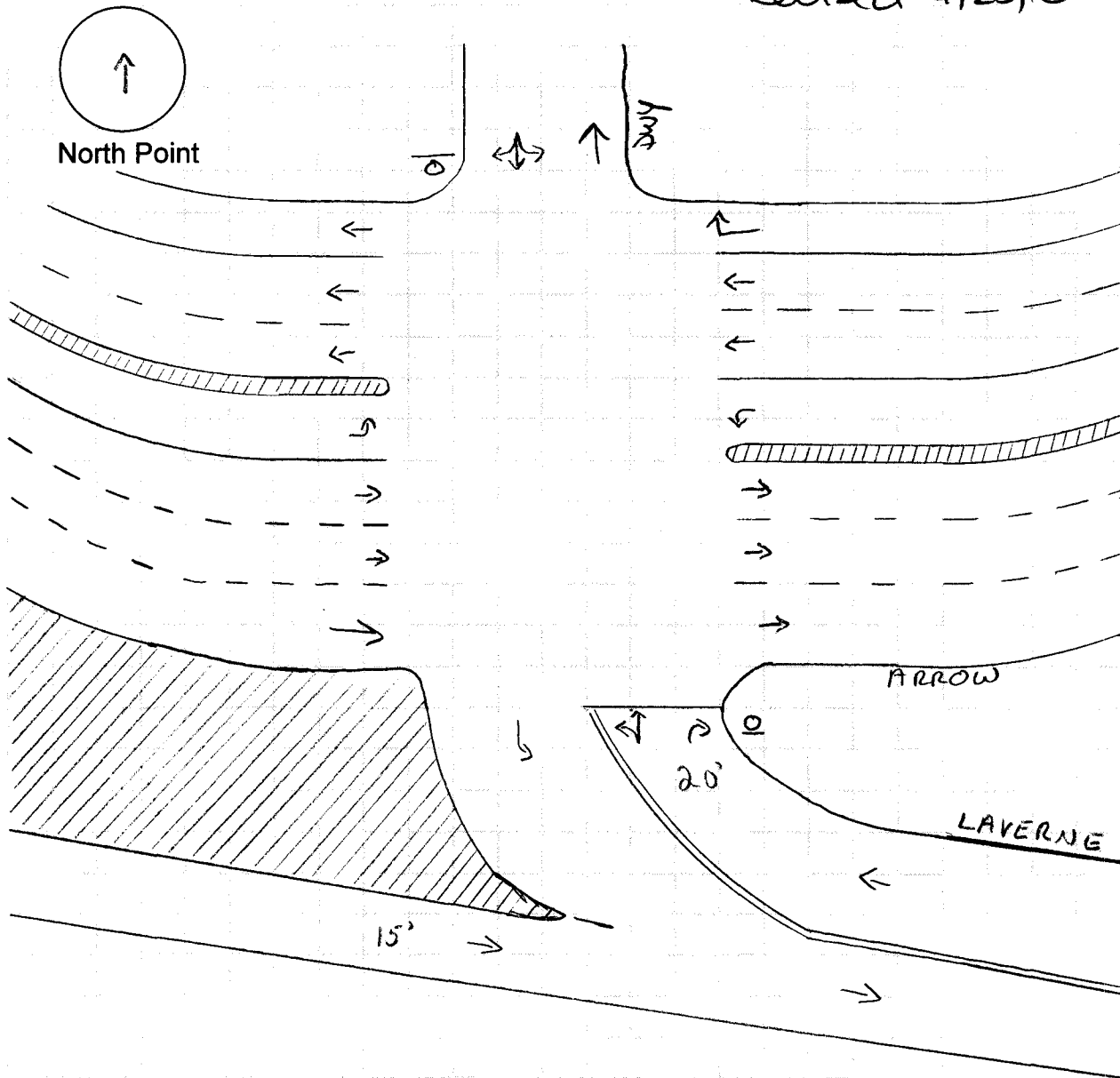
NIS LAVERNE AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 04.23.05

Revised 4/25/10



Phasing:

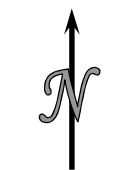
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

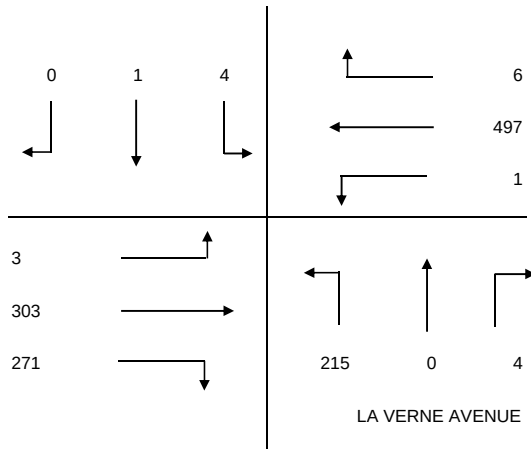
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S LA VERNE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	1	4	0	104	0	0	0	42	30	36	0	218
715-730	0	0	0	1	118	0	0	0	64	54	59	1	297
730-745	0	1	2	1	120	0	1	0	52	66	67	1	311
745-800	0	0	1	4	134	1	1	0	52	87	95	0	375
800-815	0	0	1	0	125	0	2	0	47	64	82	1	322
815-830	0	0	1	1	93	0	2	0	33	42	66	1	239
830-845	0	2	4	0	98	0	0	0	28	52	54	0	238
845-900	0	0	0	0	89	1	0	0	29	51	44	0	214
HOUR TOTALS													
700-800	1	2	7	6	476	1	2	0	210	237	257	2	1201
715-815	0	1	4	6	497	1	4	0	215	271	303	3	1305
730-830	0	1	5	6	472	1	6	0	184	259	310	3	1247
745-845	0	2	7	5	450	1	5	0	160	245	297	2	1174
800-900	0	2	6	1	405	1	4	0	137	209	246	2	1013

AM PEAK HOUR
715-815



ARROW HWY



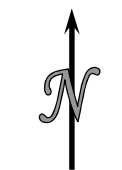
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	6	0	0	0
800-815	2	0	0	0
815-830	6	0	0	0
830-845	7	0	0	0
845-900	5	0	0	0
HOUR TOTALS				
700-800	6	0	0	0
715-815	8	0	0	0
730-830	14	0	0	0
745-845	21	0	0	0
800-900	20	0	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

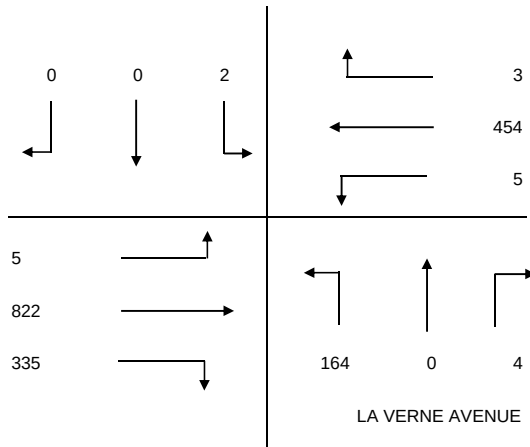
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S LA VERNE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	1	0	4	130	0	3	0	26	78	132	2	378
415-430	0	0	1	3	120	2	0	0	36	75	137	2	376
430-445	0	0	0	0	108	0	1	0	40	93	152	1	395
445-500	0	1	0	1	122	0	0	0	35	91	176	1	427
500-515	0	0	1	0	116	2	1	0	27	77	191	2	417
515-530	0	0	1	0	122	1	1	0	39	97	222	1	484
530-545	0	0	0	1	113	2	0	0	40	84	203	1	444
545-600	0	0	0	2	103	0	2	0	58	77	206	1	449
HOUR TOTALS													
400-500	2	2	1	8	480	2	4	0	137	337	597	6	1576
415-515	0	1	2	4	466	4	2	0	138	336	656	6	1615
430-530	0	1	2	1	468	3	3	0	141	358	741	5	1723
445-545	0	1	2	2	473	5	2	0	141	349	792	5	1772
500-600	0	0	2	3	454	5	4	0	164	335	822	5	1794

PM PEAK HOUR
500-600



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	0
415-430	2	0	0	0
430-445	4	0	0	0
445-500	0	0	0	0
500-515	0	0	0	0
515-530	0	0	0	0
530-545	2	1	1	0
545-600	1	0	0	0
HOUR TOTALS				
400-500	7	0	0	0
415-515	6	0	0	0
430-530	4	0	0	0
445-545	2	1	1	0
500-600	3	1	1	0

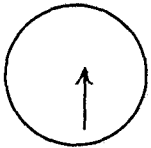
N/S FULTON RD.

EW BONITA AVE

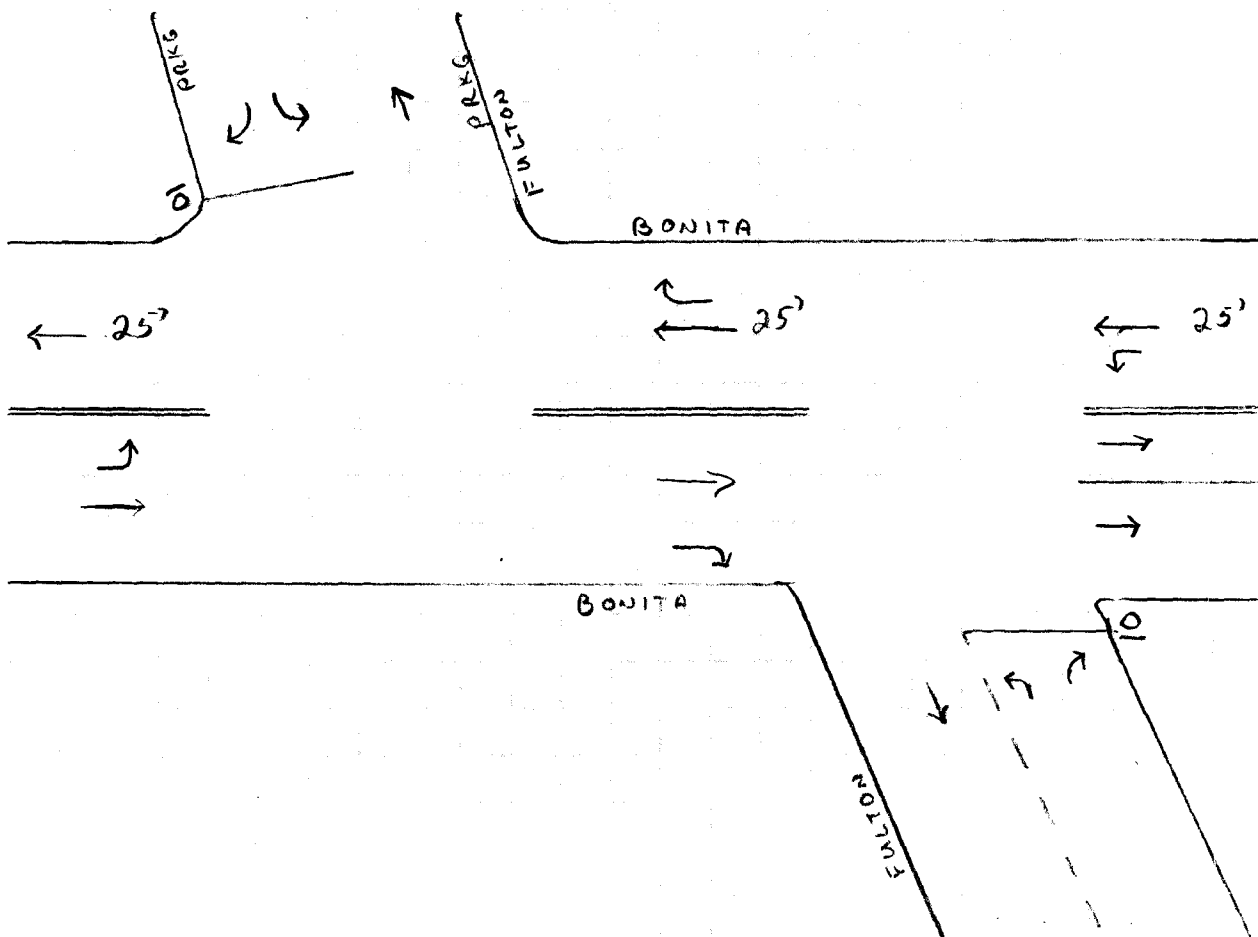
BY: C JAMISON

DATE: 10.09.03

Revised 6/25/10



North Point



Phasing:

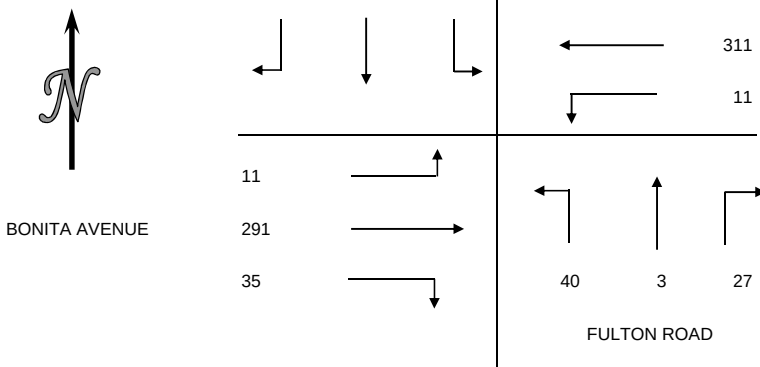
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S FULTON ROAD
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	18	0	6	1	62	1	5	3	4	9	46	0	155
715-730	14	2	1	2	64	3	7	1	16	10	71	2	193
730-745	26	6	6	1	78	2	4	1	6	12	69	3	214
745-800	20	1	3	2	85	2	9	0	11	4	76	1	214
800-815	9	1	3	2	84	4	7	1	7	9	75	5	207
815-830	19	2	8	2	70	3	7	3	6	3	60	4	187
830-845	8	1	1	2	63	2	2	0	2	14	69	8	172
845-900	15	1	7	2	59	3	1	2	4	6	53	3	156
HOUR TOTALS													
700-800	78	9	16	6	289	8	25	5	37	35	262	6	776
715-815	69	10	13	7	311	11	27	3	40	35	291	11	828
730-830	74	10	20	7	317	11	27	5	30	28	280	13	822
745-845	56	5	15	8	302	11	25	4	26	30	280	18	780
800-900	51	5	19	8	276	12	17	6	19	32	257	20	722

AM PEAK HOUR
715-815



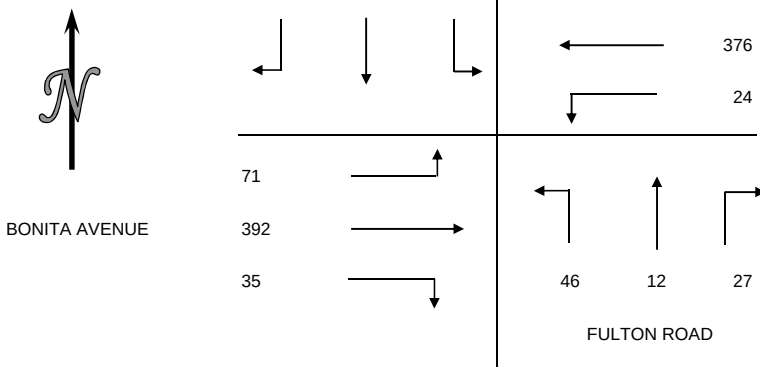
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	2	0
745-800	1	1	1	0
800-815	2	0	0	0
815-830	1	1	0	0
830-845	0	0	0	0
845-900	0	1	0	0
HOUR TOTALS				
700-800	1	1	3	0
715-815	3	1	3	0
730-830	4	2	3	0
745-845	4	2	1	0
800-900	3	2	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 13, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S FULTON ROAD
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	10	1	2	6	81	5	7	4	10	8	107	11	252
415-430	6	3	2	3	97	3	6	1	4	9	85	17	236
430-445	8	1	2	6	79	9	11	4	17	5	87	18	247
445-500	9	2	6	4	92	7	5	4	6	13	87	14	249
500-515	10	3	1	5	95	8	9	5	15	11	91	17	270
515-530	8	2	4	12	100	5	9	1	19	6	115	19	300
530-545	10	2	4	2	89	4	4	2	6	5	99	21	248
545-600	13	1	1	1	63	7	8	4	17	7	87	14	223
HOUR TOTALS													
400-500	33	7	12	19	349	24	29	13	37	35	366	60	984
415-515	33	9	11	18	363	27	31	14	42	38	350	66	1002
430-530	35	8	13	27	366	29	34	14	57	35	380	68	1066
445-545	37	9	15	23	376	24	27	12	46	35	392	71	1067
500-600	41	8	10	20	347	24	30	12	57	29	392	71	1041

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	1	0	1
415-430	0	0	1	0
430-445	1	0	0	0
445-500	0	0	2	0
500-515	0	0	0	0
515-530	3	2	0	0
530-545	0	0	0	0
545-600	1	1	0	1
HOUR TOTALS				
400-500	1	1	3	1
415-515	1	0	3	0
430-530	4	2	2	0
445-545	3	2	2	0
500-600	4	3	0	1

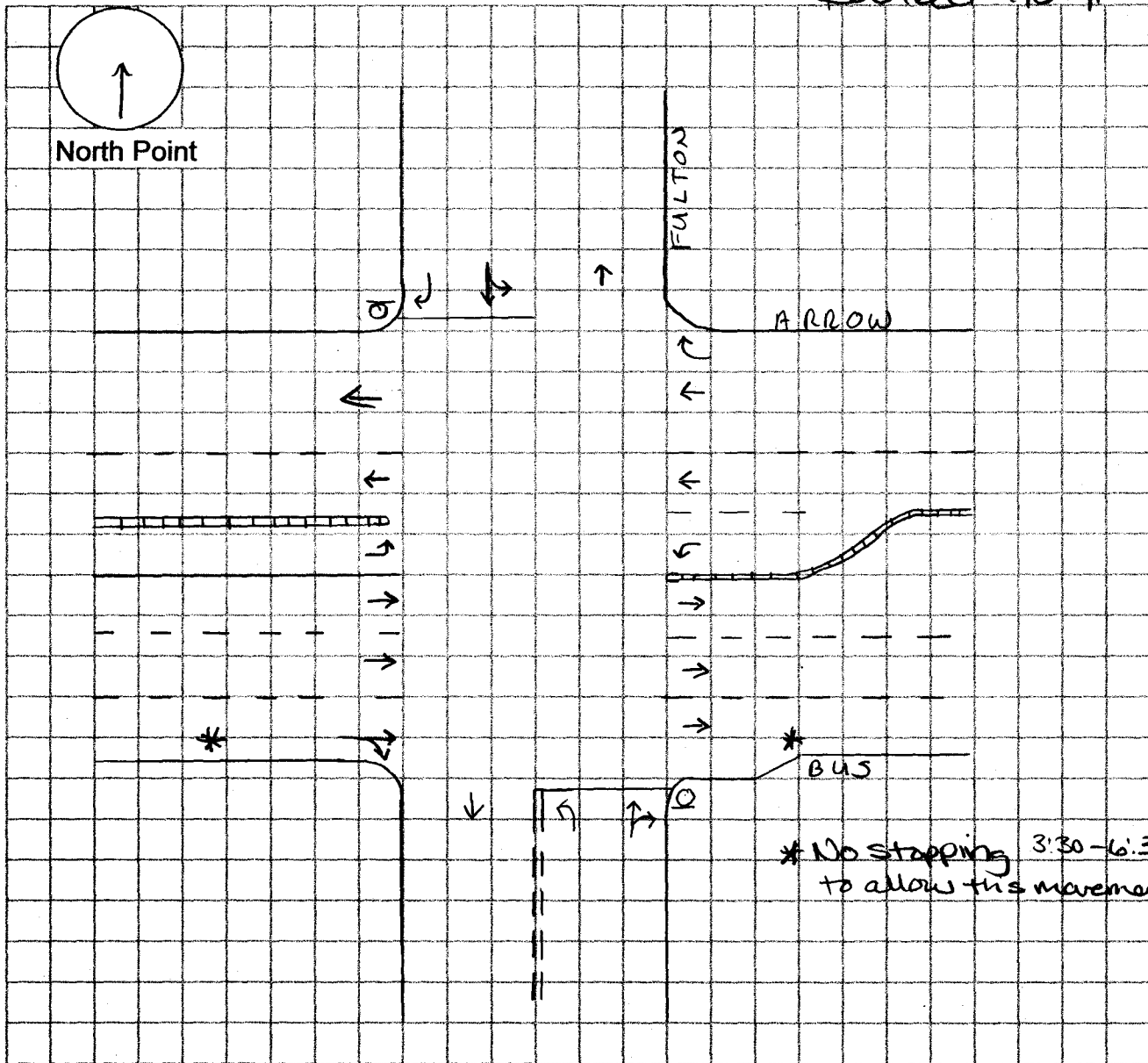
N/S FULTON RD.

EW ARROW HWY

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

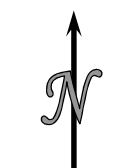
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

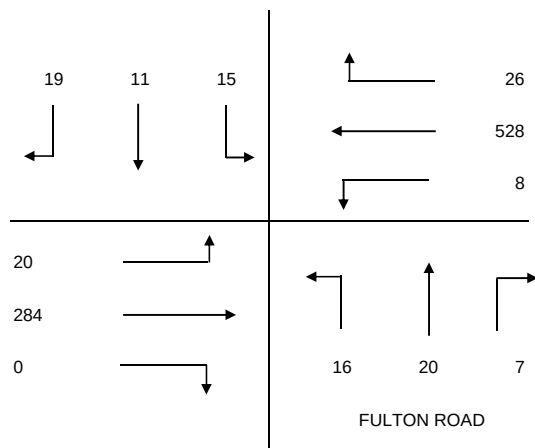
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 27, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S FULTON ROAD
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	4	1	2	4	70	4	1	3	3	0	31	1	124
715-730	7	2	3	5	119	0	1	8	4	0	41	7	197
730-745	5	2	6	6	153	1	1	6	7	0	80	6	273
745-800	5	4	4	7	152	5	1	3	3	0	87	3	274
800-815	2	3	2	8	104	2	4	3	2	0	76	4	210
815-830	6	2	2	6	96	0	2	1	0	2	52	3	172
830-845	1	2	2	3	88	1	0	2	2	0	62	3	166
845-900	0	4	11	1	59	1	1	1	2	0	59	2	141
HOUR TOTALS													
700-800	21	9	15	22	494	10	4	20	17	0	239	17	868
715-815	19	11	15	26	528	8	7	20	16	0	284	20	954
730-830	18	11	14	27	505	8	8	13	12	2	295	16	929
745-845	14	11	10	24	440	8	7	9	7	2	277	13	822
800-900	9	11	17	18	347	4	7	7	6	2	249	12	689

AM PEAK HOUR
715-815



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	1	0	0	0
800-815	1	0	0	0
815-830	13	0	0	0
830-845	6	0	0	0
845-900	8	0	0	0
HOUR TOTALS				
700-800	1	0	0	0
715-815	2	0	0	0
730-830	15	0	0	0
745-845	21	0	0	0
800-900	28	0	0	0

WILTEC

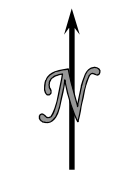
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

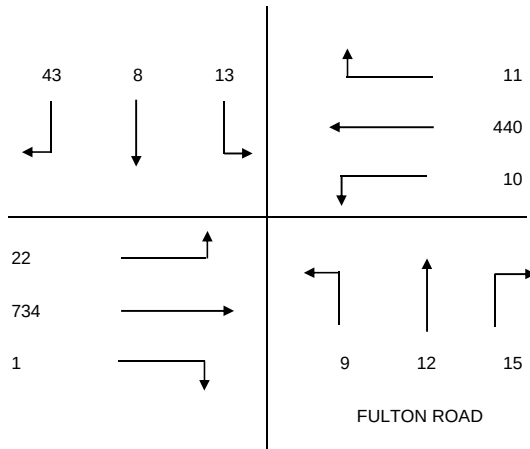
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: THURSDAY MAY 27, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S FULTON ROAD
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	12	13	6	3	92	2	2	4	2	0	168	2	306
415-430	7	3	2	3	99	1	1	4	2	0	148	3	273
430-445	6	2	5	5	106	1	2	1	0	0	191	3	322
445-500	10	2	6	5	117	1	0	3	1	1	151	3	300
500-515	9	3	3	3	113	0	3	2	1	0	178	5	320
515-530	14	2	3	0	122	3	4	3	2	0	196	10	359
530-545	8	1	4	7	104	5	5	2	5	1	175	4	321
545-600	12	2	3	1	101	2	3	5	1	0	185	3	318
HOUR TOTALS													
400-500	35	20	19	16	414	5	5	12	5	1	658	11	1201
415-515	32	10	16	16	435	3	6	10	4	1	668	14	1215
430-530	39	9	17	13	458	5	9	9	4	1	716	21	1301
445-545	41	8	16	15	456	9	12	10	9	2	700	22	1300
500-600	43	8	13	11	440	10	15	12	9	1	734	22	1318

PM PEAK HOUR
500-600



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	1	0
415-430	0	0	2	0
430-445	0	0	0	0
445-500	0	0	0	0
500-515	1	0	0	0
515-530	0	0	0	0
530-545	1	0	1	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	0	0	3	0
415-515	1	0	2	0
430-530	1	0	0	0
445-545	2	0	1	0
500-600	2	0	1	0

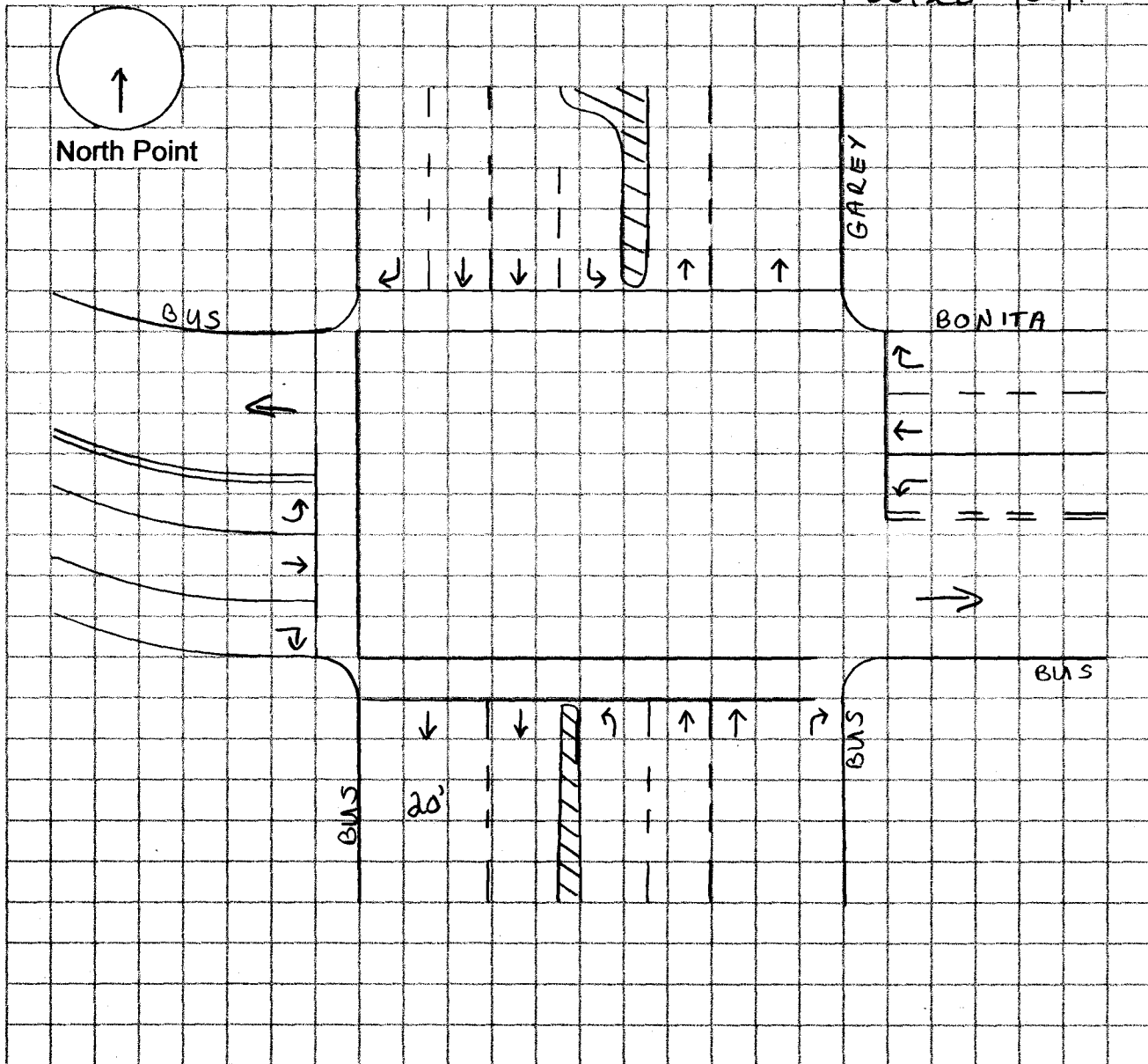
N/S GAREY AVE

EW BONITA AVE.

BY: C. JAMISON

DATE: 10.25.03

Revised 4/25/10



Phasing:

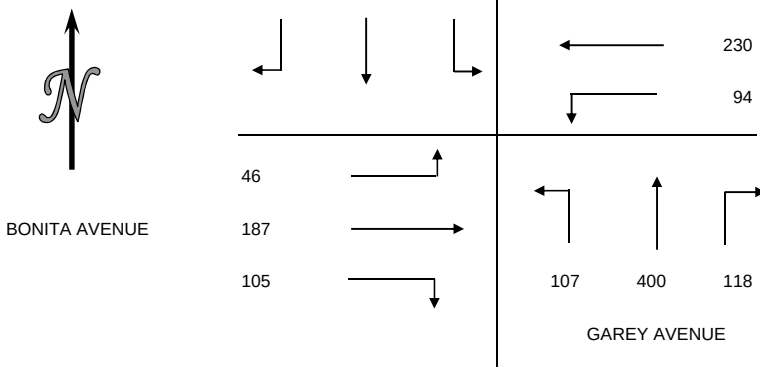
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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GAREY AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	13	106	6	5	38	25	21	49	19	27	21	8	338
715-730	16	120	8	1	52	18	19	56	22	24	26	8	370
730-745	30	159	14	4	44	19	16	93	22	30	60	13	504
745-800	35	211	8	8	81	29	37	100	20	20	49	6	604
800-815	23	161	13	11	51	20	41	110	44	29	49	17	569
815-830	22	131	14	11	54	26	24	97	21	26	29	10	465
830-845	15	114	11	6	53	10	22	86	24	23	32	5	401
845-900	13	107	8	8	32	15	15	86	20	32	47	7	390
HOUR TOTALS													
700-800	94	596	36	18	215	91	93	298	83	101	156	35	1816
715-815	104	651	43	24	228	86	113	359	108	103	184	44	2047
730-830	110	662	49	34	230	94	118	400	107	105	187	46	2142
745-845	95	617	46	36	239	85	124	393	109	98	159	38	2039
800-900	73	513	46	36	190	71	102	379	109	110	157	39	1825

AM PEAK HOUR
730-830



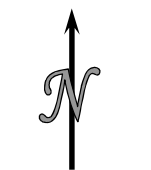
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	1	3	3
715-730	0	3	6	2
730-745	1	0	0	3
745-800	0	0	5	2
800-815	0	2	4	4
815-830	1	3	3	3
830-845	2	2	1	1
845-900	2	0	3	0
HOUR TOTALS				
700-800	3	4	14	10
715-815	1	5	15	11
730-830	2	5	12	12
745-845	3	7	13	10
800-900	5	7	11	8

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

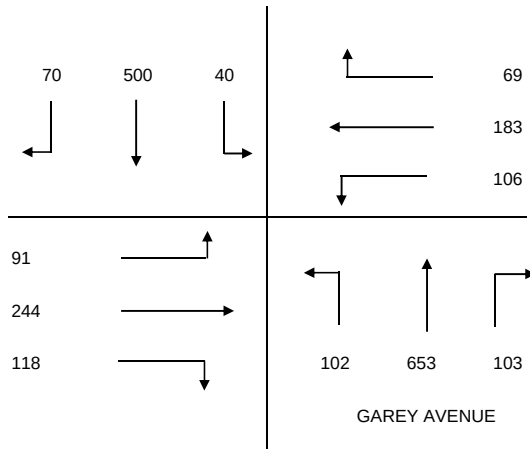
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GAREY AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	20	117	13	11	51	22	29	159	24	33	73	25	577
415-430	20	152	14	16	43	33	23	160	24	26	52	20	583
430-445	14	119	4	23	37	23	29	159	29	27	61	24	549
445-500	16	112	9	19	52	28	22	175	25	32	58	22	570
500-515	11	108	7	13	47	21	20	163	27	40	79	24	560
515-530	25	116	8	20	42	25	27	172	15	32	70	14	566
530-545	15	107	3	17	40	29	23	151	25	27	51	20	508
545-600	20	102	10	11	55	30	20	126	17	24	47	20	482
HOUR TOTALS													
400-500	70	500	40	69	183	106	103	653	102	118	244	91	2279
415-515	61	491	34	71	179	105	94	657	105	125	250	90	2262
430-530	66	455	28	75	178	97	98	669	96	131	268	84	2245
445-545	67	443	27	69	181	103	92	661	92	131	258	80	2204
500-600	71	433	28	61	184	105	90	612	84	123	247	78	2116

PM PEAK HOUR
400-500



BONITA AVENUE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	3	6	1
415-430	4	0	5	21
430-445	0	1	12	3
445-500	3	3	0	0
500-515	2	1	3	0
515-530	1	0	3	6
530-545	4	2	5	2
545-600	2	2	0	1
HOUR TOTALS				
400-500	8	7	23	25
415-515	9	5	20	24
430-530	6	5	18	9
445-545	10	6	11	8
500-600	9	5	11	9

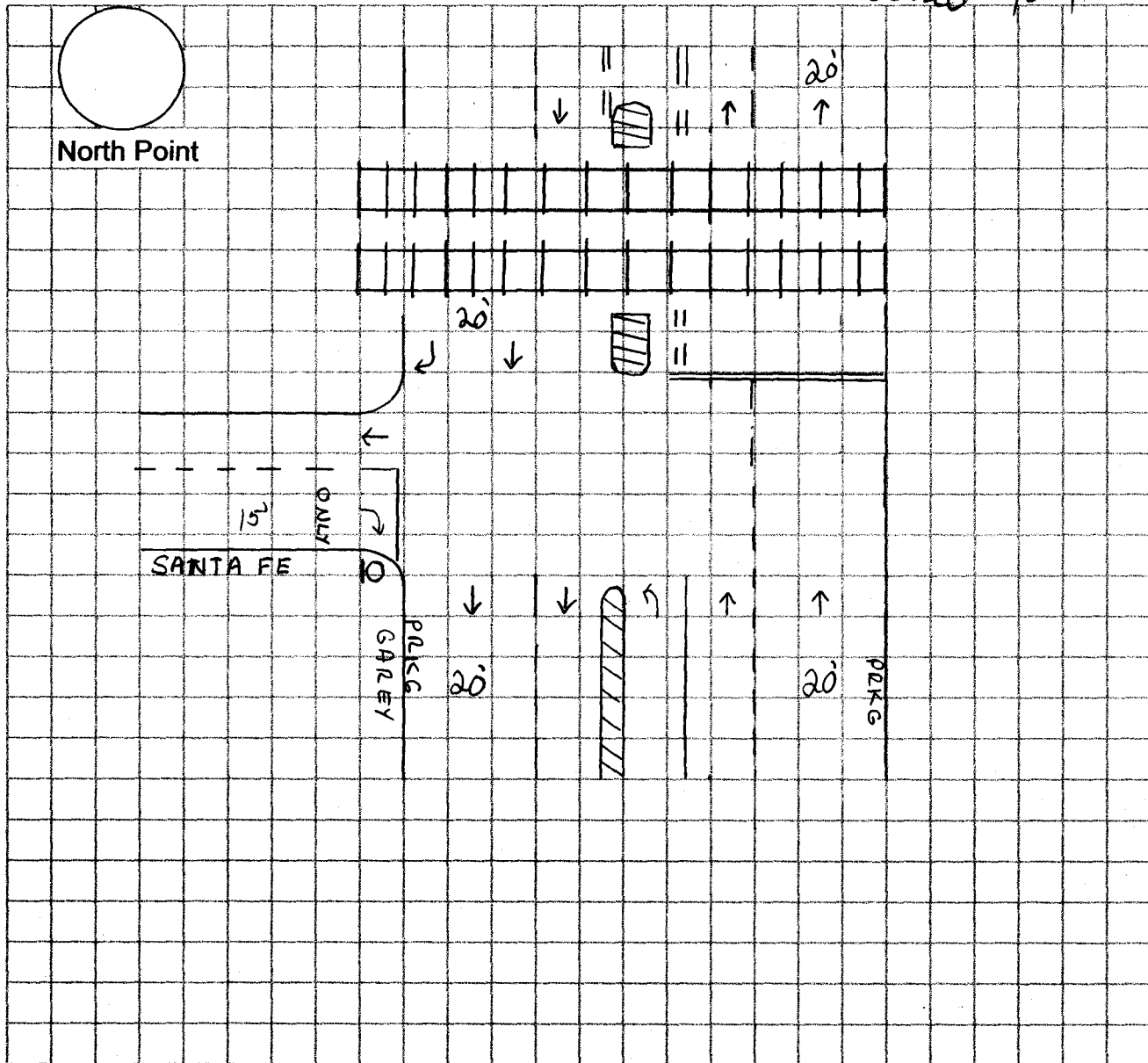
N/S GAREY AVE

EW SANTA FE ST.

BY: C. JAMISON

DATE: 10.25.03

Revised 4/25/10



Phasing:

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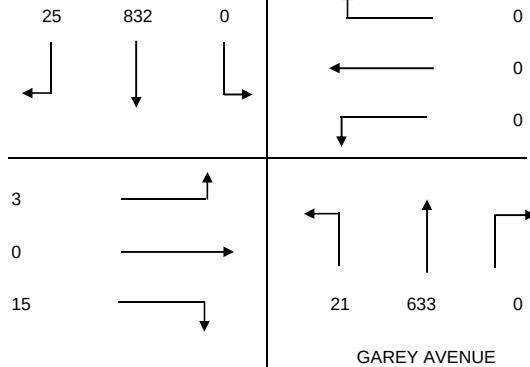
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GAREY AVENUE
 E/W SANTA FE STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	9	129	0	0	0	0	0	95	12	6	0	1	252
715-730	10	163	0	0	0	0	0	97	20	2	0	1	293
730-745	10	221	0	0	0	0	0	132	7	5	0	1	376
745-800	10	222	0	0	0	0	0	178	6	6	0	1	423
800-815	3	210	0	0	0	0	0	171	6	2	0	1	393
815-830	2	179	0	0	0	0	0	152	2	2	0	0	337
830-845	3	145	0	0	0	0	0	122	8	4	0	0	282
845-900	3	153	0	0	0	0	0	117	2	5	0	0	280
HOURLY TOTALS													
700-800	39	735	0	0	0	0	0	502	45	19	0	4	1344
715-815	33	816	0	0	0	0	0	578	39	15	0	4	1485
730-830	25	832	0	0	0	0	0	633	21	15	0	3	1529
745-845	18	756	0	0	0	0	0	623	22	14	0	2	1435
800-900	11	687	0	0	0	0	0	562	18	13	0	1	1292

AM PEAK HOUR
730-830

SANTA FE STREET



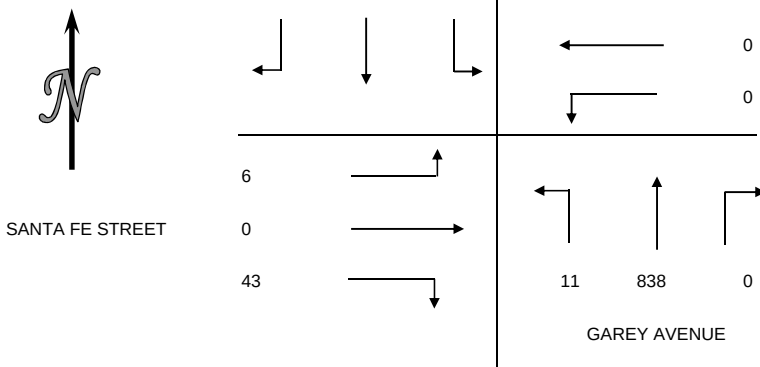
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	1
715-730	0	1	0	3
730-745	0	0	0	0
745-800	0	1	0	5
800-815	0	5	0	1
815-830	0	0	0	5
830-845	0	1	0	2
845-900	0	3	0	0
HOURLY TOTALS				
700-800	0	2	0	9
715-815	0	7	0	9
730-830	0	6	0	11
745-845	0	7	0	13
800-900	0	9	0	8

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GAREY AVENUE
 E/W SANTA FE STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	1	181	0	0	0	0	0	213	3	18	0	0	416
415-430	2	188	0	0	0	0	0	204	2	6	0	2	404
430-445	1	188	0	0	0	0	0	192	3	10	0	1	395
445-500	0	174	0	0	0	0	0	215	3	8	0	3	403
500-515	2	179	0	0	0	0	0	227	3	19	0	0	430
515-530	0	171	0	0	0	0	0	182	2	15	0	3	373
530-545	2	158	0	0	0	0	0	198	3	5	0	1	367
545-600	4	138	0	0	0	0	0	172	0	22	0	2	338
HOURLY TOTALS													
400-500	4	731	0	0	0	0	0	824	11	42	0	6	1618
415-515	5	729	0	0	0	0	0	838	11	43	0	6	1632
430-530	3	712	0	0	0	0	0	816	11	52	0	7	1601
445-545	4	682	0	0	0	0	0	822	11	47	0	7	1573
500-600	8	646	0	0	0	0	0	779	8	61	0	6	1508

PM PEAK HOUR
415-515



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	25
415-430	0	2	0	0
430-445	0	2	0	0
445-500	0	0	0	3
500-515	0	1	0	5
515-530	0	2	0	4
530-545	0	4	0	5
545-600	0	0	0	2
HOURLY TOTALS				
400-500	0	4	0	28
415-515	0	5	0	8
430-530	0	5	0	12
445-545	0	7	0	17
500-600	0	7	0	16

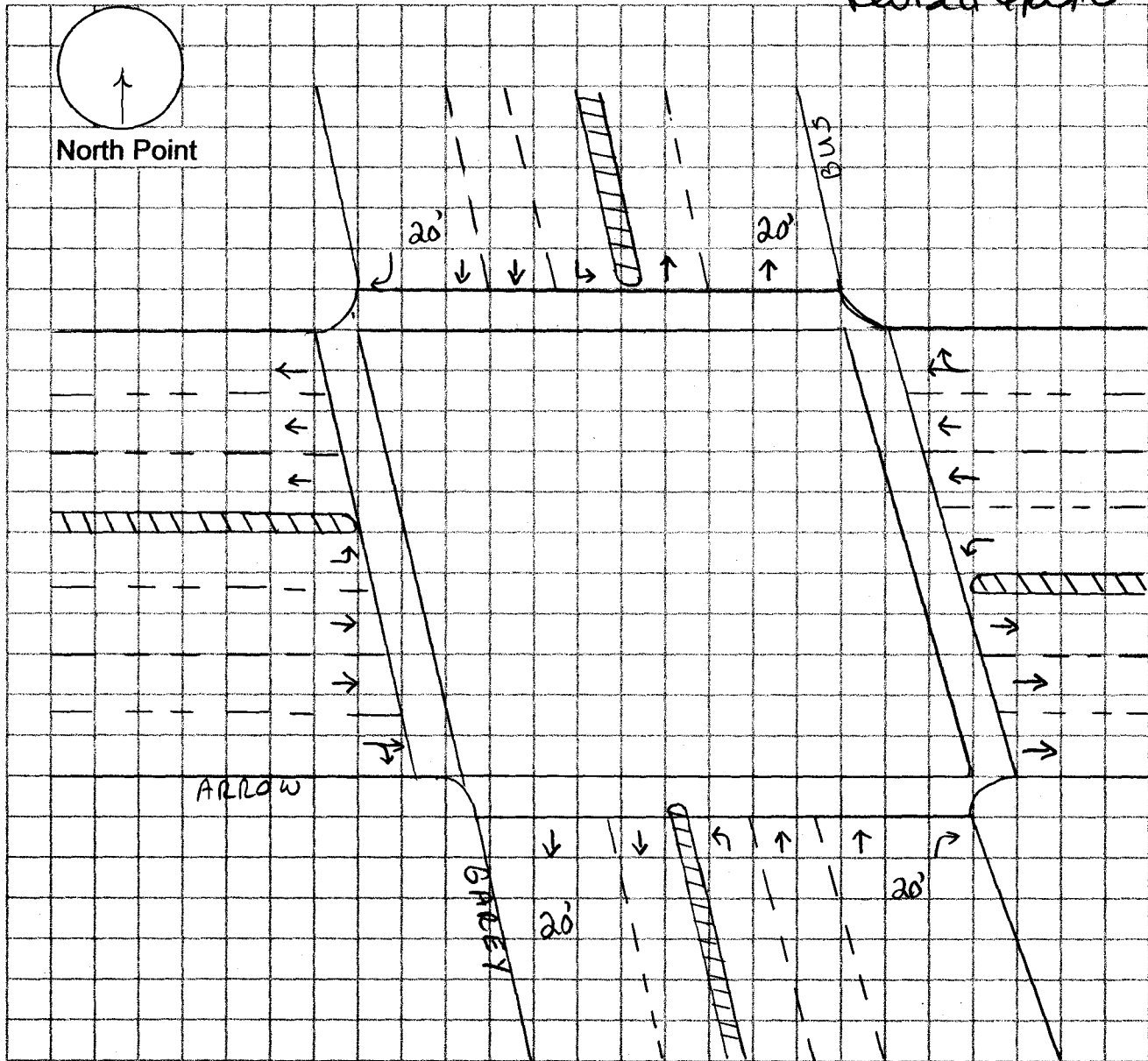
N/S GAREY AVE.

EW ARROW HWY

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

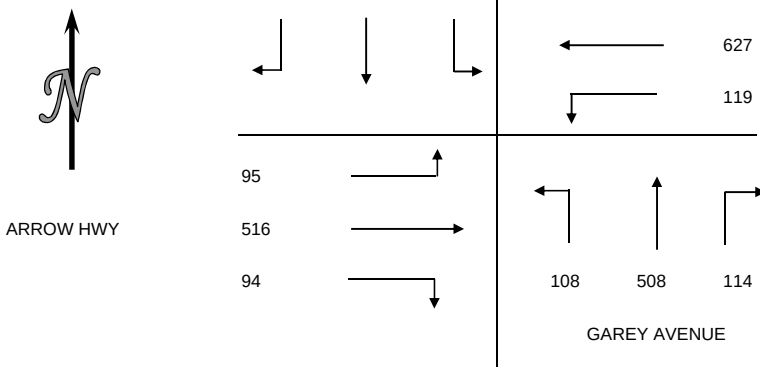
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GAREY AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	12	123	14	13	109	23	12	71	19	10	94	15	515
715-730	9	150	29	17	129	29	14	99	26	10	110	21	643
730-745	17	177	26	20	145	31	21	115	25	19	105	21	722
745-800	11	161	34	34	142	28	30	139	28	25	138	31	801
800-815	16	169	23	38	195	38	39	135	32	28	158	25	896
815-830	11	143	19	27	145	22	24	119	23	22	115	18	688
830-845	11	133	18	22	119	24	20	84	22	12	117	23	605
845-900	4	117	17	13	80	14	21	79	17	15	97	16	490
HOUR TOTALS													
700-800	49	611	103	84	525	111	77	424	98	64	447	88	2681
715-815	53	657	112	109	611	126	104	488	111	82	511	98	3062
730-830	55	650	102	119	627	119	114	508	108	94	516	95	3107
745-845	49	606	94	121	601	112	113	477	105	87	528	97	2990
800-900	42	562	77	100	539	98	104	417	94	77	487	82	2679

AM PEAK HOUR
730-830



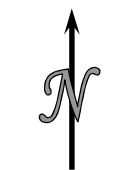
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	2	6	1
715-730	6	0	5	1
730-745	1	1	3	2
745-800	5	4	5	1
800-815	1	1	2	0
815-830	5	0	3	0
830-845	2	1	2	1
845-900	1	4	4	2
HOUR TOTALS				
700-800	14	7	19	5
715-815	13	6	15	4
730-830	12	6	13	3
745-845	13	6	12	2
800-900	9	6	11	3

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

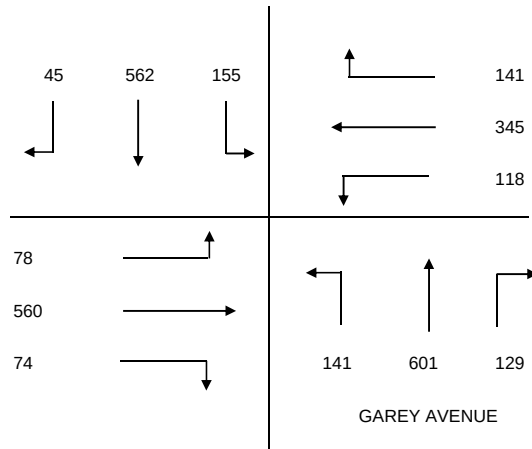
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GAREY AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	12	144	38	30	100	32	21	154	29	14	115	23	712
415-430	9	145	25	31	75	34	25	154	40	16	109	14	677
430-445	9	145	46	33	81	26	28	142	23	20	133	22	708
445-500	16	142	33	32	81	25	36	161	47	10	126	26	735
500-515	13	142	47	42	99	45	32	141	35	25	142	17	780
515-530	7	133	29	34	84	22	33	157	36	19	159	13	726
530-545	8	145	31	33	77	31	32	142	32	17	126	27	701
545-600	7	121	37	24	78	20	33	131	35	21	131	16	654
HOUR TOTALS													
400-500	46	576	142	126	337	117	110	611	139	60	483	85	2832
415-515	47	574	151	138	336	130	121	598	145	71	510	79	2900
430-530	45	562	155	141	345	118	129	601	141	74	560	78	2949
445-545	44	562	140	141	341	123	133	601	150	71	553	83	2942
500-600	35	541	144	133	338	118	130	571	138	82	558	73	2861

PM PEAK HOUR
430-530



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	5	9	4	5
415-430	0	2	1	0
430-445	3	15	5	2
445-500	3	4	4	5
500-515	4	4	1	3
515-530	2	3	5	1
530-545	1	0	4	0
545-600	1	2	3	1
HOUR TOTALS				
400-500	11	30	14	12
415-515	10	25	11	10
430-530	12	26	15	11
445-545	10	11	14	9
500-600	8	9	13	5

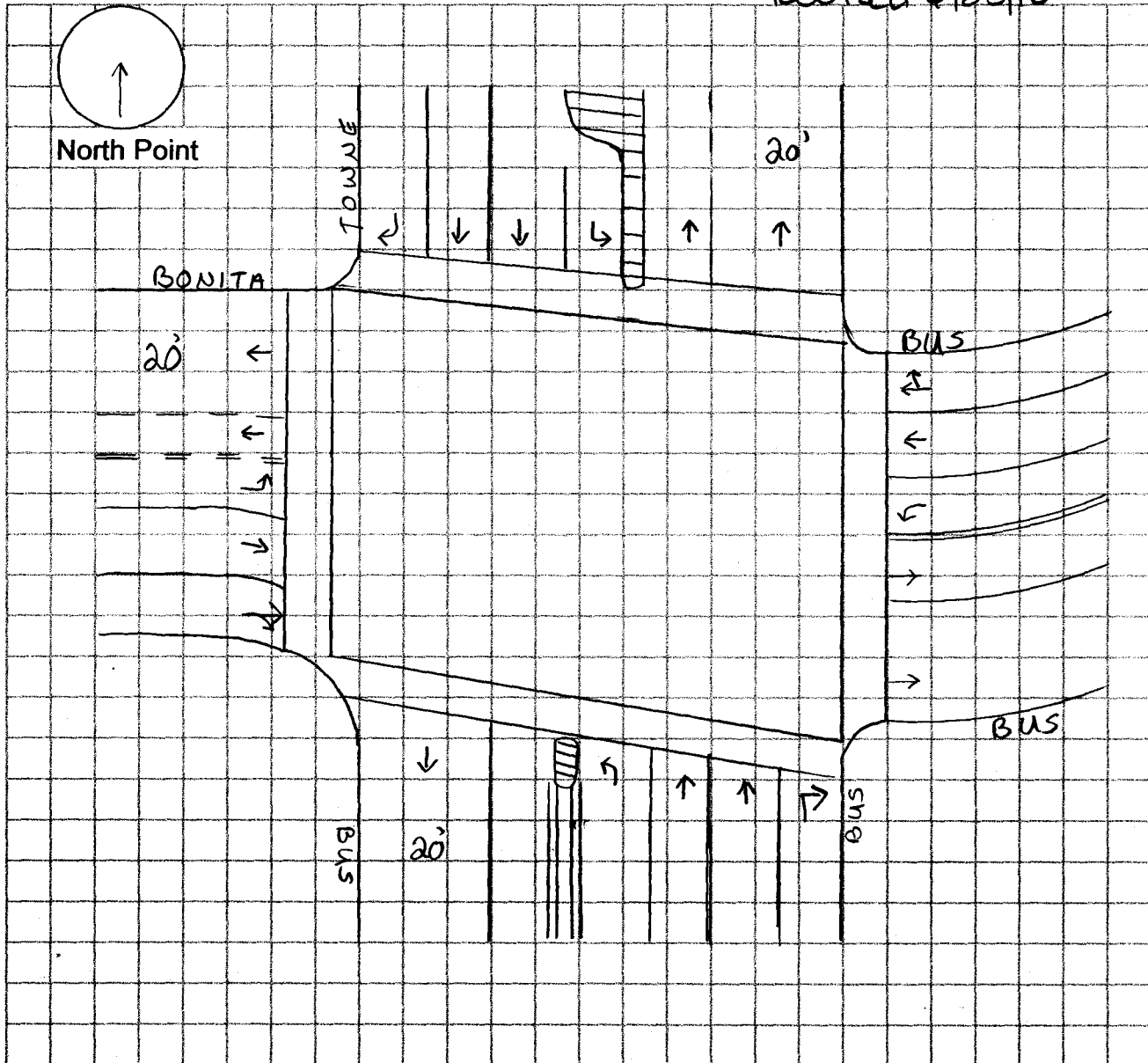
N/S TOWNE AVE

EW BONITA AVE

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6
↓↑	↔				

WILTEC

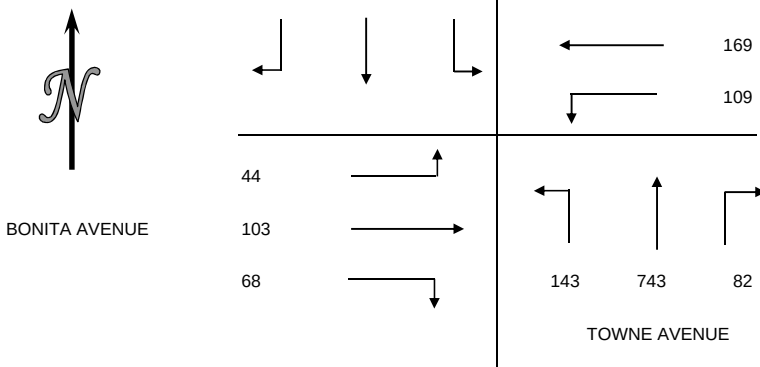
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S TOWNE AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	31	168	11	7	29	21	9	119	24	15	21	4	459
715-730	22	178	9	13	32	25	9	144	25	16	19	5	497
730-745	34	187	15	20	32	33	19	178	21	13	24	11	587
745-800	33	211	27	14	57	37	27	212	43	18	35	13	727
800-815	42	257	29	14	35	20	23	185	40	18	25	11	699
815-830	30	189	19	16	45	19	13	168	39	19	19	9	585
830-845	35	169	12	9	25	26	6	149	39	18	20	8	516
845-900	23	164	12	8	20	18	13	142	38	21	24	8	491
HOUR TOTALS													
700-800	120	744	62	54	150	116	64	653	113	62	99	33	2270
715-815	131	833	80	61	156	115	78	719	129	65	103	40	2510
730-830	139	844	90	64	169	109	82	743	143	68	103	44	2598
745-845	140	826	87	53	162	102	69	714	161	73	99	41	2527
800-900	130	779	72	47	125	83	55	644	156	76	88	36	2291

AM PEAK HOUR
730-830



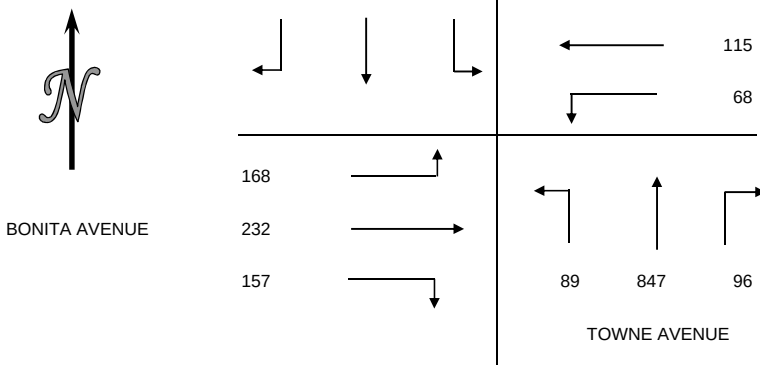
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	2
715-730	1	1	2	1
730-745	0	0	0	0
745-800	3	2	0	4
800-815	0	0	0	0
815-830	1	2	0	2
830-845	2	1	1	0
845-900	0	0	2	1
HOUR TOTALS				
700-800	4	3	2	7
715-815	4	3	2	5
730-830	4	4	0	6
745-845	6	5	1	6
800-900	3	3	3	3

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S TOWNE AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	15	146	24	21	40	12	20	201	20	42	46	29	616
415-430	14	160	12	17	28	23	26	221	30	29	53	27	640
430-445	12	167	18	33	31	20	26	210	28	46	58	44	693
445-500	16	161	20	24	25	17	20	210	24	26	48	29	620
500-515	13	162	20	23	26	16	28	216	22	54	70	46	696
515-530	11	163	16	22	33	15	22	211	15	31	56	49	644
530-545	11	161	18	22	37	17	22	188	14	29	38	34	591
545-600	23	142	24	12	21	8	26	210	33	28	41	25	593
HOUR TOTALS													
400-500	57	634	74	95	124	72	92	842	102	143	205	129	2569
415-515	55	650	70	97	110	76	100	857	104	155	229	146	2649
430-530	52	653	74	102	115	68	96	847	89	157	232	168	2653
445-545	51	647	74	91	121	65	92	825	75	140	212	158	2551
500-600	58	628	78	79	117	56	98	825	84	142	205	154	2524

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	2	0	1
415-430	0	0	1	1
430-445	0	1	0	3
445-500	3	0	0	1
500-515	1	3	2	0
515-530	1	0	0	1
530-545	0	1	0	1
545-600	0	0	0	0
HOUR TOTALS				
400-500	3	3	1	6
415-515	4	4	3	5
430-530	5	4	2	5
445-545	5	4	2	3
500-600	2	4	2	2

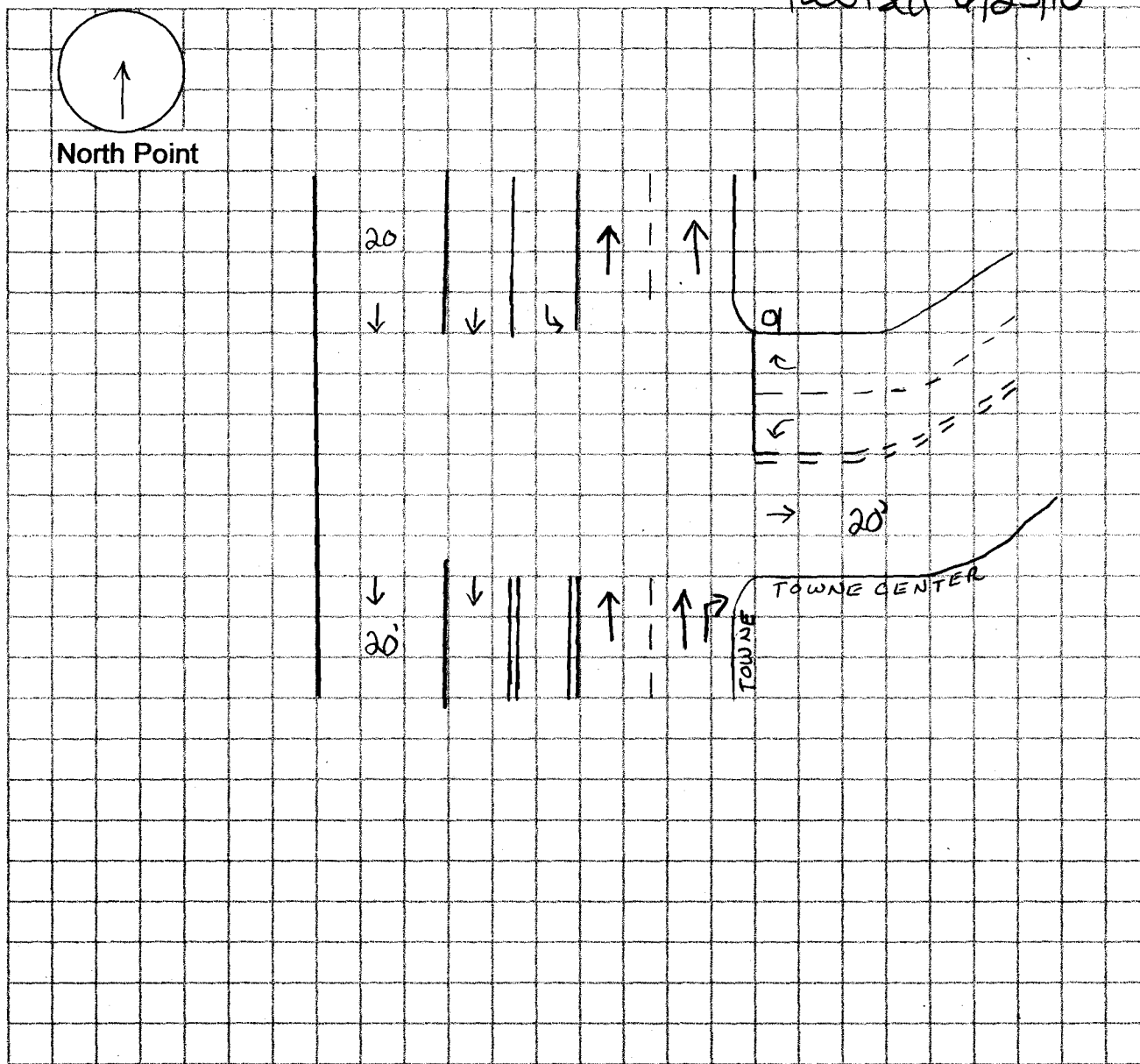
N/S TOWNE AVE

EW TOWNE. CENTER DR.

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

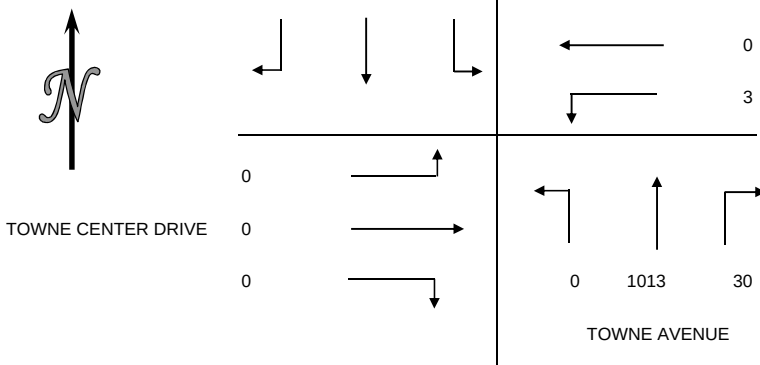
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S TOWNE AVENUE
 E/W TOWNE CENTER DRIVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	180	2	4	0	2	5	114	0	0	0	0	307
715-730	0	251	4	0	0	1	4	182	0	0	0	0	442
730-745	0	298	7	4	0	2	5	236	0	0	0	0	552
745-800	0	270	9	2	0	0	9	277	0	0	0	0	567
800-815	0	251	13	3	0	0	9	282	0	0	0	0	558
815-830	0	214	6	1	0	1	7	218	0	0	0	0	447
830-845	0	229	8	2	0	3	11	192	0	0	0	0	445
845-900	0	204	10	1	0	1	7	183	0	0	0	0	406
HOUR TOTALS													
700-800	0	999	22	10	0	5	23	809	0	0	0	0	1868
715-815	0	1070	33	9	0	3	27	977	0	0	0	0	2119
730-830	0	1033	35	10	0	3	30	1013	0	0	0	0	2124
745-845	0	964	36	8	0	4	36	969	0	0	0	0	2017
800-900	0	898	37	7	0	5	34	875	0	0	0	0	1856

AM PEAK HOUR
730-830



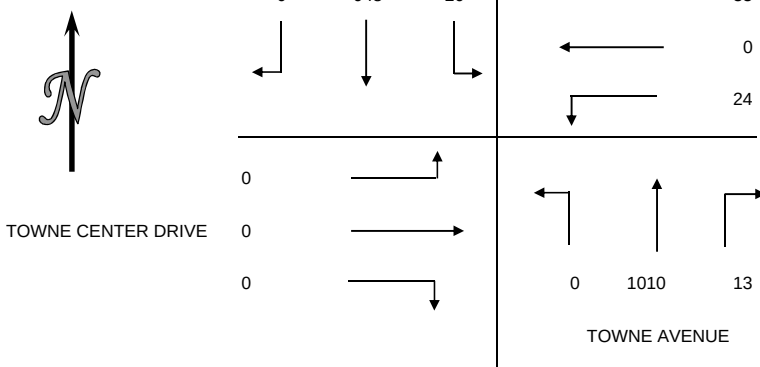
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	1	0	0
730-745	0	3	0	0
745-800	1	2	0	0
800-815	0	0	0	0
815-830	0	4	0	0
830-845	1	0	0	0
845-900	0	1	0	0
HOUR TOTALS				
700-800	1	6	0	0
715-815	1	6	0	0
730-830	1	9	0	0
745-845	2	6	0	0
800-900	1	5	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S TOWNE AVENUE
 E/W TOWNE CENTER DRIVE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	206	5	2	0	2	3	239	0	0	0	0	457
415-430	0	178	4	4	0	4	3	269	0	0	0	0	462
430-445	0	198	8	7	0	9	4	251	0	0	0	0	477
445-500	0	227	3	9	0	3	5	257	0	0	0	0	504
500-515	0	252	6	9	0	9	0	248	0	0	0	0	524
515-530	0	271	9	8	0	3	4	254	0	0	0	0	549
530-545	0	226	3	6	0	14	2	220	0	0	0	0	471
545-600	0	207	2	2	0	4	3	254	0	0	0	0	472
HOUR TOTALS													
400-500	0	809	20	22	0	18	15	1016	0	0	0	0	1900
415-515	0	855	21	29	0	25	12	1025	0	0	0	0	1967
430-530	0	948	26	33	0	24	13	1010	0	0	0	0	2054
445-545	0	976	21	32	0	29	11	979	0	0	0	0	2048
500-600	0	956	20	25	0	30	9	976	0	0	0	0	2016

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	1	0	0
415-430	0	2	0	0
430-445	0	0	0	0
445-500	0	0	0	0
500-515	0	0	0	0
515-530	0	2	0	0
530-545	0	2	0	0
545-600	0	4	0	0
HOUR TOTALS				
400-500	0	3	0	0
415-515	0	2	0	0
430-530	0	2	0	0
445-545	0	4	0	0
500-600	0	8	0	0

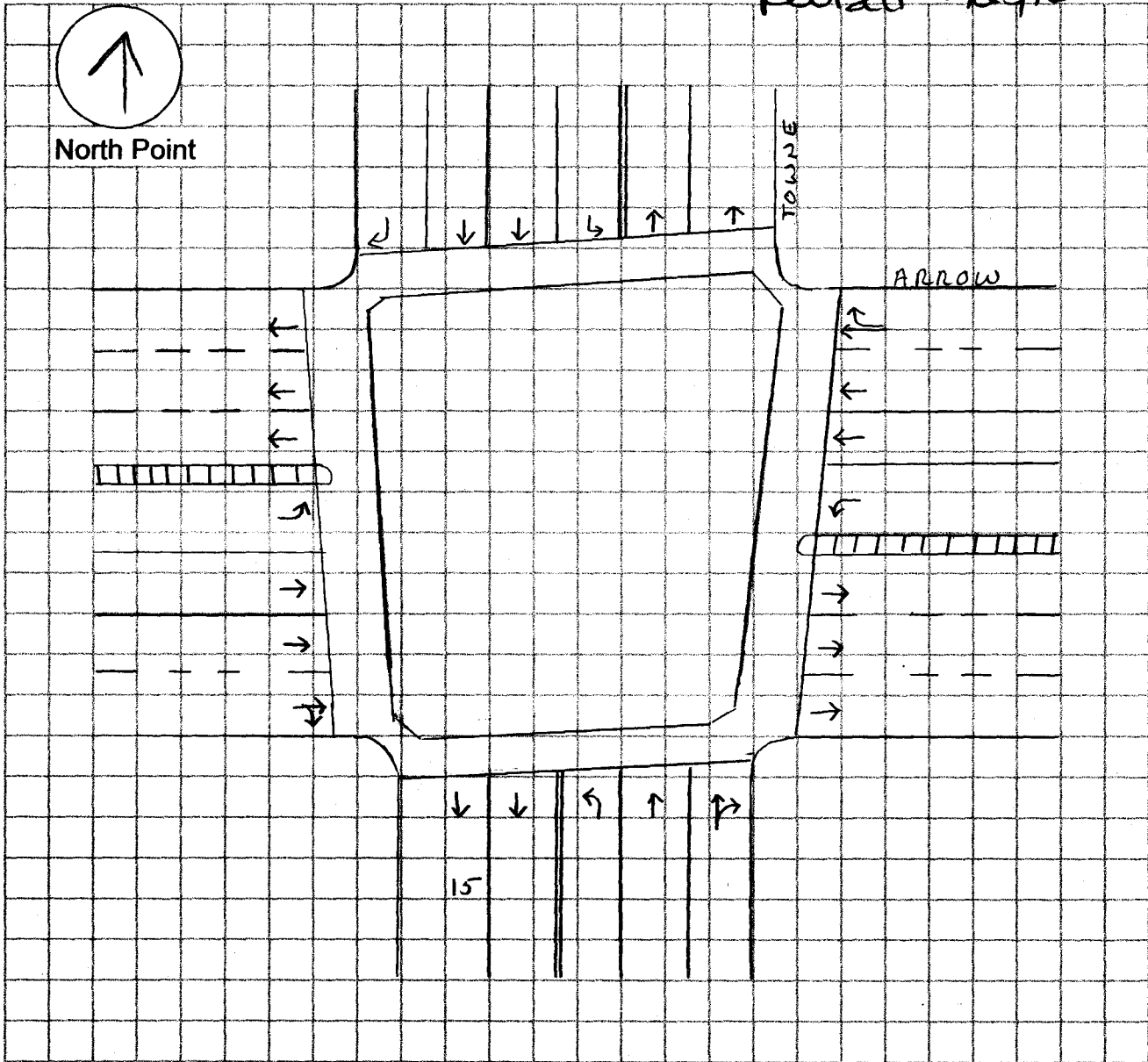
N/S TOWNE AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

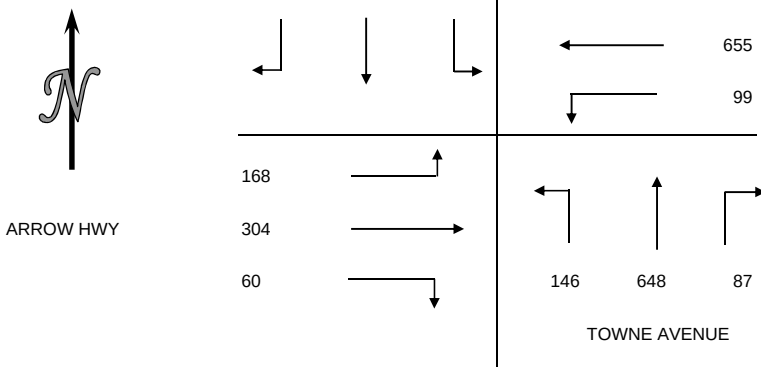
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S TOWNE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	27	115	12	19	90	26	14	87	30	12	30	22	484
715-730	45	140	18	27	125	15	14	118	25	8	52	38	625
730-745	57	192	39	44	149	17	18	135	40	10	68	39	808
745-800	69	237	41	52	169	28	19	172	49	20	71	44	971
800-815	54	205	67	62	163	26	21	184	33	18	86	42	961
815-830	64	217	49	36	174	28	29	157	24	12	79	43	912
830-845	48	184	24	27	146	38	15	146	16	12	67	34	757
845-900	45	161	20	26	129	37	18	142	23	9	60	23	693
HOUR TOTALS													
700-800	198	684	110	142	533	86	65	512	144	50	221	143	2888
715-815	225	774	165	185	606	86	72	609	147	56	277	163	3365
730-830	244	851	196	194	655	99	87	648	146	60	304	168	3652
745-845	235	843	181	177	652	120	84	659	122	62	303	163	3601
800-900	211	767	160	151	612	129	83	629	96	51	292	142	3323

AM PEAK HOUR
730-830



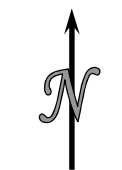
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	2	2	3
715-730	1	2	5	2
730-745	1	8	5	6
745-800	3	8	7	4
800-815	0	6	9	5
815-830	2	2	5	6
830-845	1	0	4	2
845-900	1	0	0	2
HOUR TOTALS				
700-800	6	20	19	15
715-815	5	24	26	17
730-830	6	24	26	21
745-845	6	16	25	17
800-900	4	8	18	15

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

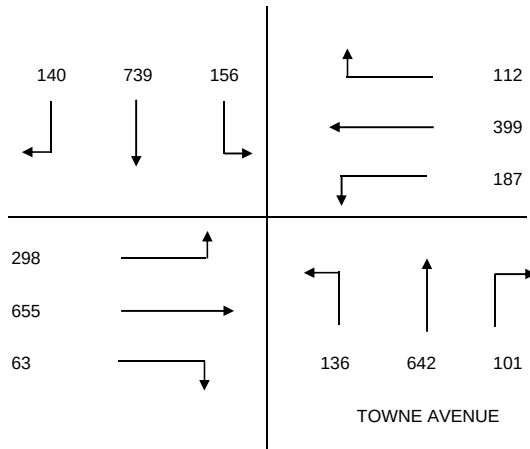
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S TOWNE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	31	172	26	34	92	29	24	165	41	16	132	63	825
415-430	35	180	41	37	89	34	33	160	40	22	149	76	896
430-445	39	182	30	30	91	55	33	176	27	13	161	78	915
445-500	27	185	41	33	106	40	12	152	33	12	167	74	882
500-515	39	192	44	12	113	58	23	154	36	16	178	70	935
515-530	25	182	21	14	101	26	31	176	22	23	199	64	884
530-545	24	184	26	20	91	22	21	168	40	22	208	62	888
545-600	16	156	24	13	87	28	16	151	29	18	181	66	785
HOUR TOTALS													
400-500	132	719	138	134	378	158	102	653	141	63	609	291	3518
415-515	140	739	156	112	399	187	101	642	136	63	655	298	3628
430-530	130	741	136	89	411	179	99	658	118	64	705	286	3616
445-545	115	743	132	79	411	146	87	650	131	73	752	270	3589
500-600	104	714	115	59	392	134	91	649	127	79	766	262	3492

PM PEAK HOUR
415-515



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	7	9	2
415-430	10	2	7	10
430-445	12	1	4	14
445-500	4	4	7	7
500-515	1	4	5	5
515-530	3	1	3	10
530-545	4	2	2	6
545-600	5	6	4	4
HOUR TOTALS				
400-500	26	14	27	33
415-515	27	11	23	36
430-530	20	10	19	36
445-545	12	11	17	28
500-600	13	13	14	25

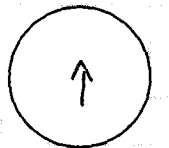
N/S GAREY AVE

EW HARRISON AVE

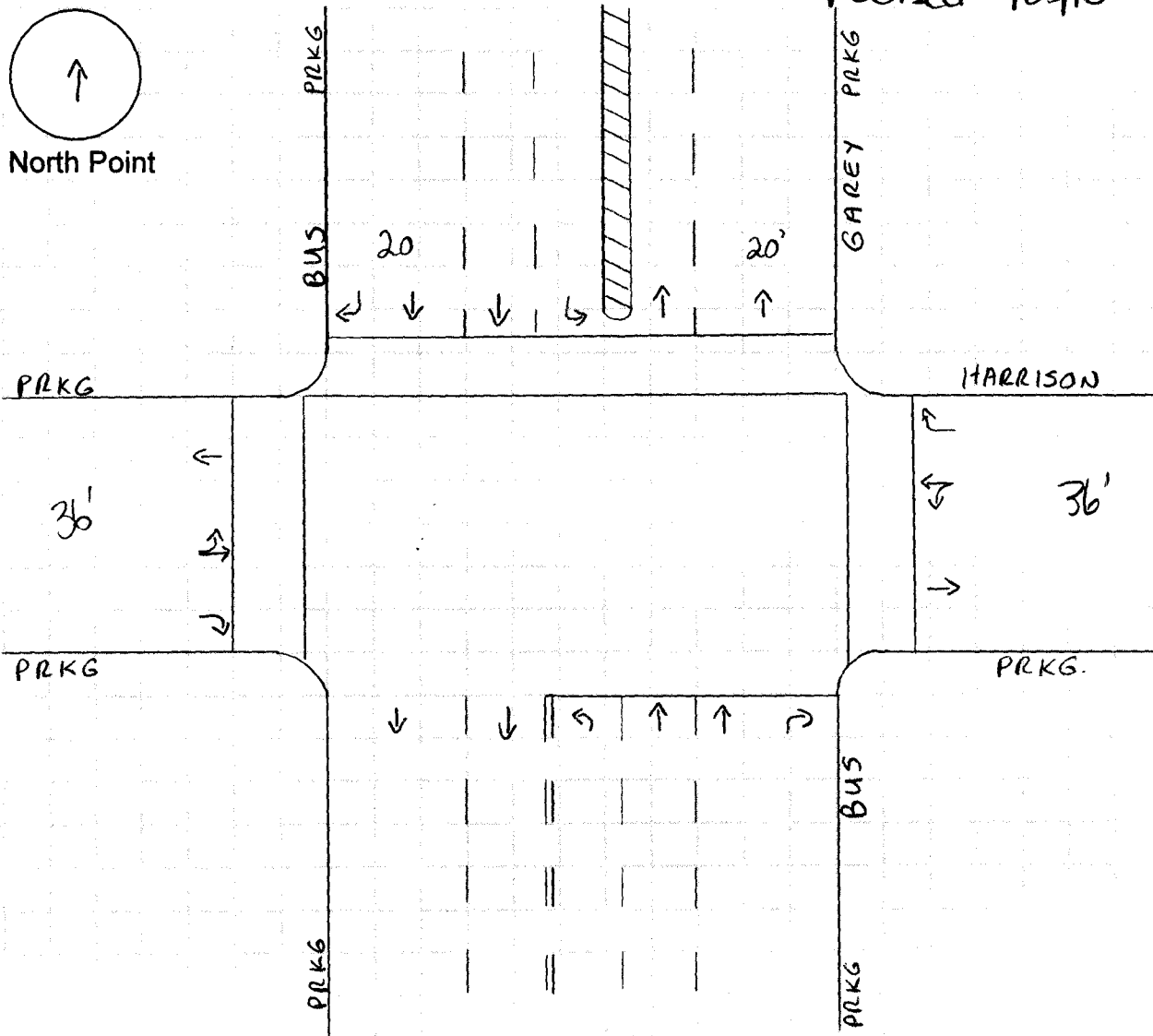
BY: C. JAMISON

DATE: 04.23.05

Revised 6/25/10



North Point



Phasing:

1	2	3	4	5	6
↓ ↑	← →				

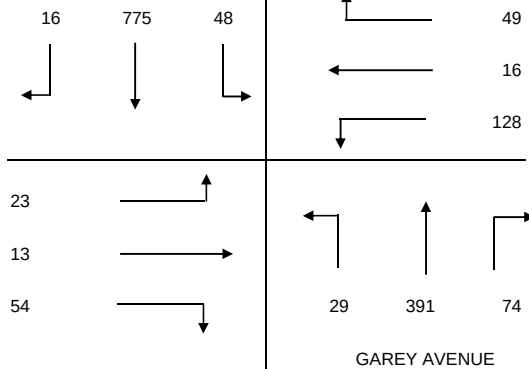
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S GAREY AVENUE
 E/W HARRISON AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	4	132	8	6	5	18	7	59	3	15	1	3	261
715-730	2	137	8	7	2	24	12	45	4	15	1	3	260
730-745	7	176	13	10	1	25	19	76	6	20	4	7	364
745-800	5	191	10	13	5	33	24	100	4	18	6	4	413
800-815	3	224	16	15	4	29	22	127	13	11	2	5	471
815-830	1	184	9	11	6	41	9	88	6	5	1	7	368
830-845	4	135	12	7	2	37	10	87	4	5	1	5	309
845-900	2	143	10	9	1	23	4	83	6	8	0	1	290
HOUR TOTALS													
700-800	18	636	39	36	13	100	62	280	17	68	12	17	1298
715-815	17	728	47	45	12	111	77	348	27	64	13	19	1508
730-830	16	775	48	49	16	128	74	391	29	54	13	23	1616
745-845	13	734	47	46	17	140	65	402	27	39	10	21	1561
800-900	10	686	47	42	13	130	45	385	29	29	4	18	1438

AM PEAK HOUR
730-830

HARRISON AVENUE



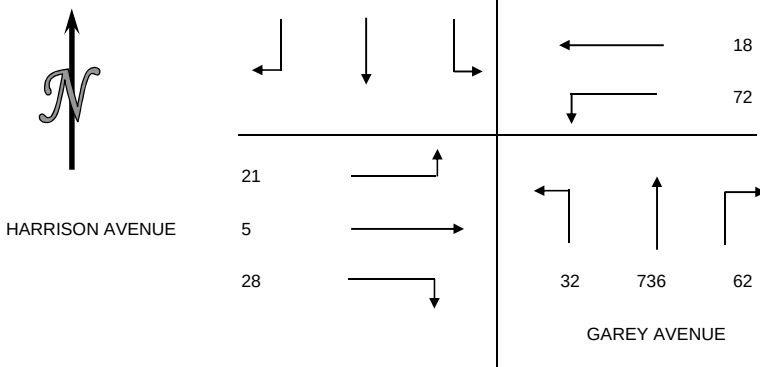
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	0	1
715-730	2	3	0	2
730-745	1	0	0	2
745-800	0	0	0	0
800-815	5	3	0	0
815-830	3	1	0	2
830-845	0	0	0	2
845-900	2	0	0	0
HOUR TOTALS				
700-800	4	4	0	5
715-815	8	6	0	4
730-830	9	4	0	4
745-845	8	4	0	4
800-900	10	4	0	4

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 18, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S GAREY AVENUE
 E/W HARRISON AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	7	91	5	11	2	16	13	170	10	6	1	6	338
415-430	9	112	7	15	2	21	16	170	5	10	0	4	371
430-445	6	127	7	10	5	17	9	175	12	6	2	3	379
445-500	8	140	12	15	2	19	17	189	8	4	1	5	420
500-515	13	124	7	19	6	20	12	196	7	6	2	5	417
515-530	4	137	13	13	8	18	20	183	10	9	2	5	422
530-545	9	119	15	19	2	15	13	168	7	9	0	6	382
545-600	5	123	9	8	4	10	14	142	2	4	0	6	327
HOURLY TOTALS													
400-500	30	470	31	51	11	73	55	704	35	26	4	18	1508
415-515	36	503	33	59	15	77	54	730	32	26	5	17	1587
430-530	31	528	39	57	21	74	58	743	37	25	7	18	1638
445-545	34	520	47	66	18	72	62	736	32	28	5	21	1641
500-600	31	503	44	59	20	63	59	689	26	28	4	22	1548

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	2	0	0	2
415-430	1	4	0	13
430-445	0	2	0	1
445-500	1	2	0	0
500-515	7	3	0	1
515-530	0	0	0	4
530-545	1	0	0	1
545-600	0	0	1	2
HOURLY TOTALS				
400-500	4	8	0	16
415-515	9	11	0	15
430-530	8	7	0	6
445-545	9	5	0	6
500-600	8	3	1	8

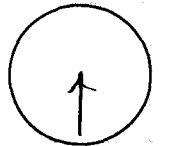
N/S INDIAN HILL BLVD.

E/W BONITA AVE

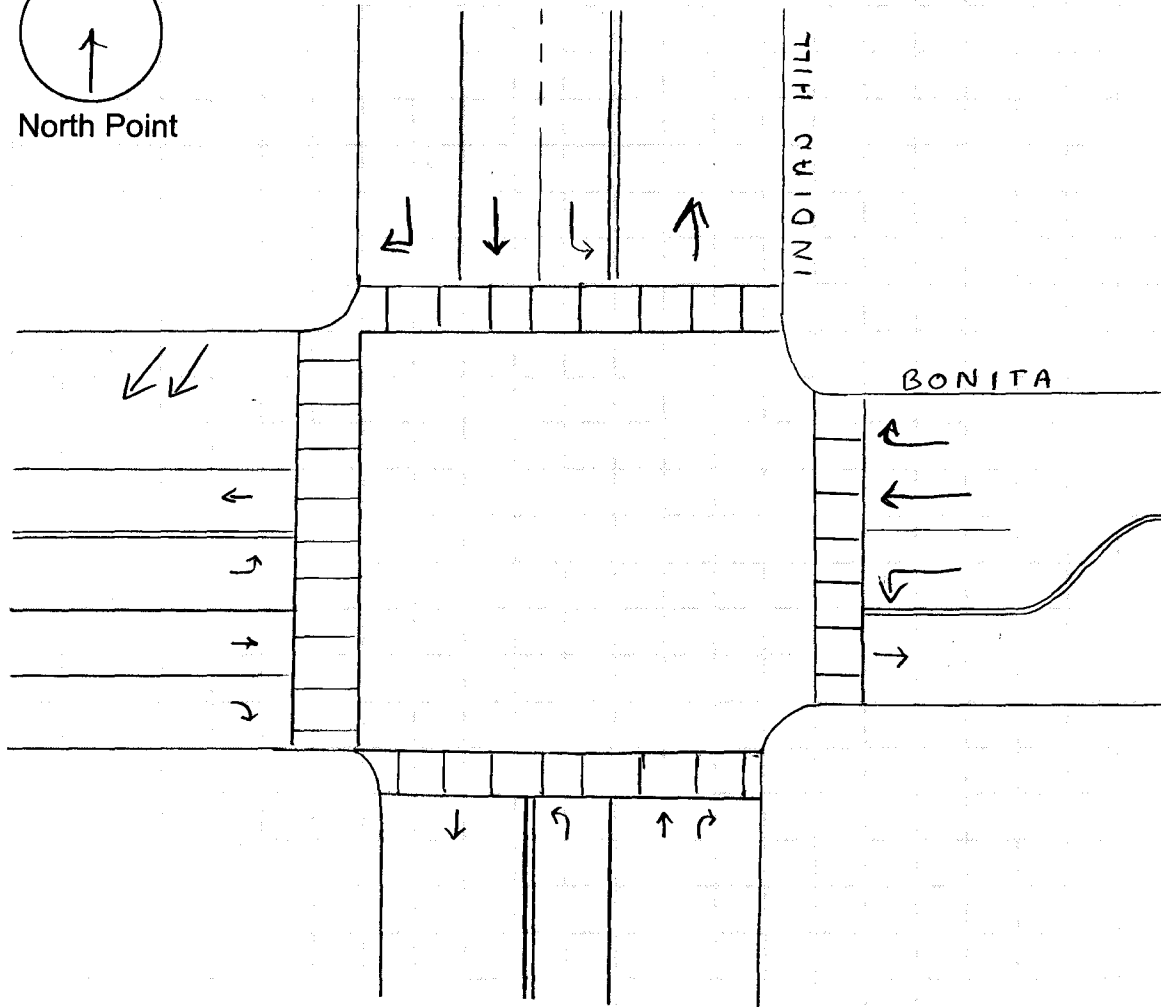
BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

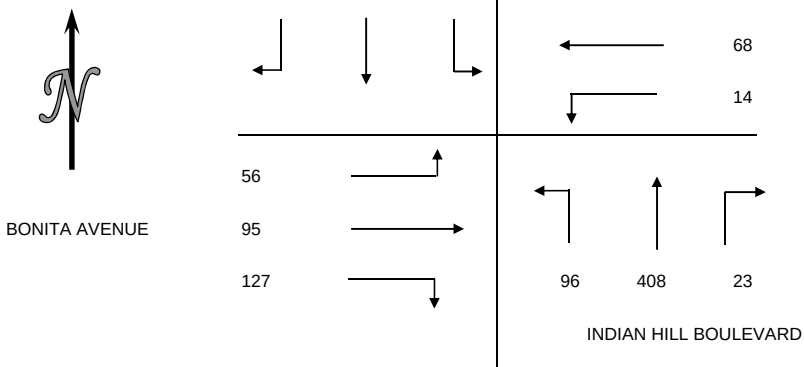
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 25, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	6	79	8	5	5	4	5	74	15	17	11	4	233
715-730	7	91	4	1	11	3	4	96	20	23	19	8	287
730-745	6	102	9	4	15	1	3	105	27	38	20	13	343
745-800	8	122	5	6	28	5	7	115	28	34	25	19	402
800-815	11	114	14	9	11	4	6	98	27	27	30	11	362
815-830	9	107	9	6	14	4	7	90	14	28	20	13	321
830-845	7	92	6	7	9	8	6	87	11	23	17	14	287
845-900	8	80	13	8	11	8	4	85	17	30	13	11	288
HOUR TOTALS													
700-800	27	394	26	16	59	13	19	390	90	112	75	44	1265
715-815	32	429	32	20	65	13	20	414	102	122	94	51	1394
730-830	34	445	37	25	68	14	23	408	96	127	95	56	1428
745-845	35	435	34	28	62	21	26	390	80	112	92	57	1372
800-900	35	393	42	30	45	24	23	360	69	108	80	49	1258

AM PEAK HOUR
730-830



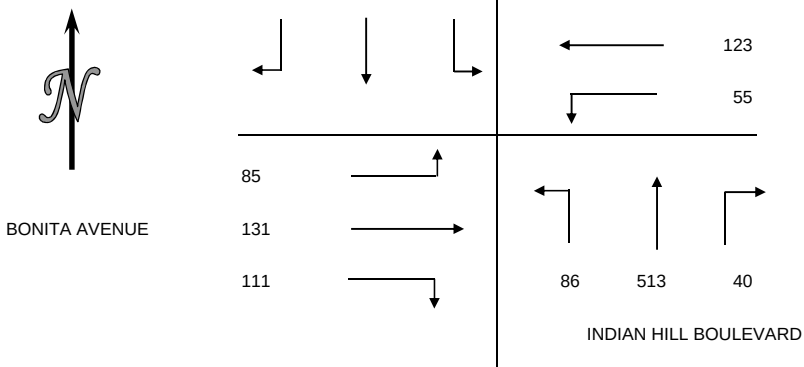
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	3	1	3	3
715-730	7	4	7	3
730-745	1	3	3	1
745-800	4	3	4	4
800-815	11	2	4	0
815-830	2	0	2	2
830-845	2	6	4	3
845-900	1	3	5	6
HOUR TOTALS				
700-800	15	11	17	11
715-815	23	12	18	8
730-830	18	8	13	7
745-845	19	11	14	9
800-900	16	11	15	11

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 25, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	11	120	6	14	30	8	10	116	17	37	31	26	426
415-430	14	122	10	14	37	12	12	113	22	34	37	22	449
430-445	11	114	9	19	28	13	4	121	20	29	37	19	424
445-500	11	92	9	18	26	10	15	137	24	25	31	23	421
500-515	14	114	14	19	32	20	9	142	20	23	26	21	454
515-530	19	110	13	12	28	13	6	136	26	25	34	18	440
530-545	12	103	11	10	20	14	7	124	18	23	28	23	393
545-600	11	106	16	14	27	16	9	121	22	20	38	19	419
HOURLY TOTALS													
400-500	47	448	34	65	121	43	41	487	83	125	136	90	1720
415-515	50	442	42	70	123	55	40	513	86	111	131	85	1748
430-530	55	430	45	68	114	56	34	536	90	102	128	81	1739
445-545	56	419	47	59	106	57	37	539	88	96	119	85	1708
500-600	56	433	54	55	107	63	31	523	86	91	126	81	1706

PM PEAK HOUR
415-515



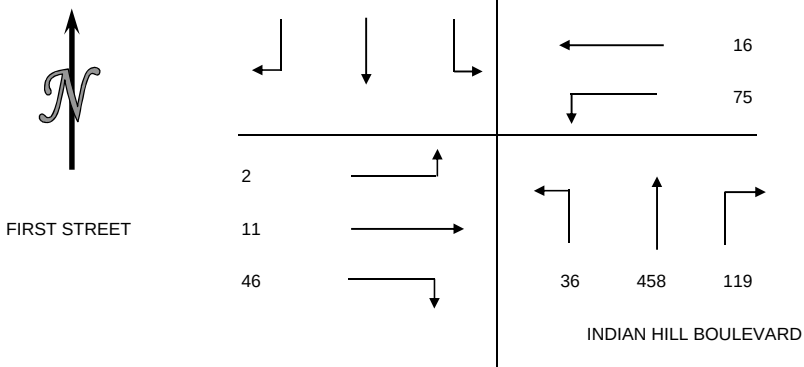
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	11	3	7
415-430	5	11	9	7
430-445	9	5	7	5
445-500	2	4	7	3
500-515	3	7	3	2
515-530	3	10	14	3
530-545	3	2	4	0
545-600	6	1	0	0
HOURLY TOTALS				
400-500	19	31	26	22
415-515	19	27	26	17
430-530	17	26	31	13
445-545	11	23	28	8
500-600	15	20	21	5

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 25, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W FIRST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	3	84	3	8	4	11	22	84	9	8	6	2	244
715-730	2	105	5	11	3	13	23	110	3	7	3	1	286
730-745	1	130	6	10	4	22	34	121	13	9	2	1	353
745-800	4	148	10	8	5	20	36	129	9	14	4	0	387
800-815	5	124	7	9	7	19	27	114	8	14	3	1	338
815-830	5	111	14	15	0	14	22	94	6	9	2	0	292
830-845	4	105	11	10	4	21	37	91	9	11	2	2	307
845-900	6	92	14	16	10	16	46	97	10	8	5	0	320
HOUR TOTALS													
700-800	10	467	24	37	16	66	115	444	34	38	15	4	1270
715-815	12	507	28	38	19	74	120	474	33	44	12	3	1364
730-830	15	513	37	42	16	75	119	458	36	46	11	2	1370
745-845	18	488	42	42	16	74	122	428	32	48	11	3	1324
800-900	20	432	46	50	21	70	132	396	33	42	12	3	1257

AM PEAK HOUR
730-830



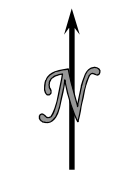
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	0	2
715-730	0	2	1	0
730-745	0	0	3	0
745-800	1	2	1	0
800-815	2	3	2	2
815-830	2	0	0	2
830-845	2	1	6	3
845-900	6	5	0	3
HOUR TOTALS				
700-800	2	5	5	2
715-815	3	7	7	2
730-830	5	5	6	4
745-845	7	6	9	7
800-900	12	9	8	10

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

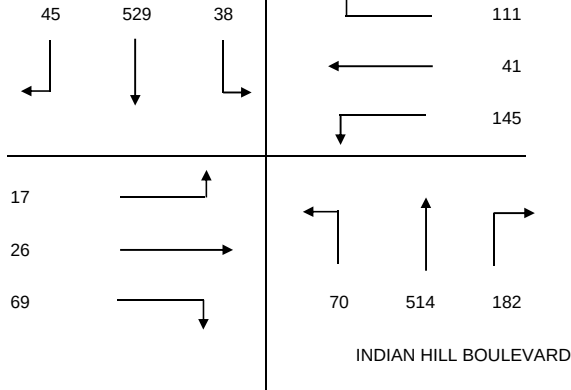
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 25, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W FIRST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	6	126	13	20	13	30	30	116	17	22	8	7	408
415-430	12	145	10	27	10	39	48	119	17	25	4	5	461
430-445	11	131	9	21	9	36	50	130	19	12	7	5	440
445-500	12	128	7	35	13	31	45	145	19	18	3	3	459
500-515	10	125	12	28	9	39	39	120	15	14	12	4	427
515-530	13	128	9	22	17	37	38	120	15	18	8	4	429
530-545	7	129	12	28	7	29	27	125	21	19	10	9	423
545-600	6	121	10	28	7	23	36	125	14	12	12	6	400
HOURLY TOTALS													
400-500	41	530	39	103	45	136	173	510	72	77	22	20	1768
415-515	45	529	38	111	41	145	182	514	70	69	26	17	1787
430-530	46	512	37	106	48	143	172	515	68	62	30	16	1755
445-545	42	510	40	113	46	136	149	510	70	69	33	20	1738
500-600	36	503	43	106	40	128	140	490	65	63	42	23	1679

PM PEAK HOUR
415-515



FIRST STREET



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	11	2	5	11
415-430	10	8	14	0
430-445	5	3	5	1
445-500	15	2	1	12
500-515	13	3	9	10
515-530	6	1	11	12
530-545	11	6	6	8
545-600	3	0	3	1
HOURLY TOTALS				
400-500	41	15	25	24
415-515	43	16	29	23
430-530	39	9	26	35
445-545	45	12	27	42
500-600	33	10	29	31

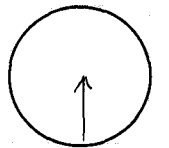
N/S INDIAN HILL BLVD

E/W SANTA FE ST.

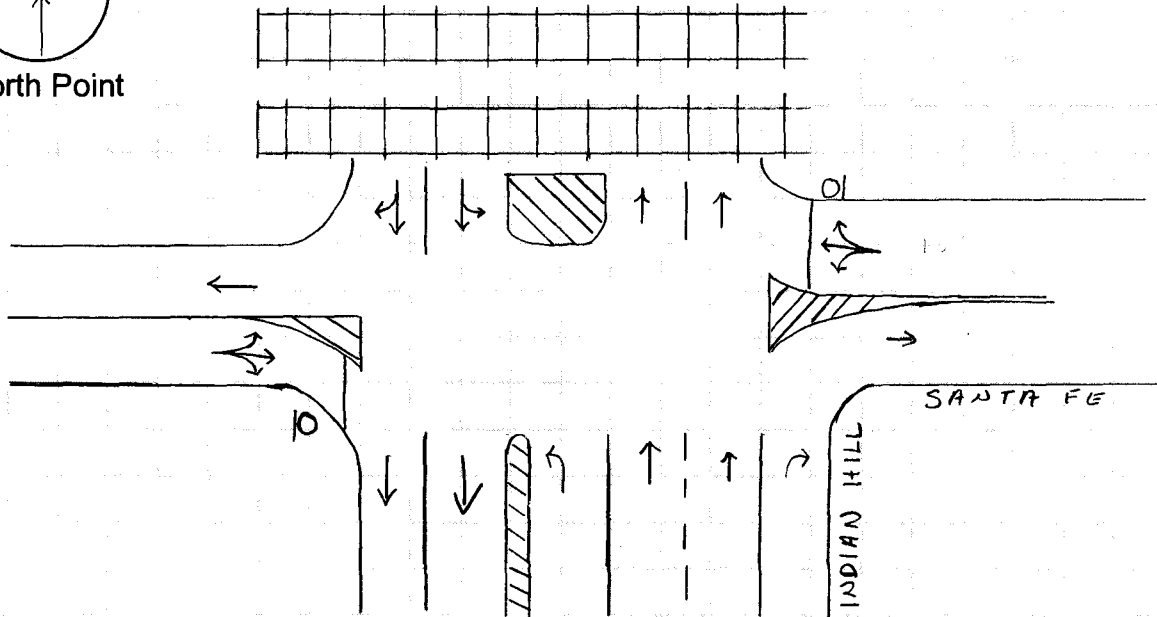
BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



North Point



Phasing:

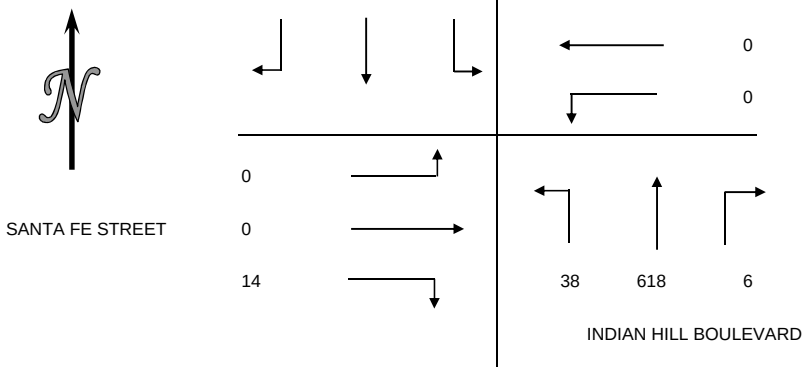
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 25, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W SANTA FE STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	10	106	1	1	0	0	2	116	8	2	0	0	246
715-730	3	115	0	3	0	0	0	142	3	0	0	0	266
730-745	8	133	0	5	0	0	0	151	6	3	0	0	306
745-800	17	169	0	1	0	0	4	166	15	4	0	0	376
800-815	6	159	0	3	0	0	1	154	8	6	0	0	337
815-830	3	143	0	0	0	0	1	147	9	1	0	0	304
830-845	4	133	0	0	0	0	1	137	4	3	0	0	282
845-900	4	121	0	3	0	0	1	131	4	0	0	0	264
HOUR TOTALS													
700-800	38	523	1	10	0	0	6	575	32	9	0	0	1194
715-815	34	576	0	12	0	0	5	613	32	13	0	0	1285
730-830	34	604	0	9	0	0	6	618	38	14	0	0	1323
745-845	30	604	0	4	0	0	7	604	36	14	0	0	1299
800-900	17	556	0	6	0	0	4	569	25	10	0	0	1187

AM PEAK HOUR
730-830



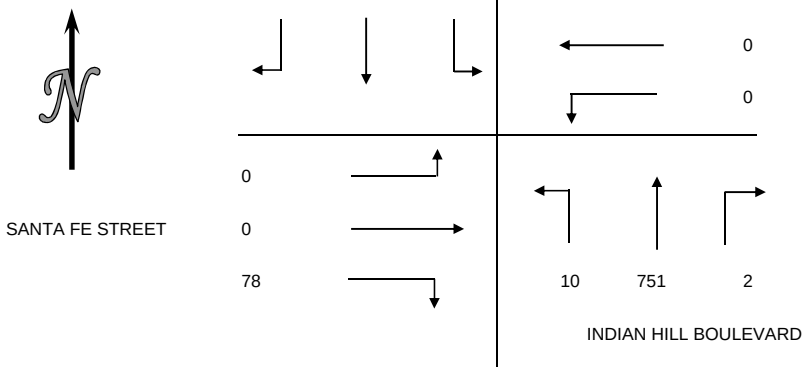
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	2	1	5
715-730	0	2	0	1
730-745	1	0	1	3
745-800	0	4	2	4
800-815	0	3	0	0
815-830	0	4	0	6
830-845	0	6	0	3
845-900	0	4	0	4
HOUR TOTALS				
700-800	1	8	4	13
715-815	1	9	3	8
730-830	1	11	3	13
745-845	0	17	2	13
800-900	0	17	0	13

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: TUESDAY MAY 25, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W SANTA FE STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	6	174	0	5	0	1	0	155	7	8	0	0	356
415-430	1	180	0	7	0	0	2	172	3	5	0	0	370
430-445	0	182	0	5	0	0	0	185	5	31	0	0	408
445-500	2	187	0	4	0	0	0	198	1	16	0	0	408
500-515	0	189	0	5	0	0	2	184	2	13	0	0	395
515-530	2	178	0	4	0	0	0	184	2	18	0	0	388
530-545	1	170	0	0	0	0	1	179	1	12	0	0	364
545-600	2	165	0	0	0	0	0	169	1	5	1	0	343
HOURLY TOTALS													
400-500	9	723	0	21	0	1	2	710	16	60	0	0	1542
415-515	3	738	0	21	0	0	4	739	11	65	0	0	1581
430-530	4	736	0	18	0	0	2	751	10	78	0	0	1599
445-545	5	724	0	13	0	0	3	745	6	59	0	0	1555
500-600	5	702	0	9	0	0	3	716	6	48	1	0	1490

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	4	0	8
415-430	0	8	0	8
430-445	0	6	0	5
445-500	1	8	1	7
500-515	0	6	0	8
515-530	1	4	0	3
530-545	0	5	0	0
545-600	0	7	0	7
HOURLY TOTALS				
400-500	1	26	1	28
415-515	1	28	1	28
430-530	2	24	1	23
445-545	2	23	1	18
500-600	1	22	0	18

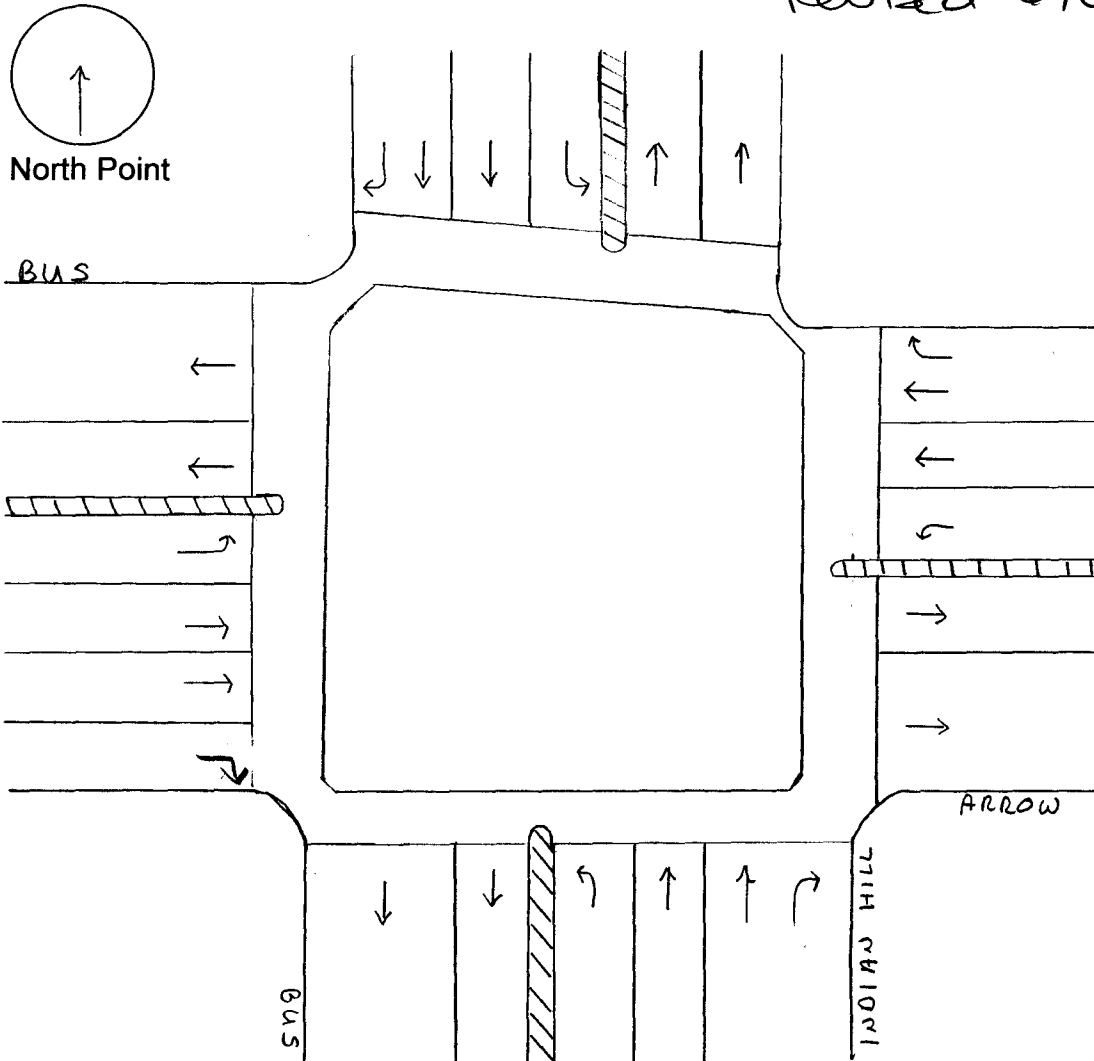
N/S INDIAN HILL BLVD

E/W ARROW HWY.

BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



Phasing:

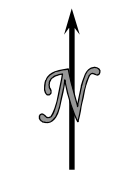
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

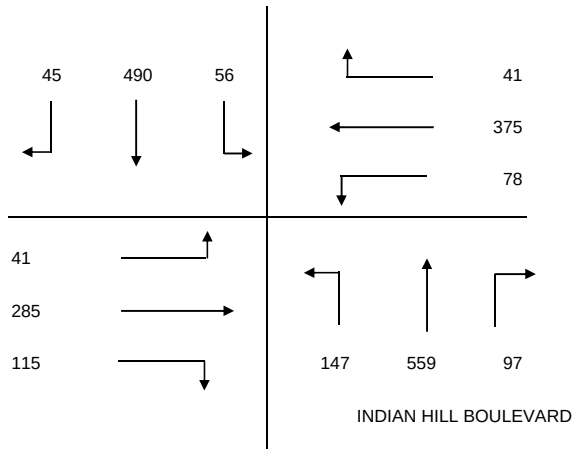
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	10	82	3	2	62	11	15	93	27	12	41	3	361
715-730	11	98	3	7	87	15	18	113	28	18	47	11	456
730-745	5	102	9	7	99	20	22	121	36	22	49	11	503
745-800	8	128	13	11	106	26	33	148	46	35	75	15	644
800-815	18	133	17	15	97	18	20	145	39	29	83	2	616
815-830	14	127	17	8	73	14	22	145	26	29	78	13	566
830-845	11	115	9	9	65	11	19	132	25	20	67	8	491
845-900	20	121	11	8	55	13	14	128	15	21	62	7	475
HOUR TOTALS													
700-800	34	410	28	27	354	72	88	475	137	87	212	40	1964
715-815	42	461	42	40	389	79	93	527	149	104	254	39	2219
730-830	45	490	56	41	375	78	97	559	147	115	285	41	2329
745-845	51	503	56	43	341	69	94	570	136	113	303	38	2317
800-900	63	496	54	40	290	56	75	550	105	99	290	30	2148

AM PEAK HOUR
730-830



ARROW HWY



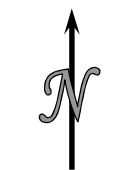
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	1	1	1
715-730	1	3	2	1
730-745	0	0	1	1
745-800	1	3	1	1
800-815	1	0	0	0
815-830	0	3	2	0
830-845	2	5	2	1
845-900	1	3	0	1
HOUR TOTALS				
700-800	2	7	5	4
715-815	3	6	4	3
730-830	2	6	4	2
745-845	4	11	5	2
800-900	4	11	4	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

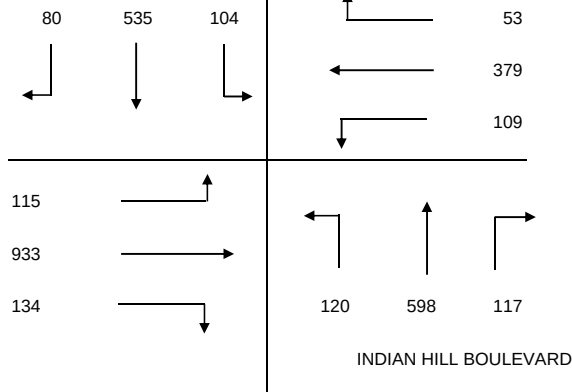
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S INDIAN HILL BOULEVARD
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	22	131	21	19	73	20	22	131	20	21	186	31	697
415-430	23	122	19	15	83	26	22	150	30	24	195	22	731
430-445	24	129	21	8	97	24	31	159	33	37	218	20	801
445-500	23	125	28	17	98	22	20	151	21	31	231	36	803
500-515	19	149	26	15	99	30	29	149	37	39	240	30	862
515-530	14	132	29	13	85	33	37	139	29	27	244	29	811
530-545	15	131	24	12	97	27	35	145	33	21	219	30	789
545-600	16	132	34	16	86	13	32	144	43	14	194	32	756
HOUR TOTALS													
400-500	92	507	89	59	351	92	95	591	104	113	830	109	3032
415-515	89	525	94	55	377	102	102	609	121	131	884	108	3197
430-530	80	535	104	53	379	109	117	598	120	134	933	115	3277
445-545	71	537	107	57	379	112	121	584	120	118	934	125	3265
500-600	64	544	113	56	367	103	133	577	142	101	897	121	3218

PM PEAK HOUR
430-530



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	4	0	0
415-430	2	4	1	2
430-445	1	2	0	3
445-500	0	1	0	3
500-515	1	3	0	2
515-530	0	2	0	0
530-545	1	3	1	0
545-600	0	2	1	1
HOUR TOTALS				
400-500	4	11	1	8
415-515	4	10	1	10
430-530	2	8	0	8
445-545	2	9	1	5
500-600	2	10	2	3

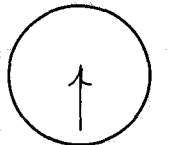
N/S COLLEGE AVE

EW BONITA AVE

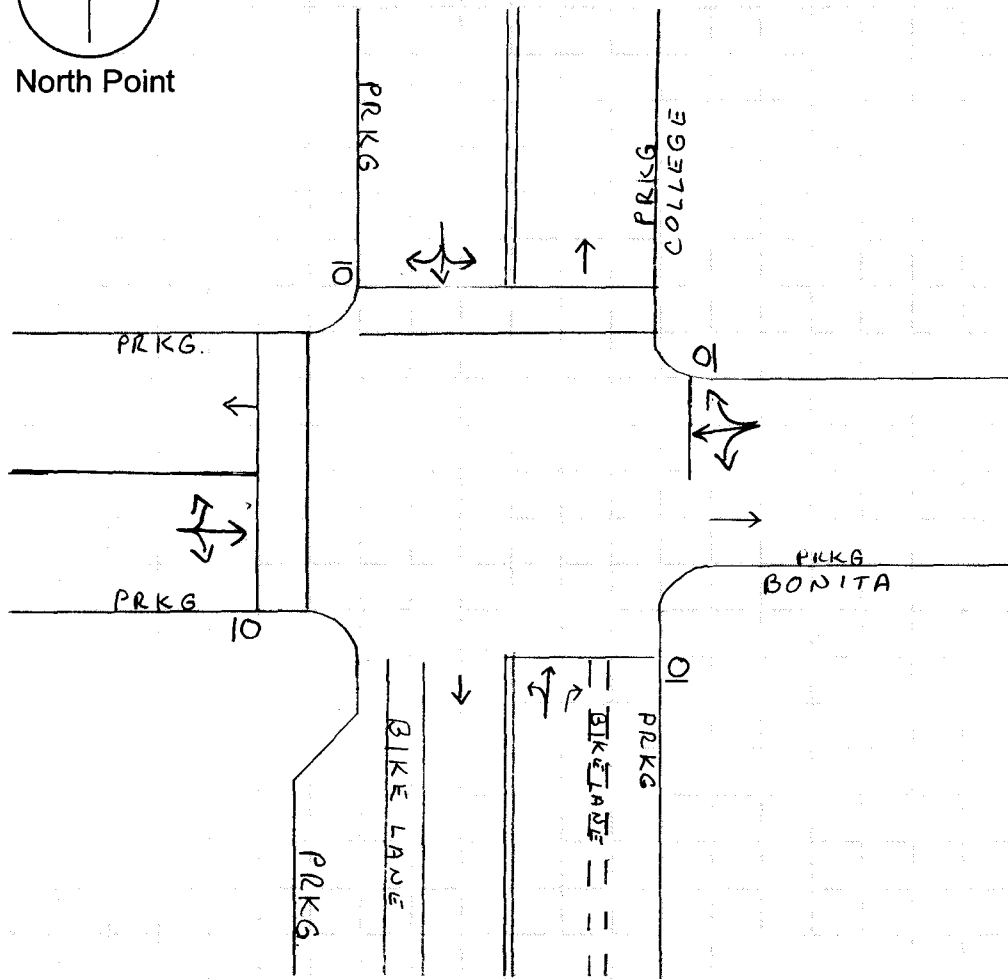
BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



North Point



Phasing:

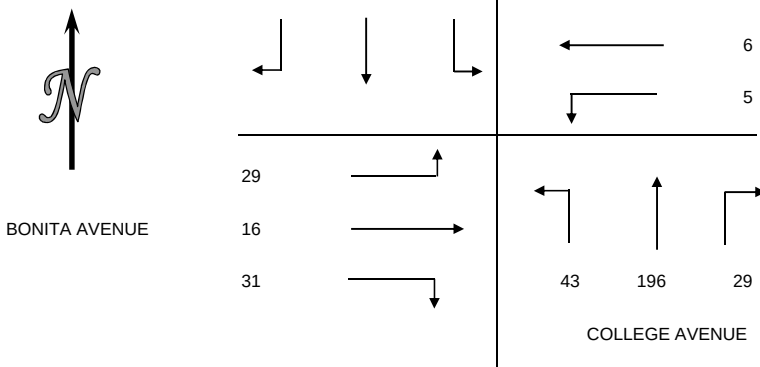
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S COLLEGE AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	7	29	5	4	0	3	7	25	0	3	3	3	89
715-730	8	17	3	1	2	2	3	27	6	1	3	4	77
730-745	6	38	4	3	1	2	8	38	14	4	4	5	127
745-800	9	34	3	3	1	2	11	66	19	16	6	5	175
800-815	10	37	4	2	0	1	6	54	8	6	3	4	135
815-830	6	21	4	6	4	0	4	38	2	5	3	15	108
830-845	5	25	2	4	2	2	6	50	6	4	2	16	124
845-900	7	36	2	4	5	2	4	25	3	5	3	4	100
HOUR TOTALS													
700-800	30	118	15	11	4	9	29	156	39	24	16	17	468
715-815	33	126	14	9	4	7	28	185	47	27	16	18	514
730-830	31	130	15	14	6	5	29	196	43	31	16	29	545
745-845	30	117	13	15	7	5	27	208	35	31	14	40	542
800-900	28	119	12	16	11	5	20	167	19	20	11	39	467

AM PEAK HOUR
730-830



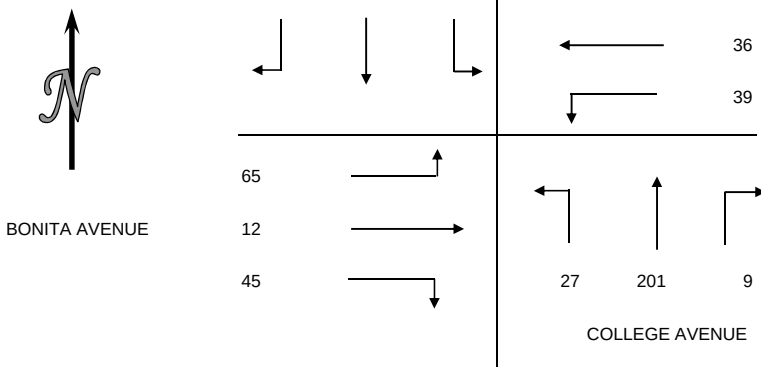
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	5
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	4	0	0
800-815	4	0	0	2
815-830	0	0	0	4
830-845	3	0	1	0
845-900	2	1	0	0
HOUR TOTALS				
700-800	0	4	1	5
715-815	4	4	0	2
730-830	4	4	0	6
745-845	7	4	1	6
800-900	9	1	1	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S COLLEGE AVENUE
 E/W BONITA AVENUE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	16	40	2	3	4	5	7	40	5	12	3	6	143
415-430	14	41	0	9	5	6	2	47	6	11	1	11	153
430-445	7	49	2	21	6	10	1	48	4	12	3	14	177
445-500	6	49	1	24	12	16	0	61	7	7	5	20	208
500-515	7	59	1	13	13	7	7	48	10	12	4	17	198
515-530	9	51	3	9	5	6	1	44	6	14	0	14	162
530-545	7	44	2	7	1	5	2	45	10	5	2	20	150
545-600	6	37	2	6	3	4	3	48	6	9	2	10	136
HOURLY TOTALS													
400-500	43	179	5	57	27	37	10	196	22	42	12	51	681
415-515	34	198	4	67	36	39	10	204	27	42	13	62	736
430-530	29	208	7	67	36	39	9	201	27	45	12	65	745
445-545	29	203	7	53	31	34	10	198	33	38	11	71	718
500-600	29	191	8	35	22	22	13	185	32	40	8	61	646

PM PEAK HOUR
430-530



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	4	2	1	6
415-430	0	0	0	0
430-445	1	1	0	1
445-500	0	0	0	6
500-515	6	4	1	0
515-530	4	7	1	6
530-545	5	2	2	2
545-600	4	2	2	1
HOURLY TOTALS				
400-500	5	3	1	13
415-515	7	5	1	7
430-530	11	12	2	13
445-545	15	13	4	14
500-600	19	15	6	9

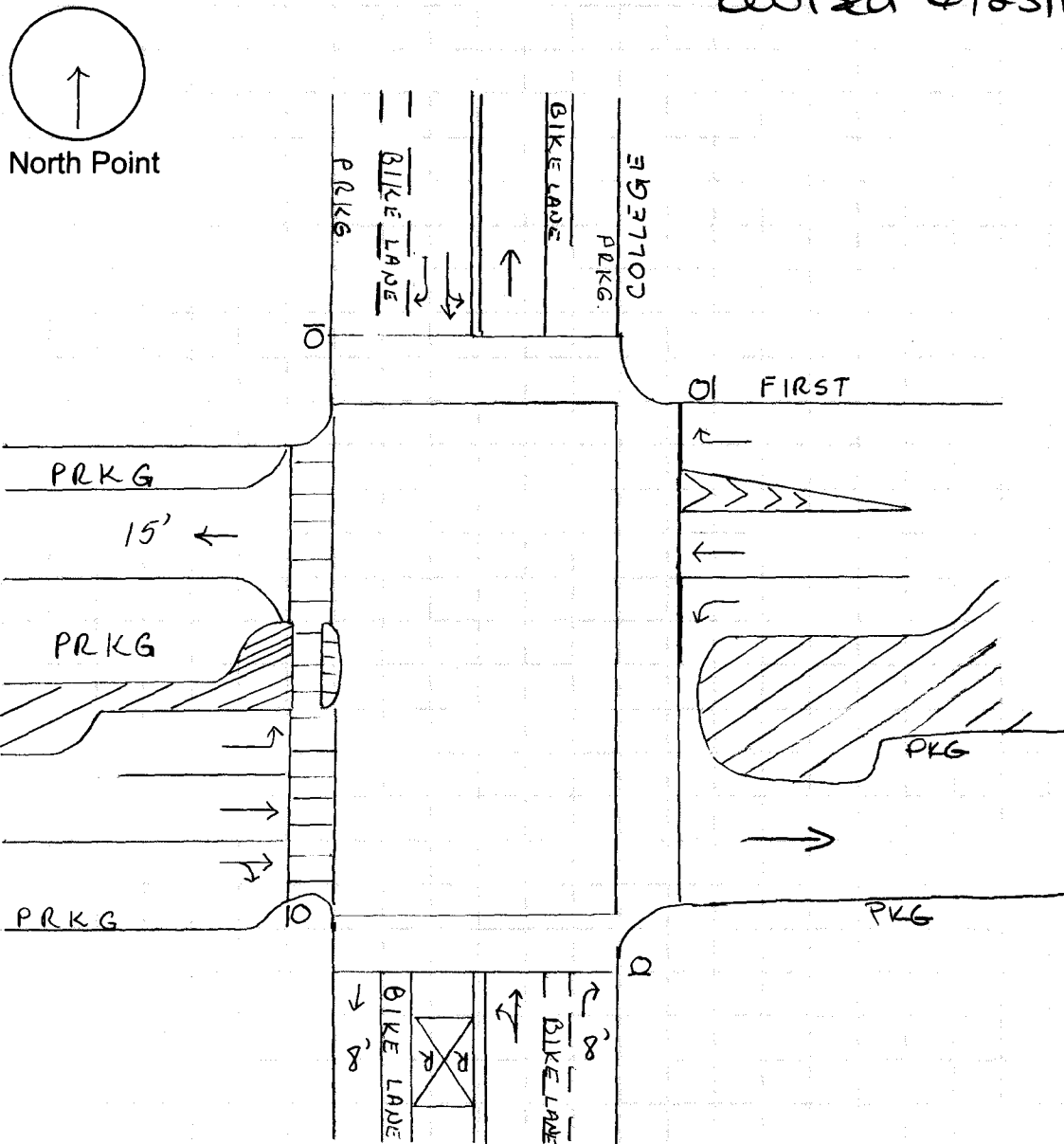
N/S COLLEGE AVE.

EW FIRST ST.

BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

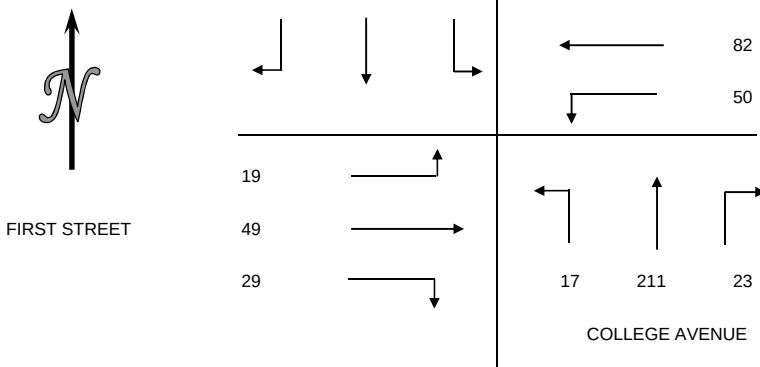
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S COLLEGE AVENUE
 E/W FIRST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	1	21	7	1	21	6	4	21	3	4	8	2	99
715-730	4	11	6	8	16	6	10	27	0	2	15	4	109
730-745	2	29	10	23	14	14	11	53	4	5	11	2	178
745-800	4	37	7	20	25	16	7	73	7	10	13	8	227
800-815	3	31	6	16	28	13	3	56	2	8	15	4	185
815-830	5	24	3	8	15	7	2	29	4	6	10	5	118
830-845	0	17	10	16	12	2	5	32	2	6	13	2	117
845-900	3	22	2	7	14	3	6	41	5	4	17	7	131
HOUR TOTALS													
700-800	11	98	30	52	76	42	32	174	14	21	47	16	613
715-815	13	108	29	67	83	49	31	209	13	25	54	18	699
730-830	14	121	26	67	82	50	23	211	17	29	49	19	708
745-845	12	109	26	60	80	38	17	190	15	30	51	19	647
800-900	11	94	21	47	69	25	16	158	13	24	55	18	551

AM PEAK HOUR
730-830



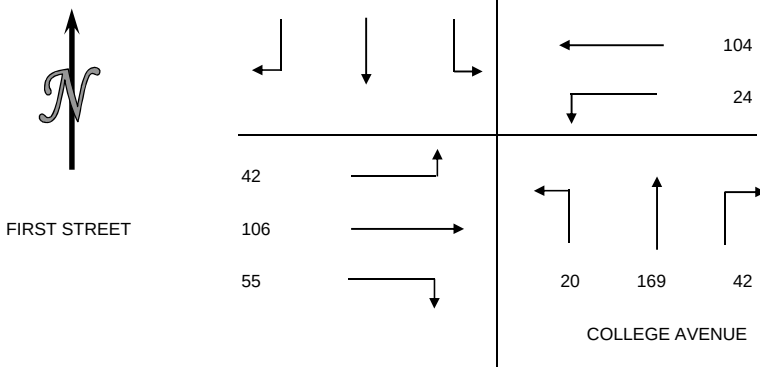
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	2	0	10	3
715-730	1	5	15	3
730-745	1	0	17	4
745-800	2	4	2	1
800-815	2	5	0	5
815-830	3	1	5	-1
830-845	2	1	3	3
845-900	0	3	1	5
HOUR TOTALS				
700-800	6	9	44	11
715-815	6	14	34	13
730-830	8	10	24	9
745-845	9	11	10	8
800-900	7	10	9	12

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S COLLEGE AVENUE
 E/W FIRST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	11	37	14	15	17	1	3	45	0	14	26	13	196
415-430	7	40	12	12	24	10	5	27	7	12	27	9	192
430-445	6	47	16	11	19	12	6	33	1	4	26	7	188
445-500	18	45	16	13	33	5	14	47	5	16	19	11	242
500-515	10	50	11	7	26	3	17	42	6	12	38	12	234
515-530	9	62	7	8	25	10	4	35	6	11	28	13	218
530-545	5	47	7	11	20	6	7	45	3	16	21	6	194
545-600	11	37	6	5	11	3	8	30	4	11	34	8	168
HOURLY TOTALS													
400-500	42	169	58	51	93	28	28	152	13	46	98	40	818
415-515	41	182	55	43	102	30	42	149	19	44	110	39	856
430-530	43	204	50	39	103	30	41	157	18	43	111	43	882
445-545	42	204	41	39	104	24	42	169	20	55	106	42	888
500-600	35	196	31	31	82	22	36	152	19	50	121	39	814

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	3	1	12	3
415-430	2	0	3	0
430-445	3	1	11	10
445-500	5	3	6	7
500-515	1	4	16	0
515-530	0	5	3	7
530-545	1	5	8	9
545-600	3	0	14	4
HOURLY TOTALS				
400-500	13	5	32	20
415-515	11	8	36	17
430-530	9	13	36	24
445-545	7	17	33	23
500-600	5	14	41	20

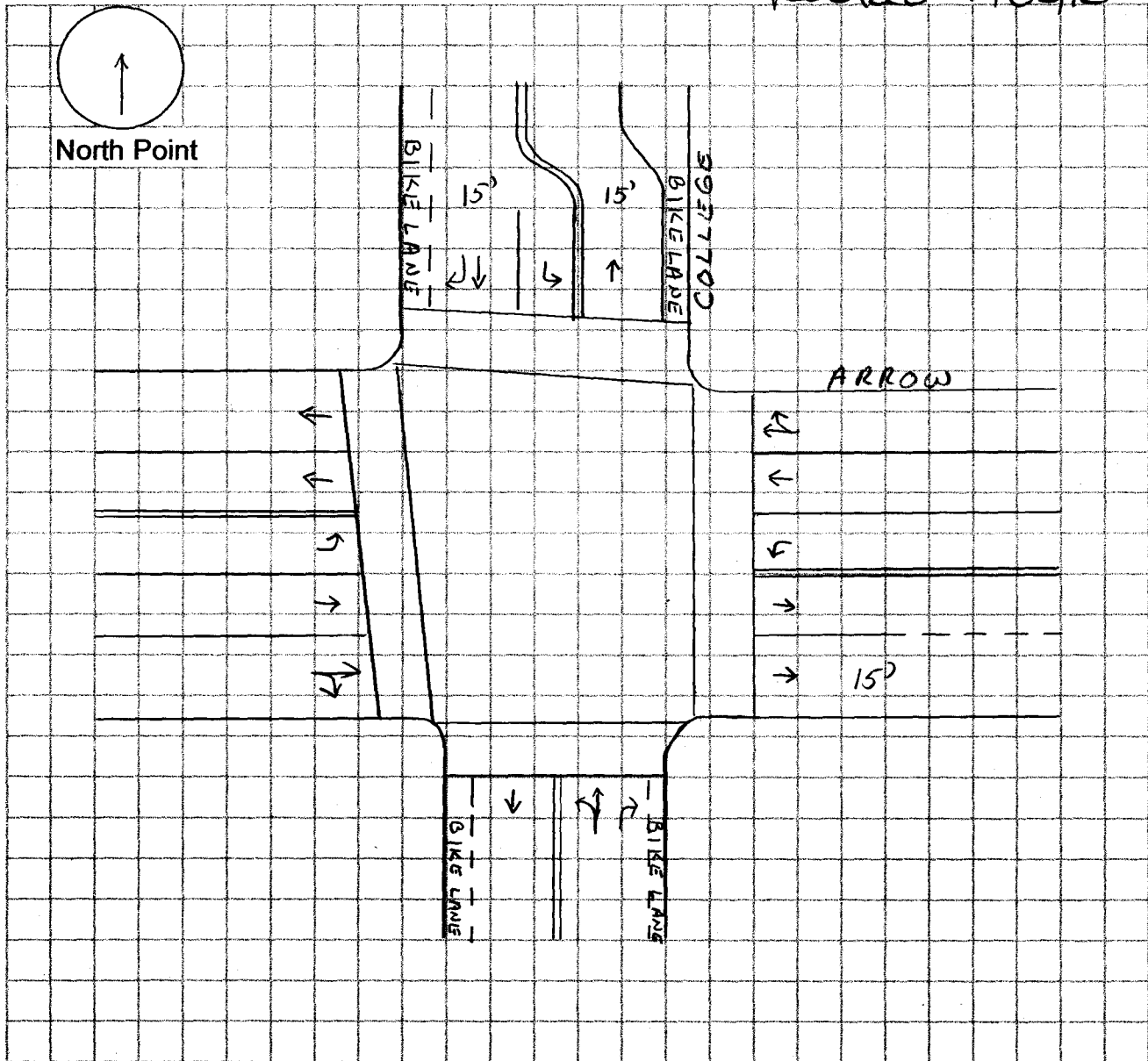
N/S COLLEGE AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6
↓ ↑	← →				

WILTEC

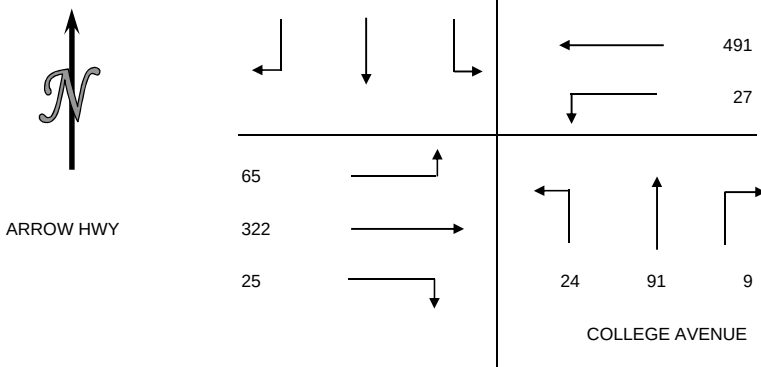
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S COLLEGE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	5	12	2	5	83	3	2	10	5	1	45	8	181
715-730	7	10	6	7	118	5	2	28	5	2	54	10	254
730-745	19	20	11	19	137	5	0	24	6	5	69	12	327
745-800	27	25	14	25	157	4	4	32	11	7	81	19	406
800-815	17	28	13	19	113	11	1	14	5	8	92	15	336
815-830	5	10	6	15	84	7	4	21	2	5	80	19	258
830-845	5	12	4	8	79	11	6	14	7	6	75	14	241
845-900	2	14	18	9	59	8	3	15	4	3	63	6	204
HOUR TOTALS													
700-800	58	67	33	56	495	17	8	94	27	15	249	49	1168
715-815	70	83	44	70	525	25	7	98	27	22	296	56	1323
730-830	68	83	44	78	491	27	9	91	24	25	322	65	1327
745-845	54	75	37	67	433	33	15	81	25	26	328	67	1241
800-900	29	64	41	51	335	37	14	64	18	22	310	54	1039

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	1	2	3	0
730-745	0	3	12	0
745-800	2	7	8	3
800-815	0	0	0	0
815-830	0	0	0	0
830-845	1	2	2	0
845-900	1	0	4	1
HOUR TOTALS				
700-800	3	12	24	3
715-815	3	12	23	3
730-830	2	10	20	3
745-845	3	9	10	3
800-900	2	2	6	1

WILTEC

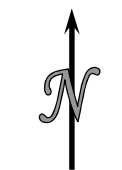
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

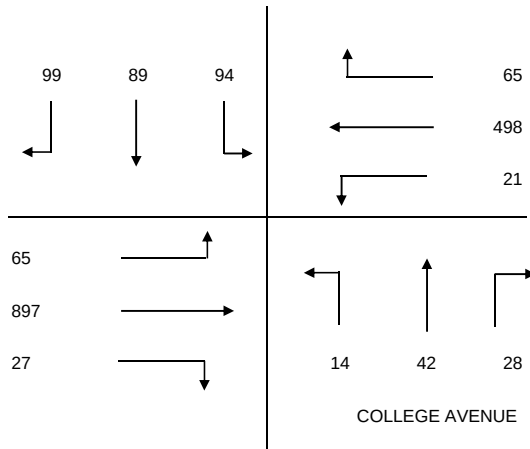
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S COLLEGE AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	18	21	22	9	116	5	5	14	9	7	171	8	405
415-430	12	19	21	8	105	5	1	8	2	6	175	10	372
430-445	21	21	25	12	121	5	3	6	3	7	178	13	415
445-500	26	23	25	13	124	7	9	9	7	8	184	17	452
500-515	26	24	23	20	136	7	7	12	2	6	215	10	488
515-530	27	23	22	17	126	3	6	15	2	10	255	20	526
530-545	20	19	24	15	112	4	6	6	3	3	243	18	473
545-600	11	25	24	12	101	4	6	8	1	9	227	16	444
HOUR TOTALS													
400-500	77	84	93	42	466	22	18	37	21	28	708	48	1644
415-515	85	87	94	53	486	24	20	35	14	27	752	50	1727
430-530	100	91	95	62	507	22	25	42	14	31	832	60	1881
445-545	99	89	94	65	498	21	28	42	14	27	897	65	1939
500-600	84	91	93	64	475	18	25	41	8	28	940	64	1931

PM PEAK HOUR
445-545



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	2
415-430	4	0	1	2
430-445	0	3	2	0
445-500	0	0	1	2
500-515	0	1	2	0
515-530	0	0	3	0
530-545	1	1	5	1
545-600	0	1	5	0
HOUR TOTALS				
400-500	4	3	4	6
415-515	4	4	6	4
430-530	0	4	8	2
445-545	1	2	11	3
500-600	1	3	15	1

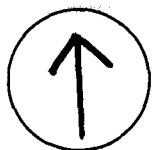
N/S CLAREMONT

E/W FIRST

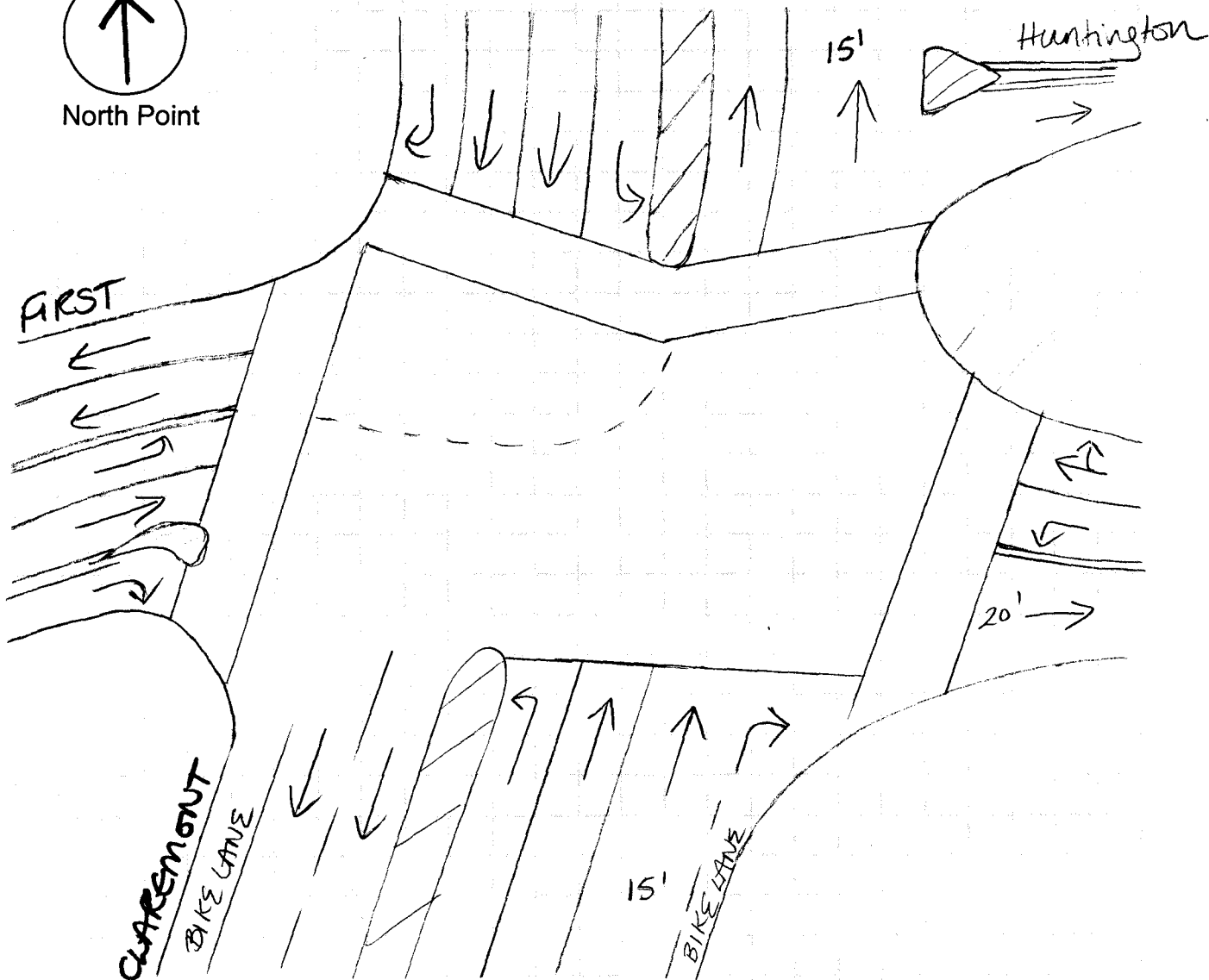
BY: V.W.O.

DATE: 11-3-03

Revised 6/25/10



North Point



Phasing:

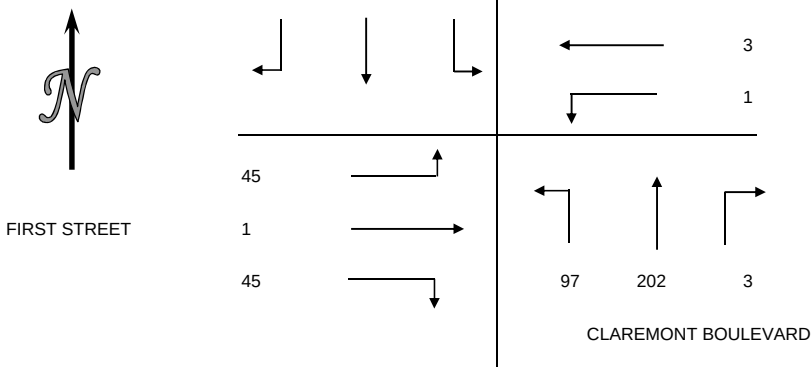
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S CLAREMONT BOULEVARD
 E/W FIRST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	25	39	2	0	0	2	0	27	17	11	0	8	131
715-730	30	55	0	0	0	0	1	31	18	10	0	11	156
730-745	29	72	0	0	0	1	0	55	34	15	1	7	214
745-800	45	69	1	0	2	0	0	64	25	14	0	16	236
800-815	24	57	1	0	1	0	2	52	20	6	0	11	174
815-830	21	50	1	0	0	2	0	45	12	8	0	9	148
830-845	13	44	1	0	0	1	0	56	19	9	0	10	153
845-900	17	58	0	0	0	2	1	46	13	12	0	16	165
HOURLY TOTALS													
700-800	129	235	3	0	2	3	1	177	94	50	1	42	737
715-815	128	253	2	0	3	1	3	202	97	45	1	45	780
730-830	119	248	3	0	3	3	2	216	91	43	1	43	772
745-845	103	220	4	0	3	3	2	217	76	37	0	46	711
800-900	75	209	3	0	1	5	3	199	64	35	0	46	640

AM PEAK HOUR
715-815



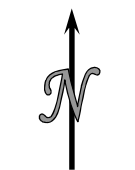
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	0	0	0
715-730	1	0	0	0
730-745	0	0	0	0
745-800	0	0	0	0
800-815	2	0	0	0
815-830	2	0	0	0
830-845	1	0	0	0
845-900	1	0	0	0
HOURLY TOTALS				
700-800	2	0	0	0
715-815	3	0	0	0
730-830	4	0	0	0
745-845	5	0	0	0
800-900	6	0	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

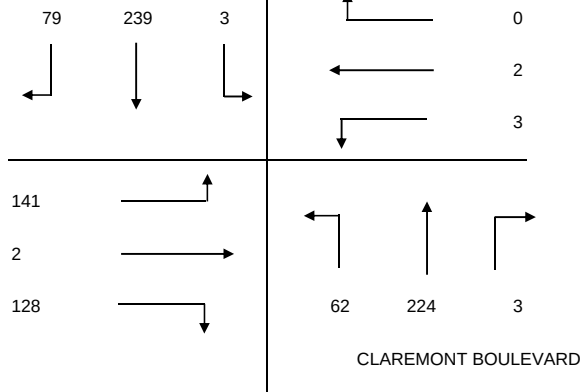
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S CLAREMONT BOULEVARD
 E/W FIRST STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	13	58	1	0	1	0	1	50	14	21	0	24	183
415-430	18	56	2	0	1	0	1	56	11	30	1	31	207
430-445	24	61	0	0	1	2	1	53	12	40	1	39	234
445-500	18	54	1	0	0	0	1	50	21	28	0	33	206
500-515	19	68	0	0	0	1	0	65	18	30	0	38	239
515-530	15	59	2	0	0	2	2	63	13	21	0	29	206
530-545	13	50	2	0	0	1	3	58	16	18	0	29	190
545-600	11	43	1	0	0	1	4	57	10	17	0	21	165
HOUR TOTALS													
400-500	73	229	4	0	3	2	4	209	58	119	2	127	830
415-515	79	239	3	0	2	3	3	224	62	128	2	141	886
430-530	76	242	3	0	1	5	4	231	64	119	1	139	885
445-545	65	231	5	0	0	4	6	236	68	97	0	129	841
500-600	58	220	5	0	0	5	9	243	57	86	0	117	800

PM PEAK HOUR
415-515



FIRST STREET



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	0	0	0	0
430-445	0	0	0	1
445-500	1	0	0	0
500-515	1	0	0	0
515-530	1	0	0	0
530-545	1	0	0	0
545-600	0	0	0	4
HOUR TOTALS				
400-500	1	0	0	1
415-515	2	0	0	1
430-530	3	0	0	1
445-545	4	0	0	0
500-600	3	0	0	4

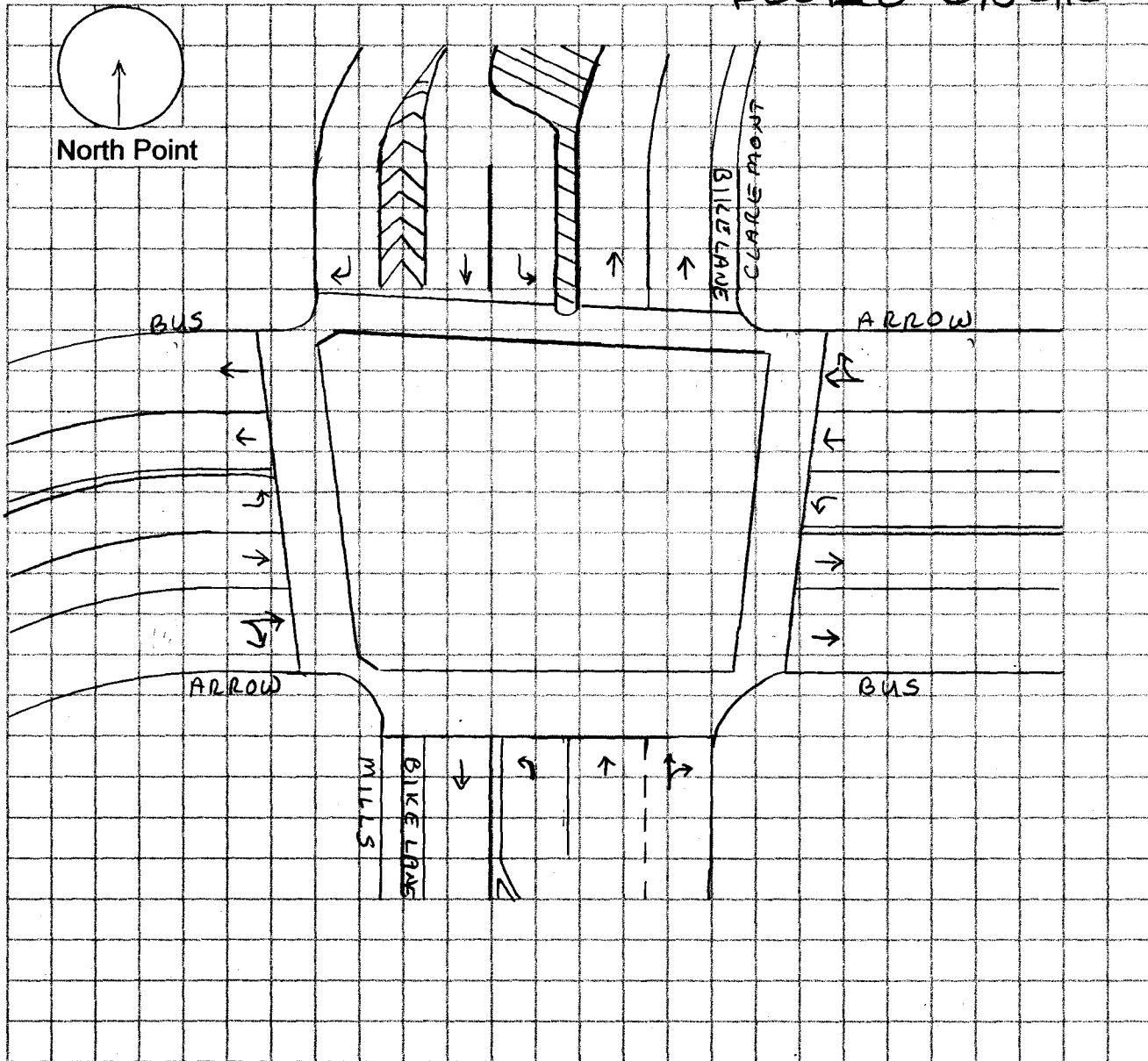
N/S CLAREMONT BLVD. / MILLS AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 10.24.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

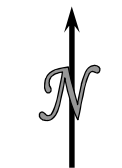
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

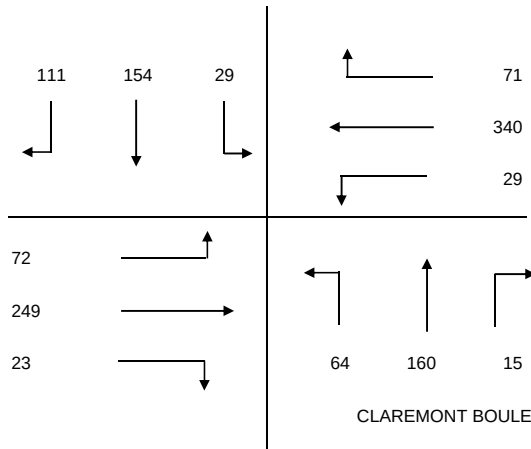
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S CLAREMONT BOULEVARD/MILLS AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	16	27	8	14	65	8	8	29	4	3	31	8	221
715-730	20	35	9	13	83	3	5	34	8	3	45	11	269
730-745	29	47	14	23	98	4	1	39	21	5	56	13	350
745-800	32	42	6	13	108	17	5	48	17	4	63	18	373
800-815	28	41	2	21	72	6	4	34	14	8	65	21	316
815-830	22	24	7	14	62	2	5	39	12	6	65	20	278
830-845	10	37	8	16	61	2	5	37	11	3	63	10	263
845-900	29	26	17	17	41	4	4	33	8	4	58	15	256
HOUR TOTALS													
700-800	97	151	37	63	354	32	19	150	50	15	195	50	1213
715-815	109	165	31	70	361	30	15	155	60	20	229	63	1308
730-830	111	154	29	71	340	29	15	160	64	23	249	72	1317
745-845	92	144	23	64	303	27	19	158	54	21	256	69	1230
800-900	89	128	34	68	236	14	18	143	45	21	251	66	1113

AM PEAK HOUR
730-830



ARROW HWY



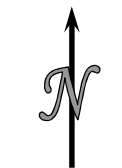
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	1	4
715-730	0	3	0	0
730-745	5	1	2	1
745-800	1	1	3	1
800-815	0	0	1	3
815-830	1	0	1	1
830-845	1	1	0	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	7	6	6	6
715-815	6	5	6	5
730-830	7	2	7	6
745-845	3	2	5	5
800-900	2	1	2	4

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

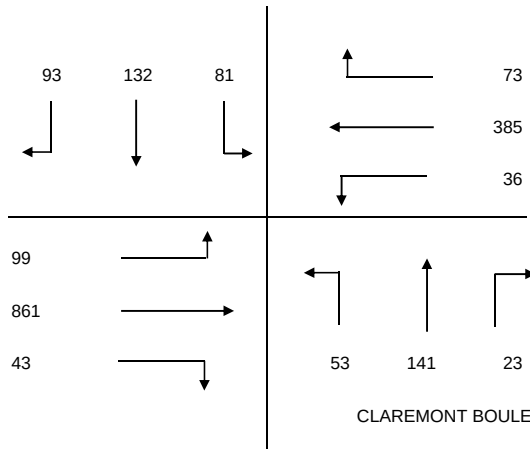
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S CLAREMONT BOULEVARD/MILLS AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	28	37	21	13	81	9	11	39	11	16	159	14	439
415-430	25	28	20	15	93	12	8	36	13	8	168	16	442
430-445	25	54	27	14	88	13	7	41	16	6	164	18	473
445-500	23	49	18	13	105	9	6	33	12	6	169	18	461
500-515	26	40	24	22	111	12	4	32	21	8	193	22	515
515-530	25	38	27	14	88	9	7	39	9	12	216	24	508
530-545	22	30	14	22	95	9	8	43	10	9	240	25	527
545-600	20	24	16	15	91	6	4	27	13	14	212	28	470
HOUR TOTALS													
400-500	101	168	86	55	367	43	32	149	52	36	660	66	1815
415-515	99	171	89	64	397	46	25	142	62	28	694	74	1891
430-530	99	181	96	63	392	43	24	145	58	32	742	82	1957
445-545	96	157	83	71	399	39	25	147	52	35	818	89	2011
500-600	93	132	81	73	385	36	23	141	53	43	861	99	2020

PM PEAK HOUR
500-600



ARROW HWY



CLAREMONT BOULEVARD/MILLS AVENUE

PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	1	0	0
415-430	2	0	1	3
430-445	0	1	0	2
445-500	1	0	2	4
500-515	2	2	5	5
515-530	2	1	2	2
530-545	1	1	0	5
545-600	2	2	0	1
HOUR TOTALS				
400-500	3	2	3	9
415-515	5	3	8	14
430-530	5	4	9	13
445-545	6	4	9	16
500-600	7	6	7	13

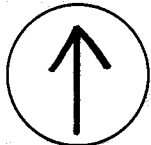
N/S MONTE VISTA

E/W ARROW ROUTE

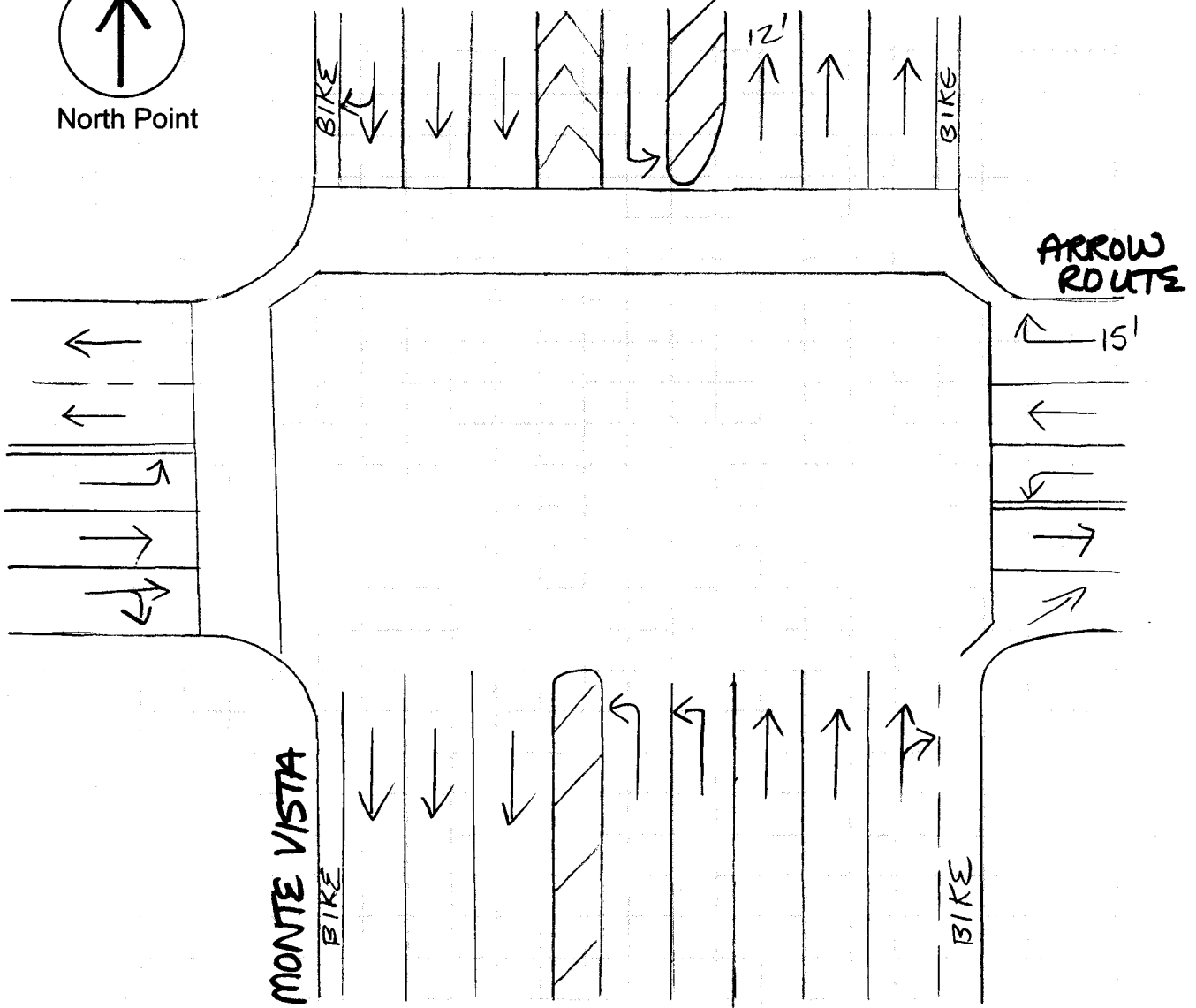
BY: V.W.D.

DATE: 10-3-03

Revised 6/25/10



North Point



Phasing:

1	2	3	4	5	6

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

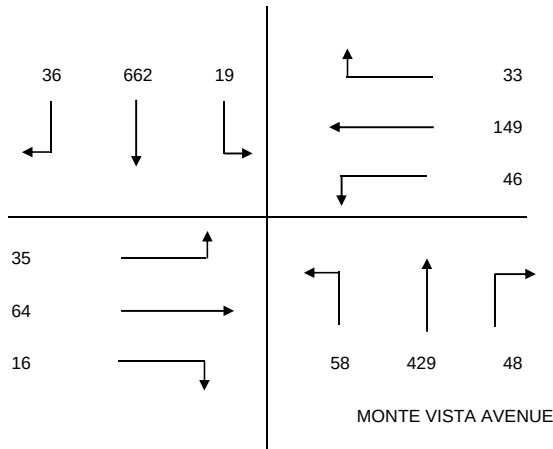
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S MONTE VISTA AVENUE
 E/W ARROW ROUTE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	5	171	5	6	19	10	6	68	12	5	11	6	324
715-730	9	167	6	4	24	16	10	82	10	3	11	6	348
730-745	10	162	1	8	41	11	9	112	13	3	16	8	394
745-800	11	180	6	11	46	7	17	128	15	4	18	14	457
800-815	6	153	6	10	38	12	12	107	20	6	19	7	396
815-830	3	122	4	4	35	15	12	88	19	8	18	9	337
830-845	4	133	13	6	24	17	5	87	11	6	21	6	333
845-900	11	137	8	10	17	6	7	71	12	4	11	8	302
HOUR TOTALS													
700-800	35	680	18	29	130	44	42	390	50	15	56	34	1523
715-815	36	662	19	33	149	46	48	429	58	16	64	35	1595
730-830	30	617	17	33	160	45	50	435	67	21	71	38	1584
745-845	24	588	29	31	143	51	46	410	65	24	76	36	1523
800-900	24	545	31	30	114	50	36	353	62	24	69	30	1368

AM PEAK HOUR
715-815

ARROW ROUTE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	1
715-730	0	0	3	0
730-745	0	0	1	0
745-800	0	0	1	0
800-815	0	1	0	0
815-830	0	0	0	0
830-845	0	0	0	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	0	0	5	1
715-815	0	1	5	0
730-830	0	1	2	0
745-845	0	1	1	0
800-900	0	1	0	0

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

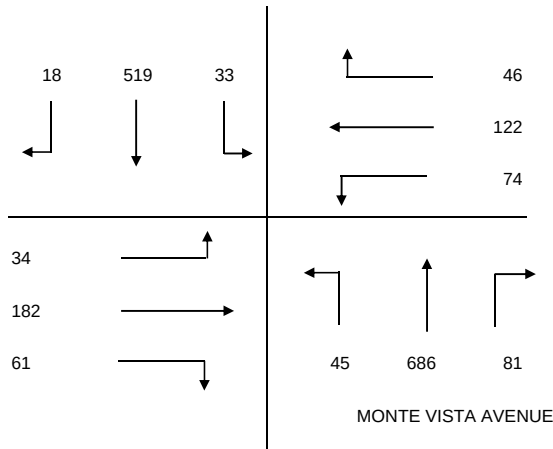
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S MONTE VISTA AVENUE
 E/W ARROW ROUTE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	5	113	6	17	30	14	17	158	15	16	41	4	436
415-430	1	139	8	15	27	10	13	164	8	11	43	12	451
430-445	8	135	6	17	34	18	17	168	7	21	51	6	488
445-500	5	137	9	7	24	12	21	170	7	14	44	11	461
500-515	4	126	9	15	39	19	19	167	17	12	42	11	480
515-530	1	121	9	7	25	25	24	181	14	14	45	6	472
530-545	4	112	7	15	34	16	12	180	9	18	44	8	459
545-600	1	122	7	10	22	10	13	161	7	10	40	7	410
HOUR TOTALS													
400-500	19	524	29	56	115	54	68	660	37	62	179	33	1836
415-515	18	537	32	54	124	59	70	669	39	58	180	40	1880
430-530	18	519	33	46	122	74	81	686	45	61	182	34	1901
445-545	14	496	34	44	122	72	76	698	47	58	175	36	1872
500-600	10	481	32	47	120	70	68	689	47	54	171	32	1821

PM PEAK HOUR
430-530

ARROW ROUTE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	0
415-430	0	0	0	0
430-445	0	0	0	0
445-500	0	0	0	0
500-515	0	0	0	0
515-530	0	0	1	0
530-545	0	0	0	0
545-600	0	0	1	0
HOUR TOTALS				
400-500	0	0	0	0
415-515	0	0	0	0
430-530	0	0	1	0
445-545	0	0	1	0
500-600	0	0	2	0

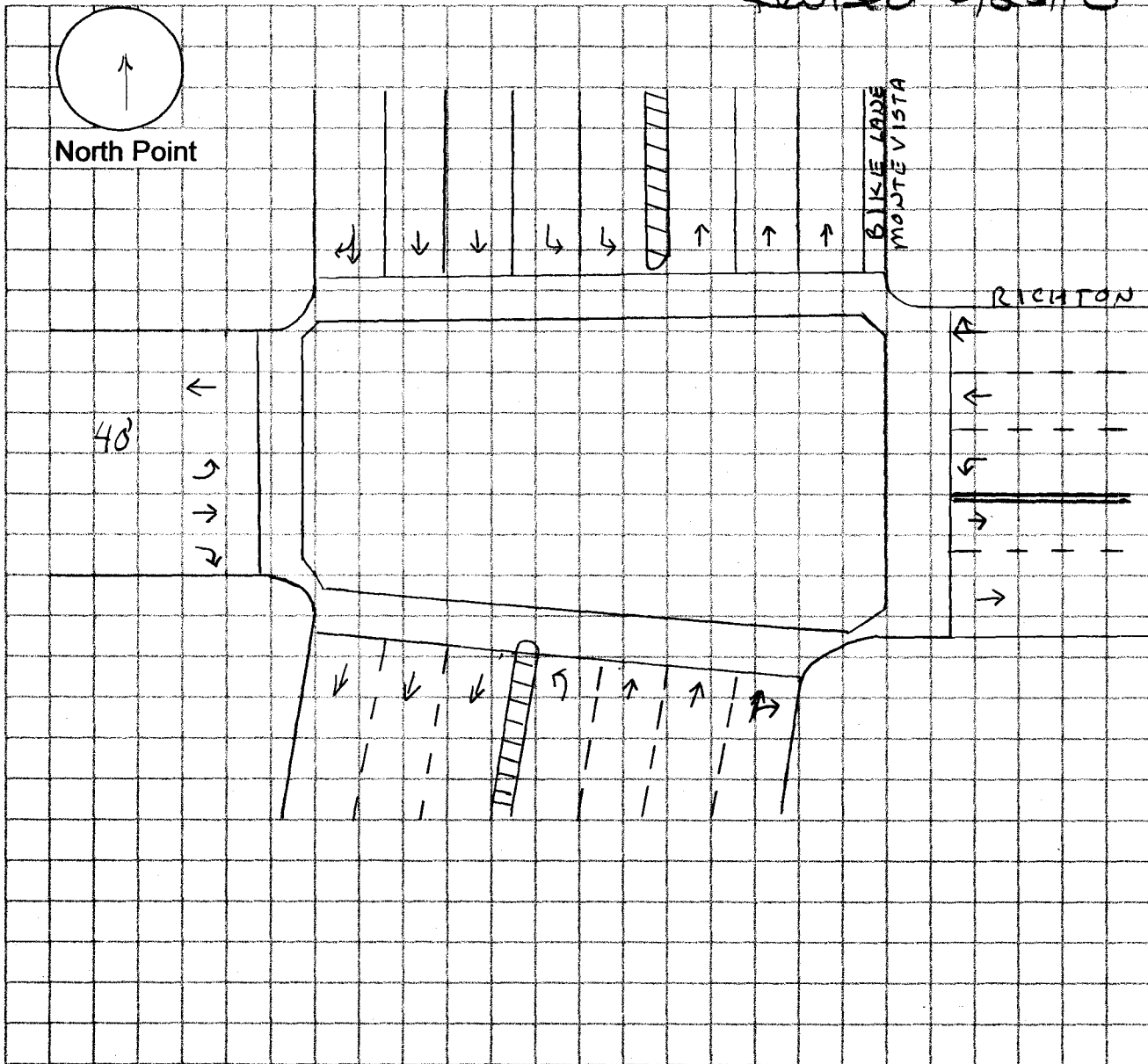
N/S MONTE VISTA AVE

EW RICHTON ST

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

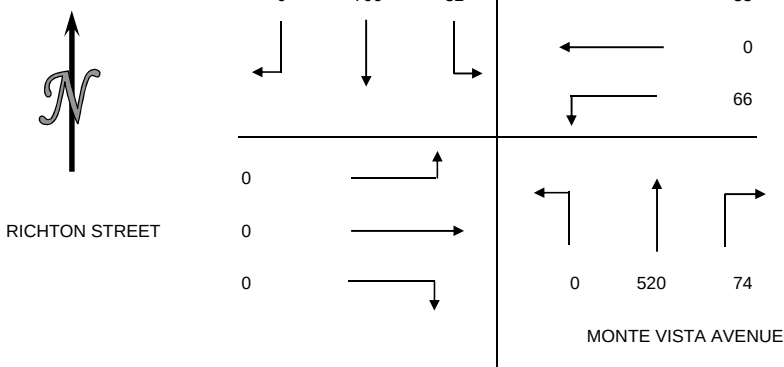
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S MONTE VISTA AVENUE
 E/W RICHTON STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	159	15	2	0	16	15	88	0	0	0	0	295
715-730	0	167	8	8	0	13	18	99	0	0	0	0	313
730-745	0	173	10	10	0	19	20	124	0	0	0	0	356
745-800	0	186	8	10	0	16	22	168	0	0	0	0	410
800-815	0	180	6	5	0	18	14	129	0	0	0	0	352
815-830	0	160	8	4	0	8	12	115	0	0	0	0	307
830-845	0	130	5	1	0	12	10	107	0	0	0	0	265
845-900	0	148	4	2	0	10	11	90	0	0	0	0	265
HOUR TOTALS													
700-800	0	685	41	30	0	64	75	479	0	0	0	0	1374
715-815	0	706	32	33	0	66	74	520	0	0	0	0	1431
730-830	0	699	32	29	0	61	68	536	0	0	0	0	1425
745-845	0	656	27	20	0	54	58	519	0	0	0	0	1334
800-900	0	618	23	12	0	48	47	441	0	0	0	0	1189

AM PEAK HOUR
715-815



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	3	1	0	1
715-730	2	0	0	2
730-745	2	1	1	1
745-800	0	1	1	1
800-815	0	0	1	1
815-830	0	1	3	1
830-845	0	0	0	1
845-900	0	0	1	0
HOUR TOTALS				
700-800	7	3	2	5
715-815	4	2	3	5
730-830	2	3	6	4
745-845	0	2	5	4
800-900	0	1	5	3

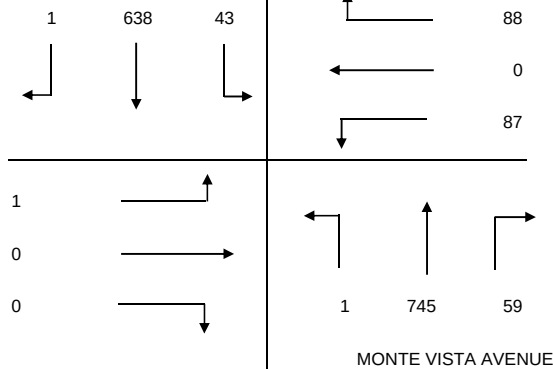
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S MONTE VISTA AVENUE
 E/W RICHTON STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	2	132	12	8	0	17	11	172	4	1	1	0	360
415-430	0	141	5	16	0	26	8	176	0	0	0	1	373
430-445	0	154	8	14	0	23	12	186	0	0	0	0	397
445-500	0	159	19	16	0	18	18	193	0	0	0	0	423
500-515	0	171	11	22	0	17	13	174	0	0	0	0	408
515-530	1	157	2	26	0	30	13	193	0	0	0	1	423
530-545	0	151	11	24	0	22	15	185	1	0	0	0	409
545-600	0	146	9	14	0	18	18	170	2	0	0	0	377
HOUR TOTALS													
400-500	2	586	44	54	0	84	49	727	4	1	1	1	1553
415-515	0	625	43	68	0	84	51	729	0	0	0	1	1601
430-530	1	641	40	78	0	88	56	746	0	0	0	1	1651
445-545	1	638	43	88	0	87	59	745	1	0	0	1	1663
500-600	1	625	33	86	0	87	59	722	3	0	0	1	1617

PM PEAK HOUR
445-545


 RICHTON STREET



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	1
415-430	0	0	0	0
430-445	4	4	3	1
445-500	4	0	3	0
500-515	0	0	0	3
515-530	0	0	0	0
530-545	0	1	0	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	8	4	6	2
415-515	8	4	6	4
430-530	8	4	6	4
445-545	4	1	3	3
500-600	0	1	0	3

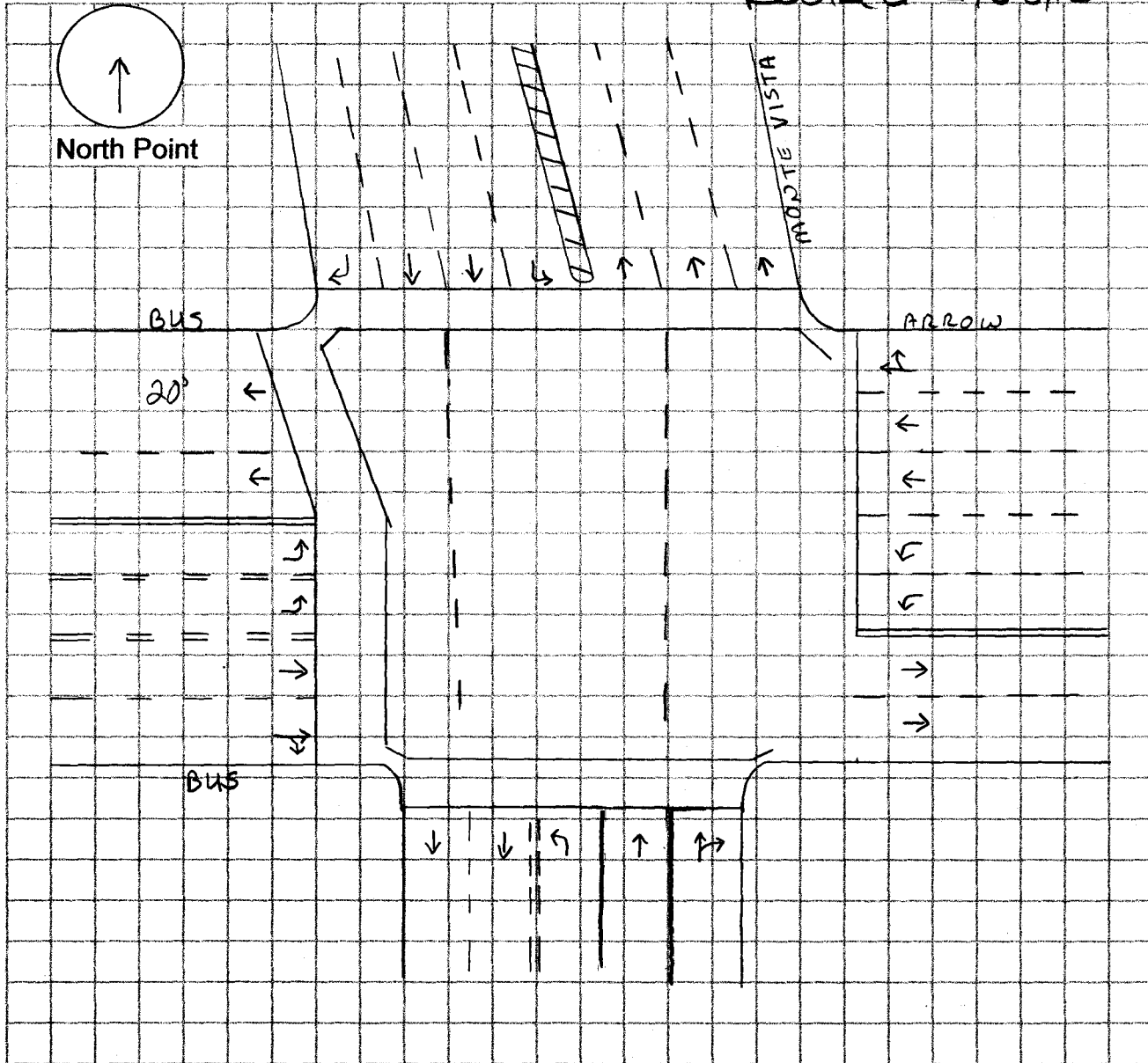
N/S MONTE VISTA AVE

EW ARROW HWY.

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

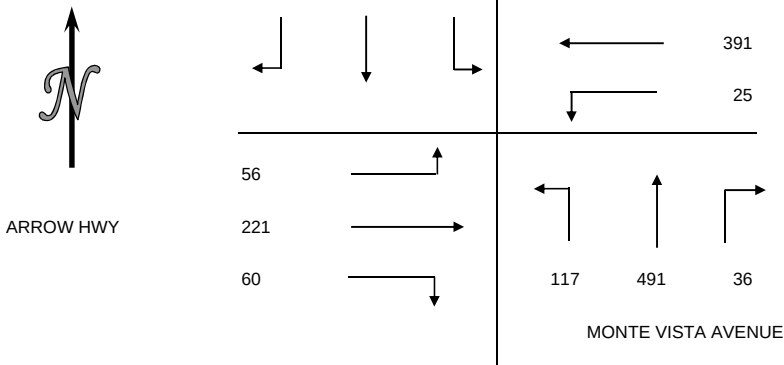
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S MONTE VISTA AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	23	140	11	13	53	6	1	74	14	9	34	12	390
715-730	32	163	13	13	89	3	8	100	29	14	49	12	525
730-745	21	148	5	15	103	4	4	138	34	11	53	11	547
745-800	25	160	19	20	121	9	17	144	32	21	59	16	643
800-815	23	139	18	15	78	9	7	109	22	14	60	17	511
815-830	29	151	12	15	65	4	6	102	28	16	55	11	494
830-845	23	109	6	10	55	6	5	82	24	18	43	16	397
845-900	25	133	15	8	57	9	4	91	23	18	57	16	456
HOUR TOTALS													
700-800	101	611	48	61	366	22	30	456	109	55	195	51	2105
715-815	101	610	55	63	391	25	36	491	117	60	221	56	2226
730-830	98	598	54	65	367	26	34	493	116	62	227	55	2195
745-845	100	559	55	60	319	28	35	437	106	69	217	60	2045
800-900	100	532	51	48	255	28	22	384	97	66	215	60	1858

AM PEAK HOUR
715-815



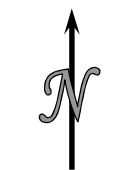
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	1	0
715-730	0	0	0	1
730-745	0	0	1	0
745-800	0	1	0	1
800-815	0	0	1	1
815-830	1	0	0	1
830-845	2	1	1	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	1	2	2	2
715-815	0	1	2	3
730-830	1	1	2	3
745-845	3	2	2	3
800-900	3	1	2	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

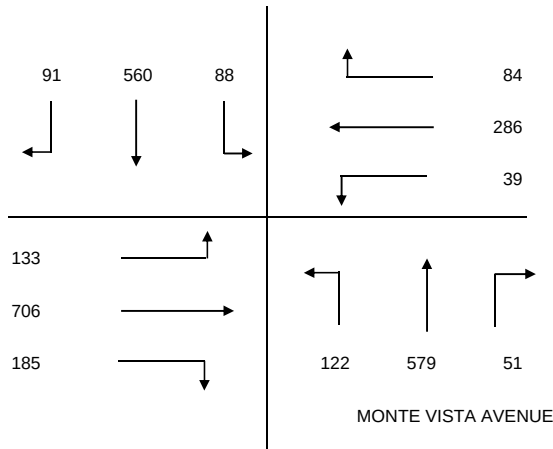
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S MONTE VISTA AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	19	141	21	18	72	16	13	142	27	51	124	24	668
415-430	22	126	11	11	68	9	11	152	31	59	129	24	653
430-445	23	137	18	15	72	7	10	163	32	52	139	31	699
445-500	14	133	17	13	67	7	7	148	22	47	168	32	675
500-515	24	158	24	17	94	11	18	158	41	52	187	36	820
515-530	29	136	18	27	64	10	16	138	21	37	178	33	707
530-545	18	140	24	24	72	8	11	145	29	44	165	29	709
545-600	20	126	22	16	56	10	6	138	31	52	176	35	688
HOUR TOTALS													
400-500	78	537	67	57	279	39	41	605	112	209	560	111	2695
415-515	83	554	70	56	301	34	46	621	126	210	623	123	2847
430-530	90	564	77	72	297	35	51	607	116	188	672	132	2901
445-545	85	567	83	81	297	36	52	589	113	180	698	130	2911
500-600	91	560	88	84	286	39	51	579	122	185	706	133	2924

PM PEAK HOUR
500-600



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	3	0
415-430	0	0	0	3
430-445	0	0	1	1
445-500	0	0	1	4
500-515	0	0	2	2
515-530	2	0	2	4
530-545	0	0	6	1
545-600	1	1	11	0
HOUR TOTALS				
400-500	0	0	5	8
415-515	0	0	4	10
430-530	2	0	6	11
445-545	2	0	11	11
500-600	3	1	21	7

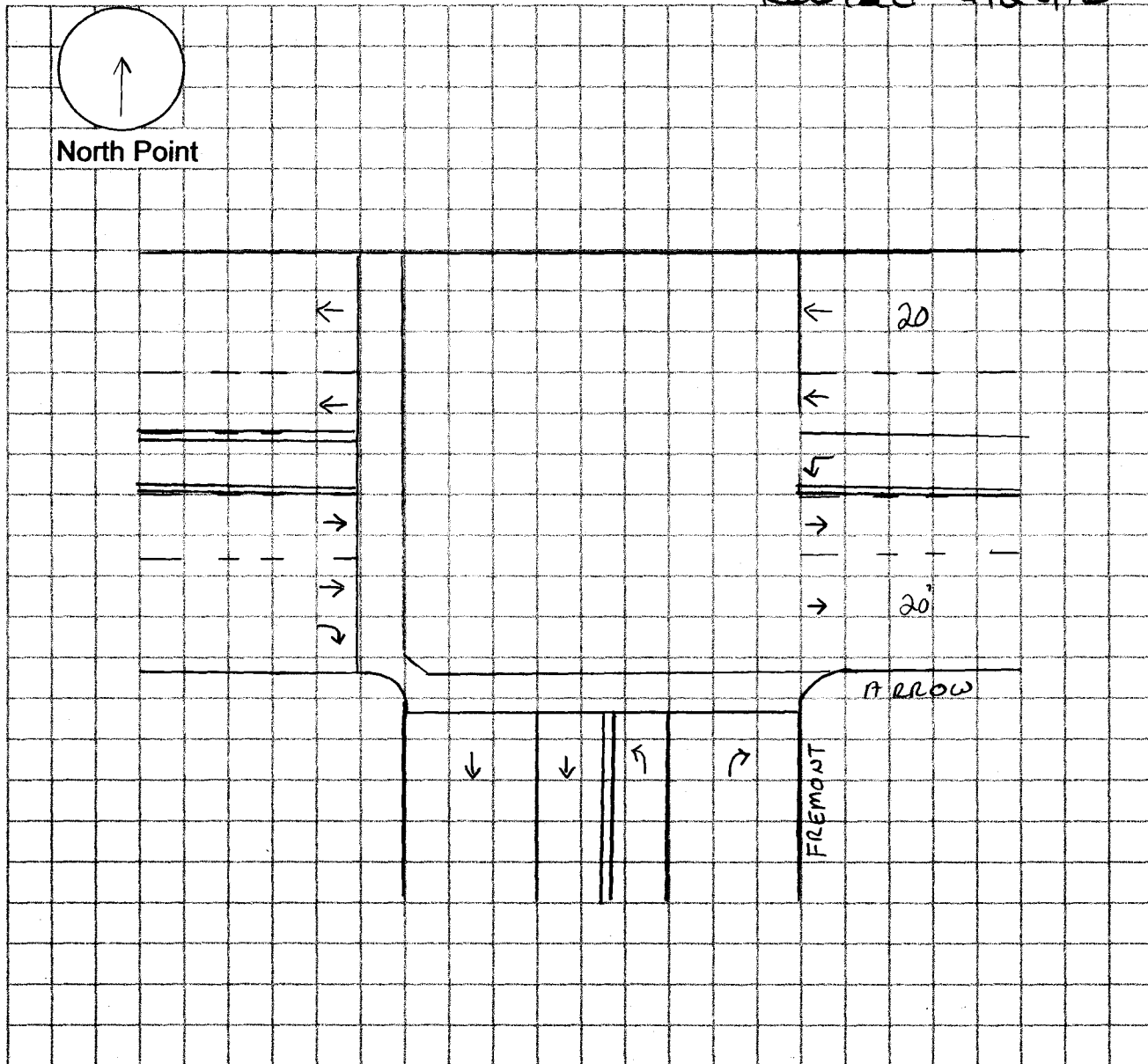
N/S FREMONT AVE

EW ARROW HWY

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

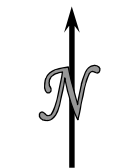
1	2	3	4	5	6
↶ ↷	↔				

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

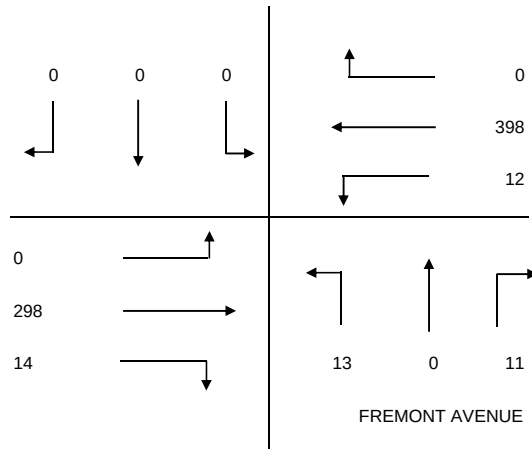
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S FREMONT AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	0	0	0	0	67	0	0	0	2	0	48	0	117
715-730	0	0	0	0	89	4	0	0	1	1	59	0	154
730-745	0	0	0	0	95	3	2	0	5	1	68	0	174
745-800	0	0	0	0	123	4	1	0	5	4	80	0	217
800-815	0	0	0	0	101	4	4	0	1	5	81	0	196
815-830	0	0	0	0	79	1	4	0	2	4	69	0	159
830-845	0	0	0	0	68	4	6	0	2	3	60	0	143
845-900	0	0	0	0	50	5	7	0	4	4	58	0	128
HOUR TOTALS													
700-800	0	0	0	0	374	11	3	0	13	6	255	0	662
715-815	0	0	0	0	408	15	7	0	12	11	288	0	741
730-830	0	0	0	0	398	12	11	0	13	14	298	0	746
745-845	0	0	0	0	371	13	15	0	10	16	290	0	715
800-900	0	0	0	0	298	14	21	0	9	16	268	0	626

AM PEAK HOUR
730-830



ARROW HWY



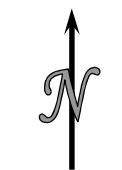
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	0	0
715-730	0	0	0	0
730-745	0	0	0	0
745-800	0	0	0	0
800-815	0	0	0	0
815-830	0	0	0	0
830-845	0	0	0	0
845-900	0	0	0	0
HOUR TOTALS				
700-800	0	0	0	0
715-815	0	0	0	0
730-830	0	0	0	0
745-845	0	0	0	0
800-900	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

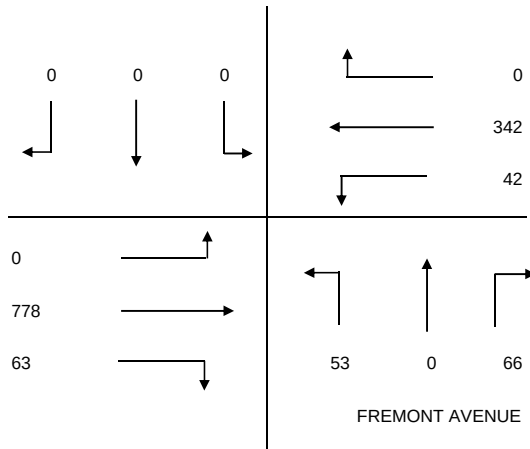
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S FREMONT AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	0	0	0	0	81	5	18	0	10	7	151	0	272
415-430	0	0	0	0	92	9	18	0	10	14	161	0	304
430-445	0	0	0	0	85	12	17	0	13	12	163	0	302
445-500	0	0	0	0	87	15	18	0	15	15	171	0	321
500-515	0	0	0	0	93	11	25	0	13	21	192	0	355
515-530	0	0	0	0	88	8	13	0	9	14	219	0	351
530-545	0	0	0	0	74	8	10	0	16	13	196	0	317
545-600	0	0	0	0	81	5	17	0	11	12	189	0	315
HOURLY TOTALS													
400-500	0	0	0	0	345	41	71	0	48	48	646	0	1199
415-515	0	0	0	0	357	47	78	0	51	62	687	0	1282
430-530	0	0	0	0	353	46	73	0	50	62	745	0	1329
445-545	0	0	0	0	342	42	66	0	53	63	778	0	1344
500-600	0	0	0	0	336	32	65	0	49	60	796	0	1338

PM PEAK HOUR
445-545



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	2	0
415-430	0	0	0	0
430-445	0	0	0	0
445-500	0	0	0	0
500-515	0	0	0	0
515-530	0	0	1	2
530-545	0	0	0	0
545-600	0	0	0	0
HOURLY TOTALS				
400-500	0	0	2	0
415-515	0	0	0	0
430-530	0	0	1	2
445-545	0	0	1	2
500-600	0	0	1	2

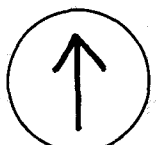
N/S CENTRAL

E/W ARROW ROUTE

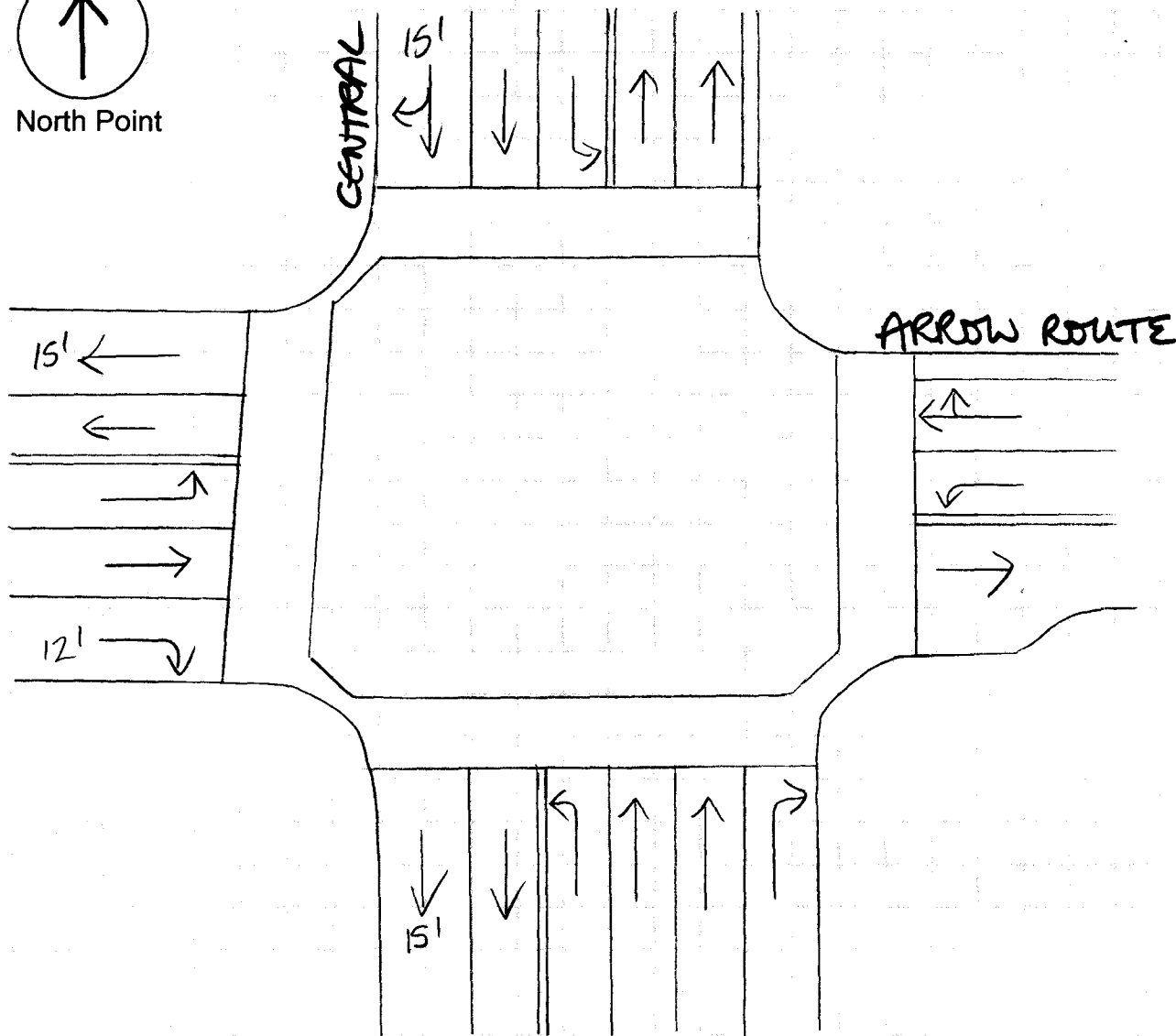
BY: V.W.D.

DATE: NOV 3rd '03

Revised 6/25/10



North Point



Phasing:

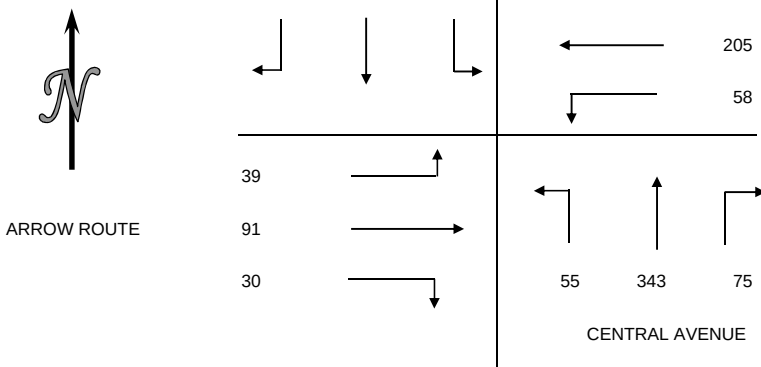
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S CENTRAL AVENUE
 E/W ARROW ROUTE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	9	54	1	11	21	4	14	40	3	8	11	7	183
715-730	12	69	6	11	44	12	21	74	6	7	18	9	289
730-745	23	102	5	5	65	18	16	86	12	8	14	9	363
745-800	13	80	6	9	47	17	22	86	19	5	30	10	344
800-815	15	101	4	8	55	16	15	94	15	7	22	12	364
815-830	16	88	3	5	38	7	22	77	9	10	25	8	308
830-845	13	83	2	6	29	10	18	95	10	11	25	4	306
845-900	7	95	2	4	35	2	23	82	7	11	23	7	298
HOUR TOTALS													
700-800	57	305	18	36	177	51	73	286	40	28	73	35	1179
715-815	63	352	21	33	211	63	74	340	52	27	84	40	1360
730-830	67	371	18	27	205	58	75	343	55	30	91	39	1379
745-845	57	352	15	28	169	50	77	352	53	33	102	34	1322
800-900	51	367	11	23	157	35	78	348	41	39	95	31	1276

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	1	2	0
715-730	0	0	0	3
730-745	0	0	0	3
745-800	0	0	0	1
800-815	0	0	0	0
815-830	2	0	0	1
830-845	0	0	0	1
845-900	1	1	0	0
HOUR TOTALS				
700-800	1	1	2	7
715-815	0	0	0	7
730-830	2	0	0	5
745-845	2	0	0	3
800-900	3	1	0	2

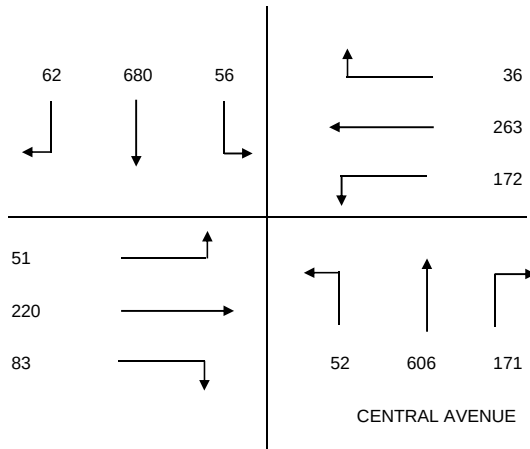
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S CENTRAL AVENUE
 E/W ARROW ROUTE

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	15	159	8	15	69	55	33	126	13	18	51	19	581
415-430	21	141	14	7	61	44	40	136	9	11	30	15	529
430-445	13	172	9	7	53	44	36	145	16	29	62	14	600
445-500	16	155	14	9	58	48	45	149	13	16	29	12	564
500-515	22	194	20	8	74	42	37	158	12	20	80	10	677
515-530	11	159	13	12	78	38	53	154	11	18	49	15	611
530-545	25	129	13	11	74	40	37	136	11	12	42	29	559
545-600	17	171	7	19	72	42	26	124	16	15	46	10	565
HOUR TOTALS													
400-500	65	627	45	38	241	191	154	556	51	74	172	60	2274
415-515	72	662	57	31	246	178	158	588	50	76	201	51	2370
430-530	62	680	56	36	263	172	171	606	52	83	220	51	2452
445-545	74	637	60	40	284	168	172	597	47	66	200	66	2411
500-600	75	653	53	50	298	162	153	572	50	65	217	64	2412

PM PEAK HOUR
430-530

ARROW ROUTE



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	1	0	0	2
415-430	2	1	1	1
430-445	0	0	0	0
445-500	0	0	0	0
500-515	2	2	1	1
515-530	0	0	0	0
530-545	0	0	2	0
545-600	0	0	0	0
HOUR TOTALS				
400-500	3	1	1	3
415-515	4	3	2	2
430-530	2	2	1	1
445-545	2	2	3	1
500-600	2	2	3	1

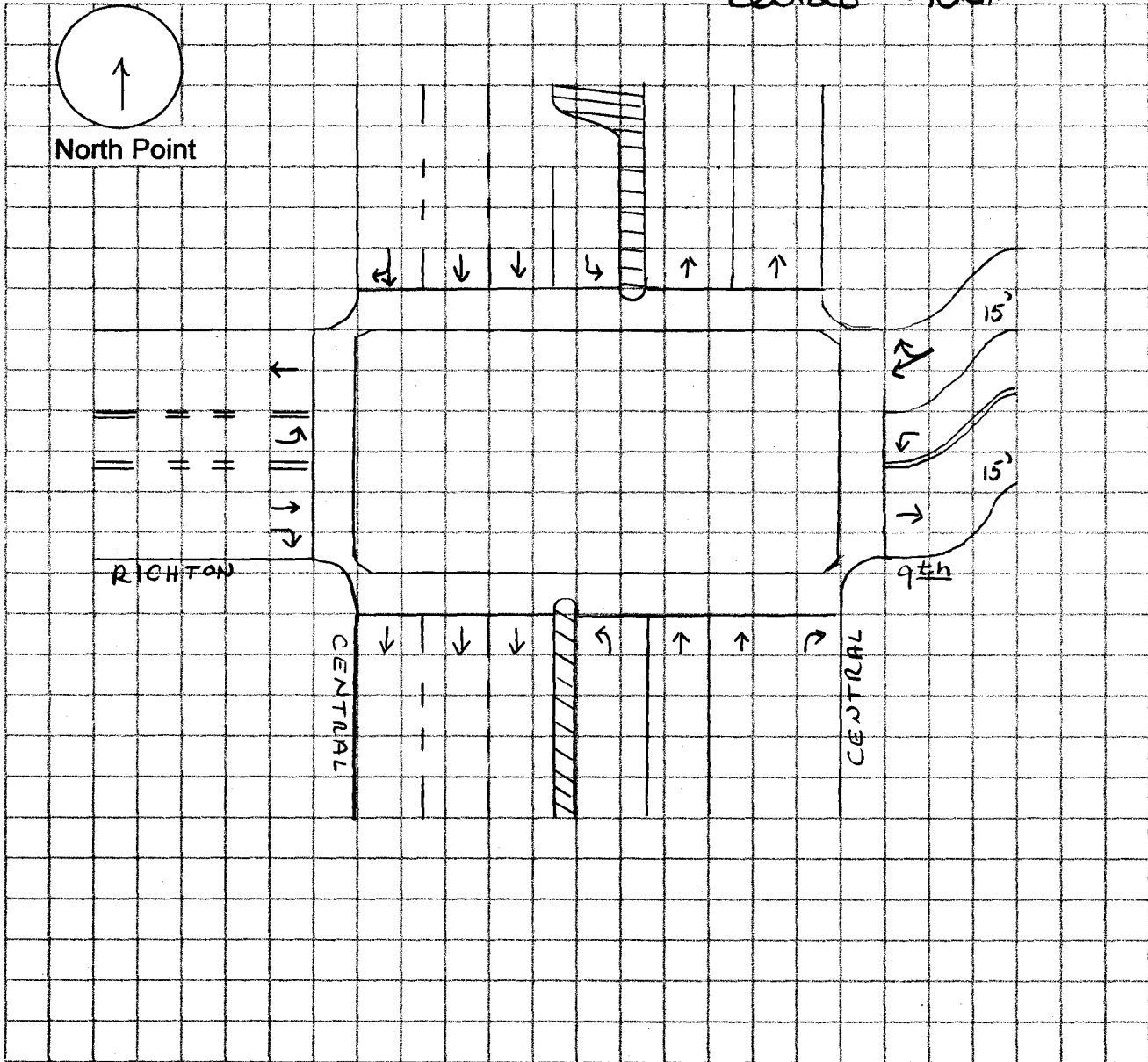
N/S CENTRAL AVE

EW RIGHTON ST. / NINTH ST

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

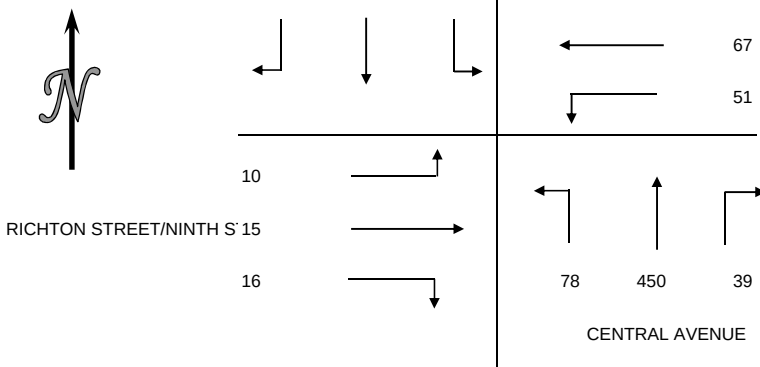
1	2	3	4	5	6

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S CENTRAL AVENUE
 E/W RICHTON STREET/NINTH STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	7	62	4	3	9	8	6	54	13	9	2	3	180
715-730	11	78	9	5	13	13	6	69	22	5	2	6	239
730-745	6	113	11	5	19	11	4	94	25	4	6	5	303
745-800	8	102	12	6	15	15	16	123	25	4	5	2	333
800-815	4	116	11	2	21	9	6	114	13	2	2	3	303
815-830	3	94	9	7	12	16	13	119	15	6	2	0	296
830-845	4	82	10	6	17	12	8	96	16	5	4	2	262
845-900	2	103	5	4	10	13	12	124	19	9	7	1	309
HOUR TOTALS													
700-800	32	355	36	19	56	47	32	340	85	22	15	16	1055
715-815	29	409	43	18	68	48	32	400	85	15	15	16	1178
730-830	21	425	43	20	67	51	39	450	78	16	15	10	1235
745-845	19	394	42	21	65	52	43	452	69	17	13	7	1194
800-900	13	395	35	19	60	50	39	453	63	22	15	6	1170

AM PEAK HOUR
730-830



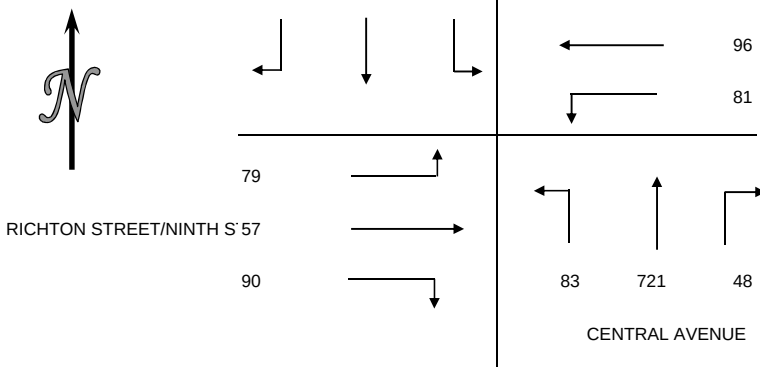
PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	0	0	1	0
715-730	1	0	1	0
730-745	0	0	1	0
745-800	0	1	1	0
800-815	0	0	4	0
815-830	0	2	1	0
830-845	0	0	1	0
845-900	2	1	2	2
HOUR TOTALS				
700-800	1	1	4	0
715-815	1	1	7	0
730-830	0	3	7	0
745-845	0	3	7	0
800-900	2	3	8	2

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S CENTRAL AVENUE
 E/W RICHTON STREET/NINTH STREET

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	7	184	14	12	28	17	19	178	25	9	15	12	520
415-430	4	196	16	9	22	15	10	181	18	20	11	8	510
430-445	10	193	9	10	33	18	11	169	24	12	8	14	511
445-500	5	251	5	8	29	20	14	183	22	25	10	15	587
500-515	6	211	9	9	25	17	10	180	17	17	13	16	530
515-530	6	191	13	12	22	29	12	190	22	28	19	21	565
530-545	11	201	10	6	20	15	12	168	22	20	15	27	527
545-600	9	224	9	14	31	20	8	134	14	11	6	9	489
HOUR TOTALS													
400-500	26	824	44	39	112	70	54	711	89	66	44	49	2128
415-515	25	851	39	36	109	70	45	713	81	74	42	53	2138
430-530	27	846	36	39	109	84	47	722	85	82	50	66	2193
445-545	28	854	37	35	96	81	48	721	83	90	57	79	2209
500-600	32	827	41	41	98	81	42	672	75	76	53	73	2111

PM PEAK HOUR
445-545



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	0	0	1
415-430	1	0	0	1
430-445	0	1	2	2
445-500	0	0	1	1
500-515	0	0	1	0
515-530	0	2	1	0
530-545	0	0	2	0
545-600	1	0	1	0
HOUR TOTALS				
400-500	1	1	3	5
415-515	1	1	4	4
430-530	0	3	5	3
445-545	0	2	5	1
500-600	1	2	5	0

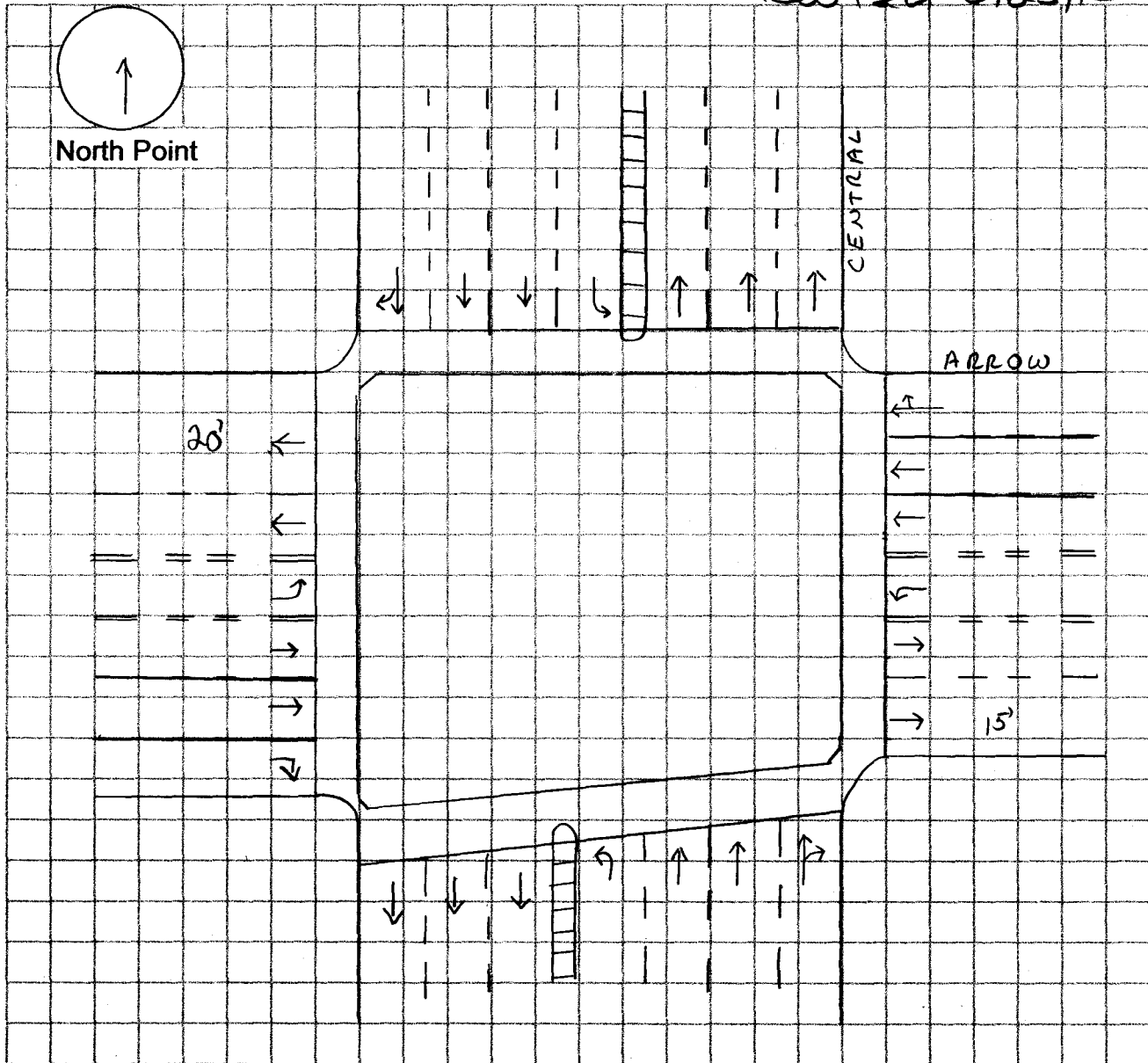
N/S CENTRAL AVE.

EW ARROW HWY

BY: C. JAMISON

DATE: 10.25.03

Revised 6/25/10



Phasing:

1	2	3	4	5	6

WILTEC

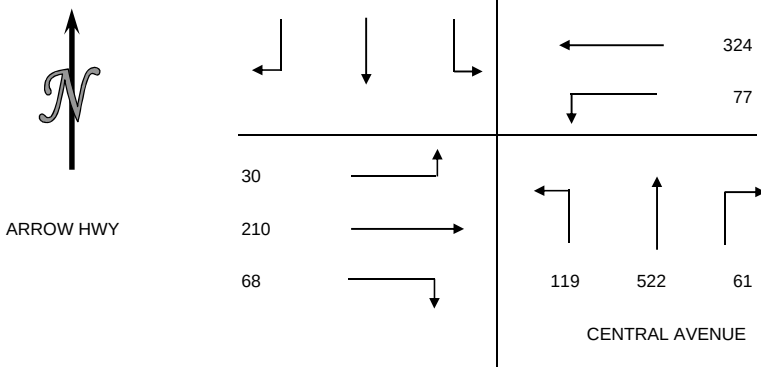
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 7:00 AM TO 9:00 AM
 INTERSECTION: N/S CENTRAL AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-715	3	99	3	7	44	15	5	84	24	13	24	3	324
715-730	6	91	3	7	66	21	7	109	23	10	40	7	390
730-745	11	119	2	3	89	22	18	127	38	15	49	4	497
745-800	9	113	6	9	96	21	11	131	32	17	51	9	505
800-815	11	106	5	1	75	17	19	132	23	20	63	8	480
815-830	5	92	5	7	64	17	13	132	26	16	47	9	433
830-845	11	113	4	5	40	12	9	129	10	10	35	12	390
845-900	15	123	6	4	48	18	22	121	22	16	47	17	459
HOUR TOTALS													
700-800	29	422	14	26	295	79	41	451	117	55	164	23	1716
715-815	37	429	16	20	326	81	55	499	116	62	203	28	1872
730-830	36	430	18	20	324	77	61	522	119	68	210	30	1915
745-845	36	424	20	22	275	67	52	524	91	63	196	38	1808
800-900	42	434	20	17	227	64	63	514	81	62	192	46	1762

AM PEAK HOUR
730-830



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
700-715	1	2	0	1
715-730	0	0	0	0
730-745	0	1	2	1
745-800	0	1	0	1
800-815	0	1	0	0
815-830	1	2	2	2
830-845	0	0	1	1
845-900	1	0	0	0
HOUR TOTALS				
700-800	1	4	2	3
715-815	0	3	2	2
730-830	1	5	4	4
745-845	1	4	3	4
800-900	2	3	3	3

WILTEC

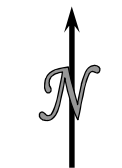
Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

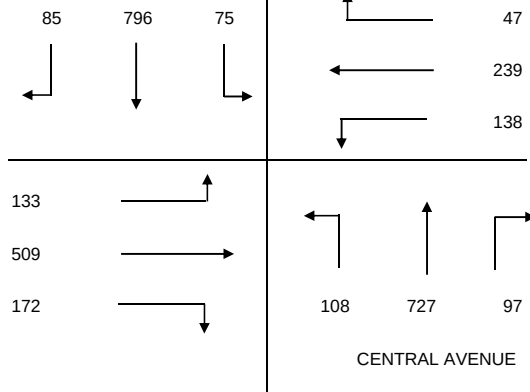
CLIENT: INTUEOR CONSULTING, INC.
 PROJECT: GOLD LINE EXTENSION TRAFFIC COUNTS
 DATE: WEDNESDAY MAY 26, 2010
 PERIOD: 4:00 PM TO 6:00 PM
 INTERSECTION: N/S CENTRAL AVENUE
 E/W ARROW HWY

15 MIN COUNTS PERIOD	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-415	27	190	13	12	66	35	23	172	35	29	103	29	734
415-430	13	120	10	12	54	28	14	171	26	28	117	28	621
430-445	19	192	16	12	59	35	22	177	30	34	113	31	740
445-500	16	202	16	12	59	33	29	201	22	45	127	27	789
500-515	36	203	23	10	60	39	22	191	27	52	138	38	839
515-530	14	199	20	13	61	31	24	158	29	41	131	37	758
530-545	13	182	15	9	50	31	22	155	33	29	136	30	705
545-600	10	146	12	8	64	31	20	150	31	43	127	33	675
HOUR TOTALS													
400-500	75	704	55	48	238	131	88	721	113	136	460	115	2884
415-515	84	717	65	46	232	135	87	740	105	159	495	124	2989
430-530	85	796	75	47	239	138	97	727	108	172	509	133	3126
445-545	79	786	74	44	230	134	97	705	111	167	532	132	3091
500-600	73	730	70	40	235	132	88	654	120	165	532	138	2977

PM PEAK HOUR
430-530



ARROW HWY



PEDESTRIAN COUNTS				
PERIOD	NORTH LEG	EAST LEG	SOUTH LEG	WEST LEG
15 MIN COUNTS				
400-415	0	1	1	9
415-430	2	0	1	2
430-445	0	0	0	5
445-500	0	0	0	3
500-515	2	0	0	2
515-530	0	0	0	2
530-545	0	1	1	4
545-600	0	0	1	6
HOUR TOTALS				
400-500	2	1	2	19
415-515	4	0	1	12
430-530	2	0	0	12
445-545	2	1	1	11
500-600	2	1	2	14

Appendix B

Existing (2010)

Synchro Analysis Output

AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	281	63	158	168	57	339	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	305	68	172	183	62	368	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	571	177			354		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	571	177			354		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	29	92			95		
cM capacity (veh/h)	428	835			1201		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	153	153	68	114	240	185	246
Volume Left	153	153	0	0	0	62	0
Volume Right	0	0	68	0	183	0	0
cSH	428	428	835	1700	1700	1201	1700
Volume to Capacity	0.36	0.36	0.08	0.07	0.14	0.05	0.14
Queue Length 95th (ft)	40	40	7	0	0	4	0
Control Delay (s)	18.0	18.0	9.7	0.0	0.0	3.0	0.0
Lane LOS	C	C	A			A	
Approach Delay (s)	16.5			0.0		1.3	
Approach LOS	C						
Intersection Summary							
Average Delay			5.8				
Intersection Capacity Utilization			38.8%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair

2: Foothill Blvd & Barranca Ave

Existing Year (2010)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	160	151	178	550	30	150	260	105	98	382	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3281	0	1770	3511	0	1770	3387	0	1770	3391	0
Flt Permitted	0.378			0.548			0.418			0.518		
Satd. Flow (perm)	704	3281	0	1021	3511	0	779	3387	0	965	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		164			10			114			127	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	338	0	193	631	0	163	397	0	107	576	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	26.0	26.0	0.0	26.0	26.0	0.0	34.0	34.0	0.0	34.0	34.0	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
Act Effect Green (s)	14.8	14.8		14.8	14.8		15.2	15.2		15.2	15.2	
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.39	0.39		0.39	0.39	
v/c Ratio	0.28	0.25		0.50	0.47		0.54	0.29		0.28	0.41	
Control Delay	13.9	5.8		16.4	11.3		17.1	6.3		10.8	7.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.9	5.8		16.4	11.3		17.1	6.3		10.8	7.6	
LOS	B	A		B	B		B	A		B	A	
Approach Delay		7.3			12.5			9.5			8.1	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	10	11		27	45		24	18		14	31	
Queue Length 95th (ft)	48	44		107	126		79	48		46	73	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	446	2139		647	2228		616	2701		763	2707	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.16		0.30	0.28		0.26	0.15		0.14	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 9.7

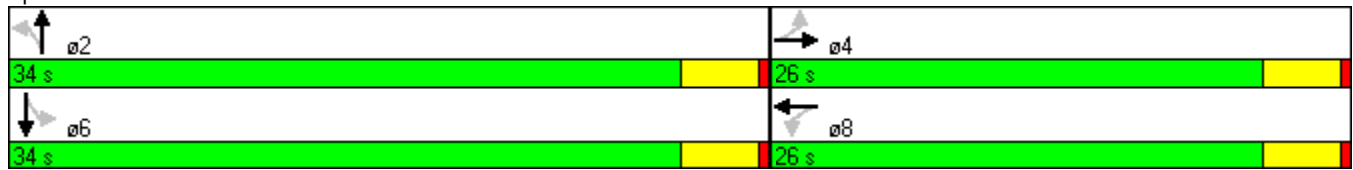
Intersection LOS: A

Intersection Capacity Utilization 57.0%

ICU Level of Service B

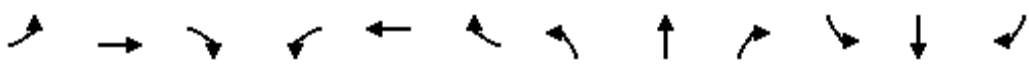
Analysis Period (min) 15

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	58	254	87	233	474	93	117	529	198	90	417	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3405	0	1770	3451	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	3451	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		78			39				215			98
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	371	0	253	616	0	127	575	215	98	453	98
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	12.0	22.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	6.0	11.8		8.1	18.6		4.1	15.6	15.6	4.1	13.6	13.6
Actuated g/C Ratio	0.11	0.22		0.15	0.35		0.08	0.29	0.29	0.08	0.25	0.25
v/c Ratio	0.32	0.46		0.95	0.51		0.95	0.56	0.35	0.73	0.51	0.21
Control Delay	29.4	16.2		74.4	16.6		101.9	20.2	5.1	63.1	19.9	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	16.2		74.4	16.6		101.9	20.2	5.1	63.1	19.9	5.9
LOS	C	B		E	B		F	C	A	E	B	A
Approach Delay		18.1			33.4			28.0			24.3	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	21	44		~92	91		~47	88	0	34	67	0
Queue Length 95th (ft)	54	76		#227	137		#144	142	43	#111	111	29
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	201	1083		267	1245		134	1072	630	134	1069	547
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.34		0.95	0.49		0.95	0.54	0.34	0.73	0.42	0.18

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 27.3

Intersection LOS: C

Intersection Capacity Utilization 55.7%

ICU Level of Service B

Analysis Period (min) 15

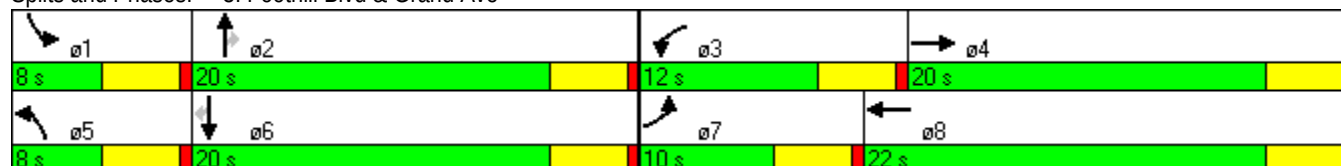
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Foothill Blvd & Grand Ave



						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	87	50	102	28	25	120
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	95	54	111	30	27	130
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						1174
pX, platoon unblocked						
vC, conflicting volume	311	126			141	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	311	126			141	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	86	94			98	
cM capacity (veh/h)	669	924			1442	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	149	141	158			
Volume Left	95	0	27			
Volume Right	54	30	0			
cSH	744	1700	1442			
Volume to Capacity	0.20	0.08	0.02			
Queue Length 95th (ft)	19	0	1			
Control Delay (s)	11.0	0.0	1.4			
Lane LOS	B		A			
Approach Delay (s)	11.0	0.0	1.4			
Approach LOS	B					
Intersection Summary						
Average Delay		4.2				
Intersection Capacity Utilization		32.6%		ICU Level of Service		A
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	442	9	9	1177	94	8	35	10	18	28	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1846	1583	0	1825	1583
Flt Permitted	0.950			0.950				0.921			0.849	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1716	1583	0	1581	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			10			51			11			49
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	480	10	10	1279	102	0	47	11	0	50	49
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	5.1	27.9	27.9	5.1	26.7	26.7		8.1	8.1		8.1	8.1
Actuated g/C Ratio	0.14	0.77	0.77	0.14	0.74	0.74		0.22	0.22		0.22	0.22
v/c Ratio	0.13	0.18	0.01	0.04	0.49	0.09		0.12	0.03		0.14	0.13
Control Delay	22.9	3.7	3.0	22.3	6.5	3.5		18.5	11.4		18.8	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	22.9	3.7	3.0	22.3	6.5	3.5		18.5	11.4		18.8	8.2
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		4.9			6.4			17.2			13.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	17	0	2	63	3		9	0		10	0
Queue Length 95th (ft)	31	60	5	15	200	24		36	11		38	23
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	248	2779	1245	248	2670	1207		1032	956		950	971
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.13	0.17	0.01	0.04	0.48	0.08		0.05	0.01		0.05	0.05

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 6.6

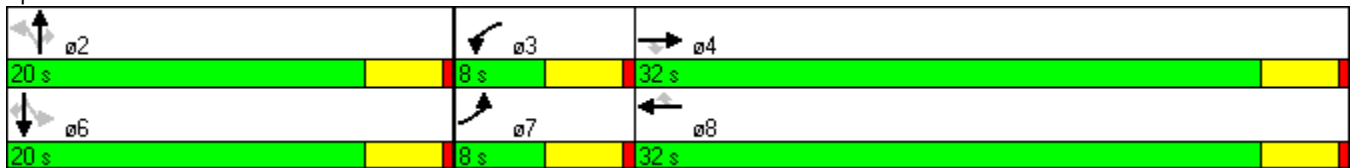
Intersection LOS: A

Intersection Capacity Utilization 49.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	303	19	52	712	66	52	91	28	30	90	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3507	0	1770	3493	0	1770	1798	0	0	1765	0
Flt Permitted	0.317			0.542			0.771				0.919	
Satd. Flow (perm)	590	3507	0	1010	3493	0	1436	1798	0	0	1635	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			22			30			50	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	350	0	57	846	0	57	129	0	0	196	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	28.0	28.0	0.0	28.0	28.0	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
Act Effect Green (s)	18.3	18.3		18.3	18.3		9.6	9.6			9.6	
Actuated g/C Ratio	0.59	0.59		0.59	0.59		0.31	0.31			0.31	
v/c Ratio	0.06	0.17		0.10	0.41		0.13	0.22			0.36	
Control Delay	5.6	4.9		5.5	6.0		11.6	10.0			10.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	5.6	4.9		5.5	6.0		11.6	10.0			10.8	
LOS	A	A		A	A		B	A			B	
Approach Delay		4.9			6.0			10.5			10.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	2	14		4	41		7	13			20	
Queue Length 95th (ft)	10	36		19	93		31	50			71	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	500	2977		857	2966		1093	1376			1257	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.04	0.12		0.07	0.29		0.05	0.09			0.16	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 30.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 6.8

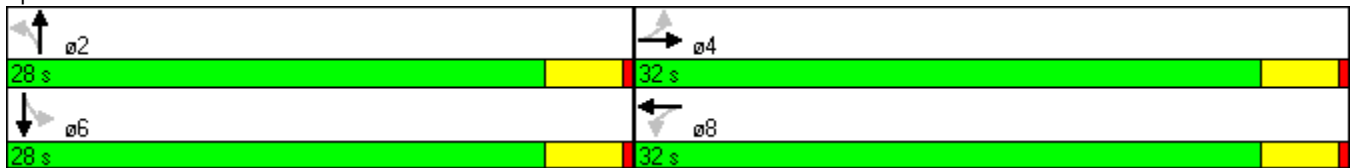
Intersection LOS: A

Intersection Capacity Utilization 51.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

Existing Year (2010)
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	55	14	30	77	129	87
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	60	15	33	84	140	95
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	289	140	235			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	289	140	235			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	98	98			
cM capacity (veh/h)	684	908	1333			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	75	116	140	95		
Volume Left	60	33	0	0		
Volume Right	15	0	0	95		
cSH	720	1333	1700	1700		
Volume to Capacity	0.10	0.02	0.08	0.06		
Queue Length 95th (ft)	9	2	0	0		
Control Delay (s)	10.6	2.3	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	10.6	2.3	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.5			
Intersection Capacity Utilization			26.4%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

8: Foothill Blvd & Glendora Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	291	63	130	600	52	163	161	30	50	159	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			15				33			59
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	384	0	141	709	0	177	175	33	54	173	59
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	4.2	10.4		5.2	18.6		7.3	15.0	15.0	6.1	9.9	9.9
Actuated g/C Ratio	0.09	0.22		0.11	0.40		0.16	0.32	0.32	0.13	0.21	0.21
v/c Ratio	0.16	0.48		0.71	0.51		0.63	0.29	0.06	0.23	0.44	0.15
Control Delay	26.3	17.0		49.1	13.9		36.5	15.7	7.2	24.6	21.2	6.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	17.0		49.1	13.9		36.5	15.7	7.2	24.6	21.2	6.9
LOS	C	B		D	B		D	B	A	C	C	A
Approach Delay		17.6			19.8			24.5			18.9	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	7	44		39	72		47	28	0	14	42	0
Queue Length 95th (ft)	29	83		#144	165		#158	96	17	47	98	23
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	159	1266		199	1434		279	759	665	239	671	607
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.30		0.71	0.49		0.63	0.23	0.05	0.23	0.26	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 20.1

Intersection LOS: C

Intersection Capacity Utilization 52.3%

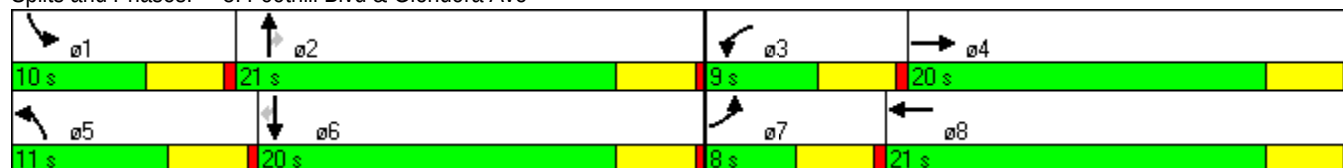
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

9: Ada Ave & Glendora Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	26	20	75	23	48	38	47	386	3	26	271	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	22	82	25	52	41	51	420	3	28	295	9
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	132	118	261	213	176	156						
Volume Left (vph)	28	25	51	0	28	0						
Volume Right (vph)	82	41	0	3	0	9						
Hadj (s)	-0.29	-0.13	0.13	0.02	0.11	-0.01						
Departure Headway (s)	5.7	5.9	5.8	5.7	6.0	5.9						
Degree Utilization, x	0.21	0.19	0.42	0.34	0.29	0.25						
Capacity (veh/h)	569	549	598	607	573	585						
Control Delay (s)	10.2	10.3	11.9	10.4	10.3	9.7						
Approach Delay (s)	10.2	10.3	11.2		10.0							
Approach LOS	B	B	B		A							
Intersection Summary												
Delay			10.6									
HCM Level of Service			B									
Intersection Capacity Utilization			40.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

10: Route 66 & Glendora Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	431	10	228	1028	135	119	475	319	91	302	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3479	0
Flt Permitted	0.258			0.324			0.489			0.343		
Satd. Flow (perm)	481	3539	1583	604	3539	1583	911	3539	1583	639	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			68			336		22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	468	11	248	1117	147	129	516	347	99	369	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	20.0	20.0	12.0	24.0	24.0	8.0	20.0	20.0	8.0	20.0	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
Act Effect Green (s)	16.9	12.7	12.7	24.7	21.9	21.9	16.7	13.7	13.7	16.7	13.7	
Actuated g/C Ratio	0.32	0.24	0.24	0.47	0.42	0.42	0.32	0.26	0.26	0.32	0.26	
v/c Ratio	0.13	0.55	0.03	0.54	0.76	0.21	0.36	0.56	0.52	0.34	0.40	
Control Delay	10.6	21.1	9.7	14.8	21.3	9.0	15.0	20.4	6.2	14.8	17.5	
Queue Delay	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.6	21.1	9.7	14.8	22.0	9.0	15.0	20.4	6.2	14.8	17.5	
LOS	B	C	A	B	C	A	B	C	A	B	B	
Approach Delay		20.2			19.6			14.7			16.9	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	6	75	0	52	155	15	27	78	3	20	50	
Queue Length 95th (ft)	18	114	10	95	#327	55	60	126	57	48	87	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100		50	100		50	100		100	200		
Base Capacity (vph)	256	1123	510	468	1510	714	357	1123	732	292	1119	
Starvation Cap Reductn	0	0	0	0	146	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.13	0.42	0.02	0.53	0.82	0.21	0.36	0.46	0.47	0.34	0.33	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 17.9

Intersection LOS: B

Intersection Capacity Utilization 63.3%

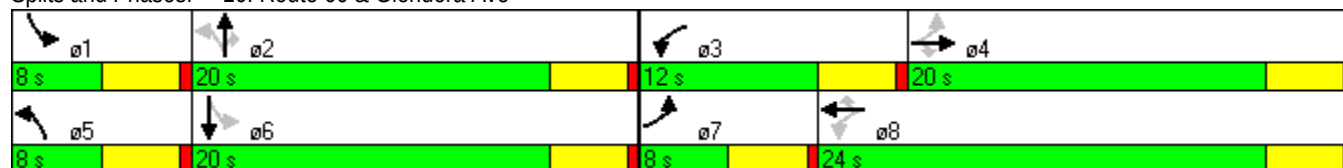
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

11: Lemon Ave & Pasadena Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	4	10	30	9	25	6	67	13	17	85	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	4	11	33	10	27	7	73	14	18	92	4
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	20	70	93	115								
Volume Left (vph)	4	33	7	18								
Volume Right (vph)	11	27	14	4								
Hadj (s)	-0.25	-0.11	-0.04	0.04								
Departure Headway (s)	4.2	4.3	4.2	4.2								
Degree Utilization, x	0.02	0.08	0.11	0.14								
Capacity (veh/h)	811	800	832	827								
Control Delay (s)	7.3	7.7	7.7	7.9								
Approach Delay (s)	7.3	7.7	7.7	7.9								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.7									
HCM Level of Service			A									
Intersection Capacity Utilization			23.7%	ICU Level of Service	A							
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	762	24	30	1307	65	37	19	50	39	21	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1716	0	0	1706	0
Flt Permitted	0.135			0.332				0.862			0.902	
Satd. Flow (perm)	251	3539	1583	618	3539	1583	0	1505	0	0	1563	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20			32		54			71	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	109	828	26	33	1421	71	0	115	0	0	136	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	31.0	31.6	31.6	29.5	28.7	28.7		8.8			8.8	
Actuated g/C Ratio	0.68	0.69	0.69	0.64	0.63	0.63		0.19			0.19	
v/c Ratio	0.33	0.34	0.02	0.06	0.64	0.07		0.35			0.38	
Control Delay	6.5	6.2	4.0	3.6	10.9	4.6		15.0			14.3	
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	6.5	6.3	4.0	3.6	10.9	4.6		15.0			14.3	
LOS	A	A	A	A	B	A		B			B	
Approach Delay		6.3			10.4			15.0			14.3	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	8	37	1	2	153	5		17			18	
Queue Length 95th (ft)	25	126	10	10	271	22		53			57	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	327	2437	1096	517	2214	1003		658			692	
Starvation Cap Reductn	0	660	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.33	0.47	0.02	0.06	0.64	0.07		0.17			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 9.4

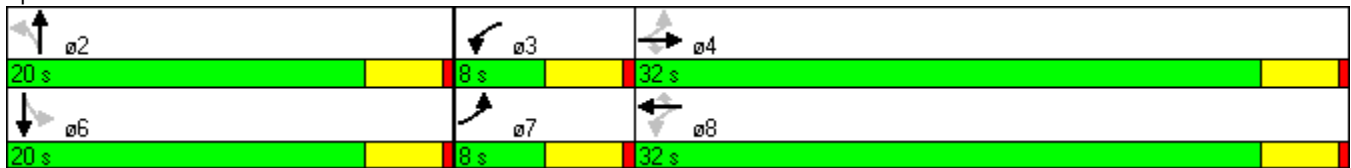
Intersection LOS: A

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

13: Lemon Ave & Glenwood Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	11	13	3	5	4	8	64	3	8	94	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	12	14	3	5	4	9	70	3	9	102	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	216	212	105	231	214	71	108			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216	212	105	231	214	71	108			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	99	100	99	100	99			99		
cM capacity (veh/h)	727	677	950	697	676	991	1483			1527		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	13	82	116								
Volume Left	2	3	9	9								
Volume Right	14	4	3	5								
cSH	795	1026	1483	1527								
Volume to Capacity	0.04	0.01	0.01	0.01								
Queue Length 95th (ft)	3	1	0	0								
Control Delay (s)	9.7	9.8	0.8	0.6								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.7	9.8	0.8	0.6								
Approach LOS	A	A										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			20.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

14: Route 66 & Glenwood Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	40	751	6	16	1395	35	10	3	5	75	1	44
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	816	7	17	1516	38	11	3	5	82	1	48
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					651							
pX, platoon unblocked	0.59						0.59	0.59		0.59	0.59	0.59
vC, conflicting volume	1554			823			1745	2492	408	2053	2461	758
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556			823			877	2142	408	1399	2088	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			98			91	87	99	0	96	93
cM capacity (veh/h)	598			803			120	26	592	49	28	641
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	43	408	408	7	17	758	758	38	20	130		
Volume Left	43	0	0	0	17	0	0	0	11	82		
Volume Right	0	0	0	7	0	0	0	38	5	48		
cSH	598	1700	1700	1700	803	1700	1700	1700	87	74		
Volume to Capacity	0.07	0.24	0.24	0.00	0.02	0.45	0.45	0.02	0.23	1.77		
Queue Length 95th (ft)	6	0	0	0	2	0	0	0	20	284		
Control Delay (s)	11.5	0.0	0.0	0.0	9.6	0.0	0.0	0.0	58.4	487.7		
Lane LOS	B				A				F	F		
Approach Delay (s)	0.6				0.1				58.4	487.7		
Approach LOS									F	F		
Intersection Summary												
Average Delay			25.3									
Intersection Capacity Utilization			54.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	20	7	6	10	0	1	86	2	6	93	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	22	8	7	11	0	1	93	2	7	101	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	216	212	101	229	211	95	101			96		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	216	212	101	229	211	95	101			96		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	97	99	99	98	100	100			100		
cM capacity (veh/h)	728	682	954	700	683	962	1491			1498		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	30	17	97	108								
Volume Left	1	7	1	7								
Volume Right	8	0	2	0								
cSH	736	689	1491	1498								
Volume to Capacity	0.04	0.03	0.00	0.00								
Queue Length 95th (ft)	3	2	0	0								
Control Delay (s)	10.1	10.4	0.1	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.1	10.4	0.1	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			18.8%	ICU Level of Service						A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	719	21	20	1381	31	12	4	11	54	6	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1794	1583	0	1783	1583
Flt Permitted	0.950			0.950				0.859			0.784	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1600	1583	0	1460	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			19			15			12			49
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	782	23	22	1501	34	0	17	12	0	66	49
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	4.0	30.6	30.6	4.0	27.6	27.6		16.1	16.1		16.1	16.1
Actuated g/C Ratio	0.07	0.54	0.54	0.07	0.49	0.49		0.29	0.29		0.29	0.29
v/c Ratio	0.39	0.41	0.03	0.17	0.86	0.04		0.04	0.03		0.16	0.10
Control Delay	36.0	8.7	4.3	29.8	20.8	6.5		16.8	9.5		17.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	36.0	8.7	4.3	29.8	20.8	6.5		16.8	9.5		17.9	6.7
LOS	D	A	A	C	C	A		B	A		B	A
Approach Delay		10.1			20.6			13.7			13.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	17	66	1	8	248	4		5	0		18	0
Queue Length 95th (ft)	#51	137	11	27	#397	16		17	10		45	21
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	127	1960	885	127	1772	800		458	461		417	488
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.39	0.40	0.03	0.17	0.85	0.04		0.04	0.03		0.16	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 16.7

Intersection LOS: B

Intersection Capacity Utilization 54.8%

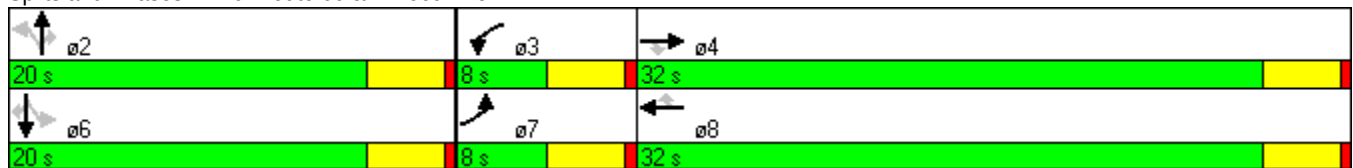
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

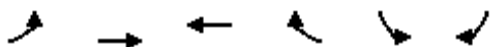
17: Lemon Ave & Loraine Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	4	24	10	22	9	8	283	3	6	483	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	4	26	11	24	10	9	308	3	7	525	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	732	867	264	630	867	155	527			311		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	732	867	264	630	867	155	527			311		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	98	96	97	92	99	99			99		
cM capacity (veh/h)	283	285	735	345	285	863	1036			1246		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	42	45	162	157	269	265						
Volume Left	12	11	9	0	7	0						
Volume Right	26	10	0	3	0	2						
cSH	456	352	1036	1700	1246	1700						
Volume to Capacity	0.09	0.13	0.01	0.09	0.01	0.16						
Queue Length 95th (ft)	8	11	1	0	0	0						
Control Delay (s)	13.7	16.7	0.5	0.0	0.2	0.0						
Lane LOS	B	C	A		A							
Approach Delay (s)	13.7	16.7	0.3		0.1							
Approach LOS	B	C										
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			27.6%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

Existing Year (2010)
AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	108	719	1190	162	337	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				80		166
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	117	782	1293	176	366	166
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	10.0	39.0	29.0	29.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	6.3	31.1	23.7	23.7	11.0	11.0
Actuated g/C Ratio	0.12	0.62	0.47	0.47	0.22	0.22
v/c Ratio	0.53	0.36	0.78	0.22	0.49	0.35
Control Delay	35.8	5.4	17.0	6.6	20.7	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	5.4	17.0	6.6	20.7	6.0
LOS	D	A	B	A	C	A
Approach Delay		9.3	15.8		16.1	
Approach LOS		A	B		B	
Queue Length 50th (ft)	36	47	171	16	54	0
Queue Length 95th (ft)	#105	91	#325	52	87	38
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	220	2513	1835	860	1211	666
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.31	0.70	0.20	0.30	0.25

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 13.9

Intersection LOS: B

Intersection Capacity Utilization 58.5%

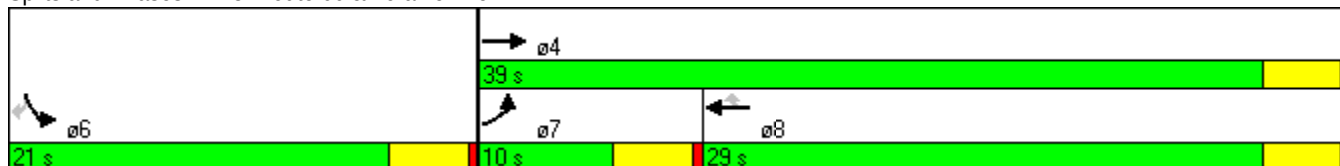
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

Existing Year (2010)
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 		 	 
Volume (vph)	309	353	483	187	631	854
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		384		203		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	336	384	525	203	686	928
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	11.1	11.1	13.3	13.3	14.2	31.6
Actuated g/C Ratio	0.22	0.22	0.26	0.26	0.28	0.62
v/c Ratio	0.45	0.60	0.57	0.36	0.72	0.42
Control Delay	20.1	6.8	19.8	5.3	22.6	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	6.8	19.8	5.3	22.6	5.9
LOS	C	A	B	A	C	A
Approach Delay	13.0		15.7			13.0
Approach LOS	B		B			B
Queue Length 50th (ft)	48	0	75	0	98	61
Queue Length 95th (ft)	81	56	128	42	#171	116
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	1109	771	1143	649	1109	2572
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.50	0.46	0.31	0.62	0.36

Intersection Summary

Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 50.9	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 50.2%	ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

Existing Year (2010)
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	182	81	178	409	31	103
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	198	88	193	445	34	112
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			286		1073	242
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			286		1073	242
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			85		84	86
cM capacity (veh/h)			1276		207	797
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	286	193	445	146		
Volume Left	0	193	0	34		
Volume Right	88	0	0	112		
cSH	1700	1276	1700	480		
Volume to Capacity	0.17	0.15	0.26	0.30		
Queue Length 95th (ft)	0	13	0	32		
Control Delay (s)	0.0	8.3	0.0	15.7		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.5		15.7		
Approach LOS				C		
Intersection Summary						
Average Delay			3.6			
Intersection Capacity Utilization			42.4%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

21: Sierra Madre Ave & Glendora Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	249	36	75	431	1	113	7	31	6	10	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	271	39	82	468	1	123	8	34	7	11	9
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	318	550	1	130	34	17	9					
Volume Left (vph)	9	82	0	123	0	7	0					
Volume Right (vph)	39	0	1	0	34	0	9					
Hadj (s)	-0.03	0.11	-0.67	0.50	-0.67	0.22	-0.67					
Departure Headway (s)	5.9	5.7	4.9	7.4	6.2	7.6	6.7					
Degree Utilization, x	0.52	0.87	0.00	0.27	0.06	0.04	0.02					
Capacity (veh/h)	585	619	713	463	543	438	493					
Control Delay (s)	15.2	33.3	6.7	11.9	8.4	9.6	8.6					
Approach Delay (s)	15.2	33.3		11.2		9.3						
Approach LOS	C	D		B		A						
Intersection Summary												
Delay			23.8									
HCM Level of Service			C									
Intersection Capacity Utilization			65.9%	ICU Level of Service		C						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

22: Glendora Marketplace & Lone Hill Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	2	72	5	0	2	41	439	5	33	700	347
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1729	0	3433	3532	0	1770	3539	1583
Flt Permitted	0.950	0.853			0.809		0.950			0.950		
Satd. Flow (perm)	1681	1509	2787	0	1448	0	3433	3532	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78		2			2				377
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	107	109	78	0	7	0	45	482	0	36	761	377
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	11.0	31.0	31.0	20.0	20.0	0.0	8.0	20.0	0.0	9.0	21.0	21.0
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
Act Effect Green (s)	15.5	10.0	28.1		13.8		5.8	22.3		7.2	21.3	21.3
Actuated g/C Ratio	0.32	0.20	0.57		0.28		0.12	0.46		0.15	0.43	0.43
v/c Ratio	0.20	0.32	0.05		0.02		0.11	0.30		0.14	0.49	0.42
Control Delay	19.4	20.9	3.0		17.8		27.0	15.6		27.2	18.7	4.1
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	19.4	20.9	3.0		17.8		27.0	15.6		27.2	18.7	4.1
LOS	B	C	A		B		C	B		C	B	A
Approach Delay		15.6			17.8			16.6			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	23	23	0		2		8	58		13	131	0
Queue Length 95th (ft)	#95	#97	10		9		21	117		36	188	54
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	571	343	1633		673		405	1609		261	1541	902
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.19	0.32	0.05		0.01		0.11	0.30		0.14	0.49	0.42

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 15.1

Intersection LOS: B

Intersection Capacity Utilization 39.7%

ICU Level of Service A

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

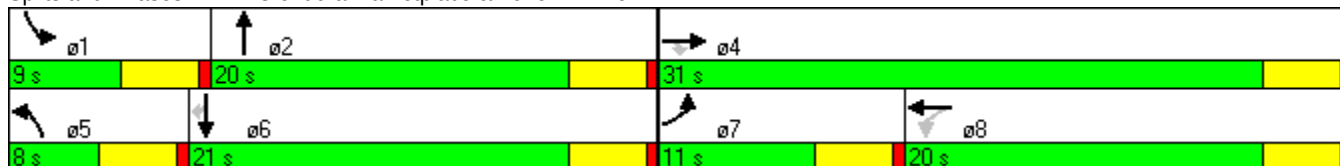
Existing Year (2010)
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

23: Gladstone St & Lone Hill Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	142	151	124	121	369	58	121	251	87	101	411	265
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		135			30				95			288
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	154	299	0	132	464	0	132	273	95	110	447	288
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	12.0	22.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	6.7	11.0		8.2	12.3		4.6	12.8	12.8	4.6	12.8	12.8
Actuated g/C Ratio	0.14	0.23		0.17	0.26		0.10	0.27	0.27	0.10	0.27	0.27
v/c Ratio	0.31	0.34		0.43	0.50		0.40	0.28	0.19	0.33	0.46	0.45
Control Delay	25.0	11.2		27.5	17.5		29.4	16.5	5.6	27.7	17.9	5.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	11.2		27.5	17.5		29.4	16.5	5.6	27.7	17.9	5.3
LOS	C	B		C	B		C	B	A	C	B	A
Approach Delay		15.9			19.7			17.8			14.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	22	22		37	60		20	34	0	16	58	0
Queue Length 95th (ft)	52	51		#103	102		#54	68	29	41	108	49
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	502	1368		345	1537		334	1379	675	334	1379	792
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.22		0.38	0.30		0.40	0.20	0.14	0.33	0.32	0.36

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 16.9

Intersection LOS: B

Intersection Capacity Utilization 44.2%

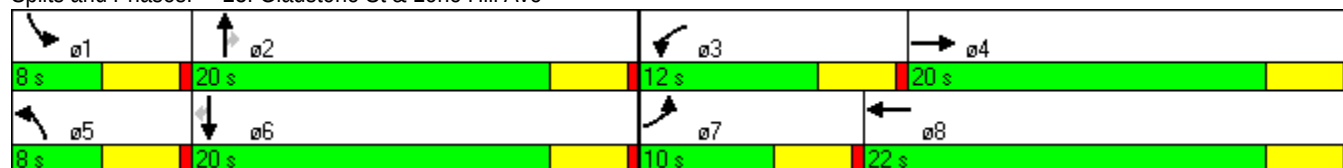
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

24: Arrow Hwy & SR-57 SB

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↖	↑↑↑		↖↖		↖	↖	↖	↖
Volume (vph)	0	701	34	145	702	309	14	0	15	140	52	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5050	0	1770	4851	0	3433	0	1583	1681	1729	1583
Flt Permitted				0.338			0.685			0.950	0.977	
Satd. Flow (perm)	0	5050	0	630	4851	0	2475	0	1583	1681	1729	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			318				16			192
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										32%		
Lane Group Flow (vph)	0	799	0	158	1099	0	15	0	16	103	106	192
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	39.0	0.0	39.0	39.0	0.0	21.0	0.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)		23.7		23.7	23.7		9.4		9.4	9.4	9.4	9.4
Actuated g/C Ratio		0.65		0.65	0.65		0.26		0.26	0.26	0.26	0.26
v/c Ratio		0.24		0.38	0.33		0.02		0.04	0.24	0.24	0.35
Control Delay		4.1		8.6	3.3		15.0		8.9	16.5	16.4	5.5
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		4.1		8.6	3.3		15.0		8.9	16.5	16.4	5.5
LOS		A		A	A		B		A	B	B	A
Approach Delay		4.1			4.0						11.2	
Approach LOS		A			A						B	
Queue Length 50th (ft)		22		14	22		1		0	17	17	0
Queue Length 95th (ft)		52		59	54		8		12	65	67	41
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		4413		550	4277		1357		875	922	948	955
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.18		0.29	0.26		0.01		0.02	0.11	0.11	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 5.3

Intersection LOS: A

Intersection Capacity Utilization 44.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

Existing Year (2010)
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	542	164	127	86	102	246	134	232	380	167	568	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3347	0	1770	3539	1583	3433	4612	0	1770	5045	0
Flt Permitted		0.733		0.212			0.950			0.950		
Satd. Flow (perm)	0	2535	0	395	3539	1583	3433	4612	0	1770	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41				267		413			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	905	0	93	111	267	146	665	0	182	654	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	9.0	20.0	0.0	12.0	23.0	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
Act Effect Green (s)		22.3		22.3	22.3	22.3	5.1	10.3		8.0	15.5	
Actuated g/C Ratio		0.42		0.42	0.42	0.42	0.10	0.20		0.15	0.29	
v/c Ratio		1.05dl		0.56	0.07	0.32	0.44	0.54		0.68	0.44	
Control Delay		22.2		29.9	10.1	3.1	29.3	8.9		39.5	16.9	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.2		29.9	10.1	3.1	29.3	8.9		39.5	16.9	
LOS		C		C	B	A	C	A		D	B	
Approach Delay		22.2			10.0			12.6			21.8	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)		120		21	10	0	23	25		57	64	
Queue Length 95th (ft)		#257		#89	25	37	51	52		#156	93	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1193		183	1635	875	331	1707		273	1856	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.76		0.51	0.07	0.31	0.44	0.39		0.67	0.35	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 17.6

Intersection LOS: B

Intersection Capacity Utilization 70.4%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair
 25: SR-57 NB & Arrow Hwy

Existing Year (2010)
 AM Peak Hour

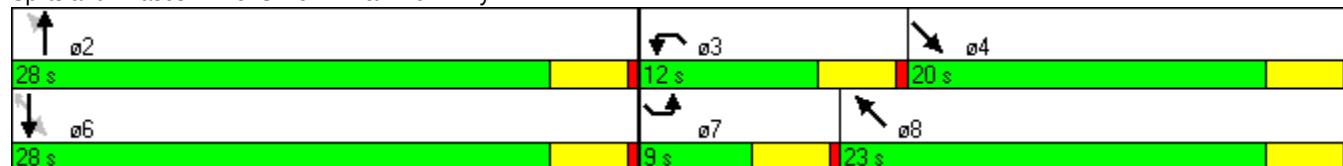
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

26: Fifth St & Eucla Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	38	50	17	48	1	35	35	10	0	3	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	41	54	18	52	1	38	38	11	0	3	2
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	41	54	71	1	87	5						
Volume Left (vph)	0	0	18	0	38	0						
Volume Right (vph)	0	54	0	1	11	2						
Hadj (s)	0.03	-0.67	0.16	-0.67	0.05	-0.21						
Departure Headway (s)	4.8	4.1	5.0	4.1	4.3	4.2						
Degree Utilization, x	0.06	0.06	0.10	0.00	0.10	0.01						
Capacity (veh/h)	731	847	702	843	796	823						
Control Delay (s)	6.9	6.2	7.3	5.9	7.8	7.2						
Approach Delay (s)	6.5		7.3		7.8	7.2						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.2									
HCM Level of Service			A									
Intersection Capacity Utilization			27.9%	ICU Level of Service						A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

Existing Year (2010)
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	9	1	53	7	4	105
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	1	58	8	4	114
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	180	58			65	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	180	58			65	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	807	1009			1537	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	11	58	8	4	114	
Volume Left	10	0	0	4	0	
Volume Right	1	0	8	0	0	
cSH	823	1700	1700	1537	1700	
Volume to Capacity	0.01	0.03	0.00	0.00	0.07	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.4	0.0	0.0	7.3	0.0	
Lane LOS	A			A		
Approach Delay (s)	9.4	0.0		0.3		
Approach LOS	A					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			15.5%	ICU Level of Service		A
Analysis Period (min)			15			

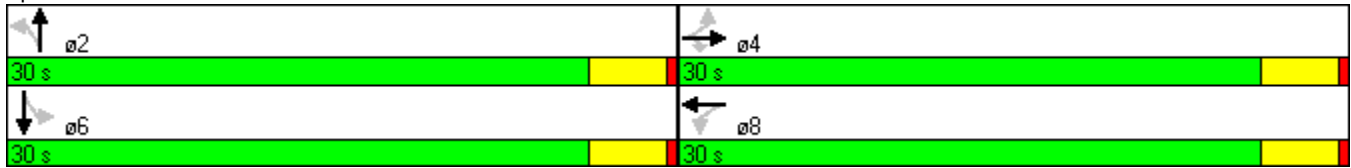
Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	278	12	64	345	9	12	15	19	13	45	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3525	0	0	1734	0	0	1720	0
Flt Permitted	0.597			0.597				0.868			0.955	
Satd. Flow (perm)	1112	3539	1583	1112	3525	0	0	1525	0	0	1651	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			13		5			21			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	302	13	70	385	0	0	50	0	0	135	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	10.3	10.3	10.3	10.4	10.4			7.4			7.4	
Actuated g/C Ratio	0.54	0.54	0.54	0.55	0.55			0.39			0.39	
v/c Ratio	0.05	0.16	0.02	0.12	0.20			0.08			0.20	
Control Delay	5.2	4.5	3.1	5.4	4.6			5.2			4.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	5.2	4.5	3.1	5.4	4.6			5.2			4.7	
LOS	A	A	A	A	A			A			A	
Approach Delay		4.5			4.7			5.2			4.7	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	2	10	0	4	13			2			4	
Queue Length 95th (ft)	9	23	4	16	28			13			23	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	1097	3491	1562	1097	3477			1505			1629	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.03	0.09	0.01	0.06	0.11			0.03			0.08	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 19												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.20												
Intersection Signal Delay: 4.7							Intersection LOS: A					
Intersection Capacity Utilization 31.0%							ICU Level of Service A					

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

29: Arrow Hwy & Eucla Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	1	316	77	287	642	10	13	36	147	15	99	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4933	0	1770	5075	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.371			0.373			0.714			0.732		
Satd. Flow (perm)	691	4933	0	695	5075	0	1330	1863	1583	1364	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		84			5				160			4
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	427	0	312	709	0	14	39	160	16	108	4
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	20.0	0.0	17.0	29.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	12.9	12.7		19.5	20.9		9.2	9.2	9.2	9.2	9.2	9.2
Actuated g/C Ratio	0.39	0.38		0.59	0.63		0.28	0.28	0.28	0.28	0.28	0.28
v/c Ratio	0.00	0.22		0.42	0.22		0.04	0.08	0.29	0.04	0.21	0.01
Control Delay	5.0	10.2		6.0	5.2		13.7	13.8	5.1	13.7	14.8	10.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	10.2		6.0	5.2		13.7	13.8	5.1	13.7	14.8	10.0
LOS	A	B		A	A		B	B	A	B	B	A
Approach Delay		10.2			5.4			7.3			14.5	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	0	20		25	19		2	6	0	3	18	0
Queue Length 95th (ft)	1	47		63	63		13	26	34	15	55	6
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	443	2671		968	3661		793	1110	1008	813	1110	945
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.16		0.32	0.19		0.02	0.04	0.16	0.02	0.10	0.00

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.4

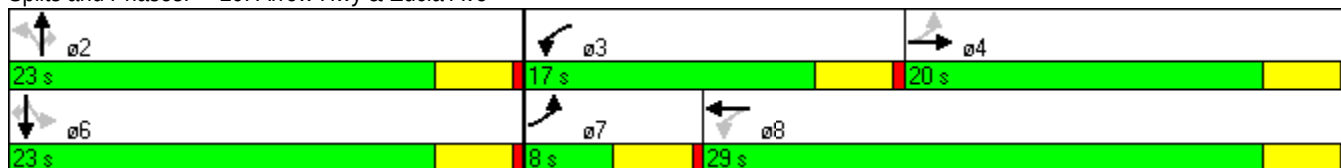
Intersection LOS: A

Intersection Capacity Utilization 41.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

Existing Year (2010)
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	43	4	6	55	10	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	47	4	7	60	11	3
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			51		122	49
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			51		122	49
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1555		870	1020
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	51	66	14			
Volume Left	0	7	11			
Volume Right	4	0	3			
cSH	1700	1555	900			
Volume to Capacity	0.03	0.00	0.02			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.7	9.1			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.7	9.1			
Approach LOS			A			
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		17.9%		ICU Level of Service		A
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

31: Second St & Acacia St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	10	4	3	12	2	2	2	0	2	1	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	11	4	3	13	2	2	2	0	2	1	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	23	14	3	24	16	2	5			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23	14	3	24	16	2	5			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	100	100	99	100	100			100		
cM capacity (veh/h)	974	878	1081	972	875	1082	1616			1620		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	15	18	4	8								
Volume Left	0	3	2	2								
Volume Right	4	2	0	4								
cSH	928	912	1616	1620								
Volume to Capacity	0.02	0.02	0.00	0.00								
Queue Length 95th (ft)	1	2	0	0								
Control Delay (s)	8.9	9.0	3.6	2.1								
Lane LOS	A	A	A	A								
Approach Delay (s)	8.9	9.0	3.6	2.1								
Approach LOS	A	A										
Intersection Summary												
Average Delay			7.3									
Intersection Capacity Utilization			13.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	240	9	28	451	0	6	0	18	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	261	10	30	490	0	7	0	20	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	490			271			573	817	135	701	822	245
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	490			271			573	817	135	701	822	245
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			98	100	98	100	100	100
cM capacity (veh/h)	1069			1290			395	302	889	313	300	755
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	0	174	97	30	327	163	7	20	1			
Volume Left	0	0	0	30	0	0	7	0	0			
Volume Right	0	0	10	0	0	0	0	20	1			
cSH	1700	1700	1700	1290	1700	1700	395	889	755			
Volume to Capacity	0.00	0.10	0.06	0.02	0.19	0.10	0.02	0.02	0.00			
Queue Length 95th (ft)	0	0	0	2	0	0	1	2	0			
Control Delay (s)	0.0	0.0	0.0	7.9	0.0	0.0	14.3	9.1	9.8			
Lane LOS				A			B	A	A			
Approach Delay (s)	0.0			0.5			10.4		9.8			
Approach LOS							B		A			
Intersection Summary												
Average Delay			0.6									
Intersection Capacity Utilization			30.8%		ICU Level of Service				A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	6	3	14	8	1	8	45	8	4	56	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	7	3	15	9	1	9	49	9	4	61	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	10			10			87	57	8	90	58	9
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	10			10			87	57	8	90	58	9
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	94	99	99	93	100
cM capacity (veh/h)	1610			1610			840	824	1074	840	823	1072
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	14	25	66	65								
Volume Left	4	15	9	4								
Volume Right	3	1	9	0								
cSH	1610	1610	852	824								
Volume to Capacity	0.00	0.01	0.08	0.08								
Queue Length 95th (ft)	0	1	6	6								
Control Delay (s)	2.2	4.4	9.6	9.7								
Lane LOS	A	A	A	A								
Approach Delay (s)	2.2	4.4	9.6	9.7								
Approach LOS			A	A								
Intersection Summary												
Average Delay			8.3									
Intersection Capacity Utilization			15.3%		ICU Level of Service				A			
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	214	8	82	434	8	11	41	21	7	40	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	233	9	89	472	9	12	45	23	8	43	30
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	128	125	325	245	57	23	51	30				
Volume Left (vph)	12	0	89	0	12	0	8	0				
Volume Right (vph)	0	9	0	9	0	23	0	30				
Hadj (s)	0.08	-0.01	0.17	0.01	0.14	-0.67	0.11	-0.67				
Departure Headway (s)	5.7	5.6	5.4	5.3	6.6	5.8	6.6	5.8				
Degree Utilization, x	0.20	0.19	0.49	0.36	0.10	0.04	0.09	0.05				
Capacity (veh/h)	604	619	646	665	502	564	502	564				
Control Delay (s)	8.9	8.7	12.4	10.0	9.2	7.8	9.1	7.9				
Approach Delay (s)	8.8		11.4		8.8		8.6					
Approach LOS	A		B		A		A					
Intersection Summary												
Delay			10.3									
HCM Level of Service			B									
Intersection Capacity Utilization			40.6%	ICU Level of Service					A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	15	2	5	13	7	0	18	3	0	17	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	16	2	5	14	8	0	20	3	0	18	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	57	44	21	53	45	21	24			23		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	57	44	21	53	45	21	24			23		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	100	99	98	99	100			100		
cM capacity (veh/h)	921	848	1056	930	847	1056	1591			1592		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	24	27	23	24								
Volume Left	5	5	0	0								
Volume Right	2	8	3	5								
cSH	879	914	1591	1592								
Volume to Capacity	0.03	0.03	0.00	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.2	9.1	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	9.2	9.1	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			4.8									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

36: Bonita Ave & Monte Vista Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	241	9	9	541	10	4	2	6	3	2	30
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	262	10	10	588	11	4	2	7	3	2	33
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					666							
pX, platoon unblocked	0.93						0.93	0.93		0.93	0.93	0.93
vC, conflicting volume	599			272			941	918	267	915	917	593
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	527			272			896	871	267	868	871	521
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			98	99	99	99	99	94
cM capacity (veh/h)	963			1292			221	261	772	244	261	514
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	16	272	10	599	13	38						
Volume Left	16	0	10	0	4	3						
Volume Right	0	10	0	11	7	33						
cSH	963	1700	1292	1700	358	447						
Volume to Capacity	0.02	0.16	0.01	0.35	0.04	0.09						
Queue Length 95th (ft)	1	0	1	0	3	7						
Control Delay (s)	8.8	0.0	7.8	0.0	15.4	13.8						
Lane LOS	A		A		C	B						
Approach Delay (s)	0.5		0.1		15.4	13.8						
Approach LOS					C	B						
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			39.1%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

37: Second St & San Dimas Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	8	6	1	7	12	6	327	3	7	439	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	9	7	1	8	13	7	355	3	8	477	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked												
vC, conflicting volume	878	864	477	872	872	355	488			359		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	878	864	477	872	872	355	488			359		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	97	99	100	97	98	99			99		
cM capacity (veh/h)	256	288	588	259	285	689	1075			1200		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	22	22	7	355	3	8	477	11				
Volume Left	7	1	7	0	0	8	0	0				
Volume Right	7	13	0	0	3	0	0	11				
cSH	326	437	1075	1700	1700	1200	1700	1700				
Volume to Capacity	0.07	0.05	0.01	0.21	0.00	0.01	0.28	0.01				
Queue Length 95th (ft)	5	4	0	0	0	0	0	0				
Control Delay (s)	16.8	13.7	8.4	0.0	0.0	8.0	0.0	0.0				
Lane LOS	C	B	A			A						
Approach Delay (s)	16.8	13.7	0.1			0.1						
Approach LOS	C	B										
Intersection Summary												
Average Delay			0.9									
Intersection Capacity Utilization			33.1%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	191	12	76	381	67	51	196	50	108	225	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3433	0	1770	1783	0
Flt Permitted	0.444			0.628			0.498			0.587		
Satd. Flow (perm)	827	1863	1583	1170	1863	1583	928	3433	0	1093	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			13			58		54			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	208	13	83	414	73	55	267	0	117	343	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	14.4	14.4	14.4	14.4	14.4	14.4	12.4	12.4		12.4	12.4	
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40	0.35	0.35		0.35	0.35	
v/c Ratio	0.12	0.28	0.02	0.18	0.55	0.11	0.17	0.22		0.31	0.53	
Control Delay	8.6	8.8	4.6	8.6	11.8	3.9	10.9	7.6		12.2	12.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.6	8.8	4.6	8.6	11.8	3.9	10.9	7.6		12.2	12.2	
LOS	A	A	A	A	B	A	B	A		B	B	
Approach Delay		8.5			10.3			8.2			12.2	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	4	21	0	8	48	1	6	12		14	39	
Queue Length 95th (ft)	21	74	7	36	154	20	31	43		57	130	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	659	1485	1264	932	1485	1273	698	2597		822	1352	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.06	0.14	0.01	0.09	0.28	0.06	0.08	0.10		0.14	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.2

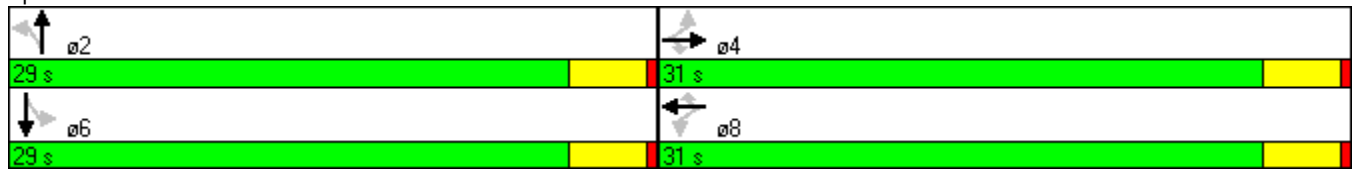
Intersection LOS: B

Intersection Capacity Utilization 57.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

39: Arrow Hwy & San Dimas Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	589	54	157	1116	57	120	181	192	88	127	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	5050	0	1770	1863	1583	1770	3348	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	5050	0	1770	1863	1583	1770	3348	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			13				209		78	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	699	0	171	1275	0	130	197	209	96	216	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	8.0	20.0	0.0	10.0	22.0	0.0	9.0	21.0	21.0	9.0	21.0	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
Act Effect Green (s)	4.1	14.4		6.1	18.5		5.1	13.2	13.2	5.1	10.9	
Actuated g/C Ratio	0.08	0.27		0.12	0.35		0.10	0.25	0.25	0.10	0.21	
v/c Ratio	0.54	0.50		0.83	0.72		0.76	0.42	0.38	0.56	0.29	
Control Delay	44.1	17.4		62.7	19.3		58.7	21.4	5.4	41.3	12.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	44.1	17.4		62.7	19.3		58.7	21.4	5.4	41.3	12.5	
LOS	D	B		E	B		E	C	A	D	B	
Approach Delay		20.0			24.5			24.2			21.3	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	23	63		55	127		42	57	0	30	19	
Queue Length 95th (ft)	#83	107		#168	#211		#136	106	41	#98	42	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	137	1566		205	1777		171	611	659	171	1150	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.54	0.45		0.83	0.72		0.76	0.32	0.32	0.56	0.19	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 23.0

Intersection LOS: C

Intersection Capacity Utilization 54.3%

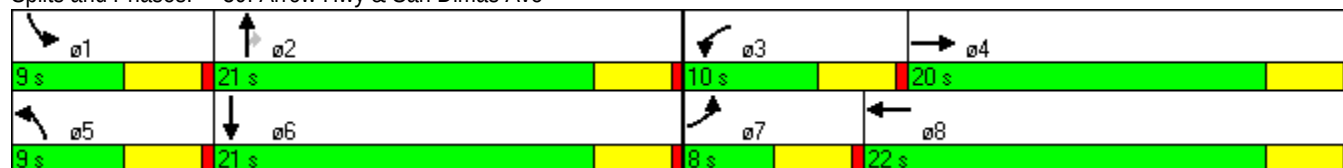
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

40: Bonita Ave & Walnut Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	201	42	61	538	48	37	94	53	56	88	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3447	0	1770	3539	1583	1770	1762	0	1770	1721	0
Flt Permitted	0.431			0.589			0.702			0.702		
Satd. Flow (perm)	803	3447	0	1097	3539	1583	1308	1762	0	1308	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46				52		58			98	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	264	0	66	585	52	40	160	0	61	194	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	14.0	14.0		14.0	14.0	14.0	8.5	8.5		8.5	8.5	
Actuated g/C Ratio	0.55	0.55		0.55	0.55	0.55	0.33	0.33		0.33	0.33	
v/c Ratio	0.10	0.14		0.11	0.30	0.06	0.09	0.26		0.14	0.31	
Control Delay	5.9	4.3		5.7	5.6	2.3	9.2	7.4		9.6	6.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.9	4.3		5.7	5.6	2.3	9.2	7.4		9.6	6.6	
LOS	A	A		A	A	A	A	A		A	A	
Approach Delay		4.6			5.4			7.8			7.3	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	3	7		4	23	0	4	10		6	9	
Queue Length 95th (ft)	15	24		20	58	10	20	44		27	46	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	741	3186		1013	3268	1466	1165	1576		1165	1544	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.06	0.08		0.07	0.18	0.04	0.03	0.10		0.05	0.13	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 25.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.31

Intersection Signal Delay: 5.9

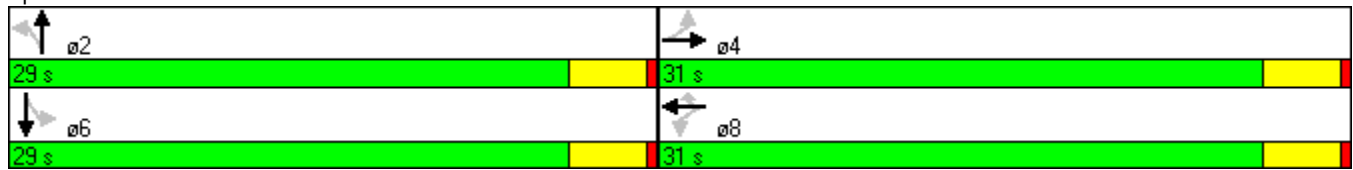
Intersection LOS: A

Intersection Capacity Utilization 45.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

41: Arrow Hwy & Walnut Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	138	623	37	17	1105	29	65	25	22	28	15	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5065	0	0	1798	1583	0	1803	1583
Flt Permitted	0.950			0.950				0.756			0.744	
Satd. Flow (perm)	1770	5045	0	1770	5065	0	0	1408	1583	0	1386	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			7				24			134
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	150	717	0	18	1233	0	0	98	24	0	46	134
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	15.0	30.0	0.0	8.0	23.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effect Green (s)	10.2	29.8		5.2	21.6			9.8	9.8		9.8	9.8
Actuated g/C Ratio	0.24	0.69		0.12	0.50			0.23	0.23		0.23	0.23
v/c Ratio	0.36	0.20		0.08	0.48			0.31	0.06		0.15	0.29
Control Delay	21.1	4.6		23.9	12.4			20.9	8.7		18.6	6.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	21.1	4.6		23.9	12.4			20.9	8.7		18.6	6.2
LOS	C	A		C	B			C	A		B	A
Approach Delay		7.5			12.6			18.5			9.4	
Approach LOS		A			B			B			A	
Queue Length 50th (ft)	38	21		5	98			25	0		11	0
Queue Length 95th (ft)	87	65		22	162			61	15		34	34
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	589	3503		214	2554			686	784		676	840
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.25	0.20		0.08	0.48			0.14	0.03		0.07	0.16

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 43

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 10.8

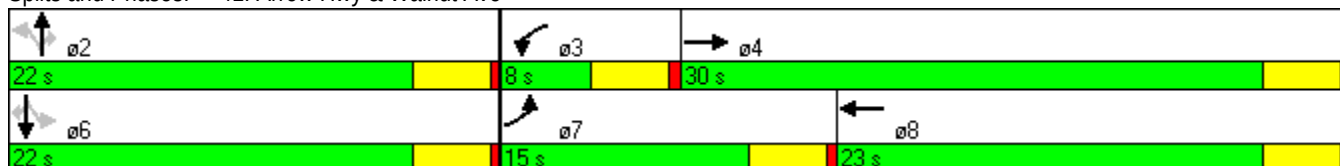
Intersection LOS: B

Intersection Capacity Utilization 51.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	204	49	50	315	90	69	205	168	145	155	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.546			0.613			0.646			0.612		
Satd. Flow (perm)	1017	3539	1583	1142	3539	1583	1203	3539	1583	1140	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			53			98			183			113
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	222	53	54	342	98	75	223	183	158	168	113
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	34.0	34.0	34.0	34.0	34.0	34.0
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
Act Effect Green (s)	9.7	9.7	9.7	9.7	9.7	9.7	10.3	10.3	10.3	10.4	10.4	10.4
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.38	0.40	0.40	0.40	0.40	0.40	0.40
v/c Ratio	0.17	0.17	0.08	0.13	0.26	0.15	0.16	0.16	0.25	0.34	0.12	0.16
Control Delay	8.9	7.4	3.6	8.3	7.7	3.2	7.2	6.3	2.5	9.2	6.2	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.9	7.4	3.6	8.3	7.7	3.2	7.2	6.3	2.5	9.2	6.2	2.5
LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Delay		7.1			6.8			5.0			6.4	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	5	9	0	4	15	0	6	9	0	14	6	0
Queue Length 95th (ft)	27	32	14	23	46	19	24	26	21	48	21	16
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	841	2927	1318	944	2927	1326	1146	3372	1517	1086	3372	1514
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.08	0.04	0.06	0.12	0.07	0.07	0.07	0.12	0.15	0.05	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 25.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 6.3

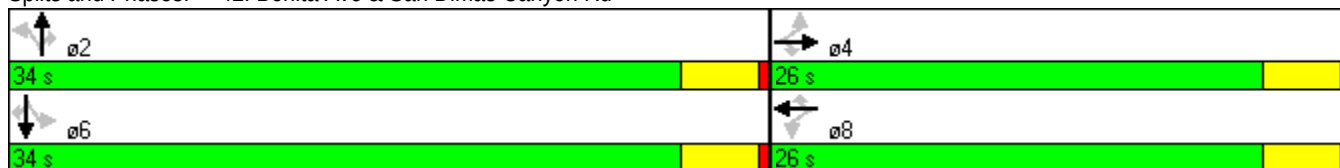
Intersection LOS: A

Intersection Capacity Utilization 39.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	196	420	15	21	883	105	34	43	57	110	28	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	5004	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.173			0.471			0.738			0.726		
Satd. Flow (perm)	322	5060	0	877	5004	0	1375	1863	1583	1352	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			35				62			239
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	213	473	0	23	1074	0	37	47	62	120	30	239
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	15.0	29.0	0.0	8.0	22.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	27.4	26.1		19.8	16.9		10.1	10.1	10.1	10.1	10.1	10.1
Actuated g/C Ratio	0.59	0.56		0.43	0.37		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.42	0.17		0.05	0.58		0.12	0.11	0.16	0.40	0.07	0.45
Control Delay	7.9	5.7		5.9	14.5		17.1	16.7	6.3	21.7	16.2	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.9	5.7		5.9	14.5		17.1	16.7	6.3	21.7	16.2	5.9
LOS	A	A		A	B		B	B	A	C	B	A
Approach Delay		6.4			14.3			12.4			11.6	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	19	14		2	87		9	12	0	32	7	0
Queue Length 95th (ft)	66	51		10	152		27	32	22	70	23	43
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	565	3378		460	2137		614	832	741	604	832	839
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.14		0.05	0.50		0.06	0.06	0.08	0.20	0.04	0.28

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 11.4

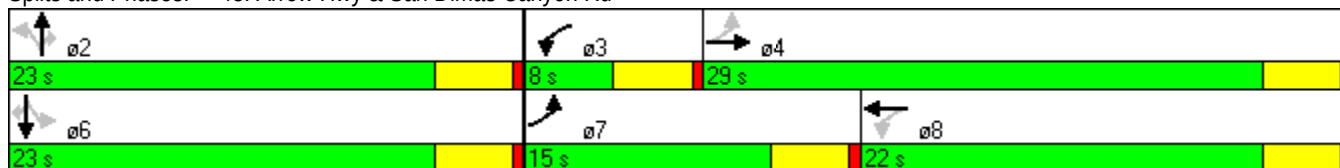
Intersection LOS: B

Intersection Capacity Utilization 53.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

44: Third St & Wheeler Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	8	43	15	7	34	26	263	8	46	469	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	9	47	16	8	37	28	286	9	50	510	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	855	966	260	753	966	147	520			295		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	855	966	260	753	966	147	520			295		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	96	94	94	97	96	97			96		
cM capacity (veh/h)	223	237	739	258	236	873	1043			1264		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	24	47	24	37	171	152	305	265				
Volume Left	15	0	16	0	28	0	50	0				
Volume Right	0	47	0	37	0	9	0	10				
cSH	228	739	251	873	1043	1700	1264	1700				
Volume to Capacity	0.10	0.06	0.10	0.04	0.03	0.09	0.04	0.16				
Queue Length 95th (ft)	9	5	8	3	2	0	3	0				
Control Delay (s)	22.6	10.2	20.9	9.3	1.6	0.0	1.6	0.0				
Lane LOS	C	B	C	A	A		A					
Approach Delay (s)	14.4		13.8		0.9		0.9					
Approach LOS	B		B									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			40.7%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

45: Arrow Hwy & Wheeler Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	428	30	31	857	300	26	28	13	292	86	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5034	0	1770	4887	0	1770	1863	1583	0	3292	0
Flt Permitted	0.169			0.460			0.334				0.796	
Satd. Flow (perm)	315	5034	0	857	4887	0	622	1863	1583	0	2693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			158				14		117	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	498	0	34	1258	0	28	30	14	0	578	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	10.0	26.0	0.0	8.0	24.0	0.0	26.0	26.0	26.0	26.0	26.0	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
Act Effect Green (s)	25.7	23.6		22.0	19.1		15.2	15.2	15.2		15.2	
Actuated g/C Ratio	0.51	0.47		0.44	0.38		0.30	0.30	0.30		0.30	
v/c Ratio	0.28	0.21		0.07	0.64		0.15	0.05	0.03		0.64	
Control Delay	9.0	9.2		7.5	14.1		15.5	13.2	7.1		16.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.0	9.2		7.5	14.1		15.5	13.2	7.1		16.0	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		9.2			14.0			12.9			16.0	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	12	23		4	99		7	7	0		65	
Queue Length 95th (ft)	38	64		17	170		22	21	10		109	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	348	2683		454	2177		292	875	751		1327	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.28	0.19		0.07	0.58		0.10	0.03	0.02		0.44	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 13.3

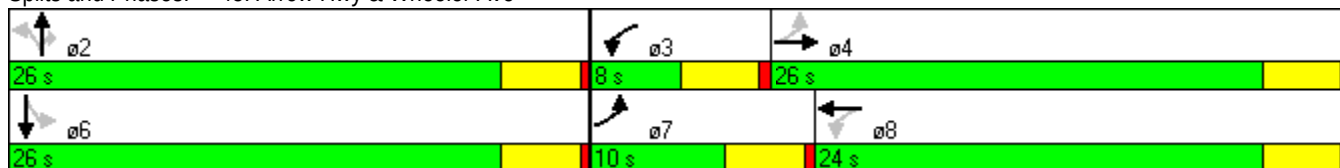
Intersection LOS: B

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

46: Third St & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	51	3	3	54	2	13	46	10	0	42	9
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	55	3	3	59	2	14	50	11	0	46	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	61			59			160	129	55	163	130	59
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	61			59			160	129	55	163	130	59
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	93	99	100	94	99
cM capacity (veh/h)	1542			1545			759	758	1011	751	757	1007
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	59	3	62	2	75	55						
Volume Left	3	0	3	0	14	0						
Volume Right	0	3	0	2	11	10						
cSH	1542	1700	1545	1700	787	792						
Volume to Capacity	0.00	0.00	0.00	0.00	0.10	0.07						
Queue Length 95th (ft)	0	0	0	0	8	6						
Control Delay (s)	0.4	0.0	0.4	0.0	10.1	9.9						
Lane LOS	A		A		B	A						
Approach Delay (s)	0.4		0.4		10.1	9.9						
Approach LOS					B	A						
Intersection Summary												
Average Delay			5.3									
Intersection Capacity Utilization			22.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

47: First St & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	2	9	3	1	2	1	57	2	3	42	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	2	10	3	1	2	1	62	2	3	46	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	119	118	46	127	121	62	50			64		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	119	118	46	127	121	62	50			64		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	852	770	1024	835	768	1003	1557			1538		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	5	10	7	63	2	49	4					
Volume Left	3	0	3	1	0	3	0					
Volume Right	0	10	2	0	2	0	4					
cSH	817	1024	871	1557	1700	1538	1700					
Volume to Capacity	0.01	0.01	0.01	0.00	0.00	0.00	0.00					
Queue Length 95th (ft)	1	1	1	0	0	0	0					
Control Delay (s)	9.4	8.5	9.2	0.1	0.0	0.5	0.0					
Lane LOS	A	A	A	A		A						
Approach Delay (s)	8.9		9.2	0.1		0.5						
Approach LOS	A		A									
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			20.0%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

48: Arrow Hwy & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (veh/h)	28	675	4	7	1168	23	6	5	6	28	2	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	30	734	4	8	1270	25	7	5	7	30	2	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	1295			738			1260	2107	247	1612	2096	436
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1295			738			1260	2107	247	1612	2096	436
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	94			99			94	89	99	49	95	96
cM capacity (veh/h)	531			864			112	47	753	60	48	568
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	30	293	293	151	8	508	508	279	12	7	33	24
Volume Left	30	0	0	0	8	0	0	0	7	0	30	0
Volume Right	0	0	0	4	0	0	0	25	0	7	0	24
cSH	531	1700	1700	1700	864	1700	1700	1700	69	753	59	568
Volume to Capacity	0.06	0.17	0.17	0.09	0.01	0.30	0.30	0.16	0.17	0.01	0.55	0.04
Queue Length 95th (ft)	5	0	0	0	1	0	0	0	15	1	56	3
Control Delay (s)	12.2	0.0	0.0	0.0	9.2	0.0	0.0	0.0	67.7	9.8	125.2	11.6
Lane LOS	B				A				F	A	F	B
Approach Delay (s)	0.5				0.1				47.3		77.2	
Approach LOS									E		F	
Intersection Summary												
Average Delay				2.6								
Intersection Capacity Utilization			39.7%		ICU Level of Service				A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	12	24	17	8	93	26	59	90	10	17	144	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	26	18	9	101	28	64	98	11	18	157	46
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	58	138	173	221								
Volume Left (vph)	13	9	64	18								
Volume Right (vph)	18	28	11	46								
Hadj (s)	-0.11	-0.08	0.07	-0.07								
Departure Headway (s)	4.9	4.8	4.7	4.5								
Degree Utilization, x	0.08	0.19	0.23	0.28								
Capacity (veh/h)	658	683	721	751								
Control Delay (s)	8.3	8.9	9.1	9.3								
Approach Delay (s)	8.3	8.9	9.1	9.3								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.1									
HCM Level of Service			A									
Intersection Capacity Utilization			37.1%	ICU Level of Service		A						
Analysis Period (min)			15									



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	10	25	148	137	8
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	11	27	161	149	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	368	153	158			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	368	153	158			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	98			
cM capacity (veh/h)	620	893	1422			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	14	188	158			
Volume Left	3	27	0			
Volume Right	11	0	9			
cSH	810	1422	1700			
Volume to Capacity	0.02	0.02	0.09			
Queue Length 95th (ft)	1	1	0			
Control Delay (s)	9.5	1.2	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.5	1.2	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			30.2%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

51: Arrow Hwy & D St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	612	25	12	1110	83	50	24	13	58	34	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5055	0	1770	5034	0	0	1801	1583	0	1805	1583
Flt Permitted	0.197			0.377				0.744			0.761	
Satd. Flow (perm)	367	5055	0	702	5034	0	0	1386	1583	0	1418	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			31				14			45
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	692	0	13	1297	0	0	80	14	0	100	45
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	25.3	25.3		25.3	25.3			9.0	9.0		9.1	9.1
Actuated g/C Ratio	0.76	0.76		0.76	0.76			0.27	0.27		0.27	0.27
v/c Ratio	0.19	0.18		0.02	0.34			0.22	0.03		0.26	0.10
Control Delay	6.3	3.2		4.0	3.7			15.8	8.8		16.2	6.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	6.3	3.2		4.0	3.7			15.8	8.8		16.2	6.8
LOS	A	A		A	A			B	A		B	A
Approach Delay		3.4			3.7			14.8			13.3	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	4	19		1	42			14	0		17	0
Queue Length 95th (ft)	21	41		6	82			51	11		61	20
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	316	4356		605	4339			901	1034		922	1045
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.16	0.16		0.02	0.30			0.09	0.01		0.11	0.04

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 4.7

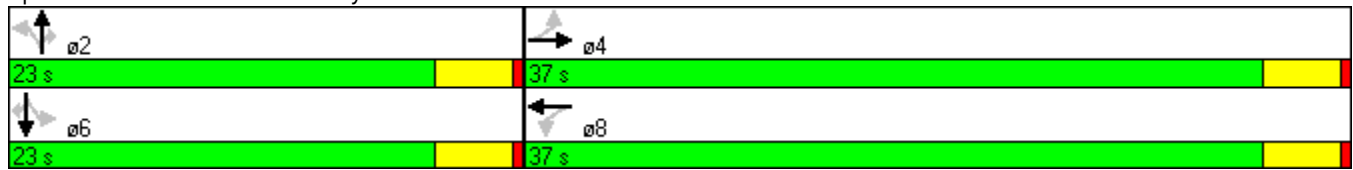
Intersection LOS: A

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

52: Third St & E St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	10	17	14	20	65	21	58	153	6	8	195	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	11	18	15	22	71	23	63	166	7	9	212	8
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	29	15	92	23	229	7	221	8				
Volume Left (vph)	11	0	22	0	63	0	9	0				
Volume Right (vph)	0	15	0	23	0	7	0	8				
Hadj (s)	0.22	-0.67	0.15	-0.67	0.17	-0.67	0.05	-0.67				
Departure Headway (s)	6.0	5.1	5.9	5.0	5.3	4.5	5.2	4.5				
Degree Utilization, x	0.05	0.02	0.15	0.03	0.34	0.01	0.32	0.01				
Capacity (veh/h)	547	636	571	657	656	766	664	763				
Control Delay (s)	8.1	7.1	8.7	7.0	9.8	6.3	9.5	6.3				
Approach Delay (s)	7.8		8.4		9.7		9.4					
Approach LOS	A		A		A		A					
Intersection Summary												
Delay			9.2									
HCM Level of Service			A									
Intersection Capacity Utilization			43.2%		ICU Level of Service					A		
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	9	26	5	30	11	41	194	4	1	223	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	10	28	5	33	12	45	211	4	1	242	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	1.00	1.00		1.00	1.00	1.00				1.00		
vC, conflicting volume	561	549	242	549	561	211	259			215		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	558	546	242	546	558	207	259			211		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	96	99	92	99	97			100		
cM capacity (veh/h)	396	428	796	412	422	831	1306			1355		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	45	50	255	4	243	16						
Volume Left	7	5	45	0	1	0						
Volume Right	28	12	0	4	0	16						
cSH	1136	552	1306	1700	1355	1700						
Volume to Capacity	0.04	0.09	0.03	0.00	0.00	0.01						
Queue Length 95th (ft)	3	7	3	0	0	0						
Control Delay (s)	11.3	13.2	1.6	0.0	0.0	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.3	13.2	1.6		0.0							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			40.1%	ICU Level of Service					A			
Analysis Period (min)			15									

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	12	12	223	14	23	227
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	13	242	15	25	247
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.93	0.93			0.93	
vC, conflicting volume	539	242			258	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	471	154			170	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	98			98	
cM capacity (veh/h)	505	833			1315	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	13	13	242	15	25	247
Volume Left	13	0	0	0	25	0
Volume Right	0	13	0	15	0	0
cSH	505	833	1700	1700	1315	1700
Volume to Capacity	0.03	0.02	0.14	0.01	0.02	0.15
Queue Length 95th (ft)	2	1	0	0	1	0
Control Delay (s)	12.3	9.4	0.0	0.0	7.8	0.0
Lane LOS	B	A			A	
Approach Delay (s)	10.9		0.0		0.7	
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			28.4%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

55: Arrow Hwy & E St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	13	461	205	127	993	48	188	194	36	30	149	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4851	0	1770	5050	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4851	0	1770	5050	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		182			12				39			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	724	0	138	1131	0	204	211	39	33	162	43
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	22.0	22.0	9.0	20.0	20.0
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
Act Effect Green (s)	4.2	12.2		5.3	20.3		7.4	15.1	15.1	5.3	9.7	9.7
Actuated g/C Ratio	0.09	0.25		0.11	0.42		0.15	0.31	0.31	0.11	0.20	0.20
v/c Ratio	0.09	0.53		0.72	0.53		0.76	0.36	0.07	0.17	0.43	0.12
Control Delay	25.8	13.6		51.2	13.2		46.6	16.8	6.8	25.7	22.4	7.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	13.6		51.2	13.2		46.6	16.8	6.8	25.7	22.4	7.6
LOS	C	B		D	B		D	B	A	C	C	A
Approach Delay		13.8			17.3			29.3			20.2	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	4	49		41	83		60	39	0	9	43	0
Queue Length 95th (ft)	19	86		#139	172		#183	111	18	33	92	20
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	154	1810		193	2160		270	759	668	193	649	580
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.40		0.72	0.52		0.76	0.28	0.06	0.17	0.25	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 18.6

Intersection LOS: B

Intersection Capacity Utilization 55.2%

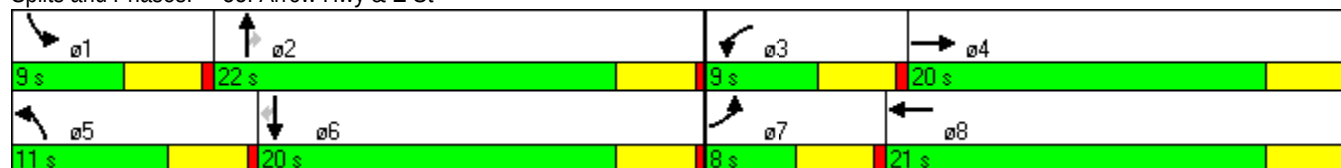
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1	19	3	4	17	52	467	3	2	619	29
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	21	3	4	18	57	508	3	2	673	32
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											296	
pX, platoon unblocked	0.80	0.80	0.80	0.80	0.80		0.80					
vC, conflicting volume	1318	1301	673	1319	1329	508	704			511		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1272	1250	462	1273	1286	508	501			511		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	96	97	96	97	93			100		
cM capacity (veh/h)	103	128	478	104	122	565	847			1054		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	1	21	8	18	564	3	675	32				
Volume Left	0	0	3	0	57	0	2	0				
Volume Right	0	21	0	18	0	3	0	32				
cSH	128	478	113	565	847	1700	1054	1700				
Volume to Capacity	0.01	0.04	0.07	0.03	0.07	0.00	0.00	0.02				
Queue Length 95th (ft)	1	3	5	3	5	0	0	0				
Control Delay (s)	33.3	12.9	39.0	11.6	1.8	0.0	0.1	0.0				
Lane LOS	D	B	E	B	A		A					
Approach Delay (s)	13.9		19.6		1.8		0.1					
Approach LOS	B		C									
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			73.5%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	13	6	0	16	24	480	2	10	623	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	14	7	0	17	26	522	2	11	677	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											756	
pX, platoon unblocked	0.87	0.87	0.87	0.87	0.87		0.87					
vC, conflicting volume	1290	1275	677	1288	1286	522	690			524		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1259	1241	553	1256	1254	522	568			524		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	97	95	100	97	97			99		
cM capacity (veh/h)	120	146	463	120	143	555	873			1043		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	3	14	7	17	548	2	688	13				
Volume Left	2	0	7	0	26	0	11	0				
Volume Right	0	14	0	17	0	2	0	13				
cSH	128	463	120	555	873	1700	1043	1700				
Volume to Capacity	0.03	0.03	0.05	0.03	0.03	0.00	0.01	0.01				
Queue Length 95th (ft)	2	2	4	2	2	0	1	0				
Control Delay (s)	33.9	13.0	36.6	11.7	0.8	0.0	0.3	0.0				
Lane LOS	D	B	E	B	A		A					
Approach Delay (s)	16.9		18.5		0.8		0.3					
Approach LOS	C		C									
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			56.5%		ICU Level of Service			B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

58: First St & White Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	2	9	11	3	33	30	486	23	34	600	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	10	12	3	36	33	528	25	37	652	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												1008
Upstream signal (ft)												
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1357	1345	652	1330	1329	528	662			553		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1351	1338	617	1323	1322	528	627			553		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	98	90	98	93	96			96		
cM capacity (veh/h)	106	136	470	117	139	550	917			1017		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	2	10	15	36	33	528	25	689	10			
Volume Left	0	0	12	0	33	0	0	37	0			
Volume Right	0	10	0	36	0	0	25	0	10			
cSH	136	470	121	550	917	1700	1700	1017	1700			
Volume to Capacity	0.02	0.02	0.13	0.07	0.04	0.31	0.01	0.04	0.01			
Queue Length 95th (ft)	1	2	10	5	3	0	0	3	0			
Control Delay (s)	31.8	12.8	38.9	12.0	9.1	0.0	0.0	0.9	0.0			
Lane LOS	D	B	E	B	A			A				
Approach Delay (s)	16.3		20.0		0.5			0.9				
Approach LOS	C		C									
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			73.5%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

Existing Year (2010)
AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	4	22	491	8	22	595	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	4	24	534	9	24	647	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.95	0.95			0.95		
vC, conflicting volume	905	267			542		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	803	134			423		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	99	97			98		
cM capacity (veh/h)	299	849			1080		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	28	267	267	9	24	323	323
Volume Left	4	0	0	0	24	0	0
Volume Right	24	0	0	9	0	0	0
cSH	662	1700	1700	1700	1080	1700	1700
Volume to Capacity	0.04	0.16	0.16	0.01	0.02	0.19	0.19
Queue Length 95th (ft)	3	0	0	0	2	0	0
Control Delay (s)	10.7	0.0	0.0	0.0	8.4	0.0	0.0
Lane LOS	B				A		
Approach Delay (s)	10.7	0.0			0.3		
Approach LOS	B						
Intersection Summary							
Average Delay			0.4				
Intersection Capacity Utilization			28.3%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

Existing Year (2010)
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	216	294	75	93	386	118	46	363	153	79	837	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4958	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4958	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			128			166			66
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	235	320	82	101	420	128	50	561	0	86	1088	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	12.0	20.0	20.0	12.0	20.0	20.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	8.2	17.9	17.9	7.3	12.1	12.1	4.1	13.8		4.1	15.6	
Actuated g/C Ratio	0.16	0.34	0.34	0.14	0.23	0.23	0.08	0.26		0.08	0.30	
v/c Ratio	0.85	0.26	0.14	0.41	0.52	0.28	0.36	0.40		0.62	0.72	
Control Delay	56.4	16.5	5.7	28.4	20.6	5.9	34.0	12.7		50.5	19.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	56.4	16.5	5.7	28.4	20.6	5.9	34.0	12.7		50.5	19.9	
LOS	E	B	A	C	C	A	C	B		D	B	
Approach Delay		29.8			18.9			14.4			22.2	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	80	48	0	32	66	0	17	38		29	114	
Queue Length 95th (ft)	#209	79	27	74	103	33	#52	67		#97	170	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	277	1261	617	277	1106	583	138	1634		138	1599	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.85	0.25	0.13	0.36	0.38	0.22	0.36	0.34		0.62	0.68	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 21.5

Intersection LOS: C

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Gold Line Foothill Extension - Azusa to Montclair
 60: White Ave & Arrow Hwy

Existing Year (2010)
 AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
12 s	20 s	8 s	20 s
 ø5	 ø6	 ø7	 ø8
12 s	20 s	8 s	20 s

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

61: Bonita Ave & D St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	243	30	30	397	75	32	84	16	93	133	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1811	0	1770	1863	1583
Flt Permitted	0.481			0.596				0.884		0.666		
Satd. Flow (perm)	896	1863	1583	1110	1863	1583	0	1620	0	1241	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			33			71			12			141
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	264	33	33	432	82	0	143	0	101	145	141
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	25.0	25.0	0.0	25.0	25.0	25.0
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
Act Effect Green (s)	13.5	13.5	13.5	13.9	13.9	13.9		9.7		9.7	9.7	9.7
Actuated g/C Ratio	0.48	0.48	0.48	0.49	0.49	0.49		0.34		0.34	0.34	0.34
v/c Ratio	0.19	0.30	0.04	0.06	0.47	0.10		0.25		0.24	0.23	0.22
Control Delay	6.9	6.6	2.7	5.6	8.1	2.6		10.6		11.6	10.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	6.9	6.6	2.7	5.6	8.1	2.6		10.6		11.6	10.8	3.8
LOS	A	A	A	A	A	A		B		B	B	A
Approach Delay		6.3			7.1			10.6			8.5	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	6	21	0	2	38	1		14		11	16	0
Queue Length 95th (ft)	27	67	9	13	116	15		57		47	59	27
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	825	1715	1460	1022	1715	1463		1202		918	1378	1208
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.10	0.15	0.02	0.03	0.25	0.06		0.12		0.11	0.11	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 28.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.6

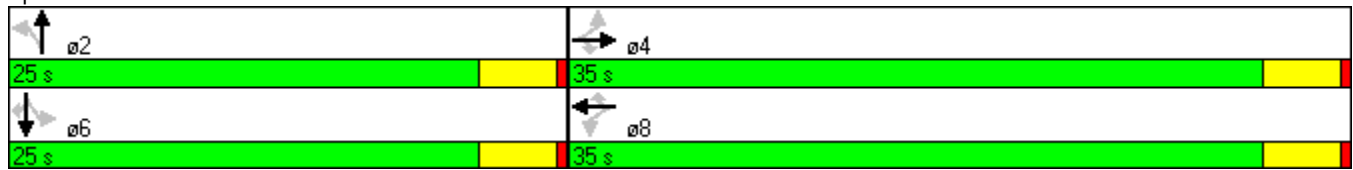
Intersection LOS: A

Intersection Capacity Utilization 52.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

62: Foothill Blvd & Fruit St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	127	291	62	70	545	181	107	296	21	187	475	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67				197		12				216
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	383	0	76	592	197	116	345	0	203	516	216
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	20.0	9.0	20.0	0.0	11.0	22.0	22.0
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
Act Effect Green (s)	5.1	18.3		5.1	14.2	14.2	5.1	12.3		7.1	16.5	16.5
Actuated g/C Ratio	0.09	0.33		0.09	0.26	0.26	0.09	0.22		0.13	0.30	0.30
v/c Ratio	0.85	0.23		0.47	0.64	0.35	0.37	0.44		0.89	0.48	0.34
Control Delay	72.0	12.9		36.7	22.2	5.3	28.9	19.5		67.6	18.7	4.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	72.0	12.9		36.7	22.2	5.3	28.9	19.5		67.6	18.7	4.7
LOS	E	B		D	C	A	C	B		E	B	A
Approach Delay		28.6			19.6			21.9			26.0	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	48	30		25	91	0	19	51		70	79	0
Queue Length 95th (ft)	#144	54		#73	146	41	42	83		#190	120	41
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	163	1699		163	1045	606	317	1043		229	1180	672
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.85	0.23		0.47	0.57	0.33	0.37	0.33		0.89	0.44	0.32

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 23.8

Intersection LOS: C

Intersection Capacity Utilization 54.6%

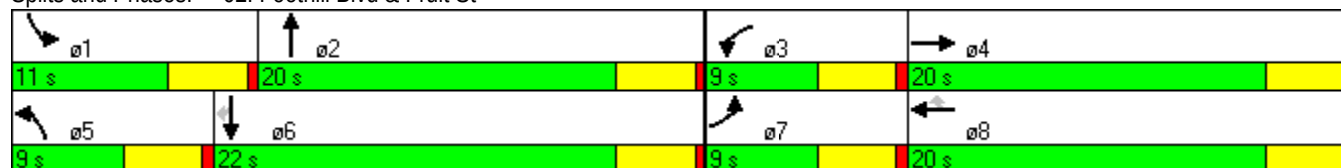
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	220	62	89	403	75	70	331	49	66	449	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.371			0.610			0.352			0.485		
Satd. Flow (perm)	691	1863	1583	1136	1863	1583	656	1863	1583	903	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			67			82			53			96
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	239	67	97	438	82	76	360	53	72	488	96
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	32.0	32.0	32.0	32.0	32.0	32.0
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
Act Effect Green (s)	16.0	16.0	16.0	16.0	16.0	16.0	17.9	17.9	17.9	17.9	17.9	17.9
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37	0.42	0.42	0.42	0.42	0.42	0.42
v/c Ratio	0.14	0.34	0.11	0.23	0.63	0.13	0.28	0.46	0.08	0.19	0.63	0.13
Control Delay	12.0	12.2	4.0	12.1	16.5	3.8	12.3	11.7	3.5	10.2	14.4	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	12.2	4.0	12.1	16.5	3.8	12.3	11.7	3.5	10.2	14.4	3.0
LOS	B	B	A	B	B	A	B	B	A	B	B	A
Approach Delay		10.6			14.1			10.9			12.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	5	37	0	15	78	0	11	55	0	10	82	0
Queue Length 95th (ft)	24	103	19	50	201	21	41	138	15	36	199	20
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	428	1154	1006	704	1154	1011	462	1311	1130	636	1311	1143
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.21	0.07	0.14	0.38	0.08	0.16	0.27	0.05	0.11	0.37	0.08

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 12.2

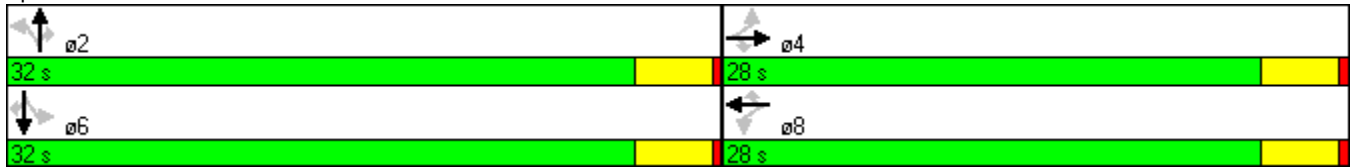
Intersection LOS: B

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

64: McKinley Ave & White Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	66	52	59	140	55	76	372	88	6	451	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1764	1583	0	1835	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.603	0.973			0.876		0.950			0.950		
Satd. Flow (perm)	1067	1722	1583	0	1632	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57			60			96			126
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	43	77	57	0	216	60	83	404	96	7	490	126
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	13.0	29.0	29.0	8.0	24.0	24.0
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
Act Effect Green (s)	12.3	12.3	12.3		12.9	12.9	9.3	21.6	21.6	5.7	17.0	17.0
Actuated g/C Ratio	0.33	0.33	0.33		0.35	0.35	0.25	0.58	0.58	0.15	0.46	0.46
v/c Ratio	0.12	0.13	0.10		0.38	0.10	0.19	0.20	0.10	0.03	0.30	0.16
Control Delay	14.8	14.1	5.6		16.2	5.5	19.7	7.1	2.8	23.7	12.3	4.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	14.1	5.6		16.2	5.5	19.7	7.1	2.8	23.7	12.3	4.0
LOS	B	B	A		B	A	B	A	A	C	B	A
Approach Delay		11.5			13.9			8.2			10.8	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	8	14	0		44	0	17	21	0	2	50	0
Queue Length 95th (ft)	32	48	21		114	21	62	74	22	13	106	29
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	624	1008	950		955	951	615	2532	1160	273	2143	1008
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.08	0.06		0.23	0.06	0.13	0.16	0.08	0.03	0.23	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 10.5

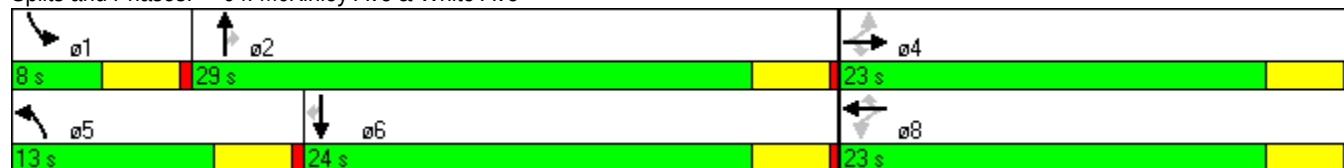
Intersection LOS: B

Intersection Capacity Utilization 44.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
65: Arrow Hwy & La Verne Ave

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (veh/h)	3	303	0	1	497	6	215	0	4	4	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	329	0	1	540	7	234	0	4	4	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	547			329			609	885	110	659	878	270
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	547			329			609	885	110	659	878	270
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			38	100	100	99	100	100
cM capacity (veh/h)	1019			1227			377	281	923	346	284	728
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	3	110	110	110	1	270	270	7	238	5		
Volume Left	3	0	0	0	1	0	0	0	234	4		
Volume Right	0	0	0	0	0	0	0	7	4	0		
cSH	1019	1700	1700	1700	1227	1700	1700	1700	383	332		
Volume to Capacity	0.00	0.06	0.06	0.06	0.00	0.16	0.16	0.00	0.62	0.02		
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	101	1		
Control Delay (s)	8.5	0.0	0.0	0.0	7.9	0.0	0.0	0.0	28.6	16.0		
Lane LOS	A				A				D	C		
Approach Delay (s)	0.1				0.0				28.6	16.0		
Approach LOS									D	C		
Intersection Summary												
Average Delay			6.2									
Intersection Capacity Utilization			34.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	291	35	11	311	7	40	3	27	13	10	69
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	316	38	12	338	8	43	3	29	14	11	75
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	346			354			802	729	335	737	744	342
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	346			354			802	729	335	737	744	342
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			83	99	96	95	97	89
cM capacity (veh/h)	1213			1204			259	343	707	313	336	701
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	12	354	12	346	47	29	25	75				
Volume Left	12	0	12	0	43	0	14	0				
Volume Right	0	38	0	8	0	29	0	75				
cSH	1213	1700	1204	1700	264	707	323	701				
Volume to Capacity	0.01	0.21	0.01	0.20	0.18	0.04	0.08	0.11				
Queue Length 95th (ft)	1	0	1	0	16	3	6	9				
Control Delay (s)	8.0	0.0	8.0	0.0	21.6	10.3	17.1	10.8				
Lane LOS	A		A		C	B	C	B				
Approach Delay (s)	0.3		0.3		17.2		12.3					
Approach LOS					C		B					
Intersection Summary												
Average Delay			3.0									
Intersection Capacity Utilization			34.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

Existing Year (2010)
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	20	284	0	8	528	26	16	20	7	15	11	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	22	309	0	9	574	28	17	22	8	16	12	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	602			309			683	972	103	756	943	287
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	602			309			683	972	103	756	943	287
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			94	91	99	94	95	97
cM capacity (veh/h)	971			1249			307	244	932	268	253	710
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	22	123	123	62	9	287	287	28	17	29	28	21
Volume Left	22	0	0	0	9	0	0	0	17	0	16	0
Volume Right	0	0	0	0	0	0	0	28	0	8	0	21
cSH	971	1700	1700	1700	1249	1700	1700	1700	307	302	262	710
Volume to Capacity	0.02	0.07	0.07	0.04	0.01	0.17	0.17	0.02	0.06	0.10	0.11	0.03
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	4	8	9	2
Control Delay (s)	8.8	0.0	0.0	0.0	7.9	0.0	0.0	0.0	17.4	18.2	20.4	10.2
Lane LOS	A				A				C	C	C	B
Approach Delay (s)	0.6				0.1				17.9		16.1	
Approach LOS									C		C	
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			31.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	187	105	94	230	34	107	400	118	49	662	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.464			0.574			0.950			0.950		
Satd. Flow (perm)	864	1863	1583	1069	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			114			37			128			120
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	203	114	102	250	37	116	435	128	53	720	120
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	13.0	29.0	29.0	10.0	26.0	26.0
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
Act Effect Green (s)	13.7	13.7	13.7	14.0	14.0	14.0	9.9	27.1	27.1	8.2	21.6	21.6
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.22	0.61	0.61	0.18	0.48	0.48
v/c Ratio	0.19	0.36	0.20	0.31	0.43	0.07	0.30	0.20	0.13	0.16	0.42	0.15
Control Delay	18.5	18.6	5.2	19.9	19.5	6.9	23.8	8.4	3.0	24.9	13.7	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	18.6	5.2	19.9	19.5	6.9	23.8	8.4	3.0	24.9	13.7	3.7
LOS	B	B	A	B	B	A	C	A	A	C	B	A
Approach Delay		14.5			18.4			10.0			13.0	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	12	51	0	25	65	0	31	25	0	15	88	0
Queue Length 95th (ft)	38	110	31	66	133	18	82	81	25	47	153	27
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	399	860	792	493	860	751	509	2152	1013	339	1906	908
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.24	0.14	0.21	0.29	0.05	0.23	0.20	0.13	0.16	0.38	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 13.2

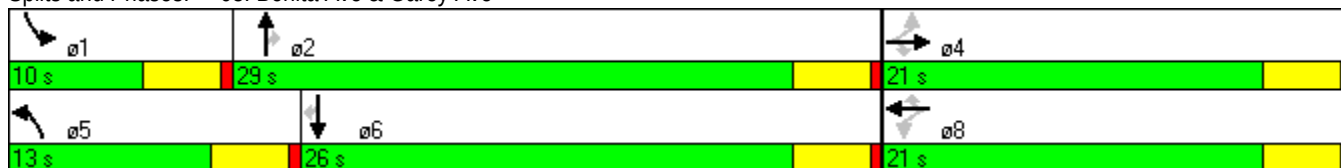
Intersection LOS: B

Intersection Capacity Utilization 53.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

Existing Year (2010)
AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	15	21	633	832	25
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	23	688	904	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked						
vC, conflicting volume	1308	466	932			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1308	466	932			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	97			
cM capacity (veh/h)	146	543	730			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	16	23	344	344	603	329
Volume Left	0	23	0	0	0	0
Volume Right	16	0	0	0	0	27
cSH	543	730	1700	1700	1700	1700
Volume to Capacity	0.03	0.03	0.20	0.20	0.35	0.19
Queue Length 95th (ft)	2	2	0	0	0	0
Control Delay (s)	11.8	10.1	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	11.8	0.3			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			33.8%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
70: Arrow Hwy & Garey Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	95	516	94	119	627	119	108	508	114	102	650	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4968	0	1770	4963	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4968	0	1770	4963	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			63				107			41
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	663	0	129	811	0	117	552	124	111	707	60
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	21.0	21.0	9.0	21.0	21.0
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
Act Effect Green (s)	6.6	14.6		6.7	14.6		5.6	15.3	15.3	5.6	15.3	15.3
Actuated g/C Ratio	0.13	0.28		0.13	0.28		0.11	0.29	0.29	0.11	0.29	0.29
v/c Ratio	0.46	0.46		0.57	0.57		0.62	0.53	0.23	0.58	0.68	0.12
Control Delay	34.6	17.0		39.7	18.2		46.1	19.4	6.6	43.9	22.0	8.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	17.0		39.7	18.2		46.1	19.4	6.6	43.9	22.0	8.9
LOS	C	B		D	B		D	B	A	D	C	A
Approach Delay		19.3			21.1			21.4			23.9	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	36	66		46	85		43	88	4	40	119	5
Queue Length 95th (ft)	#94	97		#123	120		#122	132	37	#115	173	28
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	227	1741		227	1742		190	1289	644	190	1289	602
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.38		0.57	0.47		0.62	0.43	0.19	0.58	0.55	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 21.5

Intersection LOS: C

Intersection Capacity Utilization 57.3%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave

 ø1	 ø2	 ø3	 ø4
9 s	21 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	21 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

71: Bonita Ave & Towne Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	103	68	109	169	64	143	743	82	90	844	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3394	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.595			0.635			0.287			0.333		
Satd. Flow (perm)	1108	3327	0	1183	3394	0	535	3539	1583	620	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74			70				89			141
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	186	0	118	254	0	155	808	89	98	917	151
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	10.7	10.7		10.8	10.8		24.9	24.9	24.9	24.9	24.9	24.9
Actuated g/C Ratio	0.28	0.28		0.28	0.28		0.64	0.64	0.64	0.64	0.64	0.64
v/c Ratio	0.16	0.19		0.36	0.26		0.45	0.35	0.08	0.25	0.40	0.14
Control Delay	16.5	10.0		19.1	11.3		11.7	5.6	1.7	7.3	5.9	1.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.5	10.0		19.1	11.3		11.7	5.6	1.7	7.3	5.9	1.7
LOS	B	A		B	B		B	A	A	A	A	A
Approach Delay		11.3			13.7			6.2			5.5	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	8	9		20	15		17	42	0	9	50	1
Queue Length 95th (ft)	36	37		75	52		75	98	13	38	115	19
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	562	1726		601	1758		457	3026	1366	530	3026	1374
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.11		0.20	0.14		0.34	0.27	0.07	0.18	0.30	0.11

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 55.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

Existing Year (2010)
AM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	3	10	1013	30	35	1033		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	3	11	1101	33	38	1123		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None			None				
Median storage veh								
Upstream signal (ft)	932							
pX, platoon unblocked	0.85	0.85			0.85			
vC, conflicting volume	1739	551			1134			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1519	123			808			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	96	99			95			
cM capacity (veh/h)	88	770			692			
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	3	11	551	551	33	38	561	561
Volume Left	3	0	0	0	0	38	0	0
Volume Right	0	11	0	0	33	0	0	0
cSH	88	770	1700	1700	1700	692	1700	1700
Volume to Capacity	0.04	0.01	0.32	0.32	0.02	0.05	0.33	0.33
Queue Length 95th (ft)	3	1	0	0	0	4	0	0
Control Delay (s)	47.4	9.7	0.0	0.0	0.0	10.5	0.0	0.0
Lane LOS	E	A				B		
Approach Delay (s)	18.4		0.0			0.3		
Approach LOS	C							
Intersection Summary								
Average Delay	0.3							
Intersection Capacity Utilization	39.1%		ICU Level of Service		A			
Analysis Period (min)	15							

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

73: Arrow Hwy & Towne Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	304	60	99	655	194	146	648	87	196	851	244
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	4912	0	1770	3476	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	4912	0	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			74			17				169
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	395	0	108	923	0	159	799	0	213	925	265
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	17.0	23.0	0.0	16.0	22.0	0.0	15.0	32.0	0.0	19.0	36.0	36.0
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
Act Effect Green (s)	12.0	22.4		9.9	17.8		10.4	25.9		13.6	29.1	29.1
Actuated g/C Ratio	0.14	0.26		0.12	0.21		0.12	0.30		0.16	0.34	0.34
v/c Ratio	0.73	0.30		0.53	0.85		0.74	0.75		0.76	0.77	0.41
Control Delay	55.0	25.6		46.3	39.8		58.9	31.7		53.5	30.3	10.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	55.0	25.6		46.3	39.8		58.9	31.7		53.5	30.3	10.3
LOS	E	C		D	D		E	C		D	C	B
Approach Delay		34.9			40.5			36.2			30.0	
Approach LOS		C			D			D			C	
Queue Length 50th (ft)	101	61		58	173		89	207		116	238	37
Queue Length 95th (ft)	#196	92		109	#247		#183	275		#217	310	97
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	272	1331		251	1101		229	1159		313	1335	703
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.67	0.30		0.43	0.84		0.69	0.69		0.68	0.69	0.38

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 85.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 34.9

Intersection LOS: C

Intersection Capacity Utilization 71.2%

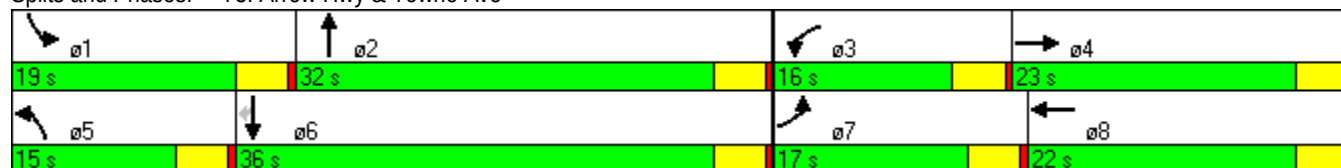
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

74: Harrison Ave & Garey Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	13	54	128	16	49	29	391	74	48	775	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1805	1583	0	1783	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.766			0.721		0.314			0.504		
Satd. Flow (perm)	0	1427	1583	0	1343	1583	585	3539	1583	939	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			53			80			14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	39	59	0	156	53	32	425	80	52	842	17
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	35.0	35.0	35.0	35.0	35.0	35.0
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
Act Effect Green (s)		10.5	10.5		10.6	10.6	19.2	19.2	19.2	19.2	19.2	19.2
Actuated g/C Ratio		0.32	0.32		0.33	0.33	0.59	0.59	0.59	0.59	0.59	0.59
v/c Ratio		0.08	0.11		0.35	0.10	0.09	0.20	0.08	0.09	0.40	0.02
Control Delay		11.6	4.9		14.4	5.0	6.4	5.5	2.1	6.0	6.5	3.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		11.6	4.9		14.4	5.0	6.4	5.5	2.1	6.0	6.5	3.5
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		7.5			12.0			5.0			6.4	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		5	0		22	0	3	20	0	4	45	0
Queue Length 95th (ft)		25	19		76	18	15	50	14	20	105	7
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		953	1076		897	1075	508	3075	1386	816	3075	1377
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.04	0.05		0.17	0.05	0.06	0.14	0.06	0.06	0.27	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 6.7

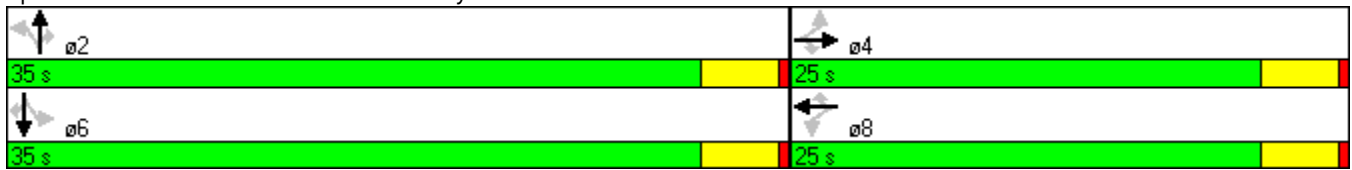
Intersection LOS: A

Intersection Capacity Utilization 49.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

75: Bonita Ave & Indian Hill Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	95	127	14	68	25	96	408	23	37	445	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.714			0.714			0.441			0.485		
Satd. Flow (perm)	1330	1863	1583	1330	1863	1583	821	1863	1583	903	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			138			27			23			37
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	103	138	15	74	27	104	443	25	40	484	37
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	38.0	38.0	38.0	38.0	38.0	38.0
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
Act Effect Green (s)	8.6	8.6	8.6	8.6	8.6	8.6	14.1	14.1	14.1	14.2	14.2	14.2
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.52	0.52	0.52	0.52	0.52	0.52
v/c Ratio	0.15	0.18	0.23	0.04	0.13	0.05	0.25	0.46	0.03	0.09	0.50	0.04
Control Delay	11.5	11.3	4.3	10.8	10.9	6.0	6.6	7.0	2.5	4.9	7.4	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	11.3	4.3	10.8	10.9	6.0	6.6	7.0	2.5	4.9	7.4	2.1
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		8.1			9.8			6.7			6.9	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	7	11	0	2	8	0	7	36	0	3	41	0
Queue Length 95th (ft)	32	46	28	12	36	12	30	99	6	13	110	8
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	895	1254	1111	895	1254	1074	790	1792	1524	869	1792	1524
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.08	0.12	0.02	0.06	0.03	0.13	0.25	0.02	0.05	0.27	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 27.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 48.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

76: First St & Indian Hill Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	11	46	75	16	42	36	458	119	37	513	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1855	0
Flt Permitted	0.930			0.930			0.950			0.950		
Satd. Flow (perm)	1732	1863	1583	1732	1863	1583	1770	1863	1583	1770	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50			46			129			3
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	12	50	82	17	46	39	498	129	40	574	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0	31.0	31.0	9.0	32.0	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
Act Effect Green (s)	10.0	10.0	10.0	10.4	10.4	10.4	6.0	20.1	20.1	7.5	20.6	
Actuated g/C Ratio	0.31	0.31	0.31	0.32	0.32	0.32	0.19	0.62	0.62	0.23	0.64	
v/c Ratio	0.00	0.02	0.10	0.15	0.03	0.09	0.12	0.43	0.12	0.10	0.49	
Control Delay	16.5	16.0	7.2	15.7	15.9	7.3	21.8	8.6	2.4	20.5	8.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	16.5	16.0	7.2	15.7	15.9	7.3	21.8	8.6	2.4	20.5	8.8	
LOS	B	B	A	B	B	A	C	A	A	C	A	
Approach Delay		9.1			13.1			8.2			9.6	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	0	1	0	10	2	0	6	45	0	6	55	
Queue Length 95th (ft)	5	14	22	53	18	21	37	184	21	37	214	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	1077	1159	1004	1077	1159	1002	328	1462	1270	410	1482	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.00	0.01	0.05	0.08	0.01	0.05	0.12	0.34	0.10	0.10	0.39	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.3

Intersection LOS: A

Intersection Capacity Utilization 48.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

77: Santa Fe St & Indian Hill Blvd

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	14	0	0	9	38	618	6	0	604	34
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	15	0	0	10	41	672	7	0	657	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								1144			504	
pX, platoon unblocked												
vC, conflicting volume	1103	1436	347	1098	1448	336	693			678		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1103	1436	347	1098	1448	336	693			678		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	100	100	99	95			100		
cM capacity (veh/h)	158	126	649	158	124	660	898			910		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	15	10	41	336	336	7	328	365				
Volume Left	0	0	41	0	0	0	0	0				
Volume Right	15	10	0	0	0	7	0	37				
cSH	649	660	898	1700	1700	1700	910	1700				
Volume to Capacity	0.02	0.01	0.05	0.20	0.20	0.00	0.00	0.21				
Queue Length 95th (ft)	2	1	4	0	0	0	0	0				
Control Delay (s)	10.7	10.5	9.2	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	B	A									
Approach Delay (s)	10.7	10.5	0.5	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.4									
Intersection Capacity Utilization			41.6%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

78: Arrow Hwy & Indian Hill Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	285	115	78	375	41	147	559	97	56	490	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			45			105			49
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	310	125	85	408	45	160	608	105	61	533	49
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	11.0	22.0	22.0	10.0	21.0	21.0
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
Act Effect Green (s)	4.2	10.9	10.9	4.2	14.2	14.2	7.3	19.5	19.5	6.1	13.4	13.4
Actuated g/C Ratio	0.08	0.22	0.22	0.08	0.28	0.28	0.15	0.39	0.39	0.12	0.27	0.27
v/c Ratio	0.31	0.40	0.28	0.58	0.41	0.09	0.62	0.44	0.15	0.28	0.56	0.11
Control Delay	31.2	19.4	6.1	46.0	17.2	7.0	38.0	15.4	4.7	27.4	19.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	19.4	6.1	46.0	17.2	7.0	38.0	15.4	4.7	27.4	19.1	6.4
LOS	C	B	A	D	B	A	D	B	A	C	B	A
Approach Delay		17.0			20.9			18.3			18.9	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	13	44	0	26	46	0	47	80	0	17	70	0
Queue Length 95th (ft)	44	77	33	#96	100	20	#145	142	29	53	127	20
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	147	1175	609	147	1206	569	257	1408	693	220	1249	590
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.26	0.21	0.58	0.34	0.08	0.62	0.43	0.15	0.28	0.43	0.08

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 18.8

Intersection LOS: B

Intersection Capacity Utilization 48.7%

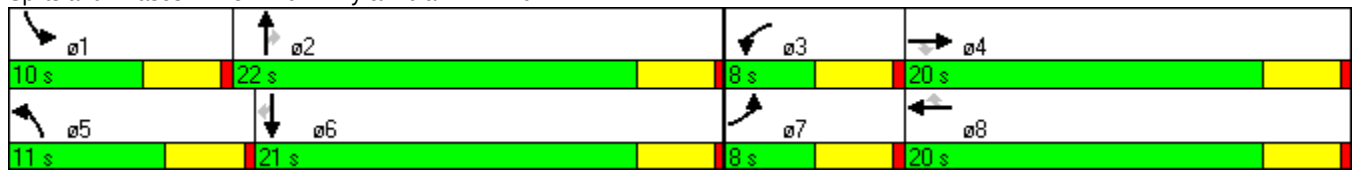
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

79: Bonita Ave & College Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	29	16	31	5	6	14	43	196	29	15	130	31
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	32	17	34	5	7	15	47	213	32	16	141	34
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	83	27	260	32	191							
Volume Left (vph)	32	5	47	0	16							
Volume Right (vph)	34	15	0	32	34							
Hadj (s)	-0.13	-0.26	0.12	-0.67	-0.05							
Departure Headway (s)	4.9	4.9	5.1	4.3	4.6							
Degree Utilization, x	0.11	0.04	0.37	0.04	0.24							
Capacity (veh/h)	661	654	692	814	756							
Control Delay (s)	8.6	8.1	9.8	6.2	9.0							
Approach Delay (s)	8.6	8.1	9.4		9.0							
Approach LOS	A	A	A		A							
Intersection Summary												
Delay			9.1									
HCM Level of Service			A									
Intersection Capacity Utilization			36.5%			ICU Level of Service			A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	19	49	29	50	82	67	17	211	23	26	121	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	53	32	54	89	73	18	229	25	28	132	15
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	47	58	143	73	248	25	160	15				
Volume Left (vph)	21	0	54	0	18	0	28	0				
Volume Right (vph)	0	32	0	73	0	25	0	15				
Hadj (s)	0.25	-0.35	0.22	-0.67	0.07	-0.67	0.12	-0.67				
Departure Headway (s)	6.2	5.6	6.1	5.2	5.7	4.9	5.8	5.0				
Degree Utilization, x	0.08	0.09	0.24	0.10	0.39	0.03	0.26	0.02				
Capacity (veh/h)	533	588	559	649	612	691	587	671				
Control Delay (s)	8.6	8.0	9.8	7.6	11.0	6.9	9.6	6.9				
Approach Delay (s)	8.3		9.0		10.7		9.4					
Approach LOS	A		A		B		A					
Intersection Summary												
Delay			9.6									
HCM Level of Service			A									
Intersection Capacity Utilization			43.6%		ICU Level of Service					A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

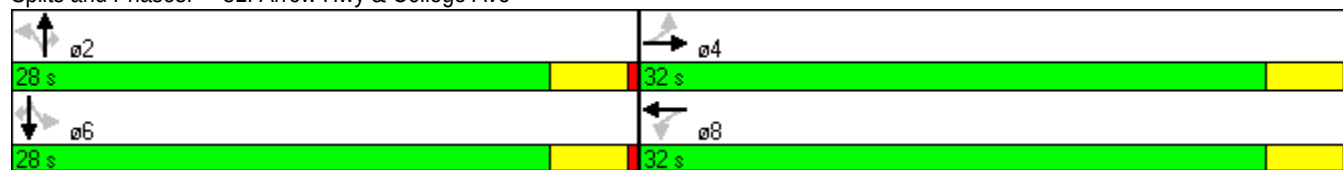
Existing Year (2010)

81: Arrow Hwy & College Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	322	25	27	491	78	24	91	9	44	83	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3500	0	1770	3465	0	0	1844	1583	1770	1863	1583
Flt Permitted	0.417			0.528				0.903				
Satd. Flow (perm)	777	3500	0	984	3465	0	0	1682	1583	1863	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			40				10			74
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	377	0	29	619	0	0	125	10	48	90	74
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	32.0	32.0	0.0	32.0	32.0	0.0	28.0	28.0	28.0	28.0	28.0	28.0
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
Act Effect Green (s)	15.1	15.1		15.1	15.1			8.6	8.6	8.4	8.4	8.4
Actuated g/C Ratio	0.67	0.67		0.67	0.67			0.38	0.38	0.37	0.37	0.37
v/c Ratio	0.14	0.16		0.04	0.27			0.20	0.02	0.07	0.13	0.12
Control Delay	5.8	4.2		5.1	4.4			8.8	5.4	8.2	8.4	3.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	5.8	4.2		5.1	4.4			8.8	5.4	8.2	8.4	3.6
LOS	A	A		A	A			A	A	A	A	A
Approach Delay		4.4			4.5			8.6			6.7	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	5	13		2	24			12	0	5	9	0
Queue Length 95th (ft)	20	32		10	51			41	6	19	31	16
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	744	3350		942	3318			1490	1403	1650	1650	1411
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.10	0.11		0.03	0.19			0.08	0.01	0.03	0.05	0.05
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 22.7												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.27												
Intersection Signal Delay: 5.2	Intersection LOS: A											
Intersection Capacity Utilization 42.4%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1	45	1	3	0	97	202	3	2	253	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted							0.833			0.833		
Satd. Flow (perm)	1863	1863	1583	1863	1863	0	1552	3539	1583	1552	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			49						3			139
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	1	49	1	3	0	105	220	3	2	275	139
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0
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
Act Effect Green (s)	7.1	7.1	7.1	6.9	6.9		9.5	9.5	9.5	9.5	9.5	9.5
Actuated g/C Ratio	0.42	0.42	0.42	0.41	0.41		0.57	0.57	0.57	0.57	0.57	0.57
v/c Ratio	0.06	0.00	0.07	0.00	0.00		0.12	0.11	0.00	0.00	0.14	0.15
Control Delay	5.7	6.0	3.1	6.0	6.0		4.1	3.5	3.7	4.5	3.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.7	6.0	3.1	6.0	6.0		4.1	3.5	3.7	4.5	3.6	1.8
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		4.4			6.0			3.7			3.0	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 95th (ft)	14	1	9	1	2		19	16	2	2	20	11
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1749	1749	1489	1749	1749		1552	3539	1583	1552	3539	1583
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.00	0.03	0.00	0.00		0.07	0.06	0.00	0.00	0.08	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 16.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.15

Intersection Signal Delay: 3.4

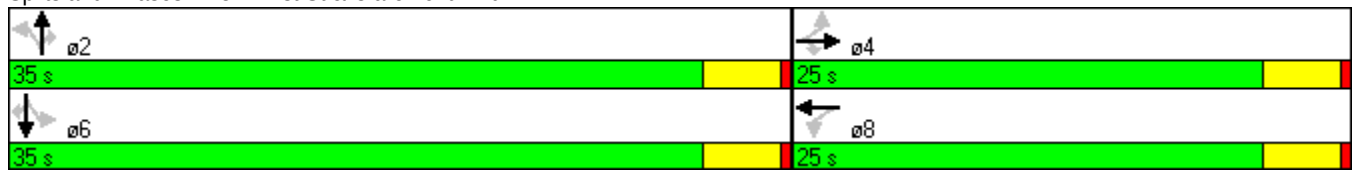
Intersection LOS: A

Intersection Capacity Utilization 31.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

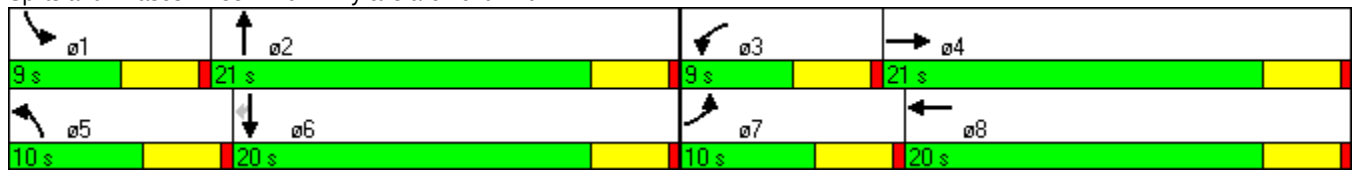
83: Arrow Hwy & Claremont Blvd

Existing Year (2010)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	249	23	29	340	71	64	160	15	29	154	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3493	0	1770	3447	0	1770	3493	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3493	0	1770	3447	0	1770	3493	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			40			16				121
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	296	0	32	447	0	70	190	0	32	167	121
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	10.0	21.0	0.0	9.0	20.0	0.0	10.0	21.0	0.0	9.0	20.0	20.0
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
Act Effect Green (s)	8.9	14.6		7.8	12.9		8.9	13.6		7.8	11.9	11.9
Actuated g/C Ratio	0.23	0.38		0.20	0.33		0.23	0.35		0.20	0.31	0.31
v/c Ratio	0.19	0.22		0.09	0.38		0.17	0.15		0.09	0.29	0.21
Control Delay	23.1	12.1		23.9	14.2		23.0	12.8		23.9	18.0	5.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	23.1	12.1		23.9	14.2		23.0	12.8		23.9	18.0	5.5
LOS	C	B		C	B		C	B		C	B	A
Approach Delay		14.4			14.9			15.5			13.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	21	24		9	53		18	15		9	42	0
Queue Length 95th (ft)	63	68		34	100		57	46		34	95	33
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	569	1966		356	1827		569	1948		356	977	888
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.14	0.15		0.09	0.24		0.12	0.10		0.09	0.17	0.14
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 38.6												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.38												
Intersection Signal Delay: 14.6	Intersection LOS: B											
Intersection Capacity Utilization 40.6%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 83: Arrow Hwy & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

84: Arrow Route & Monte Vista Ave

Existing Year (2010)

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	64	16	46	149	33	58	429	48	19	662	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3437	0	1770	1863	1583	3433	5009	0	1770	5045	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3437	0	1770	1863	1583	3433	5009	0	1770	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17				36		33			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	87	0	50	162	36	63	518	0	21	759	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	9.0	20.0	20.0	8.0	23.0	0.0	8.0	23.0	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
Act Effect Green (s)	7.1	10.7		7.1	10.9	10.9	5.7	20.4		5.7	17.7	
Actuated g/C Ratio	0.19	0.29		0.19	0.29	0.29	0.15	0.55		0.15	0.48	
v/c Ratio	0.11	0.09		0.15	0.30	0.07	0.12	0.19		0.08	0.31	
Control Delay	22.7	13.2		22.7	17.4	7.7	22.5	7.9		23.9	11.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	22.7	13.2		22.7	17.4	7.7	22.5	7.9		23.9	11.1	
LOS	C	B		C	B	A	C	A		C	B	
Approach Delay		16.1			17.1			9.5			11.4	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	7	6		10	29	0	6	14		4	41	
Queue Length 95th (ft)	37	24		45	92	18	26	68		25	103	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	339	1820		339	982	852	526	3126		271	2975	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.05		0.15	0.16	0.04	0.12	0.17		0.08	0.26	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 37												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.31												
Intersection Signal Delay: 11.9	Intersection LOS: B											
Intersection Capacity Utilization 41.4%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

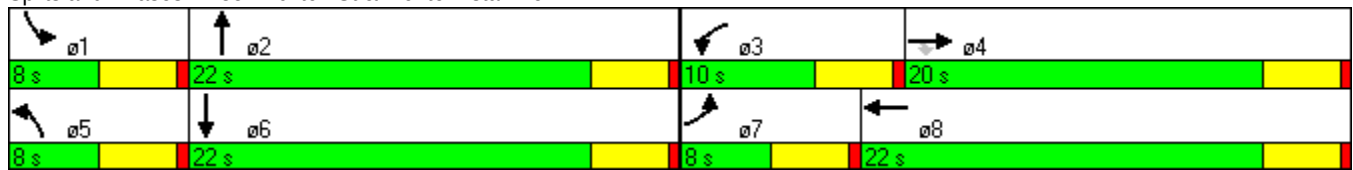
 ø1	 ø2	 ø3	 ø4
8 s	23 s	9 s	20 s
 ø5	 ø6	 ø7	 ø8
8 s	23 s	9 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	66	0	33	0	520	74	32	706	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	1863	1863	1770	3008	0	1863	4989	0	3433	5085	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	1863	1863	1770	3008	0	1863	4989	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					398			44				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	72	36	0	0	645	0	35	767	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	10.0	22.0	0.0	8.0	22.0	0.0	8.0	22.0	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
Act Effect Green (s)				7.1	6.9			15.6		4.9	16.5	
Actuated g/C Ratio				0.35	0.34			0.77		0.24	0.82	
v/c Ratio				0.12	0.03			0.17		0.04	0.18	
Control Delay				9.7	0.0			3.4		11.2	2.2	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				9.7	0.0			3.4		11.2	2.2	
LOS				A	A			A		B	A	
Approach Delay					6.5			3.4			2.6	
Approach LOS					A			A			A	
Queue Length 50th (ft)				1	0			0		0	0	
Queue Length 95th (ft)				35	0			44		11	27	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)				644	2584			4185		833	4386	
Starvation Cap Reductn				0	0			0		0	0	
Spillback Cap Reductn				0	0			0		0	0	
Storage Cap Reductn				0	0			0		0	0	
Reduced v/c Ratio				0.11	0.01			0.15		0.04	0.17	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 20.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.18												
Intersection Signal Delay: 3.2	Intersection LOS: A											
Intersection Capacity Utilization 24.0%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

86: Arrow Hwy & Monte Vista Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	221	60	25	391	63	117	491	36	55	610	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	80		0	250		200
Storage Lanes	2		0	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3426	0	3433	4979	0	1770	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3426	0	3433	4979	0	1770	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		55			49			13				110
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	305	0	27	493	0	127	573	0	60	663	110
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	8.0	20.0	0.0	8.0	20.0	0.0	11.0	22.0	0.0	10.0	21.0	21.0
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
Act Effect Green (s)	4.6	12.2		4.6	10.8		7.5	17.5		6.6	14.4	14.4
Actuated g/C Ratio	0.10	0.26		0.10	0.23		0.16	0.38		0.14	0.31	0.31
v/c Ratio	0.18	0.32		0.08	0.41		0.44	0.43		0.24	0.60	0.19
Control Delay	26.0	14.2		25.6	16.5		29.6	14.1		25.9	18.0	5.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	26.0	14.2		25.6	16.5		29.6	14.1		25.9	18.0	5.0
LOS	C	B		C	B		C	B		C	B	A
Approach Delay		16.2			16.9			16.9			16.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	9	29		4	46		40	75		19	95	0
Queue Length 95th (ft)	26	66		15	72		#106	127		51	156	30
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)	150			200			80			250		200
Base Capacity (vph)	339	1422		339	1993		306	1654		262	1483	727
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.18	0.21		0.08	0.25		0.42	0.35		0.23	0.45	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 16.8

Intersection LOS: B

Intersection Capacity Utilization 49.0%

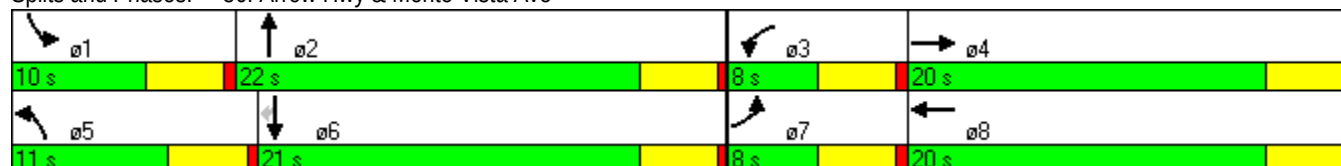
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

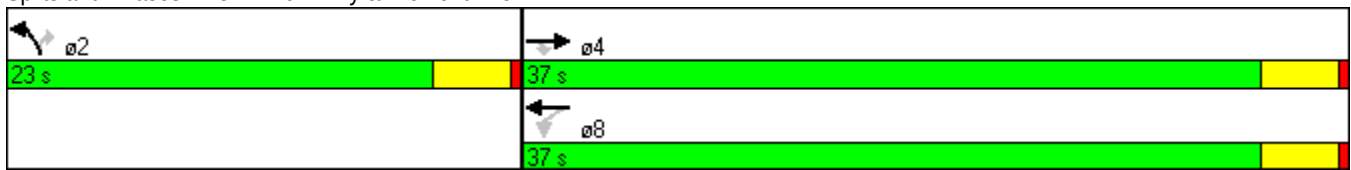


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

Existing Year (2010)
AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (vph)	298	14	12	398	13	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.635		0.950	
Satd. Flow (perm)	3539	1583	1183	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		15				12
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	324	15	13	433	14	12
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	10.9	10.9	12.1	12.1	6.3	6.3
Actuated g/C Ratio	0.80	0.80	0.89	0.89	0.46	0.46
v/c Ratio	0.11	0.01	0.01	0.14	0.02	0.02
Control Delay	1.7	1.7	2.3	1.7	4.9	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.7	1.7	2.3	1.7	4.9	3.6
LOS	A	A	A	A	A	A
Approach Delay	1.7			1.7	4.3	
Approach LOS	A			A	A	
Queue Length 50th (ft)	0	0	0	0	0	0
Queue Length 95th (ft)	19	3	4	25	6	4
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3539	1583	1183	3539	1681	1504
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.01	0.01	0.12	0.01	0.01
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 13.6						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.14						
Intersection Signal Delay: 1.8				Intersection LOS: A		
Intersection Capacity Utilization 21.0%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

Existing Year (2010)
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	91	30	58	205	27	55	343	75	18	371	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4999	0	1770	4948	0	1770	4968	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4999	0	1770	4948	0	1770	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			33		29			82			59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	99	33	63	252	0	60	455	0	20	476	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	9.0	20.0	20.0	10.0	21.0	0.0	10.0	22.0	0.0	8.0	20.0	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
Act Effect Green (s)	7.0	8.7	8.7	8.0	10.9		8.0	15.3		5.6	13.6	
Actuated g/C Ratio	0.22	0.27	0.27	0.25	0.34		0.25	0.48		0.17	0.42	
v/c Ratio	0.11	0.10	0.07	0.14	0.15		0.14	0.19		0.07	0.22	
Control Delay	19.0	15.5	8.5	18.1	11.4		18.1	7.6		20.2	10.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.0	15.5	8.5	18.1	11.4		18.1	7.6		20.2	10.2	
LOS	B	B	A	B	B		B	A		C	B	
Approach Delay		15.0			12.7			8.8			10.6	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	7	8	0	10	6		10	19		3	21	
Queue Length 95th (ft)	34	29	18	45	37		43	48		21	56	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	384	2056	934	461	3035		461	3201		307	2911	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.05	0.04	0.14	0.08		0.13	0.14		0.07	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.22

Intersection Signal Delay: 10.9

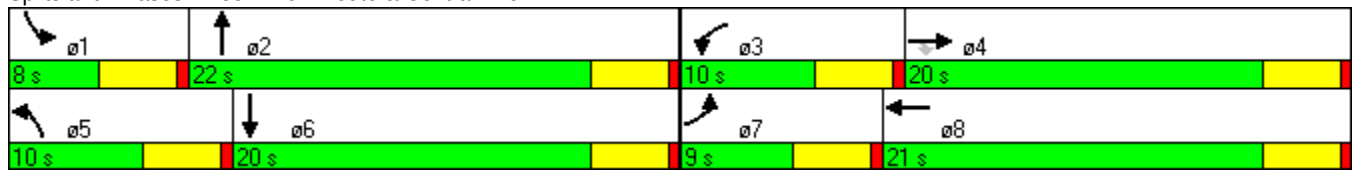
Intersection LOS: B

Intersection Capacity Utilization 33.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

89: Richton St & Central Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	15	16	51	67	20	78	450	39	43	425	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1798	0	1770	3539	1583	1770	5050	0
Flt Permitted							0.410			0.474		
Satd. Flow (perm)	1863	1863	1583	1863	1798	0	764	3539	1583	883	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17		22				42		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	16	17	55	95	0	85	489	42	47	485	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	22.0	22.0	22.0	22.0	22.0	0.0	11.0	28.0	28.0	10.0	27.0	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
Act Effect Green (s)	9.1	9.1	9.1	9.4	9.4		15.8	16.1	16.1	14.5	14.0	
Actuated g/C Ratio	0.33	0.33	0.33	0.34	0.34		0.57	0.58	0.58	0.52	0.50	
v/c Ratio	0.02	0.03	0.03	0.09	0.15		0.11	0.24	0.05	0.07	0.19	
Control Delay	13.1	13.1	7.8	13.0	11.3		3.8	7.0	4.1	3.9	8.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.1	13.1	7.8	13.0	11.3		3.8	7.0	4.1	3.9	8.0	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		11.1			11.9			6.4			7.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	2	3	0	9	12		6	18	0	3	26	
Queue Length 95th (ft)	11	14	11	32	43		18	73	13	12	47	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	1262	1262	1078	1262	1225		825	2725	1228	889	3814	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.01	0.01	0.02	0.04	0.08		0.10	0.18	0.03	0.05	0.13	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 27.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 35.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

90: Arrow Hwy & Central Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	210	68	77	324	20	119	522	61	18	430	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	5040	0	1770	5004	0	1770	5024	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5040	0	1770	5004	0	1770	5024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			74		16			35			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	33	228	74	84	374	0	129	633	0	20	506	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	9.0	20.0	20.0	9.0	20.0	0.0	11.0	23.0	0.0	8.0	20.0	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
Act Effect Green (s)	5.6	9.0	9.0	5.6	10.6		7.4	17.6		4.5	10.8	
Actuated g/C Ratio	0.14	0.22	0.22	0.14	0.26		0.18	0.43		0.11	0.26	
v/c Ratio	0.14	0.29	0.18	0.35	0.29		0.40	0.29		0.10	0.38	
Control Delay	22.9	17.4	6.8	27.0	14.5		25.2	9.0		23.7	14.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.9	17.4	6.8	27.0	14.5		25.2	9.0		23.7	14.7	
LOS	C	B	A	C	B		C	A		C	B	
Approach Delay		15.6			16.8			11.7			15.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	8	28	0	22	23		33	33		5	41	
Queue Length 95th (ft)	32	57	26	#73	57		#98	79		23	71	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	241	1543	732	241	2235		338	2758		193	2204	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.14	0.15	0.10	0.35	0.17		0.38	0.23		0.10	0.23	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 41.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 14.3

Intersection LOS: B

Intersection Capacity Utilization 39.1%

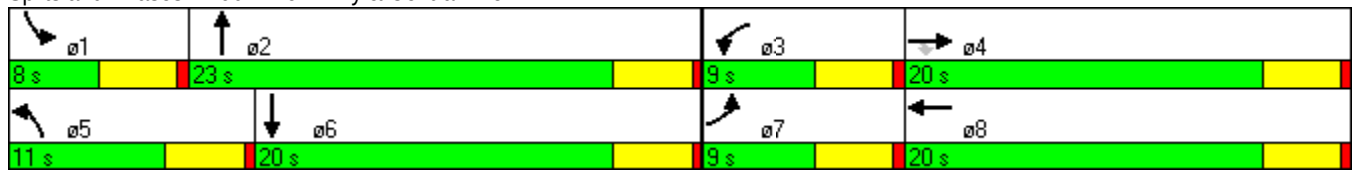
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave



PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	49	19	243	83	27	178	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	53	21	264	90	29	193	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	465	177			354		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	465	177			354		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	90	98			98		
cM capacity (veh/h)	513	835			1201		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	27	27	21	176	178	94	129
Volume Left	27	27	0	0	0	29	0
Volume Right	0	0	21	0	90	0	0
cSH	513	513	835	1700	1700	1201	1700
Volume to Capacity	0.05	0.05	0.02	0.10	0.10	0.02	0.08
Queue Length 95th (ft)	4	4	2	0	0	2	0
Control Delay (s)	12.4	12.4	9.4	0.0	0.0	2.7	0.0
Lane LOS	B	B	A			A	
Approach Delay (s)	11.6			0.0		1.1	
Approach LOS	B						
Intersection Summary							
Average Delay			1.7				
Intersection Capacity Utilization			28.4%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
2: Foothill Blvd & Barranca Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	480	160	123	410	24	102	188	160	16	150	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3405	0	1770	3511	0	1770	3295	0	1770	3398	0
Flt Permitted	0.482			0.372			0.612			0.528		
Satd. Flow (perm)	898	3405	0	693	3511	0	1140	3295	0	984	3398	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		112			15			174			60	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	696	0	134	472	0	111	378	0	17	223	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	25.0	25.0	0.0	25.0	25.0	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
Act Effect Green (s)	14.5	14.5		14.5	14.5		9.9	9.9		9.9	9.9	
Actuated g/C Ratio	0.44	0.44		0.44	0.44		0.30	0.30		0.30	0.30	
v/c Ratio	0.28	0.45		0.44	0.31		0.33	0.34		0.06	0.21	
Control Delay	8.5	6.5		12.4	6.5		13.8	6.6		11.0	8.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.5	6.5		12.4	6.5		13.8	6.6		11.0	8.0	
LOS	A	A		B	A		B	A		B	A	
Approach Delay		6.7			7.8			8.3			8.2	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	10	28		13	21		13	12		2	9	
Queue Length 95th (ft)	41	80		58	60		59	50		15	38	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	798	3038		616	3122		797	2355		688	2393	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.14	0.23		0.22	0.15		0.14	0.16		0.02	0.09	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.5

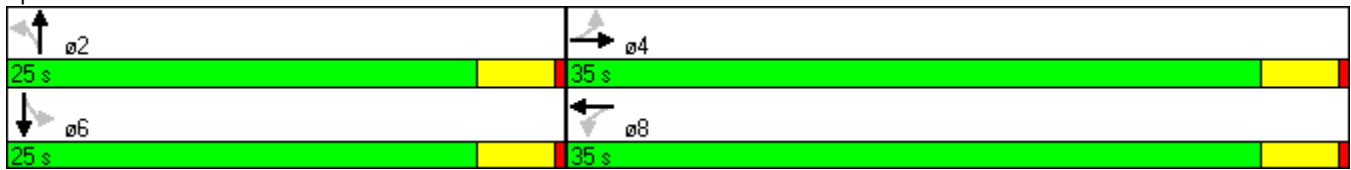
Intersection LOS: A

Intersection Capacity Utilization 52.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	429	86	237	276	73	80	454	248	66	290	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			55				270			54
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	559	0	258	379	0	87	493	270	72	315	54
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	20.0	0.0	12.0	21.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	6.8	13.2		8.3	19.8		4.1	14.2	14.2	4.1	12.5	12.5
Actuated g/C Ratio	0.13	0.25		0.16	0.38		0.08	0.27	0.27	0.08	0.24	0.24
v/c Ratio	0.38	0.62		0.92	0.29		0.62	0.51	0.43	0.51	0.37	0.13
Control Delay	29.2	20.4		68.3	13.5		50.9	19.4	5.3	43.0	18.9	6.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	20.4		68.3	13.5		50.9	19.4	5.3	43.0	18.9	6.7
LOS	C	C		E	B		D	B	A	D	B	A
Approach Delay		21.6			35.7			18.1			21.3	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	29	82		~100	46		30	76	0	25	46	0
Queue Length 95th (ft)	68	130		#233	81		#98	121	47	#80	78	22
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	245	1118		280	1345		140	1129	689	140	1120	538
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.50		0.92	0.28		0.62	0.44	0.39	0.51	0.28	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 23.9

Intersection LOS: C

Intersection Capacity Utilization 57.3%

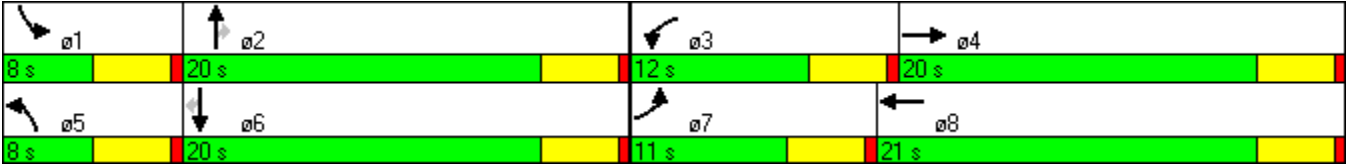
ICU Level of Service B

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: Foothill Blvd & Grand Ave



Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

Existing Year (2010)
PM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	89	84	129	63	49	127			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	97	91	140	68	53	138			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage veh									
Upstream signal (ft)						1174			
pX, platoon unblocked									
vC, conflicting volume	419	174			209				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	419	174			209				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	83	89			96				
cM capacity (veh/h)	568	869			1362				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	188	209	191						
Volume Left	97	0	53						
Volume Right	91	68	0						
cSH	683	1700	1362						
Volume to Capacity	0.28	0.12	0.04						
Queue Length 95th (ft)	28	0	3						
Control Delay (s)	12.3	0.0	2.4						
Lane LOS	B		A						
Approach Delay (s)	12.3	0.0	2.4						
Approach LOS	B								
Intersection Summary									
Average Delay		4.7							
Intersection Capacity Utilization		40.1%	ICU Level of Service	A					
Analysis Period (min)		15							

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (vph)	39	988	14	21	699	67	3	21	9	48	35	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1852	1583	0	1811	1583
Flt Permitted	0.950			0.950				0.957			0.807	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1783	1583	0	1503	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			58			10			113
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	42	1074	15	23	760	73	0	26	10	0	90	113
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	9.0	31.0	31.0	8.0	30.0	30.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	6.3	22.8	22.8	5.0	21.2	21.2		8.9	8.9		8.9	8.9
Actuated g/C Ratio	0.18	0.64	0.64	0.14	0.59	0.59		0.25	0.25		0.25	0.25
v/c Ratio	0.13	0.48	0.01	0.09	0.36	0.08		0.06	0.02		0.24	0.23
Control Delay	20.6	6.7	4.1	21.7	7.4	3.6		15.8	10.2		17.3	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	20.6	6.7	4.1	21.7	7.4	3.6		15.8	10.2		17.3	6.1
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		7.2			7.5			14.3			11.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	54	1	4	34	1		4	0		14	0
Queue Length 95th (ft)	37	173	8	25	116	18		23	10		58	33
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	312	2670	1197	249	2584	1171		975	870		822	916
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.13	0.40	0.01	0.09	0.29	0.06		0.03	0.01		0.11	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 7.8

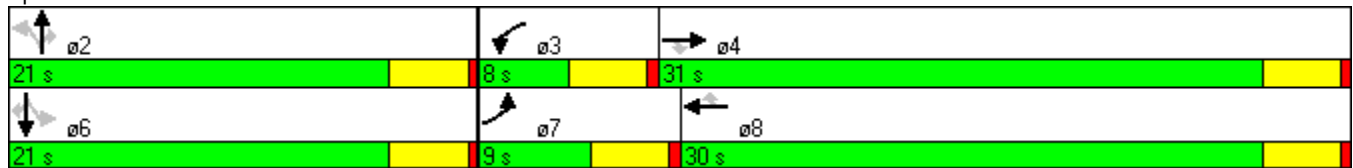
Intersection LOS: A

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

6: Foothill Blvd & Vermont Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	554	51	30	443	65	72	62	32	40	65	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3493	0	1770	3472	0	1770	1768	0	0	1735	0
Flt Permitted	0.445			0.402			0.836				0.897	
Satd. Flow (perm)	829	3493	0	749	3472	0	1557	1768	0	0	1574	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			35			35			77	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	657	0	33	553	0	78	102	0	0	199	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	14.5	14.5		14.5	14.5		8.9	8.9			8.9	
Actuated g/C Ratio	0.55	0.55		0.55	0.55		0.34	0.34			0.34	
v/c Ratio	0.17	0.34		0.08	0.29		0.15	0.16			0.34	
Control Delay	6.7	5.8		5.9	5.4		9.5	7.2			8.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	6.7	5.8		5.9	5.4		9.5	7.2			8.0	
LOS	A	A		A	A		A	A			A	
Approach Delay		5.9			5.4			8.2			8.0	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	6	27		2	21		8	7			13	
Queue Length 95th (ft)	25	65		13	53		32	32			53	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	753	3176		681	3159		1356	1545			1381	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.10	0.21		0.05	0.18		0.06	0.07			0.14	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 26.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 6.2

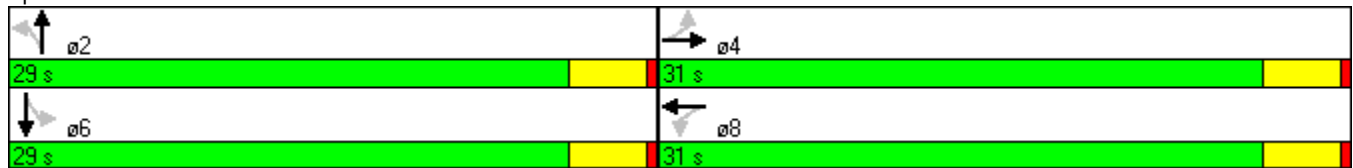
Intersection LOS: A

Intersection Capacity Utilization 47.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

Existing Year (2010)
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	65	0	16	121	162	54
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	0	17	132	176	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	342	176	235			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	342	176	235			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	100	99			
cM capacity (veh/h)	645	867	1333			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	71	149	176	59		
Volume Left	71	17	0	0		
Volume Right	0	0	0	59		
cSH	645	1333	1700	1700		
Volume to Capacity	0.11	0.01	0.10	0.03		
Queue Length 95th (ft)	9	1	0	0		
Control Delay (s)	11.3	1.0	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	11.3	1.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			29.4%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

8: Foothill Blvd & Glendora Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	60	448	136	152	376	59	126	162	76	57	168	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			28				83			70
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	635	0	165	473	0	137	176	83	62	183	70
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	22.0	22.0	8.0	21.0	21.0
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
Act Effect Green (s)	6.1	13.6		6.3	18.7		5.6	12.8	12.8	4.2	10.5	10.5
Actuated g/C Ratio	0.12	0.27		0.13	0.38		0.11	0.26	0.26	0.08	0.21	0.21
v/c Ratio	0.30	0.64		0.74	0.36		0.69	0.37	0.18	0.42	0.46	0.18
Control Delay	27.1	18.4		49.4	14.4		48.8	19.0	5.8	35.8	22.5	6.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	18.4		49.4	14.4		48.8	19.0	5.8	35.8	22.5	6.6
LOS	C	B		D	B		D	B	A	D	C	A
Approach Delay		19.2			23.5			26.6			21.6	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	19	78		52	58		43	48	0	19	52	0
Queue Length 95th (ft)	54	141		#157	107		#140	94	26	#66	100	25
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	224	1195		224	1333		200	707	652	149	668	612
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.53		0.74	0.35		0.69	0.25	0.13	0.42	0.27	0.11

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 22.3

Intersection LOS: C

Intersection Capacity Utilization 54.3%

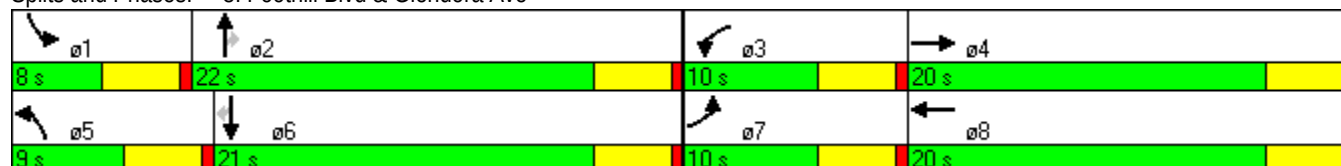
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
9: Ada Ave & Glendora Ave

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	48	45	135	25	27	30	42	366	3	17	350	33
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	49	147	27	29	33	46	398	3	18	380	36
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	248	89	245	202	209	226						
Volume Left (vph)	52	27	46	0	18	0						
Volume Right (vph)	147	33	0	3	0	36						
Hadj (s)	-0.28	-0.12	0.13	0.02	0.08	-0.08						
Departure Headway (s)	5.9	6.5	6.4	6.3	6.3	6.2						
Degree Utilization, x	0.41	0.16	0.43	0.35	0.37	0.39						
Capacity (veh/h)	563	484	533	550	541	556						
Control Delay (s)	12.9	10.7	12.9	11.4	11.8	11.8						
Approach Delay (s)	12.9	10.7	12.2		11.8							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.1									
HCM Level of Service			B									
Intersection Capacity Utilization			48.5%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	842	0	188	546	95	90	402	317	197	401	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1863	1770	3539	1583	1770	3539	1583	1770	3483	0
Flt Permitted	0.402			0.183			0.400			0.378		
Satd. Flow (perm)	749	3539	1863	341	3539	1583	745	3539	1583	704	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						87			219			21
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	915	0	204	593	103	98	437	345	214	488	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	22.0	22.0	9.0	23.0	23.0	9.0	20.0	20.0	9.0	20.0	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
Act Effect Green (s)	21.5	17.5		24.8	21.9	21.9	18.3	13.3	13.3	19.2	15.4	
Actuated g/C Ratio	0.38	0.31		0.44	0.38	0.38	0.32	0.23	0.23	0.34	0.27	
v/c Ratio	0.15	0.84		0.74	0.43	0.16	0.30	0.53	0.64	0.64	0.51	
Control Delay	10.4	28.2		31.9	15.8	6.0	13.7	21.5	13.6	23.8	19.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.4	28.2		31.9	15.8	6.0	13.7	21.5	13.6	23.8	19.8	
LOS	B	C		C	B	A	B	C	B	C	B	
Approach Delay		27.3			18.4			17.6			21.0	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	10	157		42	88	4	21	69	36	49	74	
Queue Length 95th (ft)	26	#262		#128	135	32	46	106	107	#102	115	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100			100		50	100		100	200		
Base Capacity (vph)	355	1126		275	1364	664	330	1001	605	332	1022	
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.15	0.81		0.74	0.43	0.16	0.30	0.44	0.57	0.64	0.48	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 21.2

Intersection LOS: C

Intersection Capacity Utilization 69.1%

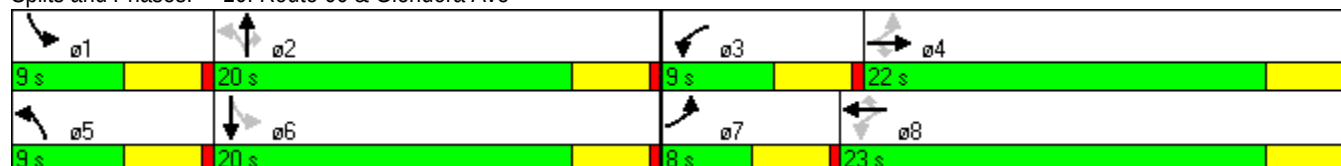
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

11: Lemon Ave & Pasadena Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	8	7	13	18	1	8	11	70	26	19	59	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	8	14	20	1	9	12	76	28	21	64	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	30	29	116	85								
Volume Left (vph)	9	20	12	21								
Volume Right (vph)	14	9	28	0								
Hadj (s)	-0.19	-0.01	-0.09	0.08								
Departure Headway (s)	4.2	4.4	4.0	4.2								
Degree Utilization, x	0.04	0.04	0.13	0.10								
Capacity (veh/h)	816	785	868	832								
Control Delay (s)	7.3	7.5	7.6	7.7								
Approach Delay (s)	7.3	7.5	7.6	7.7								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.6									
HCM Level of Service			A									
Intersection Capacity Utilization			17.9%	ICU Level of Service	A							
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	1200	36	29	756	44	18	21	43	49	22	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1711	0	0	1718	0
Flt Permitted	0.287			0.175				0.928			0.881	
Satd. Flow (perm)	535	3539	1583	326	3539	1583	0	1606	0	0	1541	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			19			36		47			64	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	1304	39	32	822	48	0	90	0	0	141	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	9.0	32.0	32.0	8.0	31.0	31.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	25.7	26.2	26.2	24.1	24.2	24.2		9.0			9.0	
Actuated g/C Ratio	0.63	0.65	0.65	0.59	0.60	0.60		0.22			0.22	
v/c Ratio	0.17	0.57	0.04	0.09	0.39	0.05		0.23			0.36	
Control Delay	4.3	8.7	4.7	4.2	8.3	4.2		12.1			14.0	
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	4.3	8.8	4.7	4.2	8.3	4.2		12.1			14.0	
LOS	A	A	A	A	A	A		B			B	
Approach Delay		8.4			8.0			12.1			14.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	6	73	1	2	72	2		9			16	
Queue Length 95th (ft)	22	241	15	10	133	16		42			62	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	525	2473	1112	368	2410	1089		800			777	
Starvation Cap Reductn	0	282	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.17	0.60	0.04	0.09	0.34	0.04		0.11			0.18	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 8.7

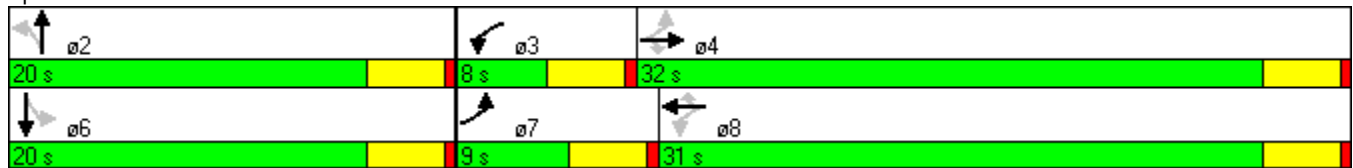
Intersection LOS: A

Intersection Capacity Utilization 59.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

13: Lemon Ave & Glenwood Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	13	8	4	5	3	16	101	7	15	106	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	14	9	4	5	3	17	110	8	16	115	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	303	302	117	314	301	114	120			117		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	303	302	117	314	301	114	120			117		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	98	99	99	99	100	99			99		
cM capacity (veh/h)	632	597	935	610	598	939	1468			1471		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	37	13	135	136								
Volume Left	14	4	17	16								
Volume Right	9	3	8	4								
cSH	668	805	1468	1471								
Volume to Capacity	0.06	0.02	0.01	0.01								
Queue Length 95th (ft)	4	1	1	1								
Control Delay (s)	10.7	10.5	1.0	1.0								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.7	10.5	1.0	1.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.5									
Intersection Capacity Utilization			24.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

14: Route 66 & Glenwood Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	65	1251	9	31	732	54	3	3	7	56	5	41
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	1360	10	34	796	59	3	3	8	61	5	45
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					651							
pX, platoon unblocked	0.90						0.90	0.90		0.90	0.90	0.90
vC, conflicting volume	854			1370			2014	2423	680	1693	2374	398
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	618			1370			1905	2359	680	1550	2305	112
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			93			88	88	98	0	81	95
cM capacity (veh/h)	863			497			27	27	394	55	29	829
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	71	680	680	10	34	398	398	59	14	111		
Volume Left	71	0	0	0	34	0	0	0	3	61		
Volume Right	0	0	0	10	0	0	0	59	8	45		
cSH	863	1700	1700	1700	497	1700	1700	1700	54	83		
Volume to Capacity	0.08	0.40	0.40	0.01	0.07	0.23	0.23	0.03	0.26	1.34		
Queue Length 95th (ft)	7	0	0	0	5	0	0	0	22	211		
Control Delay (s)	9.5	0.0	0.0	0.0	12.8	0.0	0.0	0.0	93.1	304.7		
Lane LOS	A				B				F	F		
Approach Delay (s)	0.5				0.5				93.1	304.7		
Approach LOS									F	F		
Intersection Summary												
Average Delay			14.8									
Intersection Capacity Utilization			60.3%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	21	11	7	2	2	6	127	5	7	84	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	23	12	8	2	2	7	138	5	8	91	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	266	265	93	286	265	141	96			143		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	266	265	93	286	265	141	96			143		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	100	100	100			99		
cM capacity (veh/h)	678	634	964	635	635	907	1498			1439		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	37	12	150	103								
Volume Left	2	8	7	8								
Volume Right	12	2	5	4								
cSH	716	672	1498	1439								
Volume to Capacity	0.05	0.02	0.00	0.01								
Queue Length 95th (ft)	4	1	0	0								
Control Delay (s)	10.3	10.5	0.4	0.6								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.3	10.5	0.4	0.6								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			18.6%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (vph)	65	1172	29	28	718	58	37	15	19	43	13	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1799	1583	0	1794	1583
Flt Permitted	0.950			0.950				0.821			0.804	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1529	1583	0	1498	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			49			21			48
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	1274	32	30	780	63	0	56	21	0	61	48
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	10.0	32.0	32.0	8.0	30.0	30.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.0	25.5	25.5	4.1	22.8	22.8		16.3	16.3		16.3	16.3
Actuated g/C Ratio	0.11	0.48	0.48	0.08	0.43	0.43		0.31	0.31		0.31	0.31
v/c Ratio	0.35	0.74	0.04	0.22	0.51	0.09		0.12	0.04		0.13	0.09
Control Delay	29.5	14.8	6.0	29.9	13.0	5.0		16.6	8.5		16.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	29.5	14.8	6.0	29.9	13.0	5.0		16.6	8.5		16.8	6.7
LOS	C	B	A	C	B	A		B	A		B	A
Approach Delay		15.3			13.0			14.4			12.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	21	131	2	9	102	3		12	0		14	0
Queue Length 95th (ft)	59	264	15	33	147	21		39	14		43	21
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	205	1924	868	137	1776	819		472	504		462	522
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.35	0.66	0.04	0.22	0.44	0.08		0.12	0.04		0.13	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 14.3

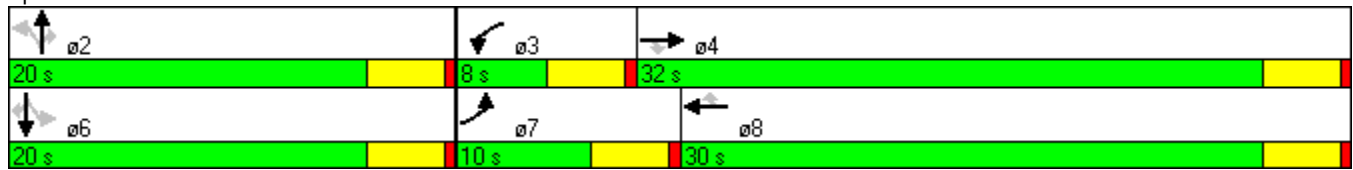
Intersection LOS: B

Intersection Capacity Utilization 55.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 16: Route 66 & Elwood Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

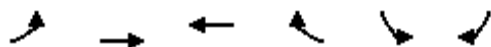
17: Lemon Ave & Loraine Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	5	23	7	4	9	13	283	12	7	309	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	5	25	8	4	10	14	308	13	8	336	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	547	702	170	553	697	160	339			321		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	547	702	170	553	697	160	339			321		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	97	98	99	99	99			99		
cM capacity (veh/h)	406	355	845	393	357	856	1217			1236		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	34	22	168	167	176	171						
Volume Left	3	8	14	0	8	0						
Volume Right	25	10	0	13	0	3						
cSH	636	506	1217	1700	1236	1700						
Volume to Capacity	0.05	0.04	0.01	0.10	0.01	0.10						
Queue Length 95th (ft)	4	3	1	0	0	0						
Control Delay (s)	11.0	12.4	0.8	0.0	0.4	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.0	12.4	0.4		0.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			27.8%		ICU Level of Service					A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

Existing Year (2010)
PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	134	999	661	179	253	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				136		96
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	146	1086	718	195	275	96
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	14.0	37.0	23.0	23.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	8.7	26.4	16.8	16.8	9.2	9.2
Actuated g/C Ratio	0.20	0.60	0.38	0.38	0.21	0.21
v/c Ratio	0.42	0.51	0.53	0.28	0.38	0.24
Control Delay	22.3	5.9	13.7	5.8	18.5	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	5.9	13.7	5.8	18.5	6.5
LOS	C	A	B	A	B	A
Approach Delay		7.9	12.0		15.4	
Approach LOS		A	B		B	
Queue Length 50th (ft)	37	64	80	10	35	0
Queue Length 95th (ft)	85	114	136	47	64	29
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	427	2647	1624	800	1575	779
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.41	0.44	0.24	0.17	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 10.5

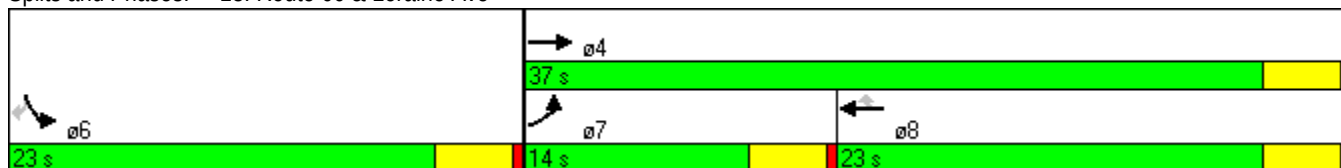
Intersection LOS: B

Intersection Capacity Utilization 42.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

Existing Year (2010)
PM Peak Hour

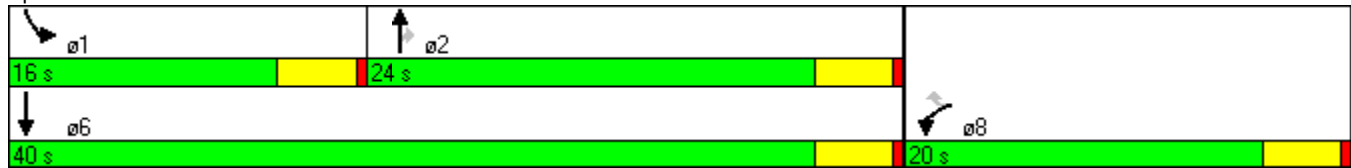
						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	384	444	899	392	553	996
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		422		426		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	417	483	977	426	601	1083
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	24.0	24.0	16.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	12.7	12.7	19.5	19.5	11.9	35.4
Actuated g/C Ratio	0.23	0.23	0.35	0.35	0.21	0.63
v/c Ratio	0.54	0.71	0.80	0.52	0.82	0.49
Control Delay	21.8	10.1	23.5	4.4	34.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	10.1	23.5	4.4	34.1	6.8
LOS	C	B	C	A	C	A
Approach Delay	15.6		17.7			16.6
Approach LOS	B		B			B
Queue Length 50th (ft)	64	17	152	0	101	85
Queue Length 95th (ft)	100	93	#265	52	#192	144
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	983	755	1267	840	738	2281
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.64	0.77	0.51	0.81	0.47
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 56.2						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.82						
Intersection Signal Delay: 16.7				Intersection LOS: B		
Intersection Capacity Utilization 61.6%				ICU Level of Service B		

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

Existing Year (2010)
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	301	82	42	135	55	55
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	327	89	46	147	60	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			416		610	372
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			416		610	372
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		86	91
cM capacity (veh/h)			1143		440	674
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	416	46	147	120		
Volume Left	0	46	0	60		
Volume Right	89	0	0	60		
cSH	1700	1143	1700	532		
Volume to Capacity	0.24	0.04	0.09	0.22		
Queue Length 95th (ft)	0	3	0	21		
Control Delay (s)	0.0	8.3	0.0	13.7		
Lane LOS		A		B		
Approach Delay (s)	0.0	2.0		13.7		
Approach LOS				B		
Intersection Summary						
Average Delay			2.8			
Intersection Capacity Utilization			40.6%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

21: Sierra Madre Ave & Glendora Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	320	54	31	142	7	25	14	40	3	10	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	348	59	34	154	8	27	15	43	3	11	7
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	411	188	8	42	43	14	7					
Volume Left (vph)	4	34	0	27	0	3	0					
Volume Right (vph)	59	0	8	0	43	0	7					
Hadj (s)	-0.05	0.12	-0.67	0.35	-0.67	0.15	-0.67					
Departure Headway (s)	5.0	5.3	4.5	6.4	5.4	6.3	5.5					
Degree Utilization, x	0.57	0.28	0.01	0.08	0.06	0.02	0.01					
Capacity (veh/h)	700	656	765	515	604	510	580					
Control Delay (s)	14.4	9.1	6.3	8.7	7.6	8.3	7.3					
Approach Delay (s)	14.4	9.0		8.1		8.0						
Approach LOS	B	A		A		A						
Intersection Summary												
Delay			12.0									
HCM Level of Service			B									
Intersection Capacity Utilization			43.9%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

22: Glendora Marketplace & Lone Hill Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	535	1	156	6	0	19	97	716	0	3	612	618
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1655	0	3433	3539	0	1770	3539	1583
Flt Permitted	0.950	0.654			0.844		0.950			0.950		
Satd. Flow (perm)	1681	1157	2787	0	1413	0	3433	3539	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			170		21							672
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	291	292	170	0	28	0	105	778	0	3	665	672
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	12.0	32.0	32.0	20.0	20.0	0.0	8.0	20.0	0.0	8.0	20.0	20.0
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
Act Effect Green (s)	20.4	20.4	28.2		9.6		4.0	20.1		4.0	15.5	15.5
Actuated g/C Ratio	0.35	0.35	0.49		0.17		0.07	0.35		0.07	0.27	0.27
v/c Ratio	0.49	0.49	0.12		0.11		0.44	0.63		0.02	0.70	0.73
Control Delay	30.5	30.5	2.1		11.0		33.1	19.8		26.7	24.2	7.6
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	30.5	30.5	2.1		11.0		33.1	19.8		26.7	24.2	7.6
LOS	C	C	A		B		C	B		C	C	A
Approach Delay		24.1			11.0			21.4			15.9	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)	67	67	0		2		19	109		1	113	0
Queue Length 95th (ft)	#283	#284	14		18		40	#224		8	166	76
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	593	596	1443		408		239	1267		123	984	925
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.49	0.49	0.12		0.07		0.44	0.61		0.02	0.68	0.73

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 19.5

Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

22: Glendora Marketplace & Lone Hill Ave

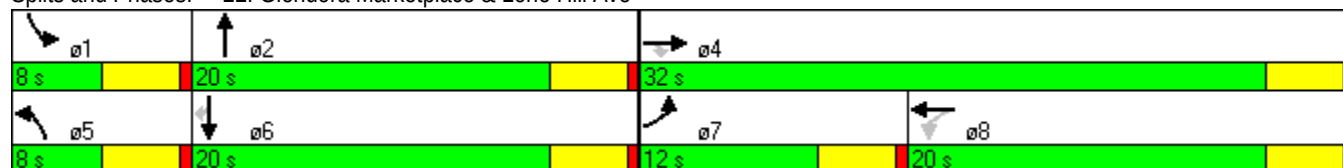
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

23: Gladstone St & Lone Hill Ave

Existing Year (2010)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	173	473	123	73	257	99	238	534	186	221	351	182
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		54			92				202			198
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	648	0	79	387	0	259	580	202	240	382	198
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	21.0	0.0	8.0	20.0	0.0	10.0	21.0	21.0	10.0	21.0	21.0
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
Act Effect Green (s)	5.1	16.3		4.1	13.2		6.1	14.5	14.5	6.1	14.5	14.5
Actuated g/C Ratio	0.09	0.30		0.07	0.24		0.11	0.26	0.26	0.11	0.26	0.26
v/c Ratio	0.59	0.62		0.60	0.44		0.68	0.62	0.36	0.63	0.41	0.35
Control Delay	35.5	19.4		50.3	15.2		37.0	21.5	5.2	34.6	18.6	5.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	19.4		50.3	15.2		37.0	21.5	5.2	34.6	18.6	5.2
LOS	D	B		D	B		D	C	A	C	B	A
Approach Delay		23.0			21.1			22.2			20.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	35	97		29	44		47	93	0	44	57	0
Queue Length 95th (ft)	#73	147		#89	78		#98	139	40	#88	91	40
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	316	1112		131	1066		380	1109	635	380	1109	632
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.58		0.60	0.36		0.68	0.52	0.32	0.63	0.34	0.31

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 21.7

Intersection LOS: C

Intersection Capacity Utilization 55.4%

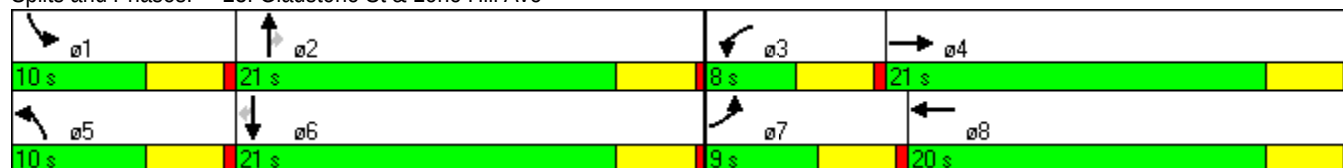
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

24: Arrow Hwy & SR-57 SB

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↖	↑↑↑		↖↖		↖	↖	↖	↖
Volume (vph)	0	1056	170	146	737	304	134	0	96	249	103	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	4979	0	1770	4862	0	3433	0	1583	1681	1732	1583
Flt Permitted				0.174			0.566			0.950	0.979	
Satd. Flow (perm)	0	4979	0	324	4862	0	2045	0	1583	1681	1732	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		92			309				86			171
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	0	1333	0	159	1131	0	146	0	104	190	193	171
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		32.8		32.8	32.8		11.7		11.7	11.7	11.7	11.7
Actuated g/C Ratio		0.62		0.62	0.62		0.22		0.22	0.22	0.22	0.22
v/c Ratio		0.43		0.79	0.36		0.32		0.25	0.51	0.50	0.35
Control Delay		5.5		42.9	4.0		20.3		8.0	24.2	23.9	5.9
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		5.5		42.9	4.0		20.3		8.0	24.2	23.9	5.9
LOS		A		D	A		C		A	C	C	A
Approach Delay		5.5			8.8						18.5	
Approach LOS		A			A						B	
Queue Length 50th (ft)		60		31	36		21		5	60	60	0
Queue Length 95th (ft)		101		#149	64		42		36	113	114	38
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3533		228	3515		645		558	530	546	616
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.38		0.70	0.32		0.23		0.19	0.36	0.35	0.28

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 9.5

Intersection LOS: A

Intersection Capacity Utilization 58.5%

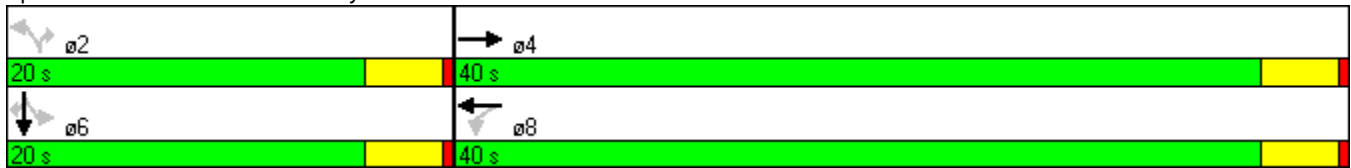
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

Existing Year (2010)
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	324	297	126	71	98	328	364	623	276	157	546	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3378	0	1770	3539	1583	3433	4851	0	1770	5034	0
Flt Permitted		0.784		0.223			0.950			0.950		
Satd. Flow (perm)	0	2705	0	415	3539	1583	3433	4851	0	1770	5034	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46				357		182			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	812	0	77	107	357	396	977	0	171	636	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	13.0	20.0	0.0	13.0	20.0	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
Act Effect Green (s)		20.6		20.6	20.6	20.6	9.0	17.5		8.6	14.3	
Actuated g/C Ratio		0.37		0.37	0.37	0.37	0.16	0.31		0.15	0.25	
v/c Ratio		0.79		0.50	0.08	0.44	0.72	0.60		0.63	0.49	
Control Delay		22.0		28.2	12.1	3.7	33.2	16.5		36.4	18.9	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		22.0		28.2	12.1	3.7	33.2	16.5		36.4	18.9	
LOS		C		C	B	A	C	B		D	B	
Approach Delay		22.0			8.9			21.3			22.6	
Approach LOS		C			A			C			C	
Queue Length 50th (ft)		122		20	12	0	72	92		59	68	
Queue Length 95th (ft)		186		#70	25	44	#131	133		#133	97	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1155		173	1476	868	560	1640		289	1474	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.70		0.45	0.07	0.41	0.71	0.60		0.59	0.43	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 65.8%

ICU Level of Service C

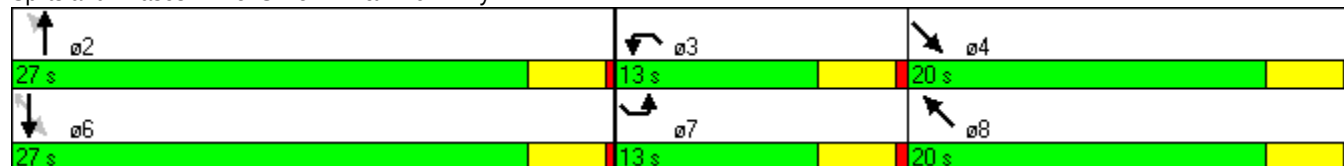
Gold Line Foothill Extension - Azusa to Montclair
 25: SR-57 NB & Arrow Hwy

Existing Year (2010)
 PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

26: Fifth St & Eucla Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	51	76	7	59	1	63	1	15	0	5	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	55	83	8	64	1	68	1	16	0	5	3
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	62	83	72	1	86	9						
Volume Left (vph)	7	0	8	0	68	0						
Volume Right (vph)	0	83	0	1	16	3						
Hadj (s)	0.09	-0.67	0.09	-0.67	0.08	-0.19						
Departure Headway (s)	4.9	4.1	4.9	4.2	4.5	4.3						
Degree Utilization, x	0.08	0.09	0.10	0.00	0.11	0.01						
Capacity (veh/h)	722	846	705	832	766	793						
Control Delay (s)	7.1	6.4	7.3	6.0	8.0	7.3						
Approach Delay (s)	6.7		7.2		8.0	7.3						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.2									
HCM Level of Service			A									
Intersection Capacity Utilization			26.8%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

Existing Year (2010)
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	19	3	124	16	5	113
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	3	135	17	5	123
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	268	135			152	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	268	135			152	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	100			100	
cM capacity (veh/h)	718	914			1429	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	24	135	17	5	123	
Volume Left	21	0	0	5	0	
Volume Right	3	0	17	0	0	
cSH	740	1700	1700	1429	1700	
Volume to Capacity	0.03	0.08	0.01	0.00	0.07	
Queue Length 95th (ft)	3	0	0	0	0	
Control Delay (s)	10.0	0.0	0.0	7.5	0.0	
Lane LOS	B			A		
Approach Delay (s)	10.0	0.0		0.3		
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			16.5%	ICU Level of Service		A
Analysis Period (min)			15			

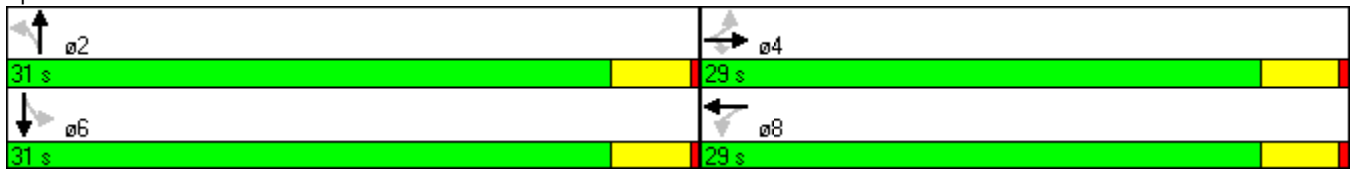
Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	74	449	11	50	436	19	21	39	183	72	32	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3518	0	0	1666	0	0	1716	0
Flt Permitted	0.471			0.474				0.951			0.845	
Satd. Flow (perm)	877	3539	1583	883	3518	0	0	1591	0	0	1476	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			12		9			199			92	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	488	12	54	495	0	0	264	0	0	208	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	29.0	29.0	29.0	29.0	29.0	0.0	31.0	31.0	0.0	31.0	31.0	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
Act Effect Green (s)	12.7	12.7	12.7	12.7	12.7			8.7			8.7	
Actuated g/C Ratio	0.51	0.51	0.51	0.51	0.51			0.35			0.35	
v/c Ratio	0.18	0.27	0.01	0.12	0.27			0.38			0.36	
Control Delay	7.3	6.1	3.6	6.7	6.0			4.7			6.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	7.3	6.1	3.6	6.7	6.0			4.7			6.9	
LOS	A	A	A	A	A			A			A	
Approach Delay		6.2			6.1			4.7			6.9	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	6	20	0	4	20			6			10	
Queue Length 95th (ft)	26	51	5	19	51			40			47	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	797	3215	1439	802	3196			1500			1386	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.10	0.15	0.01	0.07	0.15			0.18			0.15	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 24.7												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.38												
Intersection Signal Delay: 6.0							Intersection LOS: A					
Intersection Capacity Utilization 55.6%							ICU Level of Service B					

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

29: Arrow Hwy & Eucla Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	45	638	103	213	553	16	75	77	270	20	51	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4979	0	1770	5065	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.407			0.245			0.721			0.702		
Satd. Flow (perm)	758	4979	0	456	5065	0	1343	1863	1583	1308	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			8				293			10
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	805	0	232	618	0	82	84	293	22	55	10
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	21.0	0.0	15.0	28.0	0.0	24.0	24.0	24.0	24.0	24.0	24.0
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
Act Effect Green (s)	17.0	14.1		23.3	20.7		9.0	9.0	9.0	9.0	9.0	9.0
Actuated g/C Ratio	0.41	0.34		0.57	0.50		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.12	0.46		0.44	0.24		0.28	0.21	0.51	0.08	0.13	0.03
Control Delay	5.8	12.2		7.2	6.9		18.2	16.6	6.2	15.7	15.9	9.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.8	12.2		7.2	6.9		18.2	16.6	6.2	15.7	15.9	9.2
LOS	A	B		A	A		B	B	A	B	B	A
Approach Delay		11.8			7.0			10.2			15.1	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	4	49		19	17		17	17	0	4	11	0
Queue Length 95th (ft)	16	104		59	64		50	48	47	19	36	9
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	422	2288		652	3237		717	995	982	698	995	850
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.35		0.36	0.19		0.11	0.08	0.30	0.03	0.06	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 41.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 9.8

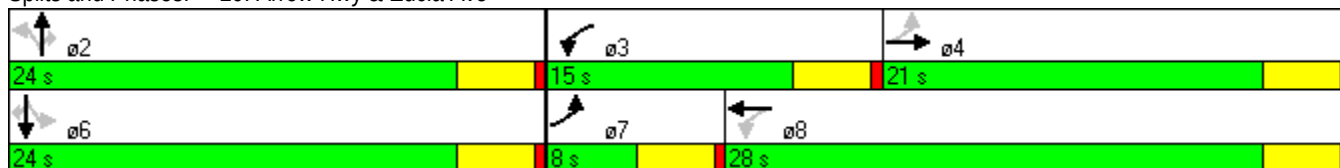
Intersection LOS: A

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

Existing Year (2010)
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	62	9	2	57	10	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	67	10	2	62	11	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			77		139	72
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			77		139	72
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		99	100
cM capacity (veh/h)			1521		853	990
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	77	64	15			
Volume Left	0	2	11			
Volume Right	10	0	4			
cSH	1700	1521	888			
Volume to Capacity	0.05	0.00	0.02			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.3	9.1			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.3	9.1			
Approach LOS			A			
Intersection Summary						
Average Delay		1.0				
Intersection Capacity Utilization		14.6%	ICU Level of Service	A		
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

31: Second St & Acacia St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	11	3	2	10	2	7	4	3	3	3	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	12	3	2	11	2	8	4	3	3	3	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	41	35	5	42	35	6	8			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	41	35	5	42	35	6	8			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	100	100	99	100	100			100		
cM capacity (veh/h)	947	852	1078	943	851	1077	1613			1613		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	15	15	11								
Volume Left	3	2	8	3								
Volume Right	3	2	3	4								
cSH	901	890	1613	1613								
Volume to Capacity	0.02	0.02	0.00	0.00								
Queue Length 95th (ft)	2	1	0	0								
Control Delay (s)	9.1	9.1	3.6	2.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.1	9.1	3.6	2.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.4									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	666	19	19	470	12	12	2	29	2	5	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	724	21	21	511	13	13	2	32	2	5	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	524			745			1075	1330	372	984	1334	262
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	524			745			1075	1330	372	984	1334	262
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			98			92	99	95	99	96	99
cM capacity (veh/h)	1039			859			162	148	625	185	147	737
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	15	483	262	21	341	183	15	32	18			
Volume Left	15	0	0	21	0	0	13	0	2			
Volume Right	0	0	21	0	0	13	0	32	11			
cSH	1039	1700	1700	859	1700	1700	160	625	291			
Volume to Capacity	0.01	0.28	0.15	0.02	0.20	0.11	0.10	0.05	0.06			
Queue Length 95th (ft)	1	0	0	2	0	0	8	4	5			
Control Delay (s)	8.5	0.0	0.0	9.3	0.0	0.0	29.9	11.1	18.2			
Lane LOS	A			A			D	B	C			
Approach Delay (s)	0.2			0.4			17.2		18.2			
Approach LOS							C		C			
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			35.7%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	14	3	8	10	7	7	77	13	4	44	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	15	3	9	11	8	8	84	14	4	48	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	18			18			77	55	17	107	53	15
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	18			18			77	55	17	107	53	15
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	90	99	99	94	100
cM capacity (veh/h)	1598			1598			866	831	1062	791	833	1065
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	20	27	105	54								
Volume Left	1	9	8	4								
Volume Right	3	8	14	2								
cSH	1598	1598	859	837								
Volume to Capacity	0.00	0.01	0.12	0.06								
Queue Length 95th (ft)	0	0	10	5								
Control Delay (s)	0.4	2.4	9.8	9.6								
Lane LOS	A	A	A	A								
Approach Delay (s)	0.4	2.4	9.8	9.6								
Approach LOS			A	A								
Intersection Summary												
Average Delay			7.9									
Intersection Capacity Utilization			17.5%		ICU Level of Service		A					
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	42	627	20	36	435	48	16	48	67	10	15	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	682	22	39	473	52	17	52	73	11	16	51
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	386	363	276	289	70	73	27	51				
Volume Left (vph)	46	0	39	0	17	0	11	0				
Volume Right (vph)	0	22	0	52	0	73	0	51				
Hadj (s)	0.09	-0.01	0.11	-0.09	0.16	-0.67	0.23	-0.67				
Departure Headway (s)	6.1	6.0	6.3	6.1	7.6	6.8	7.8	6.9				
Degree Utilization, x	0.65	0.60	0.48	0.49	0.15	0.14	0.06	0.10				
Capacity (veh/h)	578	582	556	574	439	488	420	473				
Control Delay (s)	18.5	16.4	13.8	13.6	10.7	9.7	10.1	9.5				
Approach Delay (s)	17.5		13.7		10.2		9.7					
Approach LOS	C		B		B		A					
Intersection Summary												
Delay			15.0									
HCM Level of Service			C									
Intersection Capacity Utilization			53.9%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

35: Second St & Monte Vista Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	21	5	1	23	2	1	55	4	1	30	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	23	5	1	25	2	1	60	4	1	33	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	116	104	35	118	104	62	38			64		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	116	104	35	118	104	62	38			64		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	97	99	100	97	100	100			100		
cM capacity (veh/h)	836	785	1037	833	785	1003	1572			1538		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	35	28	65	39								
Volume Left	7	1	1	1								
Volume Right	5	2	4	5								
cSH	826	800	1572	1538								
Volume to Capacity	0.04	0.04	0.00	0.00								
Queue Length 95th (ft)	3	3	0	0								
Control Delay (s)	9.5	9.7	0.1	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.5	9.7	0.1	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			14.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

36: Bonita Ave & Monte Vista Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	60	649	13	14	475	58	10	10	13	17	3	52
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	65	705	14	15	516	63	11	11	14	18	3	57
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)					666							
pX, platoon unblocked	0.94						0.94	0.94		0.94	0.94	0.94
vC, conflicting volume	579			720			1448	1453	712	1434	1428	548
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	516			720			1444	1449	712	1429	1423	482
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			98			87	90	97	79	97	90
cM capacity (veh/h)	982			882			84	112	432	88	117	547
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	65	720	15	579	36	78						
Volume Left	65	0	15	0	11	18						
Volume Right	0	14	0	63	14	57						
cSH	982	1700	882	1700	139	230						
Volume to Capacity	0.07	0.42	0.02	0.34	0.26	0.34						
Queue Length 95th (ft)	5	0	1	0	24	36						
Control Delay (s)	8.9	0.0	9.2	0.0	39.7	28.5						
Lane LOS	A		A		E	D						
Approach Delay (s)	0.7		0.2		39.7	28.5						
Approach LOS					E	D						
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			53.5%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
37: Second St & San Dimas Ave

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	18	14	5	11	13	15	539	2	12	443	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	20	15	5	12	14	16	586	2	13	482	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1146	1128	482	1151	1129	586	485			588		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1128	1109	482	1133	1111	539	485			542		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	90	97	96	94	97	98			99		
cM capacity (veh/h)	157	194	585	151	193	516	1078			977		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	40	32	16	586	2	13	482	3				
Volume Left	5	5	16	0	0	13	0	0				
Volume Right	15	14	0	0	2	0	0	3				
cSH	249	252	1078	1700	1700	977	1700	1700				
Volume to Capacity	0.16	0.13	0.02	0.34	0.00	0.01	0.28	0.00				
Queue Length 95th (ft)	14	11	1	0	0	1	0	0				
Control Delay (s)	22.3	21.3	8.4	0.0	0.0	8.7	0.0	0.0				
Lane LOS	C	C	A			A						
Approach Delay (s)	22.3	21.3	0.2			0.2						
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			38.4%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	537	39	66	344	133	80	315	121	183	187	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3391	0	1770	1770	0
Flt Permitted	0.474			0.271			0.520			0.468		
Satd. Flow (perm)	883	1863	1583	505	1863	1583	969	3391	0	872	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			24			127		116			51	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	584	42	72	374	145	87	474	0	199	303	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	19.5	19.5	19.5	19.5	19.5	19.5	16.2	16.2		16.2	16.2	
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.36	0.36		0.36	0.36	
v/c Ratio	0.23	0.72	0.06	0.33	0.46	0.19	0.25	0.36		0.63	0.45	
Control Delay	10.9	17.0	5.9	14.7	11.8	3.6	13.1	9.0		22.9	11.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.9	17.0	5.9	14.7	11.8	3.6	13.1	9.0		22.9	11.9	
LOS	B	B	A	B	B	A	B	A		C	B	
Approach Delay		15.6			10.2			9.6			16.3	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	13	113	2	11	62	2	15	33		41	46	
Queue Length 95th (ft)	44	265	18	45	150	29	46	71		113	113	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	582	1227	1051	333	1227	1086	605	2162		545	1125	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.48	0.04	0.22	0.30	0.13	0.14	0.22		0.37	0.27	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 13.0

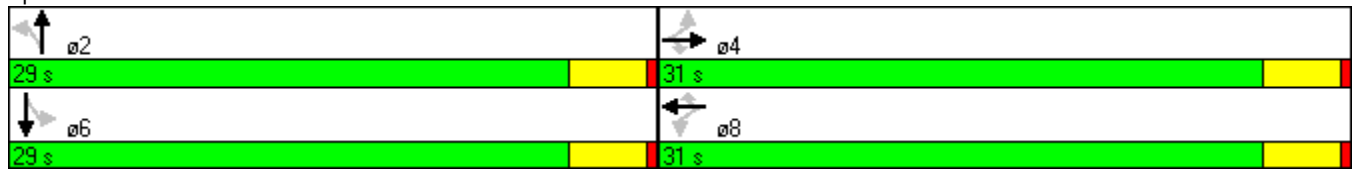
Intersection LOS: B

Intersection Capacity Utilization 68.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

39: Arrow Hwy & San Dimas Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	919	117	162	723	70	136	222	165	74	188	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26				179		95	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	1126	0	176	862	0	148	241	179	80	299	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	11.0	20.0	0.0	11.0	20.0	0.0	9.0	20.0	20.0	9.0	20.0	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
Act Effect Green (s)	7.0	15.9		7.0	15.9		5.0	13.9	13.9	5.0	11.8	
Actuated g/C Ratio	0.13	0.28		0.13	0.28		0.09	0.25	0.25	0.09	0.21	
v/c Ratio	0.97	0.78		0.79	0.59		0.93	0.52	0.34	0.50	0.38	
Control Delay	86.1	23.2		54.0	19.3		88.5	23.6	5.5	38.7	13.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	86.1	23.2		54.0	19.3		88.5	23.6	5.5	38.7	13.7	
LOS	F	C		D	B		F	C	A	D	B	
Approach Delay		33.4			25.2			34.8			19.0	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	75	122		59	87		51	73	0	26	30	
Queue Length 95th (ft)	#204	#190		#162	134		#155	132	39	#79	57	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	223	1463		223	1462		159	536	583	159	1037	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.97	0.77		0.79	0.59		0.93	0.45	0.31	0.50	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 29.4

Intersection LOS: C

Intersection Capacity Utilization 58.5%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave

 ø1	 ø2	 ø3	 ø4
9 s	20 s	11 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	20 s	11 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
40: Bonita Ave & Walnut Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	626	26	49	374	61	94	160	255	91	80	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3518	0	1770	3539	1583	1770	1691	0	1770	1725	0
Flt Permitted	0.513			0.329			0.649			0.381		
Satd. Flow (perm)	956	3518	0	613	3539	1583	1209	1691	0	710	1725	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				66		93			84	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	708	0	53	407	66	102	451	0	99	171	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	26.0	26.0	0.0	26.0	26.0	26.0	34.0	34.0	0.0	34.0	34.0	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
Act Effect Green (s)	15.0	15.0		15.0	15.0	15.0	15.3	15.3		15.3	15.3	
Actuated g/C Ratio	0.38	0.38		0.38	0.38	0.38	0.39	0.39		0.39	0.39	
v/c Ratio	0.29	0.52		0.22	0.30	0.10	0.22	0.63		0.36	0.24	
Control Delay	12.4	11.5		12.9	9.9	3.9	9.7	12.2		13.2	5.7	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	12.4	11.5		12.9	9.9	3.9	9.7	12.2		13.2	5.7	
LOS	B	B		B	A	A	A	B		B	A	
Approach Delay		11.6			9.4			11.7			8.4	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)	14	53		7	28	0	13	54		14	11	
Queue Length 95th (ft)	55	134		34	75	19	43	147		49	43	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	590	2174		378	2183	1002	954	1354		560	1379	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.18	0.33		0.14	0.19	0.07	0.11	0.33		0.18	0.12	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 10.7

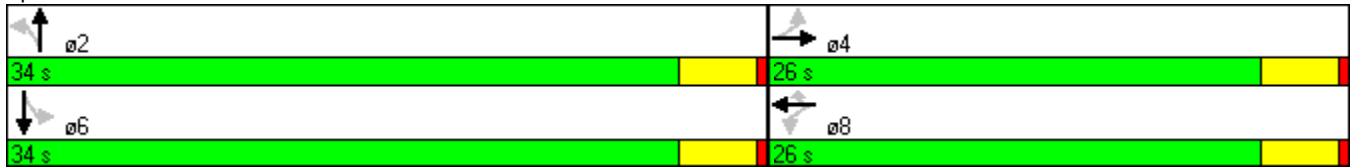
Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

41: Arrow Hwy & Walnut Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	182	936	56	15	707	36	69	47	17	18	51	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5050	0	0	1809	1583	0	1839	1583
Flt Permitted	0.950			0.950				0.774			0.885	
Satd. Flow (perm)	1770	5045	0	1770	5050	0	0	1442	1583	0	1649	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			12				18			137
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	198	1078	0	16	807	0	0	126	18	0	75	137
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	17.0	29.0	0.0	8.0	20.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	11.6	27.6		5.4	18.4			10.7	10.7		10.6	10.6
Actuated g/C Ratio	0.28	0.67		0.13	0.45			0.26	0.26		0.26	0.26
v/c Ratio	0.40	0.32		0.07	0.36			0.34	0.04		0.18	0.27
Control Delay	19.3	5.6		23.5	13.1			19.9	8.8		17.5	5.7
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	19.3	5.6		23.5	13.1			19.9	8.8		17.5	5.7
LOS	B	A		C	B			B	A		B	A
Approach Delay		7.7			13.3			18.5			9.8	
Approach LOS		A			B			B			A	
Queue Length 50th (ft)	47	38		4	61			30	0		17	0
Queue Length 95th (ft)	107	109		20	110			73	13		47	34
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	739	3374		230	2368			747	829		854	886
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.27	0.32		0.07	0.34			0.17	0.02		0.09	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 41.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 10.4

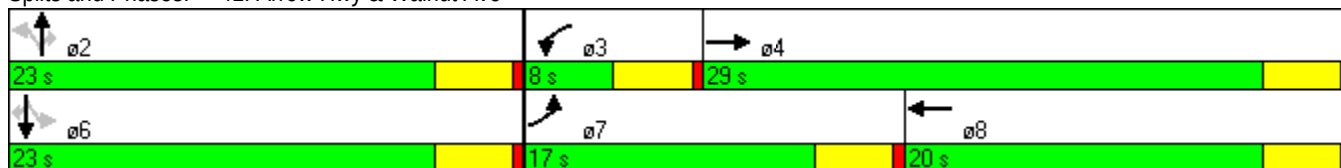
Intersection LOS: B

Intersection Capacity Utilization 47.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	156	633	101	27	273	80	43	225	71	107	186	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.570			0.390			0.625			0.600		
Satd. Flow (perm)	1062	3539	1583	726	3539	1583	1164	3539	1583	1118	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			103			87			77			77
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	170	688	110	29	297	87	47	245	77	116	202	77
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	28.0	28.0	28.0	28.0
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
Act Effect Green (s)	18.7	18.7	18.7	18.7	18.7	18.7	10.7	10.7	10.7	10.6	10.6	10.6
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58	0.33	0.33	0.33	0.33	0.33	0.33
v/c Ratio	0.28	0.34	0.11	0.07	0.14	0.09	0.12	0.21	0.13	0.32	0.17	0.14
Control Delay	7.8	6.3	2.3	6.3	5.6	2.1	11.7	10.7	4.5	14.1	10.6	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.8	6.3	2.3	6.3	5.6	2.1	11.7	10.7	4.5	14.1	10.6	4.5
LOS	A	A	A	A	A	A	B	B	A	B	B	A
Approach Delay		6.1			4.9			9.5			10.4	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	15	33	1	2	12	0	6	15	0	15	12	0
Queue Length 95th (ft)	59	89	18	14	38	15	29	50	22	61	42	22
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	882	2939	1332	603	2939	1329	875	2660	1209	840	2660	1209
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.23	0.08	0.05	0.10	0.07	0.05	0.09	0.06	0.14	0.08	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 7.3

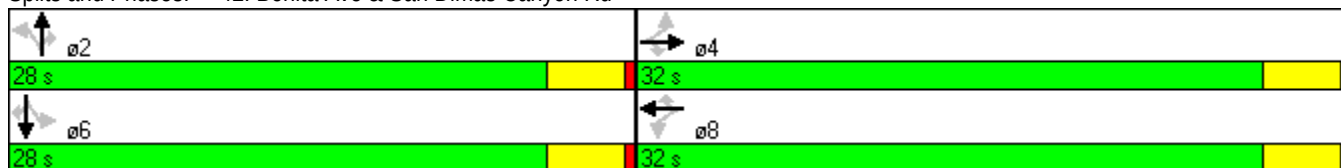
Intersection LOS: A

Intersection Capacity Utilization 46.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	237	715	58	34	571	136	22	34	25	115	40	183
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5029	0	1770	4938	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.251			0.324			0.729			0.733		
Satd. Flow (perm)	468	5029	0	604	4938	0	1358	1863	1583	1365	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			90				27			199
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	258	840	0	37	769	0	24	37	27	125	43	199
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	17.0	29.0	0.0	8.0	20.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	28.3	27.1		17.7	13.3		10.0	10.0	10.0	10.2	10.2	10.2
Actuated g/C Ratio	0.65	0.62		0.41	0.31		0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.42	0.27		0.10	0.49		0.08	0.09	0.07	0.39	0.10	0.38
Control Delay	6.9	6.9		6.7	13.5		15.7	15.6	7.6	20.3	15.7	5.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	6.9		6.7	13.5		15.7	15.6	7.6	20.3	15.7	5.6
LOS	A	A		A	B		B	B	A	C	B	A
Approach Delay		6.9			13.2			13.2			11.7	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	24	28		3	53		5	8	0	29	9	0
Queue Length 95th (ft)	71	91		14	104		20	27	15	72	30	39
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	729	3189		362	2040		649	890	770	652	890	860
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.26		0.10	0.38		0.04	0.04	0.04	0.19	0.05	0.23

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 43.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 10.1

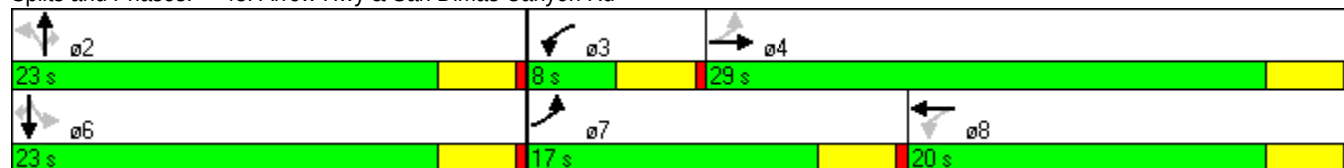
Intersection LOS: B

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

44: Third St & Wheeler Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	19	3	38	16	5	54	16	492	15	34	296	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	21	3	41	17	5	59	17	535	16	37	322	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	765	988	167	855	985	276	334			551		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	765	988	167	855	985	276	334			551		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	99	95	92	98	92	99			96		
cM capacity (veh/h)	254	234	848	228	234	722	1222			1015		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	24	41	23	59	285	284	198	173				
Volume Left	21	0	17	0	17	0	37	0				
Volume Right	0	41	0	59	0	16	0	12				
cSH	251	848	229	722	1222	1700	1015	1700				
Volume to Capacity	0.10	0.05	0.10	0.08	0.01	0.17	0.04	0.10				
Queue Length 95th (ft)	8	4	8	7	1	0	3	0				
Control Delay (s)	20.9	9.5	22.4	10.4	0.6	0.0	1.9	0.0				
Lane LOS	C	A	C	B	A		A					
Approach Delay (s)	13.6		13.8		0.3		1.0					
Approach LOS	B		B									
Intersection Summary												
Average Delay			2.4									
Intersection Capacity Utilization			41.9%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

45: Arrow Hwy & Wheeler Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	153	638	9	5	648	234	55	103	63	251	35	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5075	0	1770	4882	0	1770	1863	1583	0	3309	0
Flt Permitted	0.188			0.373			0.484				0.740	
Satd. Flow (perm)	350	5075	0	695	4882	0	902	1863	1583	0	2533	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			156				68		64	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	166	703	0	5	958	0	60	112	68	0	398	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	14.0	28.0	0.0	8.0	22.0	0.0	24.0	24.0	24.0	24.0	24.0	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
Act Effect Green (s)	25.0	23.8		18.4	15.5		12.2	12.2	12.2		12.2	
Actuated g/C Ratio	0.54	0.52		0.40	0.34		0.26	0.26	0.26		0.26	
v/c Ratio	0.36	0.27		0.01	0.55		0.25	0.23	0.14		0.55	
Control Delay	7.8	7.2		6.4	13.0		18.3	16.4	5.6		16.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	7.8	7.2		6.4	13.0		18.3	16.4	5.6		16.6	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		7.3			12.9			13.8			16.6	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	18	28		1	66		14	26	0		44	
Queue Length 95th (ft)	51	82		4	120		40	60	23		83	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	531	3218		380	2190		431	891	793		1245	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.31	0.22		0.01	0.44		0.14	0.13	0.09		0.32	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 11.6

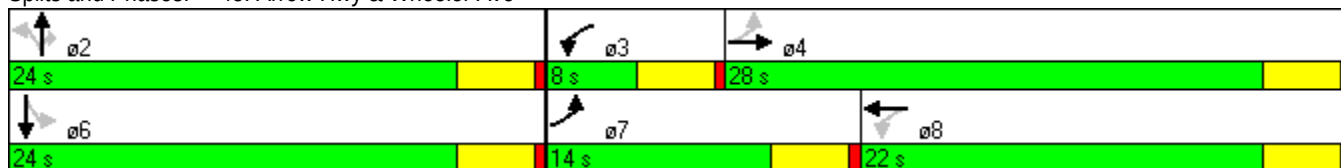
Intersection LOS: B

Intersection Capacity Utilization 56.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

46: Third St & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	55	7	9	68	6	9	59	20	4	15	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	60	8	10	74	7	10	64	22	4	16	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	80			67			173	168	60	216	170	74
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	80			67			173	168	60	216	170	74
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	91	98	99	98	100
cM capacity (veh/h)	1517			1534			768	718	1006	670	717	988
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	64	8	84	7	96	24						
Volume Left	4	0	10	0	10	4						
Volume Right	0	8	0	7	22	3						
cSH	1517	1700	1534	1700	773	735						
Volume to Capacity	0.00	0.00	0.01	0.00	0.12	0.03						
Queue Length 95th (ft)	0	0	0	0	11	3						
Control Delay (s)	0.5	0.0	0.9	0.0	10.3	10.1						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.5		0.8		10.3	10.1						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.7									
Intersection Capacity Utilization			23.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

47: First St & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	7	5	7	9	1	9	96	5	2	19	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	8	5	8	10	1	10	104	5	2	21	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	155	154	21	158	155	104	27			110		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	155	154	21	158	155	104	27			110		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	99	99	100	99			100		
cM capacity (veh/h)	798	732	1057	793	731	950	1587			1480		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	11	5	18	114	5	23	7					
Volume Left	3	0	8	10	0	2	0					
Volume Right	0	5	1	0	5	0	7					
cSH	750	1057	766	1587	1700	1480	1700					
Volume to Capacity	0.01	0.01	0.02	0.01	0.00	0.00	0.00					
Queue Length 95th (ft)	1	0	2	0	0	0	0					
Control Delay (s)	9.9	8.4	9.8	0.7	0.0	0.7	0.0					
Lane LOS	A	A	A	A		A						
Approach Delay (s)	9.4		9.8	0.6		0.6						
Approach LOS	A		A									
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			25.7%		ICU Level of Service					A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

48: Arrow Hwy & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	71	1000	9	2	750	49	6	2	9	12	0	17
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	77	1087	10	2	815	53	7	2	10	13	0	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	868			1097			1541	2119	367	1374	2097	298
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	868			1097			1541	2119	367	1374	2097	298
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			100			91	95	98	86	100	97
cM capacity (veh/h)	771			632			70	45	630	91	46	698
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	77	435	435	227	2	326	326	216	9	10	13	18
Volume Left	77	0	0	0	2	0	0	0	7	0	13	0
Volume Right	0	0	0	10	0	0	0	53	0	10	0	18
cSH	771	1700	1700	1700	632	1700	1700	1700	62	630	91	698
Volume to Capacity	0.10	0.26	0.26	0.13	0.00	0.19	0.19	0.13	0.14	0.02	0.14	0.03
Queue Length 95th (ft)	8	0	0	0	0	0	0	0	12	1	12	2
Control Delay (s)	10.2	0.0	0.0	0.0	10.7	0.0	0.0	0.0	72.9	10.8	50.8	10.3
Lane LOS	B				B				F	B	F	B
Approach Delay (s)	0.7				0.0				40.0		27.1	
Approach LOS									E		D	
Intersection Summary												
Average Delay			1.1									
Intersection Capacity Utilization			40.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

49: Third St & D St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	24	46	51	15	75	39	119	192	23	15	139	60
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	50	55	16	82	42	129	209	25	16	151	65
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	132	140	363	233								
Volume Left (vph)	26	16	129	16								
Volume Right (vph)	55	42	25	65								
Hadj (s)	-0.18	-0.12	0.06	-0.12								
Departure Headway (s)	5.5	5.6	5.1	5.1								
Degree Utilization, x	0.20	0.22	0.51	0.33								
Capacity (veh/h)	574	572	671	658								
Control Delay (s)	9.9	10.1	13.3	10.6								
Approach Delay (s)	9.9	10.1	13.3	10.6								
Approach LOS	A	B	B	B								
Intersection Summary												
Delay				11.5								
HCM Level of Service				B								
Intersection Capacity Utilization				51.0%	ICU Level of Service	A						
Analysis Period (min)				15								



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	33	28	25	233	117	31
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	30	27	253	127	34
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	452	144	161			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	452	144	161			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	97	98			
cM capacity (veh/h)	555	903	1418			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	66	280	161			
Volume Left	36	27	0			
Volume Right	30	0	34			
cSH	674	1418	1700			
Volume to Capacity	0.10	0.02	0.09			
Queue Length 95th (ft)	8	1	0			
Control Delay (s)	10.9	0.9	0.0			
Lane LOS	B	A				
Approach Delay (s)	10.9	0.9	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			35.2%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

51: Arrow Hwy & D St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	944	28	14	762	149	27	22	22	94	20	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5065	0	1770	4958	0	0	1812	1583	0	1788	1583
Flt Permitted	0.277			0.259				0.763			0.744	
Satd. Flow (perm)	516	5065	0	482	4958	0	0	1421	1583	0	1386	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			112				24			42
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	1056	0	15	990	0	0	53	24	0	124	42
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effect Green (s)	23.8	23.8		23.8	23.8			9.9	9.9		10.3	10.3
Actuated g/C Ratio	0.73	0.73		0.73	0.73			0.31	0.31		0.32	0.32
v/c Ratio	0.26	0.28		0.04	0.27			0.12	0.05		0.28	0.08
Control Delay	7.3	4.1		4.9	3.6			14.1	7.7		15.4	6.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	7.3	4.1		4.9	3.6			14.1	7.7		15.4	6.5
LOS	A	A		A	A			B	A		B	A
Approach Delay		4.3			3.6			12.1			13.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	9	34		1	28			7	0		18	0
Queue Length 95th (ft)	40	75		8	63			37	14		74	19
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	455	4466		425	4384			935	1050		912	1056
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.22	0.24		0.04	0.23			0.06	0.02		0.14	0.04

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 4.9

Intersection LOS: A

Intersection Capacity Utilization 46.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	18	42	19	8	41	10	58	300	29	9	116	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	46	21	9	45	11	63	326	32	10	126	13
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	65	21	53	11	389	32	136	13				
Volume Left (vph)	20	0	9	0	63	0	10	0				
Volume Right (vph)	0	21	0	11	0	32	0	13				
Hadj (s)	0.18	-0.67	0.12	-0.67	0.12	-0.67	0.07	-0.67				
Departure Headway (s)	6.2	5.3	6.1	5.3	5.2	4.4	5.4	4.7				
Degree Utilization, x	0.11	0.03	0.09	0.02	0.56	0.04	0.20	0.02				
Capacity (veh/h)	536	615	537	609	680	785	639	735				
Control Delay (s)	8.7	7.3	8.5	7.2	13.4	6.4	8.6	6.5				
Approach Delay (s)	8.4		8.3		12.9		8.4					
Approach LOS	A		A		B		A					
Intersection Summary												
Delay			11.0									
HCM Level of Service			B									
Intersection Capacity Utilization			42.2%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

53: Second St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	36	20	28	6	17	7	26	356	9	4	127	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	39	22	30	7	18	8	28	387	10	4	138	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	0.91	0.91		0.91	0.91	0.91				0.91		
vC, conflicting volume	599	600	138	601	611	387	159			397		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	506	507	138	508	519	272	159			283		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	95	97	98	95	99	98			100		
cM capacity (veh/h)	405	415	910	393	408	695	1421			1160		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	91	33	415	10	142	21						
Volume Left	39	7	28	0	4	0						
Volume Right	30	8	0	10	0	21						
cSH	613	527	1421	1700	1160	1700						
Volume to Capacity	0.15	0.06	0.02	0.01	0.00	0.01						
Queue Length 95th (ft)	13	5	2	0	0	0						
Control Delay (s)	13.3	13.5	0.7	0.0	0.3	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	13.3	13.5	0.7		0.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			46.8%	ICU Level of Service					A			
Analysis Period (min)			15									

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	22	17	379	14	9	142
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	18	412	15	10	154
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.87	0.87			0.87	
vC, conflicting volume	586	412			427	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	446	245			263	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	95	97			99	
cM capacity (veh/h)	490	688			1128	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	24	18	412	15	10	154
Volume Left	24	0	0	0	10	0
Volume Right	0	18	0	15	0	0
cSH	490	688	1700	1700	1128	1700
Volume to Capacity	0.05	0.03	0.24	0.01	0.01	0.09
Queue Length 95th (ft)	4	2	0	0	1	0
Control Delay (s)	12.7	10.4	0.0	0.0	8.2	0.0
Lane LOS	B	B			A	
Approach Delay (s)	11.7		0.0		0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			29.9%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

55: Arrow Hwy & E St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	46	844	168	64	577	32	282	294	123	24	133	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		68			14				134			39
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	1100	0	70	662	0	307	320	134	26	145	39
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	8.0	20.0	0.0	12.0	24.0	24.0	8.0	20.0	20.0
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
Act Effect Green (s)	4.4	15.6		4.4	15.6		8.7	17.4	17.4	4.4	10.4	10.4
Actuated g/C Ratio	0.09	0.32		0.09	0.32		0.18	0.36	0.36	0.09	0.21	0.21
v/c Ratio	0.31	0.67		0.44	0.40		0.96	0.48	0.20	0.16	0.36	0.10
Control Delay	31.3	18.0		37.6	15.5		74.1	16.7	4.4	28.2	21.0	7.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	18.0		37.6	15.5		74.1	16.7	4.4	28.2	21.0	7.5
LOS	C	B		D	B		E	B	A	C	C	A
Approach Delay		18.6			17.6			37.7			19.4	
Approach LOS		B			B			D			B	
Queue Length 50th (ft)	16	104		22	59		~120	70	0	8	42	0
Queue Length 95th (ft)	#52	172		#78	102		#280	158	31	30	83	19
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	159	1830		159	1827		319	849	794	159	671	595
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.60		0.44	0.36		0.96	0.38	0.17	0.16	0.22	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 23.5

Intersection LOS: C

Intersection Capacity Utilization 59.6%

ICU Level of Service B

Analysis Period (min) 15

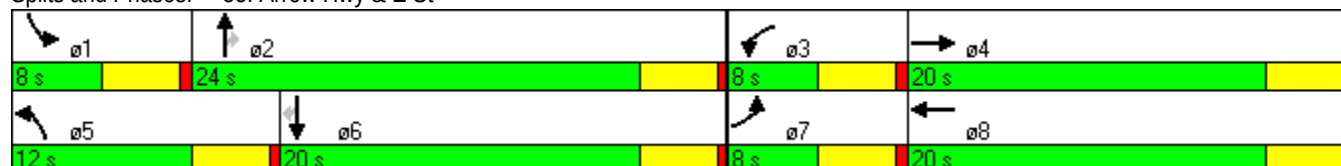
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

56: Third St & White Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	10	10	5	6	13	26	803	16	10	545	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	11	11	5	7	14	28	873	17	11	592	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											296	
pX, platoon unblocked	0.84	0.84	0.84	0.84	0.84		0.84					
vC, conflicting volume	1561	1561	592	1560	1560	873	609			890		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1572	1572	420	1571	1571	873	439			890		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	88	98	92	93	96	97			99		
cM capacity (veh/h)	66	89	532	65	89	350	942			761		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	16	11	12	14	901	17	603	16				
Volume Left	5	0	5	0	28	0	11	0				
Volume Right	0	11	0	14	0	17	0	16				
cSH	79	532	76	350	942	1700	761	1700				
Volume to Capacity	0.21	0.02	0.16	0.04	0.03	0.01	0.01	0.01				
Queue Length 95th (ft)	18	2	13	3	2	0	1	0				
Control Delay (s)	61.7	11.9	61.2	15.7	0.8	0.0	0.4	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	41.8		36.6		0.8		0.4					
Approach LOS	E		E									
Intersection Summary												
Average Delay			1.9									
Intersection Capacity Utilization			74.9%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	11	2	14	0	3	9	17	794	9	8	540	9
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	2	15	0	3	10	18	863	10	9	587	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											756	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	1516	1514	587	1521	1514	863	597			873		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1517	1515	512	1522	1515	863	523			873		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	98	97	100	97	97	98			99		
cM capacity (veh/h)	84	107	519	84	107	354	965			773		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	14	15	3	10	882	10	596	10				
Volume Left	12	0	0	0	18	0	9	0				
Volume Right	0	15	0	10	0	10	0	10				
cSH	87	519	107	354	965	1700	773	1700				
Volume to Capacity	0.16	0.03	0.03	0.03	0.02	0.01	0.01	0.01				
Queue Length 95th (ft)	14	2	2	2	1	0	1	0				
Control Delay (s)	54.5	12.1	39.7	15.5	0.5	0.0	0.3	0.0				
Lane LOS	F	B	E	C	A		A					
Approach Delay (s)	32.5		21.5		0.5		0.3					
Approach LOS	D		C									
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			69.5%		ICU Level of Service				C			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
58: First St & White Ave

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	12	2	19	13	0	26	21	771	27	19	522	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	2	21	14	0	28	23	838	29	21	567	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											1008	
pX, platoon unblocked												
vC, conflicting volume	1521	1522	567	1514	1503	838	578			867		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1521	1522	567	1514	1503	838	578			867		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	85	98	96	84	100	92	98			97		
cM capacity (veh/h)	86	113	523	89	116	366	995			776		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	15	21	14	28	23	838	29	588	11			
Volume Left	13	0	14	0	23	0	0	21	0			
Volume Right	0	21	0	28	0	0	29	0	11			
cSH	89	523	89	366	995	1700	1700	776	1700			
Volume to Capacity	0.17	0.04	0.16	0.08	0.02	0.49	0.02	0.03	0.01			
Queue Length 95th (ft)	15	3	13	6	2	0	0	2	0			
Control Delay (s)	53.5	12.2	52.7	15.7	8.7	0.0	0.0	0.7	0.0			
Lane LOS	F	B	F	C	A			A				
Approach Delay (s)	29.7		28.0		0.2			0.7				
Approach LOS	D		D									
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			57.2%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

Existing Year (2010)
PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	11	15	806	10	26	536	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	12	16	876	11	28	583	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.87	0.87			0.87		
vC, conflicting volume	1224	438			887		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	962	61			576		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	94	98			97		
cM capacity (veh/h)	214	865			866		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	28	438	438	11	28	291	291
Volume Left	12	0	0	0	28	0	0
Volume Right	16	0	0	11	0	0	0
cSH	378	1700	1700	1700	866	1700	1700
Volume to Capacity	0.07	0.26	0.26	0.01	0.03	0.17	0.17
Queue Length 95th (ft)	6	0	0	0	3	0	0
Control Delay (s)	15.3	0.0	0.0	0.0	9.3	0.0	0.0
Lane LOS	C				A		
Approach Delay (s)	15.3	0.0			0.4		
Approach LOS	C						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utilization			32.3%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

Existing Year (2010)
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	155	516	152	123	326	52	149	744	172	98	450	139
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			165			57			86			127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	561	165	134	354	57	162	996	0	107	640	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	0.0	10.0	20.0	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
Act Effect Green (s)	6.1	16.1	16.1	6.1	13.5	13.5	6.1	16.7		6.0	14.1	
Actuated g/C Ratio	0.11	0.29	0.29	0.11	0.24	0.24	0.11	0.30		0.11	0.25	
v/c Ratio	0.88	0.55	0.29	0.70	0.41	0.13	0.84	0.65		0.56	0.48	
Control Delay	71.5	20.9	5.2	49.2	19.7	6.5	66.4	19.2		39.7	15.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	71.5	20.9	5.2	49.2	19.7	6.5	66.4	19.2		39.7	15.6	
LOS	E	C	A	D	B	A	E	B		D	B	
Approach Delay		27.5			25.6			25.8			19.1	
Approach LOS		C			C			C			B	
Queue Length 50th (ft)	62	92	0	48	54	0	59	108		38	55	
Queue Length 95th (ft)	#165	138	38	#129	87	23	#158	150		#99	84	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	192	1048	585	192	1026	499	192	1534		192	1512	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.88	0.54	0.28	0.70	0.35	0.11	0.84	0.65		0.56	0.42	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 24.7

Intersection LOS: C

Intersection Capacity Utilization 58.1%

ICU Level of Service B

Gold Line Foothill Extension - Azusa to Montclair
 60: White Ave & Arrow Hwy

Existing Year (2010)
 PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
10 s	20 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
10 s	20 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

61: Bonita Ave & D St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	71	312	35	34	334	102	53	158	32	102	157	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1809	0	1770	1863	1583
Flt Permitted	0.542			0.557				0.887		0.674		
Satd. Flow (perm)	1010	1863	1583	1038	1863	1583	0	1623	0	1255	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			38			103			15			136
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	77	339	38	37	363	111	0	265	0	111	171	136
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	0.0	28.0	28.0	28.0
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
Act Effect Green (s)	15.6	15.6	15.6	15.6	15.6	15.6		11.5		11.2	11.2	11.2
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.53	0.53		0.39		0.38	0.38	0.38
v/c Ratio	0.14	0.34	0.04	0.07	0.37	0.13		0.41		0.23	0.24	0.20
Control Delay	7.5	8.2	3.1	6.9	8.4	2.7		10.9		10.3	9.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	7.5	8.2	3.1	6.9	8.4	2.7		10.9		10.3	9.7	3.3
LOS	A	A	A	A	A	A		B		B	A	A
Approach Delay		7.6			7.0			10.9			7.7	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	7	35	0	3	38	1		29		12	18	0
Queue Length 95th (ft)	29	100	10	16	108	19		95		46	62	24
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	878	1619	1380	902	1619	1389		1286		992	1473	1280
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.09	0.21	0.03	0.04	0.22	0.08		0.21		0.11	0.12	0.11

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 29.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 8.0

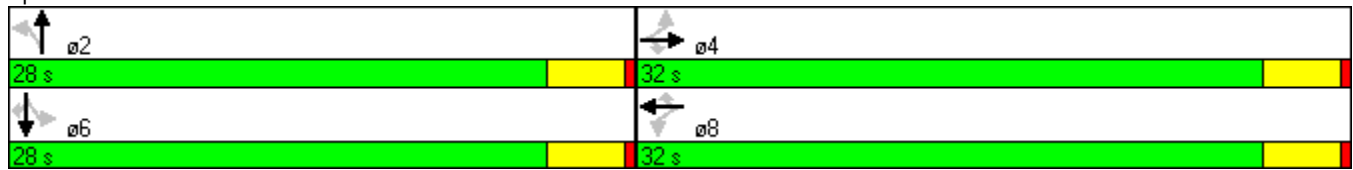
Intersection LOS: A

Intersection Capacity Utilization 56.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

62: Foothill Blvd & Fruit St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	225	741	138	113	567	186	232	585	44	203	323	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4963	0	1770	3539	1583	3433	3500	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4963	0	1770	3539	1583	3433	3500	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41				158		8				171
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	245	955	0	123	616	202	252	684	0	221	351	171
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	20.0	28.0	0.0	15.0	23.0	23.0	15.0	28.0	0.0	19.0	32.0	32.0
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
Act Effect Green (s)	14.7	25.8		9.7	18.1	18.1	10.2	21.3		13.7	24.9	24.9
Actuated g/C Ratio	0.17	0.31		0.12	0.22	0.22	0.12	0.25		0.16	0.30	0.30
v/c Ratio	0.79	0.62		0.60	0.81	0.43	0.60	0.77		0.76	0.34	0.29
Control Delay	54.3	27.8		50.0	41.9	12.0	43.1	35.6		53.7	24.5	5.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	54.3	27.8		50.0	41.9	12.0	43.1	35.6		53.7	24.5	5.3
LOS	D	C		D	D	B	D	D		D	C	A
Approach Delay		33.2			36.5			37.6			28.8	
Approach LOS		C			D			D			C	
Queue Length 50th (ft)	134	171		67	176	20	71	184		121	80	0
Queue Length 95th (ft)	#251	219		123	#260	80	109	247		#228	116	44
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	341	1551		235	810	484	455	1018		320	1194	647
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.72	0.62		0.52	0.76	0.42	0.55	0.67		0.69	0.29	0.26

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 84.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 34.2

Intersection LOS: C

Intersection Capacity Utilization 70.3%

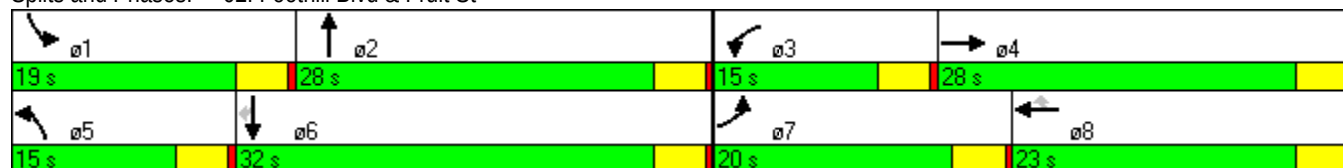
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	143	332	63	43	285	113	63	633	103	62	419	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.476			0.405			0.421			0.228		
Satd. Flow (perm)	887	1863	1583	754	1863	1583	784	1863	1583	425	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			123			112			93
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	155	361	68	47	310	123	68	688	112	67	455	93
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	36.0	36.0	36.0	36.0	36.0
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
Act Effect Green (s)	14.7	14.7	14.7	14.7	14.7	14.7	23.1	23.1	23.1	23.1	23.1	23.1
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.50	0.50	0.50	0.50	0.50	0.50
v/c Ratio	0.55	0.61	0.12	0.20	0.53	0.21	0.17	0.74	0.13	0.32	0.49	0.11
Control Delay	24.0	20.0	5.1	16.2	18.2	4.5	8.3	15.5	2.2	12.5	10.2	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	20.0	5.1	16.2	18.2	4.5	8.3	15.5	2.2	12.5	10.2	2.3
LOS	C	C	A	B	B	A	A	B	A	B	B	A
Approach Delay		19.4			14.5			13.2			9.2	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)	35	82	0	9	68	0	9	131	0	10	73	0
Queue Length 95th (ft)	98	181	22	34	153	29	30	278	18	37	154	17
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	417	875	780	354	875	809	564	1340	1170	306	1340	1165
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.41	0.09	0.13	0.35	0.15	0.12	0.51	0.10	0.22	0.34	0.08

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.9

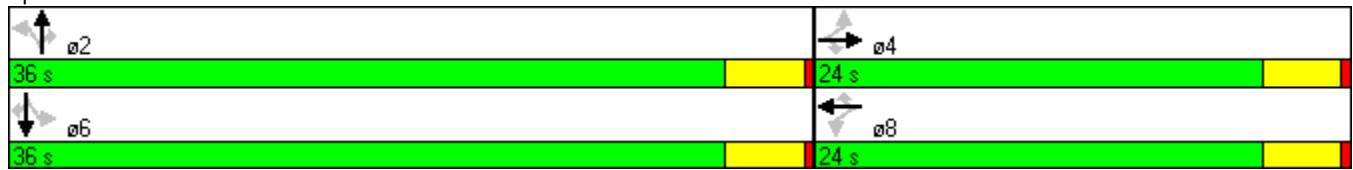
Intersection LOS: B

Intersection Capacity Utilization 73.0%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

64: McKinley Ave & White Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	114	115	42	70	57	50	431	49	88	535	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1745	1583	0	1827	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.679	0.875			0.823		0.950			0.950		
Satd. Flow (perm)	1202	1548	1583	0	1533	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			62			53			77
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	24%											
Lane Group Flow (vph)	158	174	125	0	122	62	54	468	53	96	582	77
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	10.0	24.0	24.0	14.0	28.0	28.0
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
Act Effect Green (s)	13.0	13.0	13.0		12.7	12.7	8.1	17.1	17.1	9.6	20.2	20.2
Actuated g/C Ratio	0.34	0.34	0.34		0.34	0.34	0.21	0.45	0.45	0.25	0.53	0.53
v/c Ratio	0.38	0.33	0.20		0.24	0.11	0.14	0.29	0.07	0.21	0.31	0.09
Control Delay	17.6	15.9	4.6		15.1	5.4	22.0	12.8	5.4	19.5	9.8	3.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	15.9	4.6		15.1	5.4	22.0	12.8	5.4	19.5	9.8	3.9
LOS	B	B	A		B	A	C	B	A	B	A	A
Approach Delay		13.4			11.8			13.0			10.4	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	33	36	0		24	0	12	48	0	20	32	0
Queue Length 95th (ft)	95	97	30		68	22	47	103	20	67	114	21
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	666	857	933		849	904	397	2099	960	661	2377	1089
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.20	0.13		0.14	0.07	0.14	0.22	0.06	0.15	0.24	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 12.0

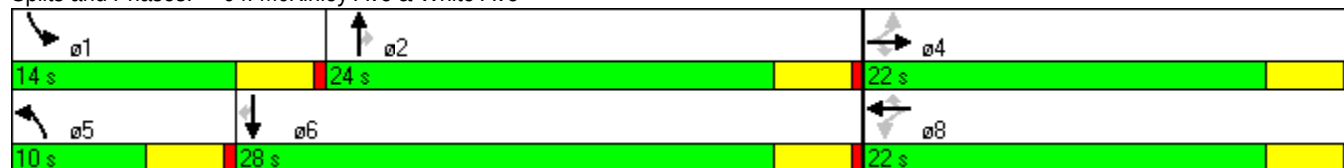
Intersection LOS: B

Intersection Capacity Utilization 43.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

65: Arrow Hwy & La Verne Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (veh/h)	5	822	0	5	454	3	164	0	4	2	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	893	0	5	493	3	178	0	4	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	497			893			1162	1412	298	813	1409	247
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	497			893			1162	1412	298	813	1409	247
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	100	99	99	100	100
cM capacity (veh/h)	1063			755			149	135	698	266	136	753
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	5	298	298	298	5	247	247	3	183	2		
Volume Left	5	0	0	0	5	0	0	0	178	2		
Volume Right	0	0	0	0	0	0	0	3	4	0		
cSH	1063	1700	1700	1700	755	1700	1700	1700	152	266		
Volume to Capacity	0.01	0.18	0.18	0.18	0.01	0.15	0.15	0.00	1.20	0.01		
Queue Length 95th (ft)	0	0	0	0	1	0	0	0	261	1		
Control Delay (s)	8.4	0.0	0.0	0.0	9.8	0.0	0.0	0.0	196.9	18.7		
Lane LOS	A				A				F	C		
Approach Delay (s)	0.1				0.1				196.9	18.7		
Approach LOS									F	C		
Intersection Summary												
Average Delay				22.8								
Intersection Capacity Utilization			32.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	71	392	35	24	376	23	46	12	27	15	9	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	77	426	38	26	409	25	50	13	29	16	10	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	434			464			1105	1085	445	1090	1092	421
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	434			464			1105	1085	445	1090	1092	421
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	93			98			68	93	95	90	95	94
cM capacity (veh/h)	1126			1097			158	197	613	162	195	632
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	77	464	26	434	63	29	26	40				
Volume Left	77	0	26	0	50	0	16	0				
Volume Right	0	38	0	25	0	29	0	40				
cSH	1126	1700	1097	1700	164	613	173	632				
Volume to Capacity	0.07	0.27	0.02	0.26	0.38	0.05	0.15	0.06				
Queue Length 95th (ft)	6	0	2	0	41	4	13	5				
Control Delay (s)	8.4	0.0	8.4	0.0	39.9	11.2	29.4	11.1				
Lane LOS	A		A		E	B	D	B				
Approach Delay (s)	1.2		0.5		30.8		18.3					
Approach LOS					D		C					
Intersection Summary												
Average Delay			4.2									
Intersection Capacity Utilization			45.9%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

Existing Year (2010)
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Volume (veh/h)	22	734	1	10	440	11	9	12	15	13	8	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	798	1	11	478	12	10	13	16	14	9	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	490			799			1158	1358	266	837	1347	239
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	490			799			1158	1358	266	837	1347	239
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			93	91	98	94	94	94
cM capacity (veh/h)	1069			819			132	142	732	230	145	762
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	24	319	319	161	11	239	239	12	10	29	23	47
Volume Left	24	0	0	0	11	0	0	0	10	0	14	0
Volume Right	0	0	0	1	0	0	0	12	0	16	0	47
cSH	1069	1700	1700	1700	819	1700	1700	1700	132	258	188	762
Volume to Capacity	0.02	0.19	0.19	0.09	0.01	0.14	0.14	0.01	0.07	0.11	0.12	0.06
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	6	10	10	5
Control Delay (s)	8.4	0.0	0.0	0.0	9.5	0.0	0.0	0.0	34.5	20.8	26.8	10.0
Lane LOS	A				A				D	C	D	B
Approach Delay (s)	0.2				0.2				24.2		15.5	
Approach LOS									C		C	
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			32.8%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	244	118	106	183	69	102	653	103	40	500	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.633			0.528			0.950			0.950		
Satd. Flow (perm)	1179	1863	1583	984	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128			75			112			76
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	265	128	115	199	75	111	710	112	43	543	76
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	14.0	29.0	29.0	9.0	24.0	24.0
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
Act Effect Green (s)	12.8	12.8	12.8	12.8	12.8	12.8	8.6	18.1	18.1	5.7	14.3	14.3
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.20	0.42	0.42	0.13	0.33	0.33
v/c Ratio	0.28	0.48	0.23	0.39	0.36	0.14	0.31	0.47	0.15	0.18	0.46	0.13
Control Delay	17.0	17.9	4.9	19.7	16.4	5.4	21.9	11.0	3.4	25.3	14.5	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	17.9	4.9	19.7	16.4	5.4	21.9	11.0	3.4	25.3	14.5	5.0
LOS	B	B	A	B	B	A	C	B	A	C	B	A
Approach Delay		14.3			15.3			11.4			14.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	21	59	0	25	43	0	26	47	0	11	63	0
Queue Length 95th (ft)	61	138	32	74	105	24	77	136	24	41	119	23
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	570	901	832	476	901	805	476	2317	1075	238	1902	886
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.29	0.15	0.24	0.22	0.09	0.23	0.31	0.10	0.18	0.29	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 13.3

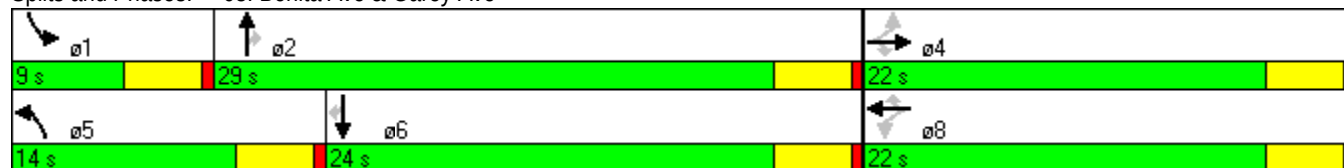
Intersection LOS: B

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

Existing Year (2010)
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	43	11	838	729	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	47	12	911	792	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.98					
vC, conflicting volume	1274	399	798			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1235	399	798			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	92	99			
cM capacity (veh/h)	162	601	820			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	47	12	455	455	528	270
Volume Left	0	12	0	0	0	0
Volume Right	47	0	0	0	0	5
cSH	601	820	1700	1700	1700	1700
Volume to Capacity	0.08	0.01	0.27	0.27	0.31	0.16
Queue Length 95th (ft)	6	1	0	0	0	0
Control Delay (s)	11.5	9.5	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	11.5	0.1			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			30.3%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

70: Arrow Hwy & Garey Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	78	560	74	118	345	141	141	601	129	155	562	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	4867	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	4867	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			153				102			38
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	689	0	128	528	0	153	653	140	168	611	49
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	10.0	21.0	21.0	10.0	21.0	21.0
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
Act Effect Green (s)	5.1	13.3		5.1	15.5		6.1	15.2	15.2	6.1	15.2	15.2
Actuated g/C Ratio	0.09	0.24		0.09	0.28		0.11	0.27	0.27	0.11	0.27	0.27
v/c Ratio	0.53	0.56		0.80	0.36		0.80	0.68	0.28	0.88	0.63	0.11
Control Delay	40.7	19.6		65.5	13.0		59.5	22.5	8.2	71.2	21.5	8.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	19.6		65.5	13.0		59.5	22.5	8.2	71.2	21.5	8.4
LOS	D	B		E	B		E	C	A	E	C	A
Approach Delay		22.0			23.3			26.3			30.8	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	29	72		46	39		54	104	10	60	95	3
Queue Length 95th (ft)	#84	104		#133	64		#149	158	46	#165	147	23
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	160	1475		160	1557		192	1089	558	192	1089	513
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.47		0.80	0.34		0.80	0.60	0.25	0.88	0.56	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.8

Intersection LOS: C

Intersection Capacity Utilization 57.5%

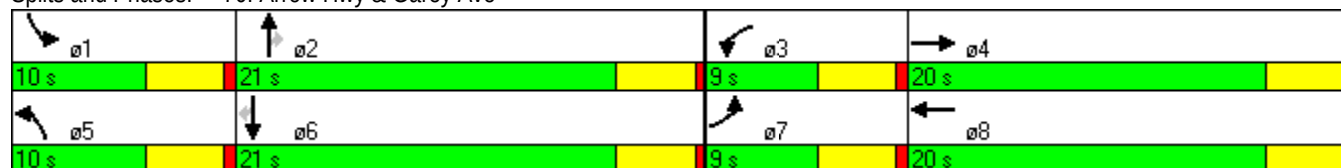
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair

71: Bonita Ave & Towne Ave

Existing Year (2010)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	232	157	68	115	102	89	847	96	74	653	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3323	0	1770	3288	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.605			0.505			0.352			0.251		
Satd. Flow (perm)	1127	3323	0	941	3288	0	656	3539	1583	468	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		169			95				77			55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	423	0	74	236	0	97	921	104	80	710	57
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	26.0	26.0	0.0	26.0	26.0	0.0	34.0	34.0	34.0	34.0	34.0	34.0
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
Act Effect Green (s)	13.2	13.2		13.2	13.2		20.1	20.1	20.1	20.1	20.1	20.1
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.48	0.48	0.48	0.48	0.48	0.48
v/c Ratio	0.52	0.37		0.25	0.22		0.31	0.55	0.13	0.36	0.42	0.07
Control Delay	19.2	8.1		14.8	7.8		11.0	9.5	3.6	13.6	8.4	3.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	8.1		14.8	7.8		11.0	9.5	3.6	13.6	8.4	3.0
LOS	B	A		B	A		B	A	A	B	A	A
Approach Delay		11.5			9.5			9.1			8.5	
Approach LOS		B			A			A			A	
Queue Length 50th (ft)	34	22		12	12		12	67	3	10	48	0
Queue Length 95th (ft)	99	60		45	37		48	155	24	47	113	15
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	650	1988		543	1937		488	2632	1197	348	2632	1191
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.21		0.14	0.12		0.20	0.35	0.09	0.23	0.27	0.05

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.5

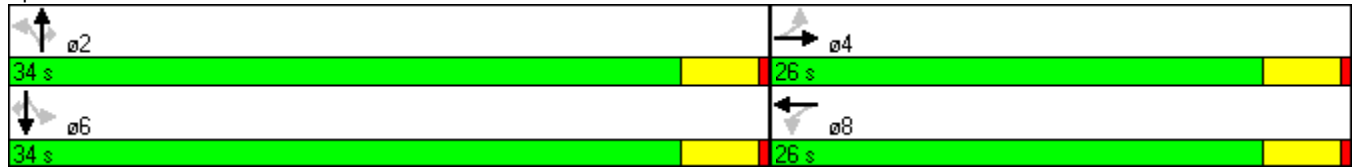
Intersection LOS: A

Intersection Capacity Utilization 56.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

Existing Year (2010)
PM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	24	33	1010	13	26	948		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	26	36	1098	14	28	1030		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None				None			
Median storage (veh)								
Upstream signal (ft)	932							
pX, platoon unblocked	0.85	0.85			0.85			
vC, conflicting volume	1670	549			1112			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1443	132			791			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	74	95			96			
cM capacity (veh/h)	101	763			705			
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	26	36	549	549	14	28	515	515
Volume Left	26	0	0	0	0	28	0	0
Volume Right	0	36	0	0	14	0	0	0
cSH	101	763	1700	1700	1700	705	1700	1700
Volume to Capacity	0.26	0.05	0.32	0.32	0.01	0.04	0.30	0.30
Queue Length 95th (ft)	24	4	0	0	0	3	0	0
Control Delay (s)	52.7	9.9	0.0	0.0	0.0	10.3	0.0	0.0
Lane LOS	F	A				B		
Approach Delay (s)	27.9		0.0			0.3		
Approach LOS	D							
Intersection Summary								
Average Delay			0.9					
Intersection Capacity Utilization			37.9%		ICU Level of Service		A	
Analysis Period (min)			15					

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

73: Arrow Hwy & Towne Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	298	655	63	187	399	112	136	642	101	156	739	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	4917	0	1770	3468	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	4917	0	1770	3468	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			69			19				101
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	780	0	203	556	0	148	808	0	170	803	152
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	25.0	23.0	0.0	22.0	20.0	0.0	15.0	29.0	0.0	16.0	30.0	30.0
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
Act Effect Green (s)	18.7	18.3		14.3	13.9		10.3	23.1		11.2	24.0	24.0
Actuated g/C Ratio	0.22	0.22		0.17	0.17		0.12	0.28		0.13	0.29	0.29
v/c Ratio	0.81	0.70		0.67	0.63		0.68	0.83		0.71	0.79	0.29
Control Delay	49.3	34.0		44.6	32.5		53.6	36.7		54.2	34.4	11.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	49.3	34.0		44.6	32.5		53.6	36.7		54.2	34.4	11.4
LOS	D	C		D	C		D	D		D	C	B
Approach Delay		38.5			35.7			39.3			34.2	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	171	143		108	93		81	217		93	216	21
Queue Length 95th (ft)	#303	193		176	130		#167	#302		#188	290	67
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	455	1201		390	1019		238	1074		260	1126	573
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.71	0.65		0.52	0.55		0.62	0.75		0.65	0.71	0.27

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 37.0

Intersection LOS: D

Intersection Capacity Utilization 69.7%

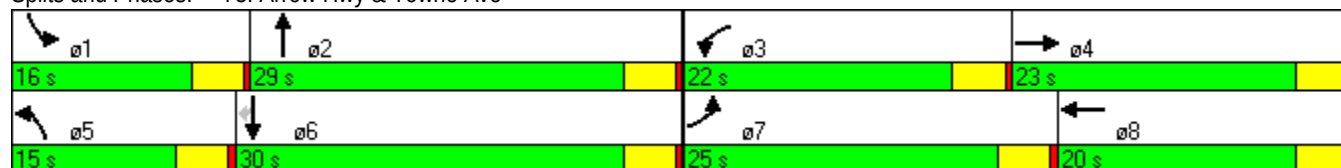
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

74: Harrison Ave & Garey Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↗	↕	↗	↗	↕	↗
Volume (vph)	21	5	28	72	18	66	32	736	62	47	520	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1790	1583	0	1792	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.889			0.876		0.440			0.349		
Satd. Flow (perm)	0	1656	1583	0	1632	1583	820	3539	1583	650	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			30			72			61			37
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	28	30	0	98	72	35	800	67	51	565	37
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	36.0	36.0	36.0	36.0	36.0
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
Act Effect Green (s)		8.6	8.6		8.9	8.9	19.3	19.3	19.3	19.3	19.3	19.3
Actuated g/C Ratio		0.32	0.32		0.33	0.33	0.71	0.71	0.71	0.71	0.71	0.71
v/c Ratio		0.05	0.06		0.18	0.13	0.06	0.32	0.06	0.11	0.22	0.03
Control Delay		11.2	6.0		11.6	4.8	4.7	4.4	2.0	5.2	4.0	2.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		11.2	6.0		11.6	4.8	4.7	4.4	2.0	5.2	4.0	2.1
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		8.5			8.7			4.3			4.0	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)		3	0		12	0	2	36	1	4	23	0
Queue Length 95th (ft)		19	14		47	21	12	77	11	17	52	8
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		1225	1179		1207	1190	766	3305	1482	607	3305	1481
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.02	0.03		0.08	0.06	0.05	0.24	0.05	0.08	0.17	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 27.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.32

Intersection Signal Delay: 4.7

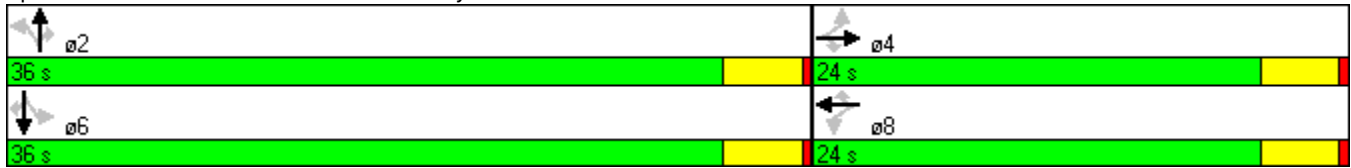
Intersection LOS: A

Intersection Capacity Utilization 45.3%

ICU Level of Service A

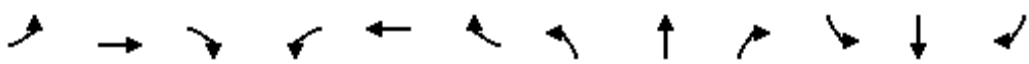
Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	131	111	55	123	70	86	513	40	42	442	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.671			0.666			0.438			0.364		
Satd. Flow (perm)	1250	1863	1583	1241	1863	1583	816	1863	1583	678	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			121			76			32			54
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	142	121	60	134	76	93	558	43	46	480	54
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	38.0	38.0	38.0	38.0	38.0	38.0
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
Act Effect Green (s)	10.4	10.4	10.4	10.4	10.4	10.4	17.8	17.8	17.8	17.6	17.6	17.6
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.55	0.55	0.55	0.54	0.54	0.54
v/c Ratio	0.23	0.24	0.20	0.15	0.22	0.14	0.21	0.54	0.05	0.12	0.47	0.06
Control Delay	14.2	13.5	4.7	13.4	13.4	5.1	6.5	8.3	2.8	5.9	7.5	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	13.5	4.7	13.4	13.4	5.1	6.5	8.3	2.8	5.9	7.5	2.1
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		10.7			11.1			7.8			6.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	12	19	0	8	18	0	7	55	1	3	45	0
Queue Length 95th (ft)	54	73	30	38	69	24	32	162	11	18	132	10
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	756	1127	1005	751	1127	988	735	1679	1430	611	1679	1432
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.13	0.12	0.08	0.12	0.08	0.13	0.33	0.03	0.08	0.29	0.04

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.5

Intersection LOS: A

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

76: First St & Indian Hill Blvd

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	26	69	145	41	111	70	514	182	38	529	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1840	0
Flt Permitted	0.728			0.739			0.950			0.950		
Satd. Flow (perm)	1356	1863	1583	1377	1863	1583	1770	1863	1583	1770	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			75			121			198			10
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	28	75	158	45	121	76	559	198	41	624	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0	32.0	32.0	8.0	32.0	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
Act Effect Green (s)	12.5	12.5	12.5	12.7	12.7	12.7	5.8	26.0	26.0	5.8	24.7	
Actuated g/C Ratio	0.29	0.29	0.29	0.30	0.30	0.30	0.14	0.61	0.61	0.14	0.58	
v/c Ratio	0.05	0.05	0.14	0.38	0.08	0.22	0.31	0.49	0.19	0.17	0.58	
Control Delay	16.9	16.7	6.1	20.6	16.7	5.5	32.2	10.6	2.3	26.9	13.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	16.9	16.7	6.1	20.6	16.7	5.5	32.2	10.6	2.3	26.9	13.1	
LOS	B	B	A	C	B	A	C	B	A	C	B	
Approach Delay		10.1			14.4			10.6			13.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	4	6	0	39	10	0	21	72	0	11	135	
Queue Length 95th (ft)	18	24	26	95	33	32	#85	239	28	41	280	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	635	872	781	645	872	806	243	1260	1135	243	1235	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.03	0.10	0.24	0.05	0.15	0.31	0.44	0.17	0.17	0.51	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 12.4

Intersection LOS: B

Intersection Capacity Utilization 59.1%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

77: Santa Fe St & Indian Hill Blvd

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	78	0	0	18	10	751	2	0	736	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	85	0	0	20	11	816	2	0	800	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	0.95	0.95		0.95	0.95	0.95				0.95		
vC, conflicting volume	1252	1642	402	1323	1642	408	804			818		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1158	1570	402	1233	1570	270	804			702		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	86	100	100	97	99			100		
cM capacity (veh/h)	138	103	598	107	103	691	816			846		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	85	20	11	408	408	2	400	404				
Volume Left	0	0	11	0	0	0	0	0				
Volume Right	85	20	0	0	0	2	0	4				
cSH	598	691	816	1700	1700	1700	846	1700				
Volume to Capacity	0.14	0.03	0.01	0.24	0.24	0.00	0.00	0.24				
Queue Length 95th (ft)	12	2	1	0	0	0	0	0				
Control Delay (s)	12.0	10.4	9.5	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	B	A									
Approach Delay (s)	12.0	10.4	0.1	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			38.6%	ICU Level of Service				A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

78: Arrow Hwy & Indian Hill Blvd

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	933	134	109	379	53	120	598	117	104	535	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146			58			127			87
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	1014	146	118	412	58	130	650	127	113	582	87
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	11.0	22.0	22.0	9.0	20.0	20.0	9.0	20.0	20.0	9.0	20.0	20.0
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
Act Effect Green (s)	6.8	18.3	18.3	5.1	16.7	16.7	5.1	16.7	16.7	5.1	14.4	14.4
Actuated g/C Ratio	0.12	0.32	0.32	0.09	0.29	0.29	0.09	0.29	0.29	0.09	0.25	0.25
v/c Ratio	0.58	0.89	0.24	0.74	0.39	0.11	0.82	0.62	0.23	0.71	0.65	0.19
Control Delay	38.5	32.3	4.7	59.1	18.8	6.3	69.3	22.0	5.4	55.5	23.1	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	32.3	4.7	59.1	18.8	6.3	69.3	22.0	5.4	55.5	23.1	5.9
LOS	D	C	A	E	B	A	E	C	A	E	C	A
Approach Delay		29.8			25.7			26.4			25.9	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	44	186	0	43	64	0	48	110	0	41	96	0
Queue Length 95th (ft)	#106	#306	34	#122	101	23	#136	162	33	#116	143	28
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	222	1140	609	159	1045	508	159	1053	560	159	1013	515
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.89	0.24	0.74	0.39	0.11	0.82	0.62	0.23	0.71	0.57	0.17

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 27.4

Intersection LOS: C

Intersection Capacity Utilization 67.5%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd

 ø1	 ø2	 ø3	 ø4
9 s	20 s	9 s	22 s
 ø5	 ø6	 ø7	 ø8
9 s	20 s	11 s	20 s

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	65	12	45	39	36	67	27	201	9	7	208	29
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	71	13	49	42	39	73	29	218	10	8	226	32
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	133	154	248	10	265							
Volume Left (vph)	71	42	29	0	8							
Volume Right (vph)	49	73	0	10	32							
Hadj (s)	-0.08	-0.19	0.09	-0.67	-0.03							
Departure Headway (s)	5.5	5.4	5.7	5.0	5.2							
Degree Utilization, x	0.20	0.23	0.39	0.01	0.38							
Capacity (veh/h)	583	604	597	682	653							
Control Delay (s)	9.9	9.9	11.2	6.8	11.4							
Approach Delay (s)	9.9	9.9	11.0		11.4							
Approach LOS	A	A	B		B							
Intersection Summary												
Delay			10.8									
HCM Level of Service			B									
Intersection Capacity Utilization			43.0%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
80: First St & College Ave

Existing Year (2010)

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	42	106	55	24	104	39	20	169	42	41	204	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	46	115	60	26	113	42	22	184	46	45	222	46
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	103	117	139	42	205	46	266	46				
Volume Left (vph)	46	0	26	0	22	0	45	0				
Volume Right (vph)	0	60	0	42	0	46	0	46				
Hadj (s)	0.26	-0.32	0.13	-0.67	0.09	-0.67	0.12	-0.67				
Departure Headway (s)	6.6	6.0	6.5	5.7	6.2	5.4	6.1	5.3				
Degree Utilization, x	0.19	0.20	0.25	0.07	0.35	0.07	0.45	0.07				
Capacity (veh/h)	510	558	515	579	555	621	564	636				
Control Delay (s)	9.9	9.3	10.5	7.9	11.3	7.6	12.9	7.5				
Approach Delay (s)	9.6		9.9		10.6		12.1					
Approach LOS	A		A		B		B					
Intersection Summary												
Delay			10.7									
HCM Level of Service			B									
Intersection Capacity Utilization			49.0%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

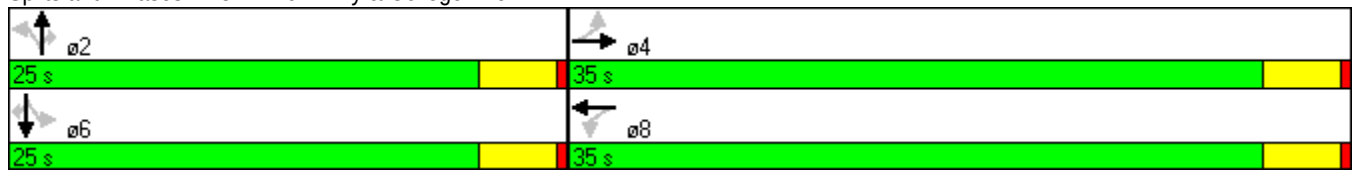
Existing Year (2010)

81: Arrow Hwy & College Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	897	27	21	498	65	14	42	28	94	89	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3525	0	1770	3479	0	0	1840	1583	1770	1863	1583
Flt Permitted	0.420			0.255				0.906		0.717		
Satd. Flow (perm)	782	3525	0	475	3479	0	0	1688	1583	1336	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			35				30			108
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	1004	0	23	612	0	0	61	30	102	97	108
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	35.0	35.0	0.0	35.0	35.0	0.0	25.0	25.0	25.0	25.0	25.0	25.0
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
Act Effect Green (s)	21.7	21.7		21.7	21.7			9.5	9.5	9.5	9.5	9.5
Actuated g/C Ratio	0.63	0.63		0.63	0.63			0.28	0.28	0.28	0.28	0.28
v/c Ratio	0.14	0.45		0.08	0.28			0.13	0.06	0.27	0.19	0.21
Control Delay	5.6	5.9		5.3	4.6			13.7	6.9	15.6	14.0	5.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	5.9		5.3	4.6			13.7	6.9	15.6	14.0	5.2
LOS	A	A		A	A			B	A	B	B	A
Approach Delay		5.8			4.7			11.5			11.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	6	52		2	25			9	0	15	14	0
Queue Length 95th (ft)	23	116		10	61			38	15	59	54	29
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	667	3005		405	2970			1090	1032	862	1202	1060
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.11	0.33		0.06	0.21			0.06	0.03	0.12	0.08	0.10
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 34.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.45												
Intersection Signal Delay: 6.5	Intersection LOS: A											
Intersection Capacity Utilization 50.9%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	2	128	3	2	0	62	224	3	3	239	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.757			0.757			0.714			0.714		
Satd. Flow (perm)	1410	1863	1583	1410	1863	0	1330	3539	1583	1330	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			139						3			86
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	2	139	3	2	0	67	243	3	3	260	86
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	29.0	29.0	29.0	29.0
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
Act Effect Green (s)	8.5	8.5	8.5	8.4	8.4		7.9	7.9	7.9	7.9	7.9	7.9
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38		0.36	0.36	0.36	0.36	0.36	0.36
v/c Ratio	0.28	0.00	0.20	0.01	0.00		0.14	0.19	0.01	0.01	0.21	0.14
Control Delay	7.5	5.5	2.4	5.3	5.5		7.3	6.6	5.0	6.3	6.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	5.5	2.4	5.3	5.5		7.3	6.6	5.0	6.3	6.7	2.8
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		5.1			5.4			6.8			5.7	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	11	0	0	0	0		5	9	0	0	10	0
Queue Length 95th (ft)	35	2	15	2	2		20	25	2	3	26	13
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1378	1821	1551	1378	1821		1283	3413	1527	1283	3413	1530
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.00	0.09	0.00	0.00		0.05	0.07	0.00	0.00	0.08	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 22.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.28

Intersection Signal Delay: 5.9

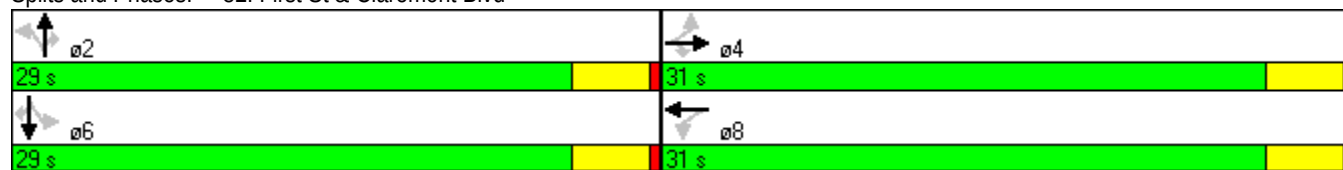
Intersection LOS: A

Intersection Capacity Utilization 34.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

83: Arrow Hwy & Claremont Blvd

Existing Year (2010)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	861	43	36	385	73	53	141	23	81	132	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			35			25				101
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	983	0	39	497	0	58	178	0	88	143	101
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.0	23.0	0.0	8.0	20.0	0.0	9.0	20.0	0.0	9.0	20.0	20.0
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
Act Effect Green (s)	8.2	23.2		5.2	18.1		6.5	10.1		6.5	12.0	12.0
Actuated g/C Ratio	0.19	0.52		0.12	0.41		0.15	0.23		0.15	0.27	0.27
v/c Ratio	0.33	0.53		0.19	0.35		0.22	0.22		0.34	0.28	0.20
Control Delay	24.9	14.5		26.4	14.9		25.6	16.3		29.4	19.5	6.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	24.9	14.5		26.4	14.9		25.6	16.3		29.4	19.5	6.2
LOS	C	B		C	B		C	B		C	B	A
Approach Delay		15.5			15.7			18.6			18.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	29	99		11	60		16	20		25	37	0
Queue Length 95th (ft)	#78	#258		38	107		49	44		#83	83	31
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	366	1849		209	1574		261	1574		261	839	768
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.30	0.53		0.19	0.32		0.22	0.11		0.34	0.17	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 52.1%

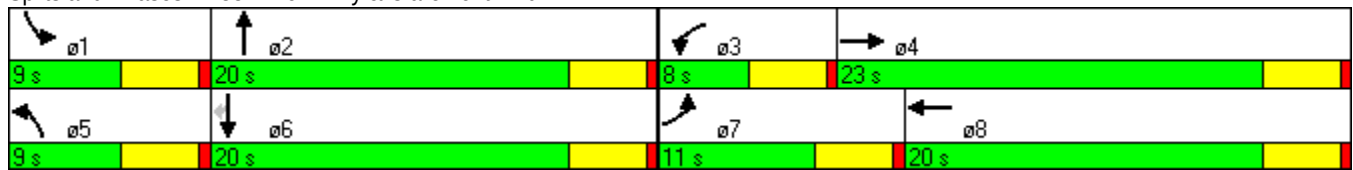
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 83: Arrow Hwy & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

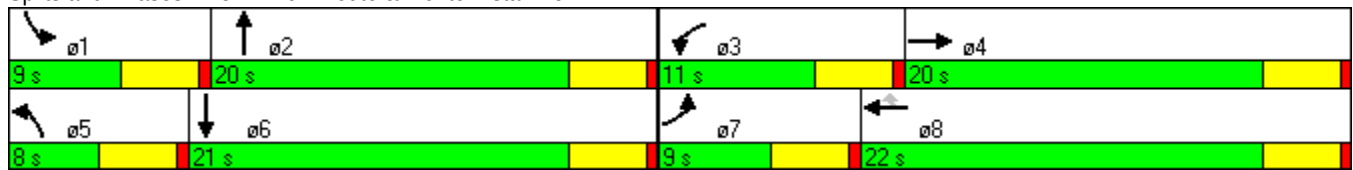
Existing Year (2010)

84: Arrow Route & Monte Vista Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	182	61	74	122	46	45	686	81	33	519	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66				50		33			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	264	0	80	133	50	49	834	0	36	584	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	11.0	22.0	22.0	8.0	20.0	0.0	9.0	21.0	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
Act Effect Green (s)	6.8	9.7		8.3	12.3	12.3	5.4	17.5		6.8	17.8	
Actuated g/C Ratio	0.18	0.26		0.22	0.33	0.33	0.14	0.47		0.18	0.48	
v/c Ratio	0.11	0.28		0.20	0.22	0.09	0.10	0.35		0.11	0.24	
Control Delay	22.5	13.3		20.9	15.4	6.8	22.4	11.7		22.5	10.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	22.5	13.3		20.9	15.4	6.8	22.4	11.7		22.5	10.9	
LOS	C	B		C	B	A	C	B		C	B	
Approach Delay		14.5			15.4			12.3			11.6	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	8	21		16	16	0	5	51		8	34	
Queue Length 95th (ft)	34	56		58	75	21	21	113		34	78	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	322	1814		450	1061	923	499	2635		322	2755	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.15		0.18	0.13	0.05	0.10	0.32		0.11	0.21	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 37.4												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.35												
Intersection Signal Delay: 12.8	Intersection LOS: B											
Intersection Capacity Utilization 42.8%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

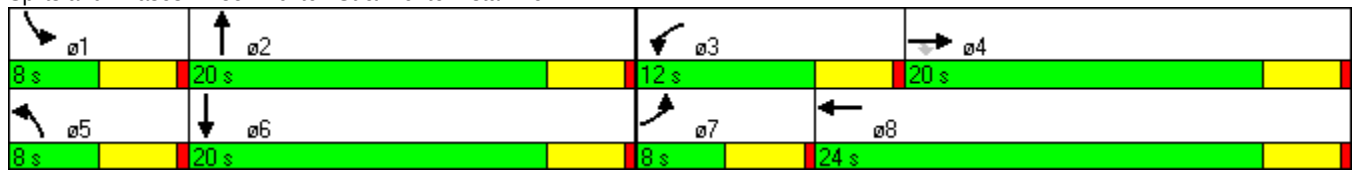


Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	0	0	87	0	88	1	745	59	43	638	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					372			20				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	0	0	95	96	0	1	874	0	47	694	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	12.0	24.0	0.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	5.3			9.4	8.1		5.3	18.1		5.3	19.2	
Actuated g/C Ratio	0.19			0.33	0.29		0.19	0.64		0.19	0.68	
v/c Ratio	0.00			0.16	0.09		0.00	0.27		0.07	0.20	
Control Delay	18.0			11.9	0.1		18.0	6.7		16.6	5.4	
Queue Delay	0.0			0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.0			11.9	0.1		18.0	6.7		16.6	5.4	
LOS	B			B	A		B	A		B	A	
Approach Delay					6.0			6.7			6.1	
Approach LOS					A			A			A	
Queue Length 50th (ft)	0			11	0		0	24		3	19	
Queue Length 95th (ft)	4			44	0		4	89		17	71	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)	337			717	2283		337	3326		654	3555	
Starvation Cap Reductn	0			0	0		0	0		0	0	
Spillback Cap Reductn	0			0	0		0	0		0	0	
Storage Cap Reductn	0			0	0		0	0		0	0	
Reduced v/c Ratio	0.00			0.13	0.04		0.00	0.26		0.07	0.20	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 28.1												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.27												
Intersection Signal Delay: 6.4	Intersection LOS: A											
Intersection Capacity Utilization 36.6%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair

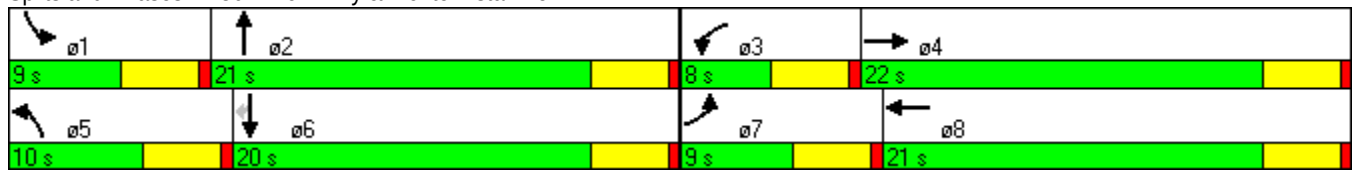
86: Arrow Hwy & Monte Vista Ave

Existing Year (2010)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	706	185	39	286	84	122	579	51	88	560	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			91			15				99
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811				1004
Travel Time (s)		58.9			29.6			18.4				22.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	968	0	42	402	0	133	684	0	96	609	99
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	9.0	22.0	0.0	8.0	21.0	0.0	10.0	21.0	0.0	9.0	20.0	20.0
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
Act Effect Green (s)	5.3	17.8		4.2	13.8		6.4	14.8		5.3	14.0	14.0
Actuated g/C Ratio	0.11	0.35		0.08	0.27		0.13	0.29		0.11	0.28	0.28
v/c Ratio	0.40	0.78		0.14	0.28		0.59	0.66		0.51	0.62	0.19
Control Delay	28.4	22.2		26.7	13.4		39.9	20.0		38.4	20.3	5.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	28.4	22.2		26.7	13.4		39.9	20.0		38.4	20.3	5.7
LOS	C	C		C	B		D	B		D	C	A
Approach Delay		23.0			14.7			23.2			20.7	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)	22	126		6	30		39	87		29	80	0
Queue Length 95th (ft)	51	#277		21	52		#127	164		#98	151	29
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)												
Base Capacity (vph)	362	1335		290	1818		224	1262		187	1193	599
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.40	0.73		0.14	0.22		0.59	0.54		0.51	0.51	0.17
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 50.3												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.78												
Intersection Signal Delay: 21.3	Intersection LOS: C											
Intersection Capacity Utilization 64.6%	ICU Level of Service C											
Analysis Period (min) 15												
# 95th percentile volume exceeds capacity, queue may be longer.												
Queue shown is maximum after two cycles.												

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

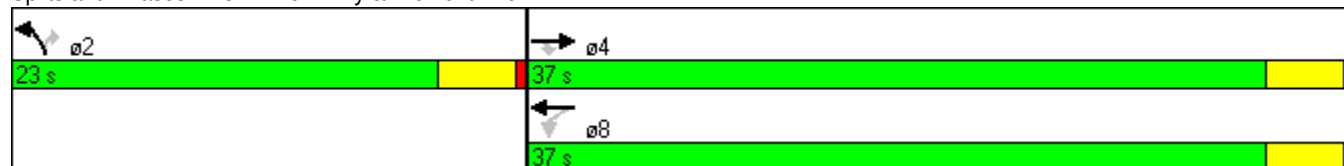


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

Existing Year (2010)
PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	778	63	42	342	53	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.334		0.950	
Satd. Flow (perm)	3539	1583	622	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		68				72
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	846	68	46	372	58	72
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	18.6	18.6	18.6	18.6	7.6	7.6
Actuated g/C Ratio	0.72	0.72	0.72	0.72	0.30	0.30
v/c Ratio	0.33	0.06	0.10	0.15	0.11	0.14
Control Delay	3.9	1.5	4.5	3.3	11.4	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	1.5	4.5	3.3	11.4	5.0
LOS	A	A	A	A	B	A
Approach Delay	3.7			3.4	7.9	
Approach LOS	A			A	A	
Queue Length 50th (ft)	34	0	3	12	7	0
Queue Length 95th (ft)	67	9	13	28	30	21
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3426	1534	602	3426	1316	1196
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.04	0.08	0.11	0.04	0.06
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 25.7						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.33						
Intersection Signal Delay: 4.0				Intersection LOS: A		
Intersection Capacity Utilization 38.2%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

Existing Year (2010)
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	220	83	172	263	36	52	606	171	56	680	62
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5024	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			90		39			116			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	239	90	187	325	0	57	845	0	61	806	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	12.0	22.0	0.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	6.1	8.9	8.9	8.1	15.9		4.1	13.9		4.1	13.9	
Actuated g/C Ratio	0.13	0.19	0.19	0.17	0.33		0.09	0.29		0.09	0.29	
v/c Ratio	0.24	0.36	0.24	0.62	0.19		0.37	0.56		0.40	0.54	
Control Delay	25.0	19.9	7.2	33.4	13.5		32.0	14.4		33.4	16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.0	19.9	7.2	33.4	13.5		32.0	14.4		33.4	16.0	
LOS	C	B	A	C	B		C	B		C	B	
Approach Delay		17.6			20.8			15.5			17.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	16	35	0	56	27		17	67		19	72	
Queue Length 95th (ft)	46	62	29	#149	47		#56	109		#62	114	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	231	1233	610	308	2016		154	1789		154	1766	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.24	0.19	0.15	0.61	0.16		0.37	0.47		0.40	0.46	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 17.4

Intersection LOS: B

Intersection Capacity Utilization 47.8%

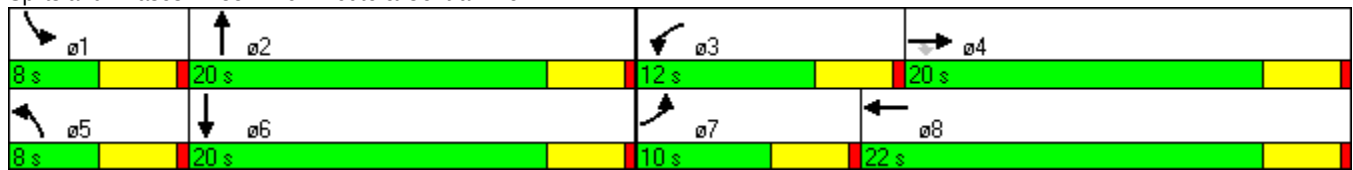
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

89: Richton St & Central Ave

Existing Year (2010)

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	57	90	81	96	35	83	721	48	37	854	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1788	0	1770	3539	1583	1770	5060	0
Flt Permitted	0.666			0.717			0.247			0.349		
Satd. Flow (perm)	1241	1863	1583	1336	1788	0	460	3539	1583	650	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			98		31				52		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	86	62	98	88	142	0	90	784	52	40	958	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	21.0	21.0	21.0	21.0	21.0	0.0	10.0	31.0	31.0	8.0	29.0	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
Act Effect Green (s)	10.0	10.0	10.0	10.0	10.0		22.0	22.6	22.6	19.7	20.3	
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27		0.59	0.60	0.60	0.53	0.54	
v/c Ratio	0.26	0.12	0.20	0.25	0.28		0.17	0.37	0.05	0.08	0.35	
Control Delay	18.2	16.1	5.9	17.8	14.6		4.8	7.6	3.2	4.7	8.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	18.2	16.1	5.9	17.8	14.6		4.8	7.6	3.2	4.7	8.8	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		12.7			15.8			7.0			8.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	18	13	0	19	23		7	37	0	3	60	
Queue Length 95th (ft)	56	42	29	57	70		24	128	14	13	106	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	658	988	886	708	963		548	2565	1161	501	3474	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.13	0.06	0.11	0.12	0.15		0.16	0.31	0.04	0.08	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 48.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

Existing Year (2010)

90: Arrow Hwy & Central Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	133	509	172	138	239	47	108	727	97	75	796	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5014	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5014	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			187		51			39			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	145	553	187	150	311	0	117	895	0	82	957	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	11.0	20.0	20.0	11.0	20.0	0.0	9.0	20.0	0.0	9.0	20.0	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
Act Effect Green (s)	7.4	14.3	14.3	7.5	14.3		5.4	15.9		5.4	15.9	
Actuated g/C Ratio	0.14	0.27	0.27	0.14	0.27		0.10	0.30		0.10	0.30	
v/c Ratio	0.59	0.58	0.33	0.60	0.23		0.65	0.59		0.45	0.63	
Control Delay	38.4	21.2	5.3	39.1	14.5		48.6	19.0		36.7	19.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	38.4	21.2	5.3	39.1	14.5		48.6	19.0		36.7	19.7	
LOS	D	C	A	D	B		D	B		D	B	
Approach Delay		20.7			22.5			22.4			21.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	52	91	0	54	26		43	100		29	110	
Queue Length 95th (ft)	#128	136	40	#134	45		#122	138		#80	150	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	253	1156	643	253	1654		181	1657		181	1657	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.57	0.48	0.29	0.59	0.19		0.65	0.54		0.45	0.58	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 21.6

Intersection LOS: C

Intersection Capacity Utilization 58.3%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave

 ø1	 ø2	 ø3	 ø4
9 s	20 s	11 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	20 s	11 s	20 s

Appendix C

No Build (2035)

Synchro Analysis Output

AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	328	73	184	196	66	395	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	357	79	200	213	72	429	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	665	207			413		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	665	207			413		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	3	90			94		
cM capacity (veh/h)	369	800			1142		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	178	178	79	133	280	215	286
Volume Left	178	178	0	0	0	72	0
Volume Right	0	0	79	0	213	0	0
cSH	369	369	800	1700	1700	1142	1700
Volume to Capacity	0.48	0.48	0.10	0.08	0.16	0.06	0.17
Queue Length 95th (ft)	63	63	8	0	0	5	0
Control Delay (s)	23.6	23.6	10.0	0.0	0.0	3.2	0.0
Lane LOS	C	C	A			A	
Approach Delay (s)	21.1			0.0		1.4	
Approach LOS	C						
Intersection Summary							
Average Delay			7.3				
Intersection Capacity Utilization			43.6%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair

2: Foothill Blvd & Barranca Ave

No Build Alternative

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	82	187	176	208	641	35	175	303	122	114	445	173
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3281	0	1770	3511	0	1770	3387	0	1770	3391	0
Flt Permitted	0.299			0.519			0.348			0.485		
Satd. Flow (perm)	557	3281	0	967	3511	0	648	3387	0	903	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		191			11			133			98	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	394	0	226	735	0	190	462	0	124	672	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	27.0	27.0	0.0	27.0	27.0	0.0	33.0	33.0	0.0	33.0	33.0	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
Act Effect Green (s)	18.0	18.0		18.0	18.0		19.5	19.5		19.5	19.5	
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.42	0.42		0.42	0.42	
v/c Ratio	0.41	0.28		0.60	0.54		0.70	0.31		0.33	0.45	
Control Delay	19.9	6.5		21.6	13.6		27.3	6.8		12.1	9.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.9	6.5		21.6	13.6		27.3	6.8		12.1	9.1	
LOS	B	A		C	B		C	A		B	A	
Approach Delay		9.0			15.5			12.7			9.5	
Approach LOS		A			B			B			A	
Queue Length 50th (ft)	18	18		49	78		41	29		22	56	
Queue Length 95th (ft)	61	50		#136	150		#134	57		57	97	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	308	1900		535	1947		433	2307		603	2298	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.21		0.42	0.38		0.44	0.20		0.21	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 12.1

Intersection LOS: B

Intersection Capacity Utilization 64.2%

ICU Level of Service C

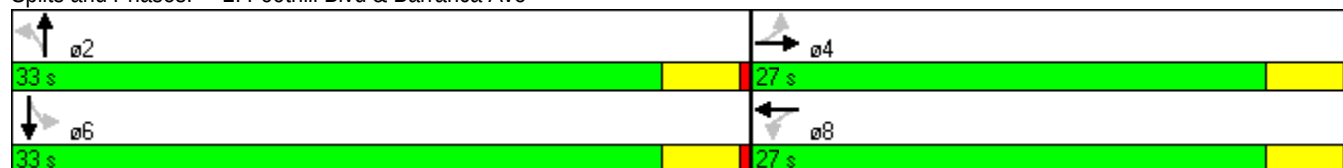
2: Foothill Blvd & Barranca Ave

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	68	296	101	272	553	108	136	617	231	105	486	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3405	0	1770	3454	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	3454	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			27				251			107
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	432	0	296	718	0	148	671	251	114	528	114
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	13.0	20.0	0.0	27.0	34.0	0.0	18.0	28.0	28.0	15.0	25.0	25.0
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
Act Effect Green (s)	8.0	13.6		17.8	26.3		11.3	23.4	23.4	9.5	18.6	18.6
Actuated g/C Ratio	0.10	0.17		0.23	0.34		0.14	0.30	0.30	0.12	0.24	0.24
v/c Ratio	0.41	0.68		0.73	0.61		0.58	0.63	0.39	0.53	0.63	0.25
Control Delay	44.1	34.7		40.8	25.2		43.5	29.3	5.7	45.3	31.6	8.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	34.7		40.8	25.2		43.5	29.3	5.7	45.3	31.6	8.6
LOS	D	C		D	C		D	C	A	D	C	A
Approach Delay		36.0			29.7			25.7			30.2	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	38	102		147	170		75	166	0	58	128	3
Queue Length 95th (ft)	84	160		239	231		140	243	56	116	197	45
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	213	763		543	1400		331	1134	678	260	1004	526
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.57		0.55	0.51		0.45	0.59	0.37	0.44	0.53	0.22

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 78

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 29.5

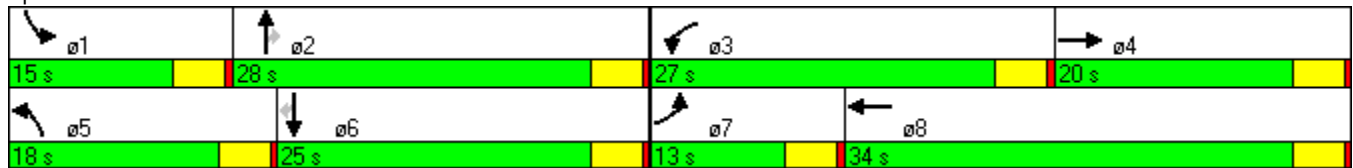
Intersection LOS: C

Intersection Capacity Utilization 62.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Foothill Blvd & Grand Ave



Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

No Build Alternative
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	101	58	119	33	29	140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	110	63	129	36	32	152
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						1174
pX, platoon unblocked						
vC, conflicting volume	362	147			165	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	362	147			165	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	82	93			98	
cM capacity (veh/h)	622	900			1413	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	173	165	184			
Volume Left	110	0	32			
Volume Right	63	36	0			
cSH	701	1700	1413			
Volume to Capacity	0.25	0.10	0.02			
Queue Length 95th (ft)	24	0	2			
Control Delay (s)	11.8	0.0	1.5			
Lane LOS	B		A			
Approach Delay (s)	11.8	0.0	1.5			
Approach LOS	B					
Intersection Summary						
Average Delay		4.4				
Intersection Capacity Utilization		36.4%		ICU Level of Service		A
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	515	10	10	1372	110	9	41	12	21	33	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1846	1583	0	1827	1583
Flt Permitted	0.950			0.950				0.922			0.848	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1717	1583	0	1580	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			52			13			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	560	11	11	1491	120	0	55	13	0	59	57
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	4.5	31.0	31.0	4.5	29.8	29.8		7.6	7.6		7.6	7.6
Actuated g/C Ratio	0.11	0.77	0.77	0.11	0.74	0.74		0.19	0.19		0.19	0.19
v/c Ratio	0.18	0.20	0.01	0.06	0.57	0.10		0.17	0.04		0.20	0.16
Control Delay	24.4	3.8	3.1	22.9	7.7	3.8		19.4	11.0		19.8	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	24.4	3.8	3.1	22.9	7.7	3.8		19.4	11.0		19.8	8.1
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		5.1			7.5			17.8			14.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	9	21	0	3	83	4		12	0		13	0
Queue Length 95th (ft)	34	72	5	16	265	29		40	12		43	24
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	200	2659	1192	200	2551	1156		776	723		715	747
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.18	0.21	0.01	0.06	0.58	0.10		0.07	0.02		0.08	0.08

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 7.5

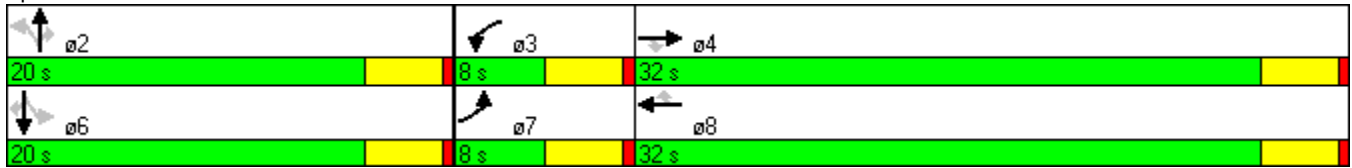
Intersection LOS: A

Intersection Capacity Utilization 54.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	353	22	61	830	77	61	106	33	35	105	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3507	0	1770	3493	0	1770	1796	0	0	1765	0
Flt Permitted	0.256			0.512			0.637				0.918	
Satd. Flow (perm)	477	3507	0	954	3493	0	1187	1796	0	0	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			23			30			47	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	408	0	66	986	0	66	151	0	0	228	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	26.0	26.0	0.0	26.0	26.0	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
Act Effect Green (s)	22.0	22.0		22.0	22.0		10.4	10.4			10.6	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.29	0.29			0.30	
v/c Ratio	0.09	0.19		0.11	0.46		0.19	0.28			0.44	
Control Delay	6.2	5.0		5.9	6.6		14.2	12.1			13.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	6.2	5.0		5.9	6.6		14.2	12.1			13.6	
LOS	A	A		A	A		B	B			B	
Approach Delay		5.1			6.5			12.7			13.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	2	18		6	56		10	18			29	
Queue Length 95th (ft)	12	46		23	126		41	66			97	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	389	2861		778	2851		773	1179			1080	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.06	0.14		0.08	0.35		0.09	0.13			0.21	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.7

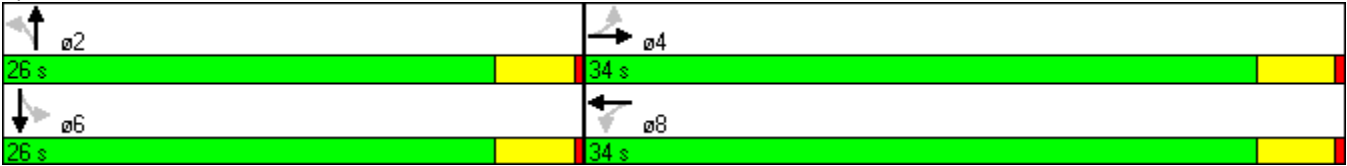
Intersection LOS: A

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

No Build Alternative
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	64	16	35	90	150	101
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	17	38	98	163	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	337	163	273			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	337	163	273			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	98	97			
cM capacity (veh/h)	639	882	1290			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	87	136	163	110		
Volume Left	70	38	0	0		
Volume Right	17	0	0	110		
cSH	676	1290	1700	1700		
Volume to Capacity	0.13	0.03	0.10	0.06		
Queue Length 95th (ft)	11	2	0	0		
Control Delay (s)	11.1	2.4	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	11.1	2.4	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.6			
Intersection Capacity Utilization			29.1%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
8: Foothill Blvd & Glendora Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	339	73	152	700	61	190	188	35	58	185	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			15				38			68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	447	0	165	827	0	207	204	38	63	201	68
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	4.2	12.0		5.3	18.8		7.4	13.8	13.8	6.2	10.9	10.9
Actuated g/C Ratio	0.09	0.24		0.11	0.38		0.15	0.28	0.28	0.13	0.22	0.22
v/c Ratio	0.20	0.51		0.87	0.61		0.78	0.39	0.08	0.28	0.49	0.17
Control Delay	28.4	17.7		71.3	17.9		49.5	18.8	7.0	27.0	22.5	6.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	17.7		71.3	17.9		49.5	18.8	7.0	27.0	22.5	6.6
LOS	C	B		E	B		D	B	A	C	C	A
Approach Delay		18.4			26.8			31.9			20.1	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	8	54		49	91		60	51	0	17	52	0
Queue Length 95th (ft)	33	101		#173	#233		#193	110	18	54	111	25
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	152	1211		190	1354		266	703	621	228	640	589
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.37		0.87	0.61		0.78	0.29	0.06	0.28	0.31	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 25.0

Intersection LOS: C

Intersection Capacity Utilization 58.2%

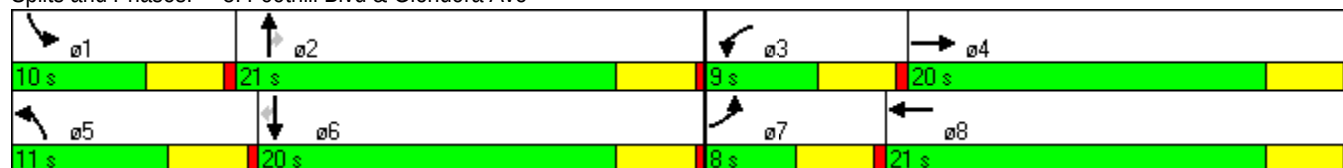
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

9: Ada Ave & Glendora Ave

No Build Alternative

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	30	23	87	27	56	44	55	450	3	30	316	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	25	95	29	61	48	60	489	3	33	343	10
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	152	138	304	248	204	182						
Volume Left (vph)	33	29	60	0	33	0						
Volume Right (vph)	95	48	0	3	0	10						
Hadj (s)	-0.30	-0.13	0.13	0.02	0.11	0.00						
Departure Headway (s)	6.1	6.3	6.1	6.0	6.3	6.2						
Degree Utilization, x	0.26	0.24	0.52	0.42	0.36	0.31						
Capacity (veh/h)	532	513	560	578	540	550						
Control Delay (s)	11.2	11.3	14.4	12.1	11.7	10.8						
Approach Delay (s)	11.2	11.3	13.4		11.3							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.2									
HCM Level of Service			B									
Intersection Capacity Utilization			45.1%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	503	12	266	1199	157	139	554	372	106	352	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3479	0
Flt Permitted	0.242			0.278			0.427			0.275		
Satd. Flow (perm)	451	3539	1583	518	3539	1583	795	3539	1583	512	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			67			294		22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	547	13	289	1303	171	151	602	404	115	431	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	21.0	21.0	11.0	24.0	24.0	8.0	20.0	20.0	8.0	20.0	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
Act Effect Green (s)	18.0	13.8	13.8	24.8	22.3	22.3	17.6	14.6	14.6	17.6	14.6	
Actuated g/C Ratio	0.33	0.26	0.26	0.46	0.41	0.41	0.33	0.27	0.27	0.33	0.27	
v/c Ratio	0.15	0.60	0.03	0.71	0.89	0.25	0.45	0.63	0.63	0.44	0.45	
Control Delay	10.7	21.4	10.1	23.8	29.0	9.9	17.2	21.6	10.9	17.4	18.2	
Queue Delay	0.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.7	21.4	10.1	23.8	37.1	9.9	17.2	21.6	10.9	17.4	18.2	
LOS	B	C	B	C	D	A	B	C	B	B	B	
Approach Delay		20.5			32.3			17.3			18.0	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	7	87	1	62	196	20	32	94	29	24	60	
Queue Length 95th (ft)	20	131	11	#134	#408	66	68	149	107	54	102	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100		50	100		50	100		100	200		
Base Capacity (vph)	251	1147	520	405	1461	693	334	1080	687	263	1077	
Starvation Cap Reductn	0	0	0	0	142	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.15	0.48	0.03	0.71	0.99	0.25	0.45	0.56	0.59	0.44	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 24.4

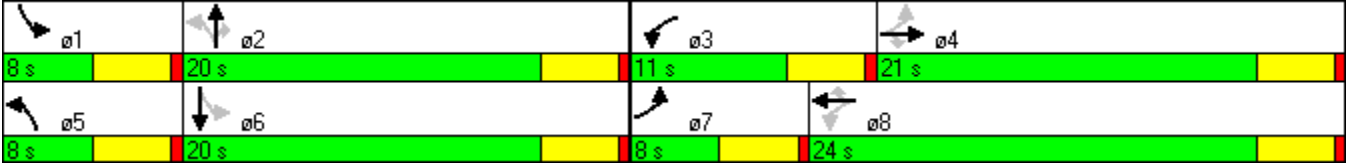
Intersection LOS: C

Intersection Capacity Utilization 71.0%

ICU Level of Service C

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	5	12	35	10	29	7	78	15	20	99	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	13	38	11	32	8	85	16	22	108	5
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	24	80	109	135								
Volume Left (vph)	5	38	8	22								
Volume Right (vph)	13	32	16	5								
Hadj (s)	-0.25	-0.11	-0.04	0.04								
Departure Headway (s)	4.3	4.4	4.2	4.3								
Degree Utilization, x	0.03	0.10	0.13	0.16								
Capacity (veh/h)	785	770	816	814								
Control Delay (s)	7.4	7.8	7.9	8.1								
Approach Delay (s)	7.4	7.8	7.9	8.1								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.9									
HCM Level of Service			A									
Intersection Capacity Utilization			26.4%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

No Build Alternative
AM Peak Hour

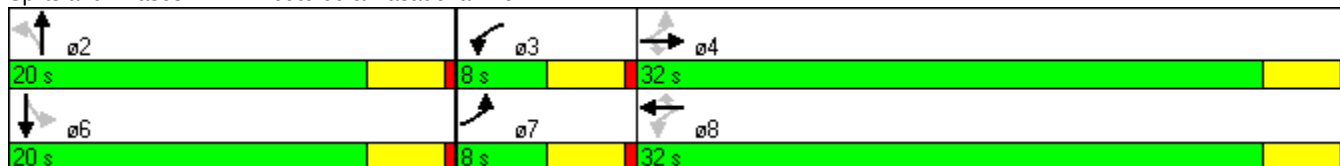
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	117	888	28	35	1524	76	43	22	58	45	24	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1716	0	0	1705	0
Flt Permitted	0.124			0.274				0.809			0.867	
Satd. Flow (perm)	231	3539	1583	510	3539	1583	0	1412	0	0	1500	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20			32		63			83	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	127	965	30	38	1657	83	0	134	0	0	158	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	33.7	33.5	33.5	32.2	30.4	30.4		8.4			8.4	
Actuated g/C Ratio	0.69	0.68	0.68	0.66	0.62	0.62		0.17			0.17	
v/c Ratio	0.44	0.40	0.03	0.09	0.75	0.08		0.45			0.48	
Control Delay	10.4	6.8	4.3	3.9	14.5	5.1		17.0			16.1	
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	10.4	7.0	4.3	3.9	14.5	5.1		17.0			16.1	
LOS	B	A	A	A	B	A		B			B	
Approach Delay		7.3			13.8			17.0			16.1	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	10	48	1	3	205	7		20			21	
Queue Length 95th (ft)	#50	159	12	12	#426	27		59			64	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	290	2421	1089	442	2199	996		523			566	
Starvation Cap Reductn	0	620	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.44	0.54	0.03	0.09	0.75	0.08		0.26			0.28	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 49												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.75												
Intersection Signal Delay: 11.8							Intersection LOS: B					
Intersection Capacity Utilization 69.2%							ICU Level of Service C					

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair
13: Lemon Ave & Glenwood Ave

No Build Alternative
AM Peak Hour

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Volume (veh/h)	2	13	15	3	6	5	9	75	3	9	110	6								
Sign Control		Stop			Stop			Free			Free									
Grade		0%			0%			0%			0%									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92								
Hourly flow rate (vph)	2	14	16	3	7	5	10	82	3	10	120	7								
Pedestrians																				
Lane Width (ft)																				
Walking Speed (ft/s)																				
Percent Blockage																				
Right turn flare (veh)						2														
Median type								None			None									
Median storage veh																				
Upstream signal (ft)																				
pX, platoon unblocked																				
vC, conflicting volume	251	247	123	268	248	83	126			85										
vC1, stage 1 conf vol																				
vC2, stage 2 conf vol																				
vCu, unblocked vol	251	247	123	268	248	83	126			85										
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1										
tC, 2 stage (s)																				
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2										
p0 queue free %	100	98	98	100	99	99	99			99										
cM capacity (veh/h)	686	647	928	654	646	976	1460			1512										
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total	33	15	95	136																
Volume Left	2	3	10	10																
Volume Right	16	5	3	7																
cSH	766	1009	1460	1512																
Volume to Capacity	0.04	0.02	0.01	0.01																
Queue Length 95th (ft)	3	1	1	0																
Control Delay (s)	9.9	9.9	0.8	0.6																
Lane LOS	A	A	A	A																
Approach Delay (s)	9.9	9.9	0.8	0.6																
Approach LOS	A	A																		
Intersection Summary																				
Average Delay			2.3																	
Intersection Capacity Utilization			21.3%	ICU Level of Service						A										
Analysis Period (min)			15																	

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

14: Route 66 & Glenwood Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	876	7	19	1627	41	12	3	6	87	1	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	952	8	21	1768	45	13	3	7	95	1	55
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)					651							
pX, platoon unblocked	0.56						0.56	0.56		0.56	0.56	0.56
vC, conflicting volume	1813			960			2036	2909	476	2396	2872	884
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	875			960			1274	2837	476	1919	2770	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			97			74	60	99	0	88	91
cM capacity (veh/h)	429			713			51	8	535	14	9	606
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	51	476	476	8	21	884	884	45	23	151		
Volume Left	51	0	0	0	21	0	0	0	13	95		
Volume Right	0	0	0	8	0	0	0	45	7	55		
cSH	429	1700	1700	1700	713	1700	1700	1700	34	22		
Volume to Capacity	0.12	0.28	0.28	0.00	0.03	0.52	0.52	0.03	0.67	7.02		
Queue Length 95th (ft)	10	0	0	0	2	0	0	0	57	Err		
Control Delay (s)	14.5	0.0	0.0	0.0	10.2	0.0	0.0	0.0	228.1	Err		
Lane LOS	B				B				F	F		
Approach Delay (s)	0.7				0.1				228.1	Err		
Approach LOS									F	F		
Intersection Summary												
Average Delay			502.5									
Intersection Capacity Utilization			61.7%			ICU Level of Service				B		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	23	8	7	12	0	1	100	2	7	108	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	25	9	8	13	0	1	109	2	8	117	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	251	246	117	266	245	110	117			111		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	251	246	117	266	245	110	117			111		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	98	100	100			99		
cM capacity (veh/h)	689	653	935	658	654	944	1471			1479		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	35	21	112	125								
Volume Left	1	8	1	8								
Volume Right	9	0	2	0								
cSH	707	655	1471	1479								
Volume to Capacity	0.05	0.03	0.00	0.01								
Queue Length 95th (ft)	4	2	0	0								
Control Delay (s)	10.4	10.7	0.1	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.4	10.7	0.1	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			21.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	838	24	23	1610	36	14	5	13	63	7	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1796	1583	0	1783	1583
Flt Permitted	0.950			0.950				0.841			0.756	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1567	1583	0	1408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17			13			14			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	911	26	25	1750	39	0	20	14	0	76	57
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	10.0	60.0	60.0	9.0	59.0	59.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	6.0	54.1	54.1	5.1	49.9	49.9		17.5	17.5		17.5	17.5
Actuated g/C Ratio	0.07	0.65	0.65	0.06	0.60	0.60		0.21	0.21		0.21	0.21
v/c Ratio	0.45	0.40	0.03	0.23	0.82	0.04		0.06	0.04		0.26	0.15
Control Delay	51.8	7.6	3.7	46.0	17.4	5.4		30.7	15.1		34.0	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	51.8	7.6	3.7	46.0	17.4	5.4		30.7	15.1		34.0	10.0
LOS	D	A	A	D	B	A		C	B		C	A
Approach Delay		10.1			17.5			24.2			23.7	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	32	85	1	14	367	5		9	0		37	0
Queue Length 95th (ft)	#75	163	11	39	468	17		29	16		78	32
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	131	2571	1155	109	2409	1082		330	344		296	378
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.44	0.35	0.02	0.23	0.73	0.04		0.06	0.04		0.26	0.15

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 61.7%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

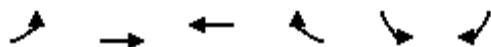
17: Lemon Ave & Loraine Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	5	28	12	26	10	9	330	3	7	563	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	5	30	13	28	11	10	359	3	8	612	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	852	1010	307	734	1009	181	614			362		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	852	1010	307	734	1009	181	614			362		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	98	96	95	88	99	99			99		
cM capacity (veh/h)	224	235	689	286	235	831	961			1193		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	50	52	189	183	314	308						
Volume Left	14	13	10	0	8	0						
Volume Right	30	11	0	3	0	2						
cSH	383	291	961	1700	1193	1700						
Volume to Capacity	0.13	0.18	0.01	0.11	0.01	0.18						
Queue Length 95th (ft)	11	16	1	0	0	0						
Control Delay (s)	15.8	20.0	0.5	0.0	0.3	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	15.8	20.0	0.3		0.1							
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			31.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

No Build Alternative
AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	126	838	1388	189	393	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				82		184
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	911	1509	205	427	193
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	9.0	39.0	30.0	30.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	5.0	35.1	26.1	26.1	12.3	12.3
Actuated g/C Ratio	0.09	0.63	0.47	0.47	0.22	0.22
v/c Ratio	0.86	0.41	0.91	0.26	0.56	0.39
Control Delay	73.5	6.1	24.9	7.0	22.0	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	6.1	24.9	7.0	22.0	6.3
LOS	E	A	C	A	C	A
Approach Delay		14.9	22.8		17.1	
Approach LOS		B	C		B	
Queue Length 50th (ft)	45	62	220	21	64	2
Queue Length 95th (ft)	#142	119	#421	62	101	42
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	160	2241	1665	788	1056	614
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.41	0.91	0.26	0.40	0.31

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 19.3

Intersection LOS: B

Intersection Capacity Utilization 66.6%

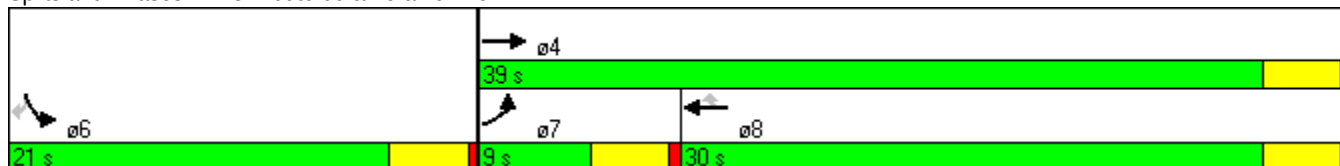
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

No Build Alternative
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	360	412	563	218	736	996
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		448		237		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	391	448	612	237	800	1083
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	12.1	12.1	14.3	14.3	15.4	33.8
Actuated g/C Ratio	0.22	0.22	0.26	0.26	0.29	0.63
v/c Ratio	0.51	0.64	0.65	0.40	0.82	0.49
Control Delay	21.2	7.0	21.9	5.3	28.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	7.0	21.9	5.3	28.0	6.7
LOS	C	A	C	A	C	A
Approach Delay	13.6		17.3			15.8
Approach LOS	B		B			B
Queue Length 50th (ft)	59	0	93	0	128	82
Queue Length 95th (ft)	94	60	151	45	#235	144
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	1034	790	1067	643	1034	2399
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.57	0.57	0.37	0.77	0.45
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 54						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.82						
Intersection Signal Delay: 15.6				Intersection LOS: B		
Intersection Capacity Utilization 56.8%				ICU Level of Service B		

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

No Build Alternative
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	212	94	207	477	36	118
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	230	102	225	518	39	128
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			333		1250	282
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			333		1250	282
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			82		75	83
cM capacity (veh/h)			1227		156	757
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	333	225	518	167		
Volume Left	0	225	0	39		
Volume Right	102	0	0	128		
cSH	1700	1227	1700	398		
Volume to Capacity	0.20	0.18	0.30	0.42		
Queue Length 95th (ft)	0	17	0	51		
Control Delay (s)	0.0	8.6	0.0	20.5		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.6		20.5		
Approach LOS				C		
Intersection Summary						
Average Delay			4.3			
Intersection Capacity Utilization			47.6%		ICU Level of Service	A
Analysis Period (min)			15			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	290	42	87	503	1	132	8	36	7	12	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	315	46	95	547	1	143	9	39	8	13	10
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	371	641	1	152	39	21	10					
Volume Left (vph)	10	95	0	143	0	8	0					
Volume Right (vph)	46	0	1	0	39	0	10					
Hadj (s)	-0.03	0.11	-0.67	0.51	-0.67	0.22	-0.67					
Departure Headway (s)	6.2	5.9	5.2	7.7	6.5	7.9	7.1					
Degree Utilization, x	0.64	1.06	0.00	0.32	0.07	0.05	0.02					
Capacity (veh/h)	568	602	681	454	530	421	471					
Control Delay (s)	19.4	75.2	7.0	13.1	8.8	10.1	9.0					
Approach Delay (s)	19.4	75.1		12.2		9.7						
Approach LOS	C	F		B		A						
Intersection Summary												
Delay			47.0									
HCM Level of Service			E									
Intersection Capacity Utilization			74.0%	ICU Level of Service				D				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

22: Glendora Marketplace & Lone Hill Ave

No Build Alternative

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	230	2	84	6	0	2	48	512	6	38	816	405
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1740	0	3433	3532	0	1770	3539	1583
Flt Permitted	0.950	0.878					0.950			0.950		
Satd. Flow (perm)	1681	1554	2787	0	1807	0	3433	3532	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91		2			2				440
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	125	127	91	0	9	0	52	564	0	41	887	440
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	10.0	30.0	30.0	20.0	20.0	0.0	8.0	21.0	0.0	9.0	22.0	22.0
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
Act Effect Green (s)	18.5	14.5	27.6		9.3		5.4	23.1		6.8	22.1	22.1
Actuated g/C Ratio	0.38	0.29	0.56		0.19		0.11	0.47		0.14	0.45	0.45
v/c Ratio	0.20	0.26	0.06		0.03		0.14	0.34		0.17	0.56	0.46
Control Delay	20.9	21.5	3.0		18.1		27.2	15.3		27.6	19.4	4.0
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.9	21.5	3.0		18.1		27.2	15.3		27.6	19.4	4.0
LOS	C	C	A		B		C	B		C	B	A
Approach Delay		16.3			18.1			16.3			14.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	27	28	0		2		9	68		14	155	0
Queue Length 95th (ft)	#127	#130	11		11		24	134		40	#248	56
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	631	495	1601		763		378	1658		244	1590	954
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.20	0.26	0.06		0.01		0.14	0.34		0.17	0.56	0.46

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 43.7%

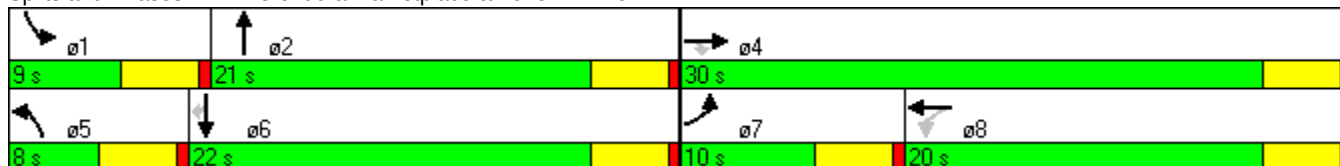
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

23: Gladstone St & Lone Hill Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	173	184	151	147	450	71	147	306	106	123	501	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		164			29				115			351
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	188	364	0	160	566	0	160	333	115	134	545	351
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	20.0	0.0	12.0	21.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	7.3	13.8		8.3	14.5		4.4	14.9	14.9	4.4	14.9	14.9
Actuated g/C Ratio	0.14	0.27		0.16	0.28		0.08	0.29	0.29	0.08	0.29	0.29
v/c Ratio	0.39	0.36		0.57	0.57		0.55	0.33	0.21	0.46	0.54	0.50
Control Delay	26.4	11.0		34.7	19.2		36.6	17.8	5.5	33.1	19.8	5.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.4	11.0		34.7	19.2		36.6	17.8	5.5	33.1	19.8	5.3
LOS	C	B		C	B		D	B	A	C	B	A
Approach Delay		16.2			22.6			20.4			16.6	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	31	29		54	86		28	48	0	23	84	0
Queue Length 95th (ft)	60	60		#133	130		#70	82	32	#56	134	54
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	508	1224		299	1264		290	1196	611	290	1196	768
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.30		0.54	0.45		0.55	0.28	0.19	0.46	0.46	0.46

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 18.8

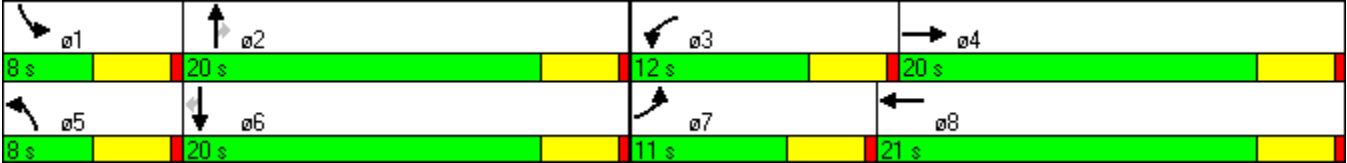
Intersection LOS: B

Intersection Capacity Utilization 51.0%

ICU Level of Service A

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

24: Arrow Hwy & SR-57 SB

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↖	↑↑↑		↖↖		↖	↖	↖	↖
Volume (vph)	0	855	41	177	856	377	17	0	18	171	63	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5050	0	1770	4851	0	3433	0	1583	1681	1729	1583
Flt Permitted				0.277			0.670			0.950	0.977	
Satd. Flow (perm)	0	5050	0	516	4851	0	2421	0	1583	1681	1729	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			331				20			142
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										33%		
Lane Group Flow (vph)	0	974	0	192	1340	0	18	0	20	125	129	235
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		27.7		27.7	27.7		10.2		10.2	10.2	10.2	10.2
Actuated g/C Ratio		0.59		0.59	0.59		0.22		0.22	0.22	0.22	0.22
v/c Ratio		0.32		0.63	0.44		0.03		0.06	0.34	0.34	0.51
Control Delay		5.0		18.5	4.3		16.9		8.9	20.4	20.3	12.6
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		5.0		18.5	4.3		16.9		8.9	20.4	20.3	12.6
LOS		A		B	A		B		A	C	C	B
Approach Delay		5.0			6.1						16.6	
Approach LOS		A			A						B	
Queue Length 50th (ft)		36		26	39		2		0	34	35	24
Queue Length 95th (ft)		73		#138	81		9		13	77	80	78
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3923		400	3838		904		604	628	646	680
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.25		0.48	0.35		0.02		0.03	0.20	0.20	0.35

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 51.7%

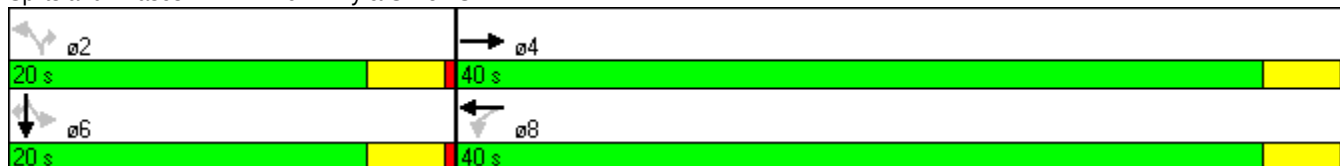
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

No Build Alternative
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	661	200	155	105	124	300	163	283	463	204	692	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3347	0	1770	3539	1583	3433	4612	0	1770	5045	0
Flt Permitted		0.715		0.164			0.950			0.950		
Satd. Flow (perm)	0	2472	0	305	3539	1583	3433	4612	0	1770	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34				326		401			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1103	0	114	135	326	177	811	0	222	797	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	51.0	51.0	0.0	51.0	51.0	51.0	12.0	20.0	0.0	19.0	27.0	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
Act Effect Green (s)		41.0		41.0	41.0	41.0	7.9	14.2		13.6	20.0	
Actuated g/C Ratio		0.50		0.50	0.50	0.50	0.10	0.17		0.17	0.25	
v/c Ratio		1.11dl		0.74	0.08	0.34	0.53	0.71		0.75	0.64	
Control Delay		26.4		48.7	10.7	2.4	44.0	20.2		51.3	30.3	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		26.4		48.7	10.7	2.4	44.0	20.2		51.3	30.3	
LOS		C		D	B	A	D	C		D	C	
Approach Delay		26.4			13.5			24.5			34.9	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		260		47	18	0	51	78		122	145	
Queue Length 95th (ft)		362		#147	33	39	84	123		#229	187	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1484		181	2105	1073	347	1254		336	1475	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.74		0.63	0.06	0.30	0.51	0.65		0.66	0.54	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 81.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 26.2

Intersection LOS: C

Intersection Capacity Utilization 83.0%

ICU Level of Service E

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

26: Fifth St & Eucla Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	46	61	21	59	1	43	43	12	0	4	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	50	66	23	64	1	47	47	13	0	4	2
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	50	66	87	1	107	7						
Volume Left (vph)	0	0	23	0	47	0						
Volume Right (vph)	0	66	0	1	13	2						
Hadj (s)	0.03	-0.67	0.17	-0.67	0.05	-0.17						
Departure Headway (s)	4.9	4.2	5.0	4.2	4.4	4.3						
Degree Utilization, x	0.07	0.08	0.12	0.00	0.13	0.01						
Capacity (veh/h)	718	830	690	825	776	777						
Control Delay (s)	7.0	6.3	7.5	6.0	8.1	7.4						
Approach Delay (s)	6.6		7.5		8.1	7.4						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.4									
HCM Level of Service			A									
Intersection Capacity Utilization			29.6%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

No Build Alternative
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	1	65	9	5	128
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1	71	10	5	139
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	221	71			80	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	221	71			80	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	765	992			1517	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	71	10	5	139	
Volume Left	12	0	0	5	0	
Volume Right	1	0	10	0	0	
cSH	780	1700	1700	1517	1700	
Volume to Capacity	0.02	0.04	0.01	0.00	0.08	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.7	0.0	0.0	7.4	0.0	
Lane LOS	A			A		
Approach Delay (s)	9.7	0.0		0.3		
Approach LOS	A					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			16.7%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	339	15	78	421	11	15	18	23	16	55	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3525	0	0	1737	0	0	1720	0
Flt Permitted	0.513			0.533				0.857			0.954	
Satd. Flow (perm)	956	3539	1583	993	3525	0	0	1509	0	0	1649	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16		5			25			87	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	368	16	85	470	0	0	61	0	0	164	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	11.6	11.6	11.6	13.3	13.3			7.8			7.9	
Actuated g/C Ratio	0.56	0.56	0.56	0.65	0.65			0.38			0.38	
v/c Ratio	0.07	0.18	0.02	0.13	0.21			0.10			0.24	
Control Delay	5.3	4.5	2.9	5.5	4.5			5.8			5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	5.3	4.5	2.9	5.5	4.5			5.8			5.2	
LOS	A	A	A	A	A			A			A	
Approach Delay		4.5			4.6			5.8			5.2	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	3	13	0	6	16			3			6	
Queue Length 95th (ft)	12	30	4	21	38			17			31	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	920	3407	1525	956	3394			1454			1591	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.04	0.11	0.01	0.09	0.14			0.04			0.10	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 20.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 4.7

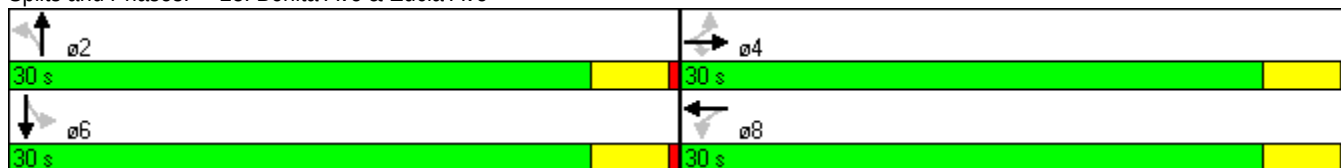
Intersection LOS: A

Intersection Capacity Utilization 34.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

29: Arrow Hwy & Eucla Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	1	385	94	350	783	12	16	44	179	18	121	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4938	0	1770	5075	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.316			0.348			0.673			0.726		
Satd. Flow (perm)	589	4938	0	648	5075	0	1254	1863	1583	1352	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		95			5				195			5
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	520	0	380	864	0	17	48	195	20	132	5
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	20.0	0.0	19.0	31.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	14.4	10.0		24.6	24.9		8.6	8.6	8.6	8.7	8.7	8.7
Actuated g/C Ratio	0.37	0.26		0.64	0.65		0.22	0.22	0.22	0.23	0.23	0.23
v/c Ratio	0.00	0.39		0.53	0.26		0.06	0.12	0.39	0.07	0.31	0.01
Control Delay	6.0	11.8		7.3	5.3		15.5	15.6	5.9	15.6	17.5	10.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	11.8		7.3	5.3		15.5	15.6	5.9	15.6	17.5	10.8
LOS	A	B		A	A		B	B	A	B	B	B
Approach Delay		11.8			5.9			8.3			17.1	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	0	28		34	27		3	9	0	4	25	0
Queue Length 95th (ft)	1	63		85	82		17	33	41	19	73	7
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	356	2325		898	3623		614	911	874	661	911	777
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.22		0.42	0.24		0.03	0.05	0.22	0.03	0.14	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 8.4

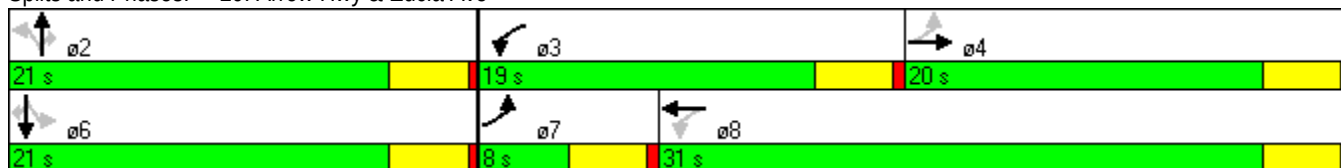
Intersection LOS: A

Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

No Build Alternative
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	52	5	7	67	12	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	57	5	8	73	13	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			62		147	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			62		147	59
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1541		841	1006
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	62	80	17			
Volume Left	0	8	13			
Volume Right	5	0	4			
cSH	1700	1541	877			
Volume to Capacity	0.04	0.00	0.02			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.7	9.2			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.7	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		19.4%		ICU Level of Service	A	
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

31: Second St & Acacia St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	12	5	4	15	2	2	2	0	2	1	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	13	5	4	16	2	2	2	0	2	1	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	25	15	4	27	17	2	7			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	25	15	4	27	17	2	7			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	100	98	100	100			100		
cM capacity (veh/h)	968	877	1080	965	874	1082	1614			1620		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	23	4	9								
Volume Left	0	4	2	2								
Volume Right	5	2	0	5								
cSH	928	907	1614	1620								
Volume to Capacity	0.02	0.03	0.00	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.0	9.1	3.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.0	9.1	3.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			7.4									
Intersection Capacity Utilization			14.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	293	11	34	550	0	7	0	22	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	318	12	37	598	0	8	0	24	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	598			330			698	996	165	855	1002	299
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	598			330			698	996	165	855	1002	299
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			98	100	97	100	100	100
cM capacity (veh/h)	975			1226			319	236	850	239	234	697
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	0	212	118	37	399	199	8	24	1			
Volume Left	0	0	0	37	0	0	8	0	0			
Volume Right	0	0	12	0	0	0	0	24	1			
cSH	1700	1700	1700	1226	1700	1700	319	850	697			
Volume to Capacity	0.00	0.12	0.07	0.03	0.23	0.12	0.02	0.03	0.00			
Queue Length 95th (ft)	0	0	0	2	0	0	2	2	0			
Control Delay (s)	0.0	0.0	0.0	8.0	0.0	0.0	16.6	9.4	10.2			
Lane LOS				A			C	A	B			
Approach Delay (s)	0.0			0.5			11.1		10.2			
Approach LOS							B		B			
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			34.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	7	5	17	10	1	10	55	10	5	68	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	8	5	18	11	1	11	60	11	5	74	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	12			13			104	68	10	108	70	11
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	12			13			104	68	10	108	70	11
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	93	99	99	91	100
cM capacity (veh/h)	1607			1605			806	811	1071	805	809	1069
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	17	30	82	79								
Volume Left	4	18	11	5								
Volume Right	5	1	11	0								
cSH	1607	1605	837	808								
Volume to Capacity	0.00	0.01	0.10	0.10								
Queue Length 95th (ft)	0	1	8	8								
Control Delay (s)	1.8	4.4	9.8	9.9								
Lane LOS	A	A	A	A								
Approach Delay (s)	1.8	4.4	9.8	9.9								
Approach LOS			A	A								
Intersection Summary												
Average Delay			8.4									
Intersection Capacity Utilization			16.6%		ICU Level of Service				A			
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	13	261	10	100	529	10	13	50	26	9	49	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	284	11	109	575	11	14	54	28	10	53	37
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	156	153	396	298	68	28	63	37				
Volume Left (vph)	14	0	109	0	14	0	10	0				
Volume Right (vph)	0	11	0	11	0	28	0	37				
Hadj (s)	0.08	-0.02	0.17	0.01	0.14	-0.67	0.11	-0.67				
Departure Headway (s)	6.0	5.9	5.7	5.5	7.1	6.3	7.0	6.2				
Degree Utilization, x	0.26	0.25	0.63	0.46	0.13	0.05	0.12	0.06				
Capacity (veh/h)	570	584	621	638	473	526	472	527				
Control Delay (s)	9.9	9.7	16.5	11.9	9.9	8.4	9.8	8.5				
Approach Delay (s)	9.8		14.5		9.5		9.3					
Approach LOS	A		B		A		A					
Intersection Summary												
Delay			12.5									
HCM Level of Service			B									
Intersection Capacity Utilization			45.8%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

35: Second St & Monte Vista Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	18	2	6	16	9	0	22	4	0	21	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	20	2	7	17	10	0	24	4	0	23	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	71	54	26	64	55	26	29			28		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71	54	26	64	55	26	29			28		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	100	99	98	99	100			100		
cM capacity (veh/h)	898	837	1050	911	836	1050	1584			1585		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	34	28	29								
Volume Left	7	7	0	0								
Volume Right	2	10	4	7								
cSH	864	904	1584	1585								
Volume to Capacity	0.03	0.04	0.00	0.00								
Queue Length 95th (ft)	3	3	0	0								
Control Delay (s)	9.3	9.1	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	9.3	9.1	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			4.8									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

36: Bonita Ave & Monte Vista Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	294	11	11	659	12	5	2	7	4	2	37
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	320	12	12	716	13	5	2	8	4	2	40
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)					666							
pX, platoon unblocked	0.82						0.82	0.82		0.82	0.82	0.82
vC, conflicting volume	729			332			1146	1118	326	1114	1117	723
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	557			332			1067	1033	326	1028	1032	549
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			96	99	99	97	99	91
cM capacity (veh/h)	828			1228			143	184	716	166	184	438
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	20	332	12	729	15	47						
Volume Left	20	0	12	0	5	4						
Volume Right	0	12	0	13	8	40						
cSH	828	1700	1228	1700	252	360						
Volume to Capacity	0.02	0.20	0.01	0.43	0.06	0.13						
Queue Length 95th (ft)	2	0	1	0	5	11						
Control Delay (s)	9.5	0.0	8.0	0.0	20.2	16.5						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.5		0.1		20.2	16.5						
Approach LOS					C	C						
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			45.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

37: Second St & San Dimas Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	10	7	1	9	15	7	399	4	9	535	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	11	8	1	10	16	8	434	4	10	582	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked												
vC, conflicting volume	1071	1054	582	1063	1063	434	595			438		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1071	1054	582	1063	1063	434	595			438		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	95	99	99	96	97	99			99		
cM capacity (veh/h)	184	222	513	188	219	622	982			1122		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	26	27	8	434	4	10	582	13				
Volume Left	8	1	8	0	0	10	0	0				
Volume Right	8	16	0	0	4	0	0	13				
cSH	248	355	982	1700	1700	1122	1700	1700				
Volume to Capacity	0.11	0.08	0.01	0.26	0.00	0.01	0.34	0.01				
Queue Length 95th (ft)	9	6	1	0	0	1	0	0				
Control Delay (s)	21.2	16.0	8.7	0.0	0.0	8.2	0.0	0.0				
Lane LOS	C	C	A			A						
Approach Delay (s)	21.2	16.0	0.1			0.1						
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			39.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	233	15	93	464	82	62	239	61	132	274	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3433	0	1770	1783	0
Flt Permitted	0.343			0.602			0.388			0.555		
Satd. Flow (perm)	639	1863	1583	1121	1863	1583	723	3433	0	1034	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			60		62			40	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	253	16	101	504	89	67	326	0	143	418	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	0.0	28.0	28.0	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
Act Effect Green (s)	17.8	17.8	17.8	17.8	17.8	17.8	15.2	15.2		15.2	15.2	
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.43	0.36	0.36		0.36	0.36	
v/c Ratio	0.18	0.32	0.02	0.21	0.64	0.13	0.26	0.25		0.38	0.62	
Control Delay	10.4	9.9	4.7	9.8	14.3	4.6	13.8	8.7		14.7	15.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.4	9.9	4.7	9.8	14.3	4.6	13.8	8.7		14.7	15.4	
LOS	B	A	A	A	B	A	B	A		B	B	
Approach Delay		9.7			12.4			9.6			15.2	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	6	35	0	13	82	4	10	20		23	66	
Queue Length 95th (ft)	27	95	8	46	208	25	41	54		75	179	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	456	1330	1135	800	1330	1148	458	2197		655	1144	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.19	0.01	0.13	0.38	0.08	0.15	0.15		0.22	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 41.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 12.2

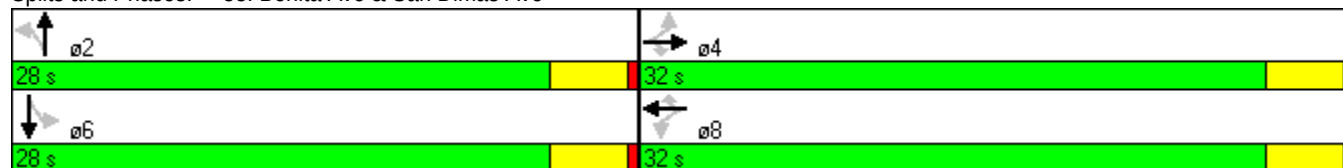
Intersection LOS: B

Intersection Capacity Utilization 65.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

39: Arrow Hwy & San Dimas Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	83	718	66	191	1360	69	146	221	234	107	155	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	5050	0	1770	1863	1583	1770	3345	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	5050	0	1770	1863	1583	1770	3345	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			13				223		96	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	852	0	208	1553	0	159	240	254	116	264	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	8.0	20.0	0.0	11.0	23.0	0.0	9.0	20.0	20.0	9.0	20.0	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
Act Effect Green (s)	4.1	14.9		7.1	19.9		5.1	14.1	14.1	5.1	11.8	
Actuated g/C Ratio	0.07	0.27		0.13	0.36		0.09	0.26	0.26	0.09	0.21	
v/c Ratio	0.69	0.62		0.91	0.85		0.98	0.51	0.45	0.71	0.33	
Control Delay	58.6	19.8		72.5	24.4		99.7	23.1	7.1	54.7	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	58.6	19.8		72.5	24.4		99.7	23.1	7.1	54.7	12.6	
LOS	E	B		E	C		F	C	A	D	B	
Approach Delay		23.5			30.0			35.5			25.4	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	31	89		72	182		~58	73	8	40	24	
Queue Length 95th (ft)	#102	132		#194	#299		#167	131	56	#120	50	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	130	1494		228	1836		163	548	623	163	1051	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.69	0.57		0.91	0.85		0.98	0.44	0.41	0.71	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 28.9

Intersection LOS: C

Intersection Capacity Utilization 63.3%

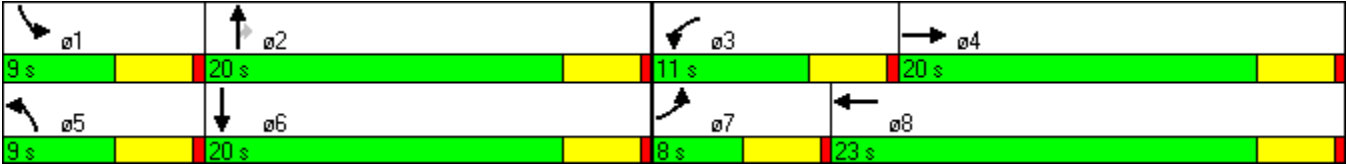
ICU Level of Service B

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

40: Bonita Ave & Walnut Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	245	51	74	656	59	45	115	65	68	107	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3447	0	1770	3539	1583	1770	1762	0	1770	1721	0
Flt Permitted	0.381			0.557			0.612			0.634		
Satd. Flow (perm)	710	3447	0	1038	3539	1583	1140	1762	0	1181	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53				56		58			106	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	321	0	80	713	64	49	196	0	74	236	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	16.9	16.9		16.9	16.9	16.9	9.3	9.3		9.3	9.3	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.32	0.32		0.32	0.32	
v/c Ratio	0.13	0.16		0.13	0.35	0.07	0.13	0.33		0.20	0.38	
Control Delay	6.4	4.5		6.1	6.0	2.6	11.1	9.3		11.6	8.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.4	4.5		6.1	6.0	2.6	11.1	9.3		11.6	8.2	
LOS	A	A		A	A	A	B	A		B	A	
Approach Delay		4.8			5.8			9.6			9.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	4	10		6	32	1	5	16		8	15	
Queue Length 95th (ft)	21	32		27	83	13	27	64		37	66	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	611	2973		893	3045	1370	935	1455		968	1430	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.09	0.11		0.09	0.23	0.05	0.05	0.13		0.08	0.17	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 29.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 6.7

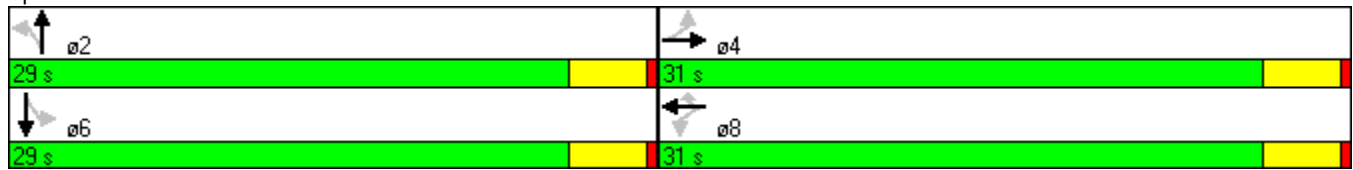
Intersection LOS: A

Intersection Capacity Utilization 50.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

41: Arrow Hwy & Walnut Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	168	759	45	21	1347	35	79	30	27	34	18	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5065	0	0	1798	1583	0	1805	1583
Flt Permitted	0.950			0.950				0.750			0.740	
Satd. Flow (perm)	1770	5045	0	1770	5065	0	0	1397	1583	0	1378	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			7				29			163
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	874	0	23	1502	0	0	119	29	0	57	163
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	14.0	31.0	0.0	8.0	25.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	9.8	32.5		4.6	24.2			10.0	10.0		9.9	9.9
Actuated g/C Ratio	0.21	0.69		0.10	0.52			0.21	0.21		0.21	0.21
v/c Ratio	0.50	0.25		0.13	0.57			0.40	0.08		0.20	0.35
Control Delay	25.8	5.1		26.0	13.7			23.2	8.2		19.6	6.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	25.8	5.1		26.0	13.7			23.2	8.2		19.6	6.3
LOS	C	A		C	B			C	A		B	A
Approach Delay		8.6			13.9			20.3			9.7	
Approach LOS		A			B			C			A	
Queue Length 50th (ft)	52	30		7	138			33	0		15	0
Queue Length 95th (ft)	#124	87		26	212			73	16		40	38
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	436	3506		174	2614			585	680		577	758
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.42	0.25		0.13	0.57			0.20	0.04		0.10	0.22

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 12.0

Intersection LOS: B

Intersection Capacity Utilization 58.7%

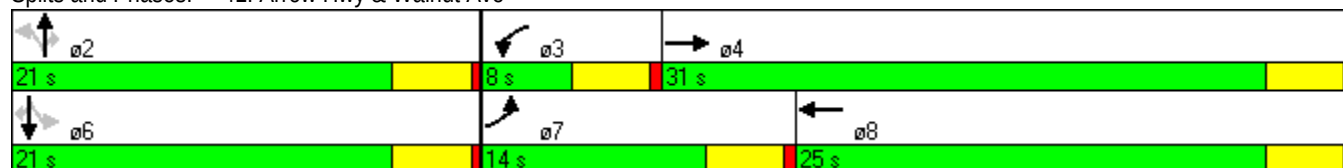
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	249	60	61	384	110	84	250	205	177	189	127
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.508			0.585			0.623			0.584		
Satd. Flow (perm)	946	3539	1583	1090	3539	1583	1160	3539	1583	1088	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			65			120			223			138
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	271	65	66	417	120	91	272	223	192	205	138
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	34.0	34.0	34.0	34.0	34.0	34.0
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
Act Effect Green (s)	10.3	10.3	10.3	10.3	10.3	10.3	12.0	12.0	12.0	12.0	12.0	12.0
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33	0.33	0.39	0.39	0.39	0.39	0.39	0.39
v/c Ratio	0.25	0.23	0.11	0.18	0.35	0.20	0.20	0.20	0.30	0.46	0.15	0.20
Control Delay	11.3	8.9	3.9	10.2	9.5	3.6	7.8	6.8	2.6	11.3	6.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	8.9	3.9	10.2	9.5	3.6	7.8	6.8	2.6	11.3	6.6	2.5
LOS	B	A	A	B	A	A	A	A	A	B	A	A
Approach Delay		8.6			8.4			5.3			7.2	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	8	14	0	7	23	0	8	12	0	19	9	0
Queue Length 95th (ft)	39	45	18	32	68	24	33	35	25	68	28	20
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	717	2681	1215	826	2681	1229	1046	3191	1449	981	3191	1441
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.10	0.05	0.08	0.16	0.10	0.09	0.09	0.15	0.20	0.06	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.3

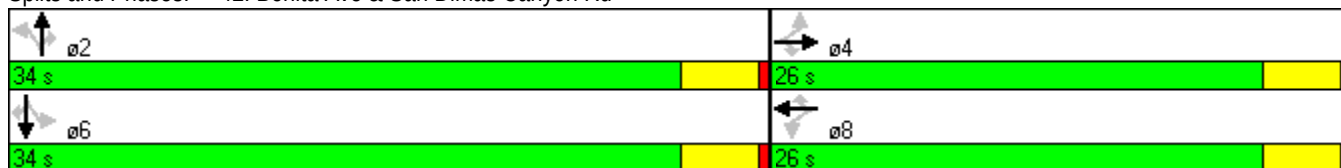
Intersection LOS: A

Intersection Capacity Utilization 44.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	239	512	18	26	1076	128	41	52	69	134	34	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	5004	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.155			0.424			0.733			0.720		
Satd. Flow (perm)	289	5060	0	790	5004	0	1365	1863	1583	1341	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			37				75			291
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	260	577	0	28	1309	0	45	57	75	146	37	291
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	16.0	32.0	0.0	8.0	24.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	34.1	31.2		23.3	19.2		11.1	11.1	11.1	11.1	11.1	11.1
Actuated g/C Ratio	0.64	0.59		0.44	0.36		0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.54	0.19		0.07	0.72		0.16	0.15	0.19	0.52	0.10	0.52
Control Delay	11.4	6.7		6.1	17.7		18.8	18.3	6.5	26.4	17.7	6.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	6.7		6.1	17.7		18.8	18.3	6.5	26.4	17.7	6.5
LOS	B	A		A	B		B	B	A	C	B	A
Approach Delay		8.1			17.5			13.4			13.5	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	29	22		3	130		12	16	0	43	10	0
Queue Length 95th (ft)	97	61		11	196		34	39	26	89	29	49
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	524	2981		420	1933		417	569	535	410	569	686
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.19		0.07	0.68		0.11	0.10	0.14	0.36	0.07	0.42

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 13.8

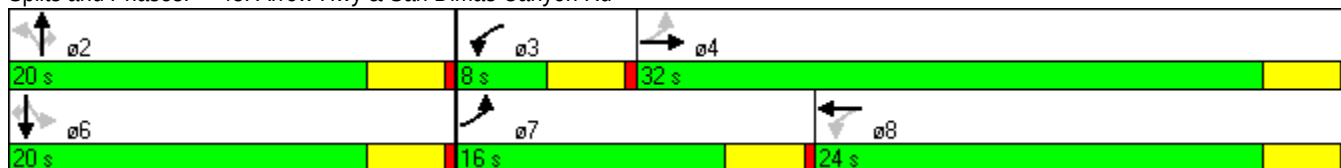
Intersection LOS: B

Intersection Capacity Utilization 61.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

44: Third St & Wheeler Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	9	49	17	8	39	30	301	9	53	536	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	10	53	18	9	42	33	327	10	58	583	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	979	1105	297	862	1106	168	593			337		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	979	1105	297	862	1106	168	593			337		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	95	92	91	95	95	97			95		
cM capacity (veh/h)	176	193	700	208	193	846	979			1219		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	27	53	27	42	196	173	349	302				
Volume Left	17	0	18	0	33	0	58	0				
Volume Right	0	53	0	42	0	10	0	11				
cSH	182	700	203	846	979	1700	1219	1700				
Volume to Capacity	0.15	0.08	0.13	0.05	0.03	0.10	0.05	0.18				
Queue Length 95th (ft)	13	6	11	4	3	0	4	0				
Control Delay (s)	28.2	10.6	25.5	9.5	1.7	0.0	1.7	0.0				
Lane LOS	D	B	D	A	A		A					
Approach Delay (s)	16.5		15.7		0.9		0.9					
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			44.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

45: Arrow Hwy & Wheeler Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	102	489	34	35	980	343	30	32	15	334	98	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5034	0	1770	4887	0	1770	1863	1583	0	3292	0
Flt Permitted	0.156			0.428			0.271				0.793	
Satd. Flow (perm)	291	5034	0	797	4887	0	505	1863	1583	0	2683	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			166				16		111	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	569	0	38	1438	0	33	35	16	0	662	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	10.0	28.0	0.0	8.0	26.0	0.0	24.0	24.0	24.0	24.0	24.0	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
Act Effect Green (s)	27.7	25.6		24.0	21.1		16.6	16.6	16.6		16.6	
Actuated g/C Ratio	0.52	0.48		0.45	0.39		0.31	0.31	0.31		0.31	
v/c Ratio	0.34	0.24		0.09	0.71		0.21	0.06	0.03		0.73	
Control Delay	9.9	9.4		7.4	15.4		18.5	14.1	7.5		19.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.9	9.4		7.4	15.4		18.5	14.1	7.5		19.5	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		9.4			15.2			14.6			19.5	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	17	32		6	138		8	8	0		87	
Queue Length 95th (ft)	39	68		17	193		28	25	11		142	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	326	2677		435	2216		199	736	635		1126	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.34	0.21		0.09	0.65		0.17	0.05	0.03		0.59	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 14.8

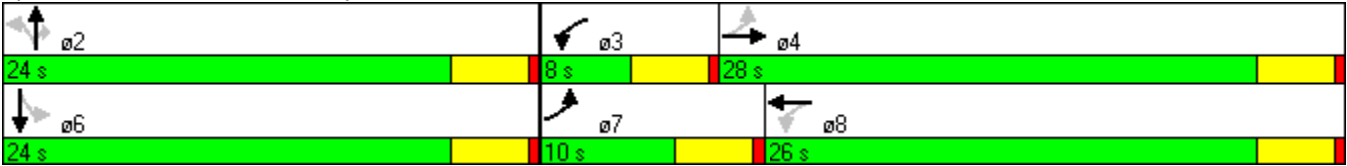
Intersection LOS: B

Intersection Capacity Utilization 67.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

46: Third St & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	58	3	3	62	2	15	53	11	0	48	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	63	3	3	67	2	16	58	12	0	52	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	70			66			180	146	63	184	147	67
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	70			66			180	146	63	184	147	67
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	92	99	100	93	99
cM capacity (veh/h)	1531			1535			729	743	1002	720	741	996
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	66	3	71	2	86	63						
Volume Left	3	0	3	0	16	0						
Volume Right	0	3	0	2	12	11						
cSH	1531	1700	1535	1700	767	776						
Volume to Capacity	0.00	0.00	0.00	0.00	0.11	0.08						
Queue Length 95th (ft)	0	0	0	0	9	7						
Control Delay (s)	0.4	0.0	0.4	0.0	10.3	10.1						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.4		0.3		10.3	10.1						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			23.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

47: First St & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	2	10	3	1	2	1	65	2	3	48	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	2	11	3	1	2	1	71	2	3	52	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	134	134	52	143	137	71	58			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134	134	52	143	137	71	58			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	833	755	1015	813	752	992	1547			1527		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	5	11	7	72	2	55	5					
Volume Left	3	0	3	1	0	3	0					
Volume Right	0	11	2	0	2	0	5					
cSH	800	1015	853	1547	1700	1527	1700					
Volume to Capacity	0.01	0.01	0.01	0.00	0.00	0.00	0.00					
Queue Length 95th (ft)	1	1	1	0	0	0	0					
Control Delay (s)	9.5	8.6	9.3	0.1	0.0	0.4	0.0					
Lane LOS	A	A	A	A		A						
Approach Delay (s)	8.9		9.3	0.1		0.4						
Approach LOS	A		A									
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			20.1%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

48: Arrow Hwy & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	772	5	8	1335	26	7	6	7	32	2	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	839	5	9	1451	28	8	7	8	35	2	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	1479			845			1441	2408	282	1843	2397	498
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1479			845			1441	2408	282	1843	2397	498
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			90	78	99	3	93	95
cM capacity (veh/h)	451			788			78	30	715	36	30	518
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	35	336	336	173	9	580	580	318	14	8	37	27
Volume Left	35	0	0	0	9	0	0	0	8	0	35	0
Volume Right	0	0	0	5	0	0	0	28	0	8	0	27
cSH	451	1700	1700	1700	788	1700	1700	1700	45	715	35	518
Volume to Capacity	0.08	0.20	0.20	0.10	0.01	0.34	0.34	0.19	0.32	0.01	1.04	0.05
Queue Length 95th (ft)	6	0	0	0	1	0	0	0	27	1	96	4
Control Delay (s)	13.6	0.0	0.0	0.0	9.6	0.0	0.0	0.0	119.6	10.1	335.5	12.3
Lane LOS	B				A				F	B	F	B
Approach Delay (s)	0.5				0.1				81.3		198.6	
Approach LOS									F		F	
Intersection Summary												
Average Delay			6.1									
Intersection Capacity Utilization			43.0%			ICU Level of Service				A		
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	27	19	9	106	30	67	103	11	19	165	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	29	21	10	115	33	73	112	12	21	179	52
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	65	158	197	252								
Volume Left (vph)	15	10	73	21								
Volume Right (vph)	21	33	12	52								
Hadj (s)	-0.11	-0.08	0.07	-0.07								
Departure Headway (s)	5.1	5.0	4.9	4.7								
Degree Utilization, x	0.09	0.22	0.27	0.33								
Capacity (veh/h)	625	655	698	729								
Control Delay (s)	8.6	9.4	9.6	9.9								
Approach Delay (s)	8.6	9.4	9.6	9.9								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.6									
HCM Level of Service			A									
Intersection Capacity Utilization			40.9%	ICU Level of Service		A						
Analysis Period (min)			15									



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	11	29	169	157	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	12	32	184	171	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	422	176	180			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	422	176	180			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	98			
cM capacity (veh/h)	575	868	1395			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	15	215	180			
Volume Left	3	32	0			
Volume Right	12	0	10			
cSH	782	1395	1700			
Volume to Capacity	0.02	0.02	0.11			
Queue Length 95th (ft)	1	2	0			
Control Delay (s)	9.7	1.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	1.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			32.6%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

51: Arrow Hwy & D St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	700	29	14	1269	95	57	27	15	66	39	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5055	0	1770	5034	0	0	1801	1583	0	1805	1583
Flt Permitted	0.153			0.340				0.726			0.754	
Satd. Flow (perm)	285	5055	0	633	5034	0	0	1352	1583	0	1405	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		19			35				16			50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	793	0	15	1482	0	0	91	16	0	114	51
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	28.0	28.0		28.0	28.0			9.6	9.6		9.6	9.6
Actuated g/C Ratio	0.69	0.69		0.69	0.69			0.24	0.24		0.24	0.24
v/c Ratio	0.31	0.23		0.03	0.43			0.29	0.04		0.34	0.12
Control Delay	10.1	3.9		4.2	4.8			19.3	9.5		20.1	7.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	10.1	3.9		4.2	4.8			19.3	9.5		20.1	7.3
LOS	B	A		A	A			B	A		C	A
Approach Delay		4.3			4.8			17.9			16.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	6	24		1	55			19	0		24	0
Queue Length 95th (ft)	32	51		7	107			60	12		72	22
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	239	4238		530	4223			630	747		655	765
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.25	0.19		0.03	0.35			0.14	0.02		0.17	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 5.9

Intersection LOS: A

Intersection Capacity Utilization 52.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

52: Third St & E St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	19	16	23	74	24	66	175	7	9	223	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	21	17	25	80	26	72	190	8	10	242	9
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	33	17	105	26	262	8	252	9				
Volume Left (vph)	12	0	25	0	72	0	10	0				
Volume Right (vph)	0	17	0	26	0	8	0	9				
Hadj (s)	0.22	-0.67	0.15	-0.67	0.17	-0.67	0.05	-0.67				
Departure Headway (s)	6.2	5.4	6.1	5.2	5.4	4.6	5.3	4.6				
Degree Utilization, x	0.06	0.03	0.18	0.04	0.40	0.01	0.37	0.01				
Capacity (veh/h)	525	605	549	629	642	744	649	742				
Control Delay (s)	8.4	7.3	9.2	7.2	10.8	6.5	10.3	6.5				
Approach Delay (s)	8.0		8.8		10.6		10.2					
Approach LOS	A		A		B		B					
Intersection Summary												
Delay			9.9									
HCM Level of Service			A									
Intersection Capacity Utilization			46.9%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

53: Second St & E St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	10	30	6	34	13	47	222	5	1	255	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	11	33	7	37	14	51	241	5	1	277	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	0.97	0.97		0.97	0.97	0.97				0.97		
vC, conflicting volume	641	628	277	628	641	241	296			247		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	613	599	277	599	613	199	296			205		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	97	96	98	90	98	96			100		
cM capacity (veh/h)	345	385	762	363	378	814	1266			1322		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	51	58	292	5	278	18						
Volume Left	8	7	51	0	1	0						
Volume Right	33	14	0	5	0	18						
cSH	1019	498	1266	1700	1322	1700						
Volume to Capacity	0.05	0.12	0.04	0.00	0.00	0.01						
Queue Length 95th (ft)	4	10	3	0	0	0						
Control Delay (s)	11.9	14.3	1.7	0.0	0.0	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.9	14.3	1.7		0.0							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			44.7%	ICU Level of Service					A			
Analysis Period (min)			15									

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	14	255	16	26	259
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	15	277	17	28	282
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.92	0.92			0.92	
vC, conflicting volume	615	277			295	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	533	164			183	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	98			98	
cM capacity (veh/h)	454	806			1274	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	15	15	277	17	28	282
Volume Left	15	0	0	0	28	0
Volume Right	0	15	0	17	0	0
cSH	454	806	1700	1700	1274	1700
Volume to Capacity	0.03	0.02	0.16	0.01	0.02	0.17
Queue Length 95th (ft)	3	1	0	0	2	0
Control Delay (s)	13.2	9.6	0.0	0.0	7.9	0.0
Lane LOS	B	A			A	
Approach Delay (s)	11.4		0.0		0.7	
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			30.1%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

55: Arrow Hwy & E St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	15	527	234	145	1135	55	215	222	41	34	170	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4851	0	1770	5050	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4851	0	1770	5050	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		182			12				45			50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	827	0	158	1294	0	234	241	45	37	185	50
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	22.0	22.0	9.0	20.0	20.0
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
Act Effect Green (s)	4.2	13.6		5.2	21.7		7.3	15.8	15.8	5.2	10.6	10.6
Actuated g/C Ratio	0.08	0.27		0.10	0.43		0.14	0.31	0.31	0.10	0.21	0.21
v/c Ratio	0.11	0.57		0.86	0.59		0.91	0.41	0.09	0.20	0.47	0.13
Control Delay	27.1	14.7		70.8	15.2		68.1	17.5	6.3	27.3	23.1	7.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	14.7		70.8	15.2		68.1	17.5	6.3	27.3	23.1	7.1
LOS	C	B		E	B		E	B	A	C	C	A
Approach Delay		14.9			21.3			39.3			20.7	
Approach LOS		B			C			D			C	
Queue Length 50th (ft)	5	61		51	103		~77	50	0	11	53	0
Queue Length 95th (ft)	22	106		#165	#244		#220	126	19	38	103	21
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	147	1736		184	2182		258	736	652	184	620	560
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.48		0.86	0.59		0.91	0.33	0.07	0.20	0.30	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 60.7%

ICU Level of Service B

Analysis Period (min) 15

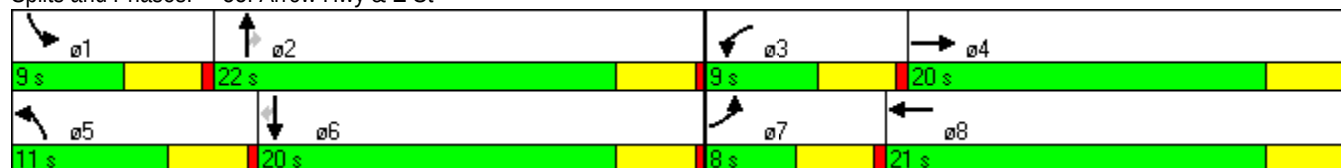
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1	22	3	5	19	59	534	3	2	708	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	24	3	5	21	64	580	3	2	770	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												296
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	1506	1486	770	1507	1518	580	805			584		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1508	1481	527	1509	1525	580	575			584		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	94	95	93	96	91			100		
cM capacity (veh/h)	63	86	414	65	81	514	750			991		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	1	24	9	21	645	3	772	36				
Volume Left	0	0	3	0	64	0	2	0				
Volume Right	0	24	0	21	0	3	0	36				
cSH	86	414	74	514	750	1700	991	1700				
Volume to Capacity	0.01	0.06	0.12	0.04	0.09	0.00	0.00	0.02				
Queue Length 95th (ft)	1	5	10	3	7	0	0	0				
Control Delay (s)	47.5	14.2	60.1	12.3	2.2	0.0	0.1	0.0				
Lane LOS	E	B	F	B	A		A					
Approach Delay (s)	15.7		26.5		2.2		0.1					
Approach LOS	C		D									
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			82.1%		ICU Level of Service					E		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	15	7	0	18	27	549	2	11	712	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	16	8	0	20	29	597	2	12	774	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											756	
pX, platoon unblocked	0.79	0.79	0.79	0.79	0.79		0.79					
vC, conflicting volume	1473	1455	774	1470	1468	597	789			599		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1466	1444	582	1462	1460	597	601			599		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	96	90	100	96	96			99		
cM capacity (veh/h)	78	99	406	77	97	503	772			978		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	3	16	8	20	626	2	786	15				
Volume Left	2	0	8	0	29	0	12	0				
Volume Right	0	16	0	20	0	2	0	15				
cSH	84	406	77	503	772	1700	978	1700				
Volume to Capacity	0.04	0.04	0.10	0.04	0.04	0.00	0.01	0.01				
Queue Length 95th (ft)	3	3	8	3	3	0	1	0				
Control Delay (s)	49.8	14.2	56.6	12.4	1.0	0.0	0.3	0.0				
Lane LOS	E	B	F	B	A		A					
Approach Delay (s)	20.2		24.8		1.0		0.3					
Approach LOS	C		C									
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			63.4%		ICU Level of Service			B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

58: First St & White Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	2	10	13	3	38	34	555	26	39	686	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	14	3	41	37	603	28	42	746	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											1008	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1551	1536	746	1520	1518	603	757			632		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1559	1542	618	1523	1522	603	631			632		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	97	81	96	92	95			96		
cM capacity (veh/h)	65	90	418	74	92	499	814			951		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	2	11	17	41	37	603	28	788	11			
Volume Left	0	0	14	0	37	0	0	42	0			
Volume Right	0	11	0	41	0	0	28	0	11			
cSH	90	418	77	499	814	1700	1700	951	1700			
Volume to Capacity	0.02	0.03	0.23	0.08	0.05	0.35	0.02	0.04	0.01			
Queue Length 95th (ft)	2	2	20	7	4	0	0	3	0			
Control Delay (s)	46.1	13.8	65.2	12.9	9.6	0.0	0.0	1.2	0.0			
Lane LOS	E	B	F	B	A			A				
Approach Delay (s)	19.2		28.4		0.5			1.1				
Approach LOS	C		D									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			82.2%		ICU Level of Service				E			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

No Build Alternative
AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	5	25	561	9	25	680	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	5	27	610	10	27	739	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.93	0.93			0.93		
vC, conflicting volume	1034	305			620		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	895	115			452		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	98	97			97		
cM capacity (veh/h)	255	856			1032		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	33	305	305	10	27	370	370
Volume Left	5	0	0	0	27	0	0
Volume Right	27	0	0	10	0	0	0
cSH	614	1700	1700	1700	1032	1700	1700
Volume to Capacity	0.05	0.18	0.18	0.01	0.03	0.22	0.22
Queue Length 95th (ft)	4	0	0	0	2	0	0
Control Delay (s)	11.2	0.0	0.0	0.0	8.6	0.0	0.0
Lane LOS	B				A		
Approach Delay (s)	11.2	0.0			0.3		
Approach LOS	B						
Intersection Summary							
Average Delay			0.4				
Intersection Capacity Utilization			30.8%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

No Build Alternative
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	247	336	86	106	441	135	53	415	175	90	957	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4963	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4963	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			147		173			66	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	268	365	93	115	479	147	58	641	0	98	1243	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	12.0	20.0	20.0	12.0	20.0	20.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	8.1	16.1	16.1	7.4	13.0	13.0	4.1	14.9		4.1	16.7	
Actuated g/C Ratio	0.15	0.30	0.30	0.14	0.24	0.24	0.08	0.27		0.08	0.31	
v/c Ratio	1.02	0.35	0.17	0.48	0.57	0.30	0.44	0.44		0.74	0.79	
Control Delay	91.3	18.2	5.7	30.7	21.4	5.7	38.8	13.5		64.3	23.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	91.3	18.2	5.7	30.7	21.4	5.7	38.8	13.5		64.3	23.1	
LOS	F	B	A	C	C	A	D	B		E	C	
Approach Delay		43.6			19.7			15.6			26.1	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)	~109	56	0	37	76	0	20	47		34	141	
Queue Length 95th (ft)	#242	90	29	83	117	36	#63	78		#111	#232	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	264	1128	568	264	1057	576	132	1573		132	1570	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.02	0.32	0.16	0.44	0.45	0.26	0.44	0.41		0.74	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
12 s	20 s	8 s	20 s
 ø5	 ø6	 ø7	 ø8
12 s	20 s	8 s	20 s

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

61: Bonita Ave & D St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	278	34	34	454	86	37	96	18	106	152	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1811	0	1770	1863	1583
Flt Permitted	0.429			0.576				0.880		0.818		
Satd. Flow (perm)	799	1863	1583	1073	1863	1583	0	1613	0	1524	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			37			70			13			162
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	302	37	37	493	93	0	164	0	115	165	162
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	25.0	25.0	0.0	25.0	25.0	25.0
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
Act Effect Green (s)	18.6	18.6	18.6	18.6	18.6	18.6		10.5		10.5	10.5	10.5
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58		0.33		0.33	0.33	0.33
v/c Ratio	0.20	0.28	0.04	0.06	0.45	0.10		0.31		0.23	0.27	0.26
Control Delay	7.4	6.7	2.7	5.9	8.2	2.9		12.1		12.3	12.2	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	7.4	6.7	2.7	5.9	8.2	2.9		12.1		12.3	12.2	4.1
LOS	A	A	A	A	A	A		B		B	B	A
Approach Delay		6.5			7.3			12.1			9.3	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	7	26	0	3	48	2		18		14	20	0
Queue Length 95th (ft)	36	87	10	16	155	19		73		57	75	32
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	703	1639	1397	944	1639	1401		1112		1047	1279	1138
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.13	0.18	0.03	0.04	0.30	0.07		0.15		0.11	0.13	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.1

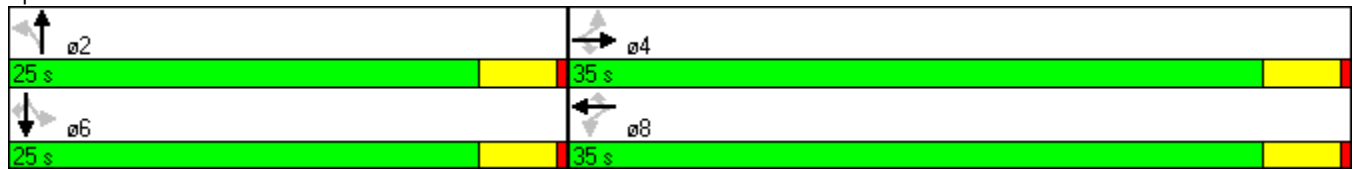
Intersection LOS: A

Intersection Capacity Utilization 58.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

62: Foothill Blvd & Fruit St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 		 	 			 	
Volume (vph)	145	333	71	80	623	207	122	338	24	214	543	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		75				225		12				247
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	439	0	87	677	225	133	393	0	233	590	247
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	20.0	9.0	20.0	0.0	11.0	22.0	22.0
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
Act Effect Green (s)	5.0	17.2		5.0	15.0	15.0	5.0	13.4		7.1	17.5	17.5
Actuated g/C Ratio	0.09	0.30		0.09	0.27	0.27	0.09	0.24		0.13	0.31	0.31
v/c Ratio	1.00	0.28		0.55	0.72	0.38	0.44	0.47		1.05	0.54	0.37
Control Delay	107.8	14.3		42.3	24.4	5.3	30.7	19.9		108.2	19.3	4.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	107.8	14.3		42.3	24.4	5.3	30.7	19.9		108.2	19.3	4.6
LOS	F	B		D	C	A	C	B		F	B	A
Approach Delay		39.0			21.6			22.7			35.2	
Approach LOS		D			C			C			D	
Queue Length 50th (ft)	~64	37		31	114	0	24	59		~99	93	0
Queue Length 95th (ft)	#165	61		#87	170	43	47	94		#219	138	43
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	158	1559		158	1008	612	305	1006		221	1147	680
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.00	0.28		0.55	0.67	0.37	0.44	0.39		1.05	0.51	0.36

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 29.6

Intersection LOS: C

Intersection Capacity Utilization 60.6%

ICU Level of Service B

Analysis Period (min) 15

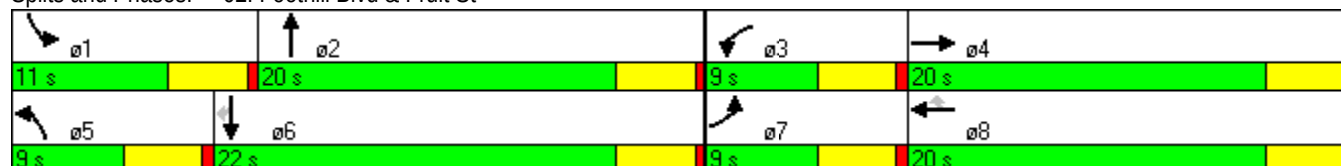
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	251	71	102	461	86	80	378	56	75	513	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.297			0.558			0.281			0.425		
Satd. Flow (perm)	553	1863	1583	1039	1863	1583	523	1863	1583	792	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			93			61			110
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	273	77	111	501	93	87	411	61	82	558	110
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	32.0	32.0	32.0	32.0	32.0	32.0
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
Act Effect Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	20.1	20.1	20.1	20.1	20.1	20.1
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.38	0.43	0.43	0.43	0.43	0.43	0.43
v/c Ratio	0.19	0.38	0.12	0.28	0.70	0.14	0.39	0.51	0.09	0.24	0.70	0.15
Control Delay	14.0	13.3	4.0	13.6	19.3	3.8	16.1	12.9	3.3	11.5	16.8	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	13.3	4.0	13.6	19.3	3.8	16.1	12.9	3.3	11.5	16.8	2.9
LOS	B	B	A	B	B	A	B	B	A	B	B	A
Approach Delay		11.5			16.3			12.4			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	7	52	0	20	110	0	16	79	0	14	119	0
Queue Length 95th (ft)	28	119	21	59	238	22	52	161	16	41	239	21
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	309	1040	917	580	1040	925	339	1209	1049	514	1209	1066
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.26	0.08	0.19	0.48	0.10	0.26	0.34	0.06	0.16	0.46	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 14.0

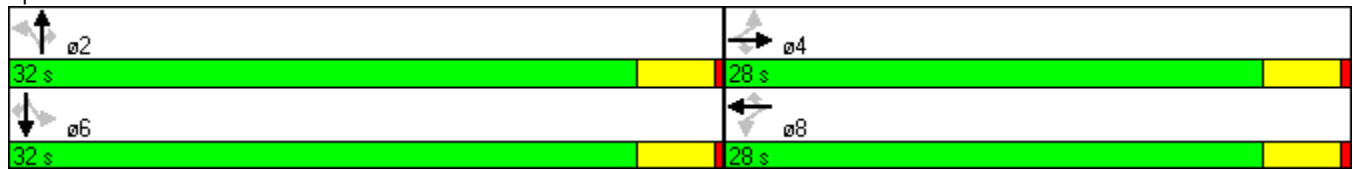
Intersection LOS: B

Intersection Capacity Utilization 72.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

64: McKinley Ave & White Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	75	59	67	160	63	87	425	101	7	515	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1764	1583	0	1835	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.525	0.976			0.873		0.950			0.950		
Satd. Flow (perm)	929	1727	1583	0	1626	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			68			110			145
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	49	87	64	0	247	68	95	462	110	8	560	145
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	13.0	29.0	29.0	8.0	24.0	24.0
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
Act Effect Green (s)	13.5	13.5	13.5		14.2	14.2	9.6	23.5	23.5	5.8	18.8	18.8
Actuated g/C Ratio	0.34	0.34	0.34		0.36	0.36	0.24	0.59	0.59	0.14	0.47	0.47
v/c Ratio	0.16	0.15	0.11		0.43	0.11	0.22	0.22	0.11	0.03	0.34	0.18
Control Delay	15.8	14.6	5.4		17.3	5.3	21.2	7.5	2.8	24.9	12.9	3.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	14.6	5.4		17.3	5.3	21.2	7.5	2.8	24.9	12.9	3.9
LOS	B	B	A		B	A	C	A	A	C	B	A
Approach Delay		11.9			14.7			8.7			11.2	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	10	18	0		57	0	23	27	0	2	63	0
Queue Length 95th (ft)	36	52	22		130	23	69	86	24	14	123	32
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	508	945	895		890	897	573	2411	1114	255	2001	958
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.07		0.28	0.08	0.17	0.19	0.10	0.03	0.28	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 11.0

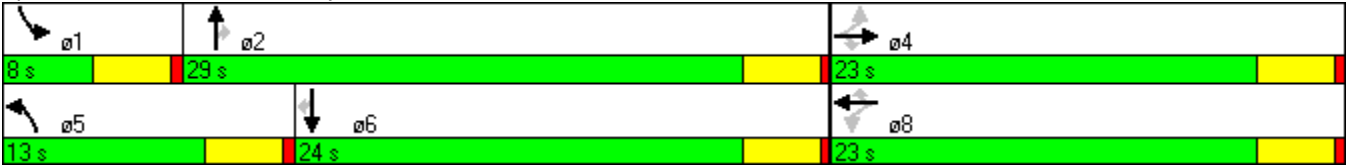
Intersection LOS: B

Intersection Capacity Utilization 48.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
65: Arrow Hwy & La Verne Ave

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (veh/h)	3	346	0	1	568	7	246	0	5	5	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	376	0	1	617	8	267	0	5	5	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	625			376			694	1010	125	751	1002	309
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	625			376			694	1010	125	751	1002	309
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			18	100	99	98	100	100
cM capacity (veh/h)	952			1179			327	237	902	296	240	687
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	3	125	125	125	1	309	309	8	273	7		
Volume Left	3	0	0	0	1	0	0	0	267	5		
Volume Right	0	0	0	0	0	0	0	8	5	0		
cSH	952	1700	1700	1700	1179	1700	1700	1700	332	285		
Volume to Capacity	0.00	0.07	0.07	0.07	0.00	0.18	0.18	0.00	0.82	0.02		
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	177	2		
Control Delay (s)	8.8	0.0	0.0	0.0	8.1	0.0	0.0	0.0	50.6	17.9		
Lane LOS	A				A				F	C		
Approach Delay (s)	0.1				0.0				50.6	17.9		
Approach LOS									F	C		
Intersection Summary												
Average Delay			10.9									
Intersection Capacity Utilization			37.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	342	41	13	365	8	47	4	32	15	12	81
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	372	45	14	397	9	51	4	35	16	13	88
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	405			416			942	856	394	866	874	401
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	405			416			942	856	394	866	874	401
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			74	98	95	94	95	86
cM capacity (veh/h)	1153			1143			199	288	655	251	281	649
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	14	416	14	405	55	35	29	88				
Volume Left	14	0	14	0	51	0	16	0				
Volume Right	0	45	0	9	0	35	0	88				
cSH	1153	1700	1143	1700	204	655	264	649				
Volume to Capacity	0.01	0.24	0.01	0.24	0.27	0.05	0.11	0.14				
Queue Length 95th (ft)	1	0	1	0	27	4	9	12				
Control Delay (s)	8.2	0.0	8.2	0.0	29.1	10.8	20.4	11.4				
Lane LOS	A		A		D	B	C	B				
Approach Delay (s)	0.3		0.3		22.1		13.7					
Approach LOS					C		B					
Intersection Summary												
Average Delay			3.6									
Intersection Capacity Utilization			38.0%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

No Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	24	344	0	9	620	31	19	24	8	18	13	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	374	0	10	674	34	21	26	9	20	14	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	708			374			814	1153	125	892	1120	337
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	708			374			814	1153	125	892	1120	337
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			91	86	99	90	93	96
cM capacity (veh/h)	887			1181			239	189	903	204	198	659
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	26	150	150	75	10	337	337	34	21	35	34	24
Volume Left	26	0	0	0	10	0	0	0	21	0	20	0
Volume Right	0	0	0	0	0	0	0	34	0	9	0	24
cSH	887	1700	1700	1700	1181	1700	1700	1700	239	235	201	659
Volume to Capacity	0.03	0.09	0.09	0.04	0.01	0.20	0.20	0.02	0.09	0.15	0.17	0.04
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	7	13	15	3
Control Delay (s)	9.2	0.0	0.0	0.0	8.1	0.0	0.0	0.0	21.5	22.9	26.5	10.7
Lane LOS	A				A				C	C	D	B
Approach Delay (s)	0.6				0.1				22.4		19.9	
Approach LOS									C		C	
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			35.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

68: Bonita Ave & Garey Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	220	123	110	270	40	126	470	139	58	778	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.434			0.528			0.950			0.950		
Satd. Flow (perm)	808	1863	1583	984	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			134			43			151			140
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	239	134	120	293	43	137	511	151	63	846	140
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	14.0	29.0	29.0	10.0	25.0	25.0
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
Act Effect Green (s)	13.3	13.3	13.3	13.3	13.3	13.3	9.0	22.7	22.7	6.5	18.3	18.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.18	0.45	0.45	0.13	0.37	0.37
v/c Ratio	0.27	0.48	0.26	0.46	0.59	0.10	0.43	0.32	0.19	0.27	0.65	0.21
Control Delay	20.8	21.2	5.3	24.4	23.5	6.7	26.8	10.6	3.1	27.9	17.5	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	21.2	5.3	24.4	23.5	6.7	26.8	10.6	3.1	27.9	17.5	4.1
LOS	C	C	A	C	C	A	C	B	A	C	B	A
Approach Delay		16.2			22.1			12.0			16.3	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	16	70	0	35	88	0	42	56	0	20	120	0
Queue Length 95th (ft)	44	128	33	79	157	19	92	95	28	54	191	30
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	306	706	683	373	706	626	394	2033	974	237	1657	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.34	0.20	0.32	0.42	0.07	0.35	0.25	0.16	0.27	0.51	0.17

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 16.0

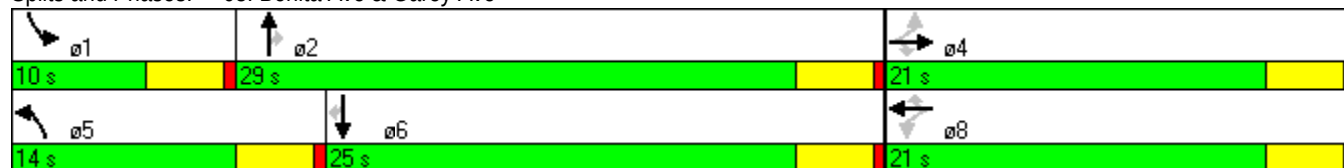
Intersection LOS: B

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

No Build Alternative
AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	18	25	744	978	29
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	20	27	809	1063	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.90	0.90	0.90			
vC, conflicting volume	1538	547	1095			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1382	286	892			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	96			
cM capacity (veh/h)	117	642	683			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	20	27	404	404	709	386
Volume Left	0	27	0	0	0	0
Volume Right	20	0	0	0	0	32
cSH	642	683	1700	1700	1700	1700
Volume to Capacity	0.03	0.04	0.24	0.24	0.42	0.23
Queue Length 95th (ft)	2	3	0	0	0	0
Control Delay (s)	10.8	10.5	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	10.8	0.3			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			38.0%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

70: Arrow Hwy & Garey Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Volume (vph)	112	606	110	140	737	140	127	597	134	120	764	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4968	0	1770	4963	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4968	0	1770	4963	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60			63				107			41
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	122	779	0	152	953	0	138	649	146	130	830	71
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	21.0	21.0	9.0	21.0	21.0
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
Act Effect Green (s)	6.0	14.9		6.0	17.2		5.0	16.5	16.5	5.0	16.5	16.5
Actuated g/C Ratio	0.10	0.25		0.10	0.29		0.09	0.28	0.28	0.09	0.28	0.28
v/c Ratio	0.67	0.59		0.84	0.64		0.91	0.65	0.28	0.86	0.83	0.15
Control Delay	47.4	19.7		66.0	19.8		85.7	22.3	8.0	75.6	29.2	9.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.4	19.7		66.0	19.8		85.7	22.3	8.0	75.6	29.2	9.9
LOS	D	B		E	B		F	C	A	E	C	A
Approach Delay		23.4			26.2			29.4			33.7	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	44	81		55	105		51	107	10	48	146	8
Queue Length 95th (ft)	#116	116		#148	145		#144	157	47	#136	#235	33
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	182	1407		182	1500		152	1032	537	152	1032	491
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.55		0.84	0.64		0.91	0.63	0.27	0.86	0.80	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 28.3

Intersection LOS: C

Intersection Capacity Utilization 65.1%

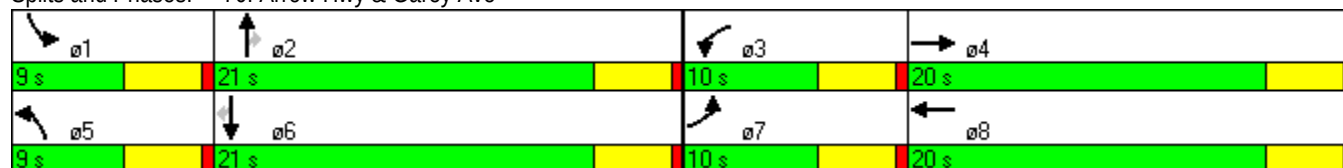
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair

71: Bonita Ave & Towne Ave

No Build Alternative

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	121	80	128	199	75	168	873	96	106	992	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3394	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.570			0.615			0.220			0.266		
Satd. Flow (perm)	1062	3327	0	1146	3394	0	410	3539	1583	495	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87			82				94			140
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	219	0	139	298	0	183	949	104	115	1078	177
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	11.4	11.4		11.4	11.4		29.2	29.2	29.2	29.2	29.2	29.2
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.59	0.59	0.59	0.59	0.59	0.59
v/c Ratio	0.23	0.26		0.52	0.35		0.75	0.45	0.11	0.39	0.51	0.18
Control Delay	20.0	11.7		26.6	13.7		32.6	6.5	1.9	10.7	7.0	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	11.7		26.6	13.7		32.6	6.5	1.9	10.7	7.0	2.2
LOS	C	B		C	B		C	A	A	B	A	A
Approach Delay		13.4			17.8			10.0			6.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	16	18		42	32		32	66	1	14	78	4
Queue Length 95th (ft)	42	42		89	60		#153	120	16	53	143	24
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	374	1228		404	1248		303	2615	1194	366	2615	1206
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18		0.34	0.24		0.60	0.36	0.09	0.31	0.41	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 9.9

Intersection LOS: A

Intersection Capacity Utilization 63.1%

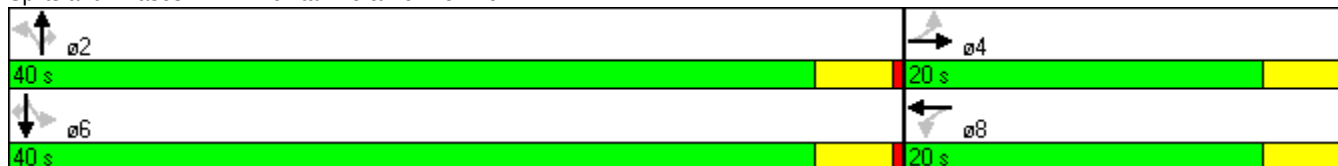
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

No Build Alternative
AM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	4	12	1190	35	41	1214			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	4	13	1293	38	45	1320			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type	None				None				
Median storage (veh)									
Upstream signal (ft)	932								
pX, platoon unblocked	0.80	0.80			0.80				
vC, conflicting volume	2042	647			1332				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	1799	49			908				
tC, single (s)	6.8	6.9			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	92	98			93				
cM capacity (veh/h)	53	805			595				
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	
Volume Total	4	13	647	647	38	45	660	660	
Volume Left	4	0	0	0	0	45	0	0	
Volume Right	0	13	0	0	38	0	0	0	
cSH	53	805	1700	1700	1700	595	1700	1700	
Volume to Capacity	0.08	0.02	0.38	0.38	0.02	0.07	0.39	0.39	
Queue Length 95th (ft)	6	1	0	0	0	6	0	0	
Control Delay (s)	79.6	9.5	0.0	0.0	0.0	11.5	0.0	0.0	
Lane LOS	F	A				B			
Approach Delay (s)	27.1		0.0			0.4			
Approach LOS	D								
Intersection Summary									
Average Delay			0.4						
Intersection Capacity Utilization			44.1%	ICU Level of Service				A	
Analysis Period (min)			15						

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

73: Arrow Hwy & Towne Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	357	71	116	770	228	172	761	102	230	1000	287
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	4912	0	1770	3476	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	4912	0	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			75			17				169
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	465	0	126	1085	0	187	938	0	250	1087	312
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	16.0	23.0	0.0	16.0	23.0	0.0	15.0	33.0	0.0	18.0	36.0	36.0
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
Act Effect Green (s)	12.0	20.5		10.5	19.0		11.0	28.3		14.0	31.3	31.3
Actuated g/C Ratio	0.13	0.23		0.12	0.21		0.12	0.32		0.16	0.35	0.35
v/c Ratio	0.90	0.40		0.61	0.98		0.86	0.84		0.90	0.88	0.47
Control Delay	77.7	28.2		50.0	56.9		74.2	36.2		73.3	36.7	12.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	77.7	28.2		50.0	56.9		74.2	36.2		73.3	36.7	12.5
LOS	E	C		D	E		E	D		E	D	B
Approach Delay		43.8			56.2			42.6			37.6	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	122	76		68	212		106	253		142	298	57
Queue Length 95th (ft)	#252	108		125	#310		#225	331		#281	#398	130
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	238	1172		238	1105		218	1141		277	1269	676
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.90	0.40		0.53	0.98		0.86	0.82		0.90	0.86	0.46

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 89.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 44.5

Intersection LOS: D

Intersection Capacity Utilization 81.4%

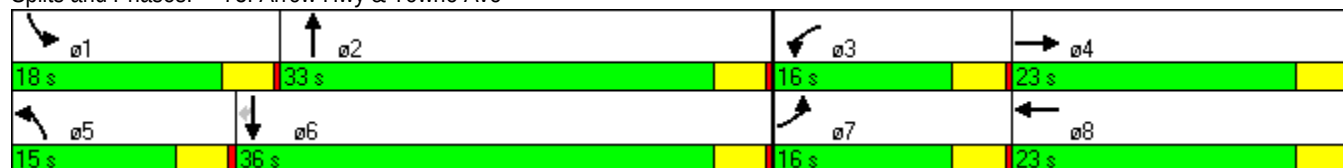
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

74: Harrison Ave & Garey Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	15	63	150	19	58	34	459	87	56	911	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1805	1583	0	1785	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.762			0.718		0.250			0.469		
Satd. Flow (perm)	0	1419	1583	0	1337	1583	466	3539	1583	874	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			63			95			16
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	68	0	184	63	37	499	95	61	990	21
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)		11.9	11.9		12.2	12.2	23.3	23.3	23.3	23.3	23.3	23.3
Actuated g/C Ratio		0.31	0.31		0.32	0.32	0.61	0.61	0.61	0.61	0.61	0.61
v/c Ratio		0.10	0.12		0.43	0.11	0.13	0.23	0.09	0.11	0.45	0.02
Control Delay		13.5	5.2		17.3	5.3	7.4	5.8	2.0	6.5	7.2	3.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.5	5.2		17.3	5.3	7.4	5.8	2.0	6.5	7.2	3.7
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		8.5			14.3			5.4			7.1	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		7	0		32	0	4	26	0	6	63	1
Queue Length 95th (ft)		31	23		103	22	20	67	16	25	148	8
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		802	924		755	922	385	2920	1323	721	2920	1309
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.06	0.07		0.24	0.07	0.10	0.17	0.07	0.08	0.34	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.5

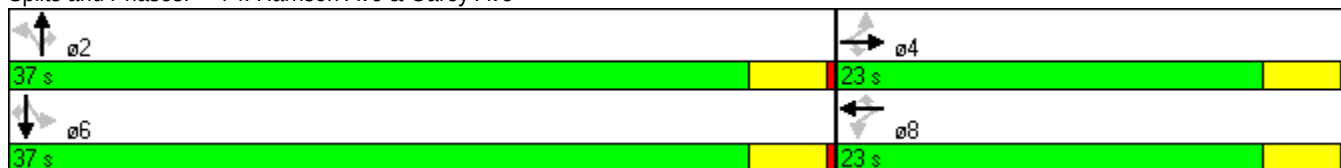
Intersection LOS: A

Intersection Capacity Utilization 54.5%

ICU Level of Service A

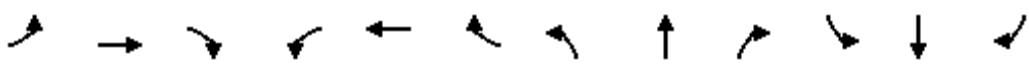
Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	111	149	16	80	29	112	477	27	43	521	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.701			0.679			0.363			0.408		
Satd. Flow (perm)	1306	1863	1583	1265	1863	1583	676	1863	1583	760	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			162			32			24			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	121	162	17	87	32	122	518	29	47	566	43
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	39.0	39.0	39.0	39.0	39.0	39.0
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
Act Effect Green (s)	9.7	9.7	9.7	9.7	9.7	9.7	17.2	17.2	17.2	17.4	17.4	17.4
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.55	0.55	0.55	0.56	0.56	0.56
v/c Ratio	0.18	0.21	0.27	0.04	0.15	0.06	0.33	0.50	0.03	0.11	0.55	0.05
Control Delay	13.5	13.2	4.6	12.6	12.8	6.4	8.2	7.5	2.7	5.4	8.0	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	13.2	4.6	12.6	12.8	6.4	8.2	7.5	2.7	5.4	8.0	2.0
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		9.3			11.2			7.4			7.4	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	9	16	0	2	11	0	10	47	1	3	54	0
Queue Length 95th (ft)	42	61	34	15	47	15	42	134	8	17	152	9
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	772	1101	1002	748	1101	949	624	1720	1463	702	1720	1465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.11	0.16	0.02	0.08	0.03	0.20	0.30	0.02	0.07	0.33	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

76: First St & Indian Hill Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	13	54	88	19	49	42	536	139	43	600	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1855	0
Flt Permitted	0.744			0.748			0.950			0.950		
Satd. Flow (perm)	1386	1863	1583	1393	1863	1583	1770	1863	1583	1770	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			53			151			3
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	14	59	96	21	53	46	583	151	47	672	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0	32.0	32.0	8.0	32.0	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
Act Effect Green (s)	10.2	10.2	10.2	10.2	10.2	10.2	5.5	24.0	24.0	5.5	24.0	
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26	0.14	0.62	0.62	0.14	0.62	
v/c Ratio	0.01	0.03	0.13	0.26	0.04	0.12	0.18	0.51	0.15	0.19	0.59	
Control Delay	17.0	17.0	7.0	19.1	17.1	7.2	24.9	9.7	2.2	24.9	11.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.0	17.0	7.0	19.1	17.1	7.2	24.9	9.7	2.2	24.9	11.2	
LOS	B	B	A	B	B	A	C	A	A	C	B	
Approach Delay		9.1			15.2			9.1			12.1	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	0	3	0	18	4	0	10	64	0	10	79	
Queue Length 95th (ft)	5	16	24	62	20	22	43	227	23	43	283	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	695	934	823	698	934	820	249	1354	1192	249	1349	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.00	0.01	0.07	0.14	0.02	0.06	0.18	0.43	0.13	0.19	0.50	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 10.9

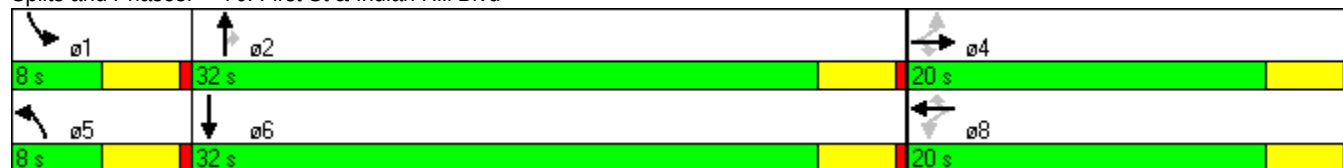
Intersection LOS: B

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

77: Santa Fe St & Indian Hill Blvd

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	16	0	0	11	44	723	7	0	707	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	12	48	786	8	0	768	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	1.00	1.00		1.00	1.00	1.00				1.00		
vC, conflicting volume	1291	1679	406	1283	1693	393	812			793		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1284	1674	406	1277	1689	383	812			785		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	100	100	98	94			100		
cM capacity (veh/h)	114	89	594	114	87	613	810			826		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	17	12	48	393	393	8	384	428				
Volume Left	0	0	48	0	0	0	0	0				
Volume Right	17	12	0	0	0	8	0	43				
cSH	594	613	810	1700	1700	1700	826	1700				
Volume to Capacity	0.03	0.02	0.06	0.23	0.23	0.00	0.00	0.25				
Queue Length 95th (ft)	2	1	5	0	0	0	0	0				
Control Delay (s)	11.2	11.0	9.7	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	B	A									
Approach Delay (s)	11.2	11.0	0.6									
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.5									
Intersection Capacity Utilization			46.6%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

78: Arrow Hwy & Indian Hill Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	333	135	91	439	48	172	654	113	66	573	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			147			52			123			58
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	362	147	99	477	52	187	711	123	72	623	58
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	11.0	24.0	24.0	8.0	21.0	21.0
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
Act Effect Green (s)	4.2	12.4	12.4	4.2	14.1	14.1	7.3	21.6	21.6	4.2	14.5	14.5
Actuated g/C Ratio	0.08	0.24	0.24	0.08	0.27	0.27	0.14	0.41	0.41	0.08	0.28	0.28
v/c Ratio	0.37	0.43	0.30	0.71	0.50	0.11	0.76	0.49	0.17	0.51	0.64	0.12
Control Delay	35.0	19.6	5.8	59.7	19.4	6.6	50.6	15.3	4.2	43.2	21.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	19.6	5.8	59.7	19.4	6.6	50.6	15.3	4.2	43.2	21.0	6.2
LOS	C	B	A	E	B	A	D	B	A	D	C	A
Approach Delay		17.4			24.7			20.4			22.0	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	18	55	0	35	76	0	64	103	0	25	95	0
Queue Length 95th (ft)	#55	88	36	#112	116	22	#173	160	29	#80	150	22
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	140	1117	600	140	1136	543	245	1459	725	140	1187	570
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.32	0.24	0.71	0.42	0.10	0.76	0.49	0.17	0.51	0.52	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 21.2

Intersection LOS: C

Intersection Capacity Utilization 54.2%

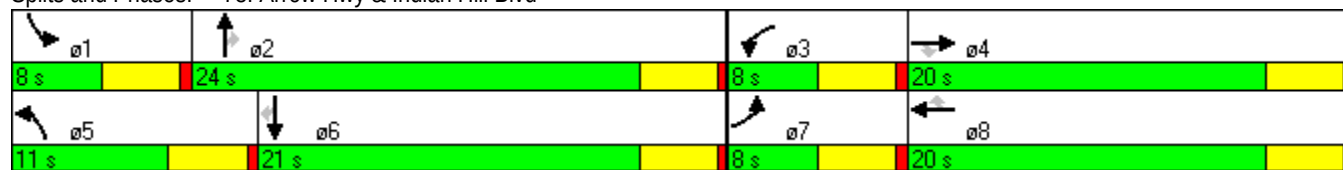
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								 				
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	34	19	36	6	7	16	50	229	34	18	152	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	21	39	7	8	17	54	249	37	20	165	39
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	97	32	303	37	224							
Volume Left (vph)	37	7	54	0	20							
Volume Right (vph)	39	17	0	37	39							
Hadj (s)	-0.13	-0.26	0.12	-0.67	-0.05							
Departure Headway (s)	5.2	5.1	5.2	4.4	4.7							
Degree Utilization, x	0.14	0.05	0.44	0.04	0.29							
Capacity (veh/h)	629	613	679	794	734							
Control Delay (s)	9.0	8.4	10.9	6.4	9.6							
Approach Delay (s)	9.0	8.4	10.4		9.6							
Approach LOS	A	A	B		A							
Intersection Summary												
Delay			9.9									
HCM Level of Service			A									
Intersection Capacity Utilization			41.2%	ICU Level of Service						A		
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	57	34	59	96	78	20	247	27	30	142	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	62	37	64	104	85	22	268	29	33	154	17
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	55	68	168	85	290	29	187	17				
Volume Left (vph)	24	0	64	0	22	0	33	0				
Volume Right (vph)	0	37	0	85	0	29	0	17				
Hadj (s)	0.25	-0.35	0.22	-0.67	0.07	-0.67	0.12	-0.67				
Departure Headway (s)	6.6	6.0	6.4	5.5	5.9	5.2	6.1	5.3				
Degree Utilization, x	0.10	0.11	0.30	0.13	0.48	0.04	0.32	0.03				
Capacity (veh/h)	503	553	533	613	589	658	559	633				
Control Delay (s)	9.1	8.5	10.8	8.1	13.0	7.2	10.7	7.3				
Approach Delay (s)	8.8		9.9		12.4		10.4					
Approach LOS	A		A		B		B					
Intersection Summary												
Delay			10.8									
HCM Level of Service			B									
Intersection Capacity Utilization			48.2%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

81: Arrow Hwy & College Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	377	29	32	574	91	28	106	11	51	97	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3500	0	1770	3465	0	0	1844	1583	1770	1863	1583
Flt Permitted	0.377			0.496				0.906		0.665		
Satd. Flow (perm)	702	3500	0	924	3465	0	0	1688	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			41				12			87
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	442	0	35	723	0	0	145	12	55	105	87
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
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
Act Effect Green (s)	15.0	15.0		15.0	15.0			8.9	8.9	8.9	8.9	8.9
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.33	0.33	0.33	0.33	0.33
v/c Ratio	0.21	0.22		0.07	0.37			0.26	0.02	0.13	0.17	0.15
Control Delay	7.1	5.1		5.4	5.7			10.8	5.9	10.1	9.9	3.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	5.1		5.4	5.7			10.8	5.9	10.1	9.9	3.9
LOS	A	A		A	A			B	A	B	A	A
Approach Delay		5.4			5.7			10.4			7.8	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	6	17		3	30			16	0	6	11	0
Queue Length 95th (ft)	27	41		12	68			54	7	26	41	20
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	654	3263		861	3232			1370	1287	1005	1512	1301
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.13	0.14		0.04	0.22			0.11	0.01	0.05	0.07	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 26.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 6.3

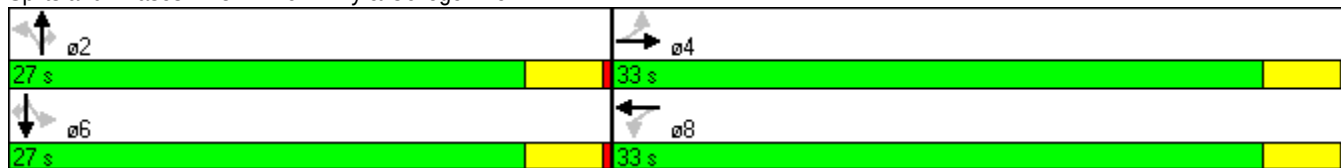
Intersection LOS: A

Intersection Capacity Utilization 46.8%

ICU Level of Service A

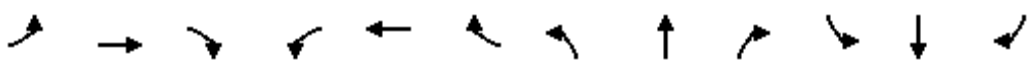
Analysis Period (min) 15

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	1	53	1	4	0	113	236	4	2	296	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted							0.557			0.593		
Satd. Flow (perm)	1863	1863	1583	1863	1863	0	1038	3539	1583	1105	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			58						4			163
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	1	58	1	4	0	123	257	4	2	322	163
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0
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
Act Effect Green (s)	7.6	7.6	7.6	7.3	7.3		11.9	11.9	11.9	11.9	11.9	11.9
Actuated g/C Ratio	0.44	0.44	0.44	0.42	0.42		0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.07	0.00	0.08	0.00	0.01		0.17	0.11	0.00	0.00	0.13	0.14
Control Delay	6.4	7.0	3.3	7.0	7.0		4.5	3.2	3.2	4.0	3.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	7.0	3.3	7.0	7.0		4.5	3.2	3.2	4.0	3.2	1.6
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		4.9			7.0			3.6			2.7	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 95th (ft)	19	2	12	2	3		26	20	2	2	24	13
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1694	1694	1445	1694	1694		1038	3539	1583	1105	3539	1583
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.00	0.04	0.00	0.00		0.12	0.07	0.00	0.00	0.09	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 17.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 3.3

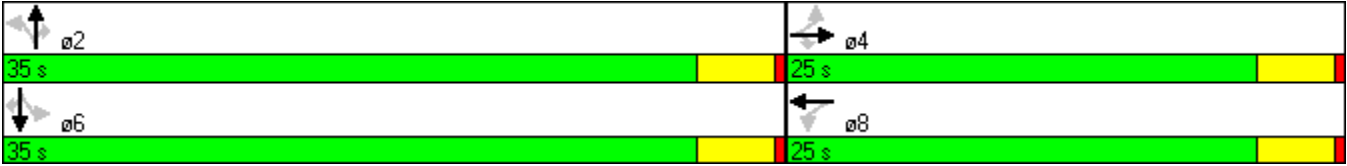
Intersection LOS: A

Intersection Capacity Utilization 34.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

83: Arrow Hwy & Claremont Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	291	27	34	398	83	75	187	18	34	180	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3493	0	1770	3447	0	1770	3493	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3493	0	1770	3447	0	1770	3493	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			40			17				141
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	345	0	37	523	0	82	223	0	37	196	141
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	10.0	21.0	0.0	9.0	20.0	0.0	9.0	21.0	0.0	9.0	21.0	21.0
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
Act Effect Green (s)	8.6	19.6		7.4	17.7		7.4	14.2		7.4	13.0	13.0
Actuated g/C Ratio	0.21	0.48		0.18	0.44		0.18	0.35		0.18	0.32	0.32
v/c Ratio	0.24	0.20		0.11	0.34		0.25	0.18		0.11	0.33	0.23
Control Delay	24.9	11.9		24.6	14.1		27.3	13.2		24.6	18.0	5.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	24.9	11.9		24.6	14.1		27.3	13.2		24.6	18.0	5.2
LOS	C	B		C	B		C	B		C	B	A
Approach Delay		14.6			14.7			17.0			13.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	26	28		10	64		24	20		10	52	0
Queue Length 95th (ft)	#79	79		37	119		#80	53		37	106	34
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	389	1878		325	1720		325	1831		325	953	879
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.23	0.18		0.11	0.30		0.25	0.12		0.11	0.21	0.16

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 14.9

Intersection LOS: B

Intersection Capacity Utilization 45.3%

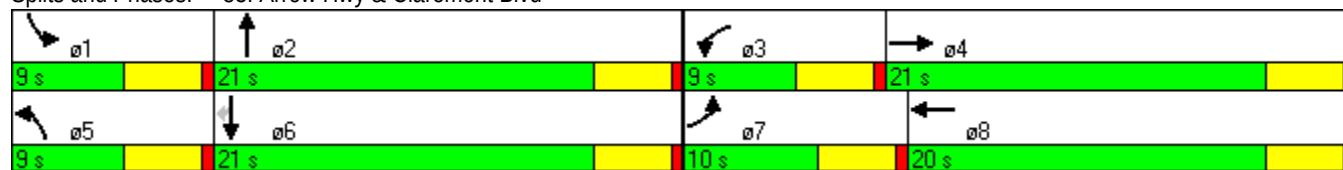
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 83: Arrow Hwy & Claremont Blvd

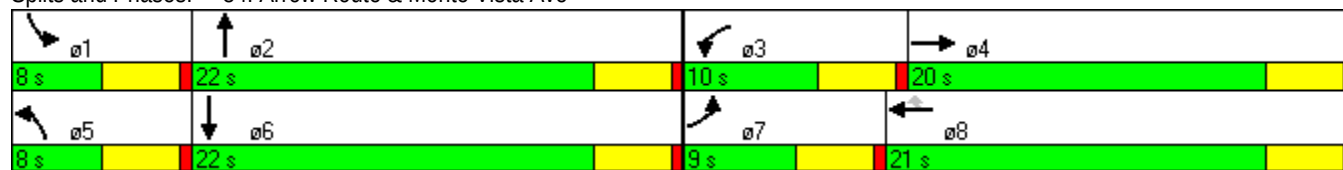


Gold Line Foothill Extension - Azusa to Montclair
84: Arrow Route & Monte Vista Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	78	19	56	181	40	71	522	58	23	806	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3433	0	1770	1863	1583	3433	5009	0	1770	5045	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3433	0	1770	1863	1583	3433	5009	0	1770	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				43		32			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	106	0	61	197	43	77	630	0	25	924	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	10.0	21.0	21.0	8.0	22.0	0.0	8.0	22.0	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
Act Effct Green (s)	6.9	10.6		8.0	13.0	13.0	5.5	22.3		5.5	19.9	
Actuated g/C Ratio	0.17	0.26		0.20	0.32	0.32	0.13	0.54		0.13	0.49	
v/c Ratio	0.16	0.12		0.18	0.33	0.08	0.17	0.23		0.10	0.38	
Control Delay	24.8	14.8		23.8	17.4	7.0	24.5	9.0		26.0	12.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	24.8	14.8		23.8	17.4	7.0	24.5	9.0		26.0	12.5	
LOS	C	B		C	B	A	C	A		C	B	
Approach Delay		17.8			17.2			10.7			12.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	12		17	43	0	11	32		7	75	
Queue Length 95th (ft)	43	28		51	107	19	31	87		29	134	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	299	1695		359	948	827	464	2954		239	2666	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.16	0.06		0.17	0.21	0.05	0.17	0.21		0.10	0.35	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 41												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.38												
Intersection Signal Delay: 13.1					Intersection LOS: B							
Intersection Capacity Utilization 46.1%					ICU Level of Service A							
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

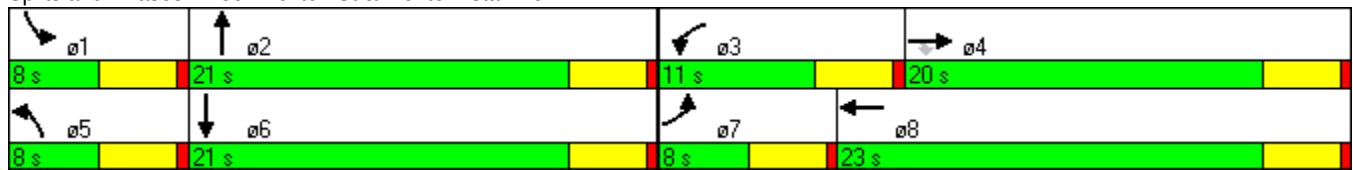


Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	78	0	39	0	614	87	38	833	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	1863	1863	1770	3008	0	1863	4989	0	3433	5085	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	1863	1863	1770	3008	0	1863	4989	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					381			43				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	85	42	0	0	762	0	41	905	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	11.0	23.0	0.0	8.0	21.0	0.0	8.0	21.0	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
Act Effect Green (s)				7.7	7.1			17.9		4.9	18.8	
Actuated g/C Ratio				0.34	0.31			0.79		0.21	0.82	
v/c Ratio				0.14	0.03			0.19		0.06	0.22	
Control Delay				10.8	0.1			3.5		12.8	2.3	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				10.8	0.1			3.5		12.8	2.3	
LOS				B	A			A		B	A	
Approach Delay					7.2			3.5			2.7	
Approach LOS					A			A			A	
Queue Length 50th (ft)				3	0			0		1	0	
Queue Length 95th (ft)				44	0			56		13	37	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)				663	2541			3983		735	4252	
Starvation Cap Reductn				0	0			0		0	0	
Spillback Cap Reductn				0	0			0		0	0	
Storage Cap Reductn				0	0			0		0	0	
Reduced v/c Ratio				0.13	0.02			0.19		0.06	0.21	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 22.8												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.22												
Intersection Signal Delay: 3.3	Intersection LOS: A											
Intersection Capacity Utilization 27.2%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

86: Arrow Hwy & Monte Vista Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	261	71	30	461	74	138	579	42	65	720	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	80		0	250		200
Storage Lanes	2		0	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3426	0	3433	4979	0	1770	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3426	0	3433	4979	0	1770	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			49			13				129
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	361	0	33	581	0	150	675	0	71	783	129
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	8.0	20.0	0.0	8.0	20.0	0.0	12.0	22.0	0.0	10.0	20.0	20.0
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
Act Effect Green (s)	4.4	13.5		4.4	12.1		8.2	19.0		6.5	15.5	15.5
Actuated g/C Ratio	0.09	0.27		0.09	0.25		0.17	0.39		0.13	0.32	0.32
v/c Ratio	0.23	0.37		0.11	0.46		0.51	0.49		0.30	0.70	0.22
Control Delay	27.5	14.8		26.5	17.1		31.4	15.4		28.0	22.2	5.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	27.5	14.8		26.5	17.1		31.4	15.4		28.0	22.2	5.2
LOS	C	B		C	B		C	B		C	C	A
Approach Delay		16.9			17.6			18.3			20.4	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	12	36		5	57		48	95		23	125	0
Queue Length 95th (ft)	30	78		17	85		#122	157		59	#226	34
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)	150			200			80			250		200
Base Capacity (vph)	311	1325		311	1833		320	1583		240	1280	655
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.23	0.27		0.11	0.32		0.47	0.43		0.30	0.61	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 18.7

Intersection LOS: B

Intersection Capacity Utilization 54.8%

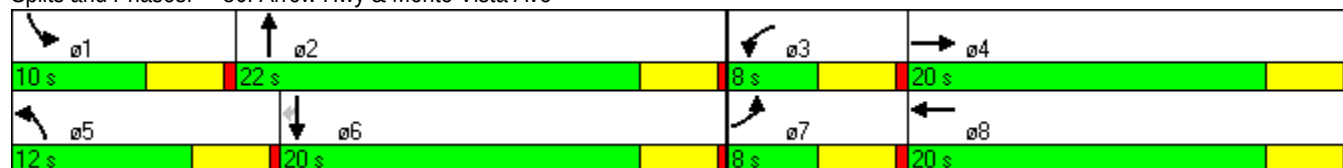
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

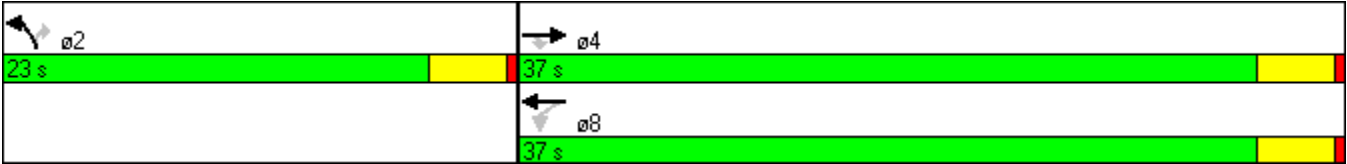


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

No Build Alternative
AM Peak Hour

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Volume (vph)	352	17	14	470	15	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.541		0.950	
Satd. Flow (perm)	3539	1583	1008	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		18				14
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	383	18	15	511	16	14
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	12.1	12.1	12.2	12.2	6.5	6.5
Actuated g/C Ratio	0.81	0.81	0.82	0.82	0.44	0.44
v/c Ratio	0.13	0.01	0.02	0.18	0.02	0.02
Control Delay	1.6	1.6	2.3	1.7	5.8	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.6	2.3	1.7	5.8	4.1
LOS	A	A	A	A	A	A
Approach Delay	1.6			1.7	5.0	
Approach LOS	A			A	A	
Queue Length 50th (ft)	0	0	0	0	1	0
Queue Length 95th (ft)	23	4	4	30	8	6
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3539	1583	1008	3539	1662	1488
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.01	0.01	0.14	0.01	0.01
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 14.9						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.18						
Intersection Signal Delay: 1.8				Intersection LOS: A		
Intersection Capacity Utilization 23.0%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

No Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	111	37	71	249	33	67	417	91	22	452	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4948	0	1770	4968	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4948	0	1770	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			40		36			82			59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	121	40	77	307	0	73	552	0	24	580	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	10.0	20.0	0.0	10.0	22.0	0.0	8.0	20.0	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
Act Effect Green (s)	8.4	9.8	9.8	8.5	11.6		8.4	19.2		5.9	15.9	
Actuated g/C Ratio	0.23	0.27	0.27	0.23	0.32		0.23	0.52		0.16	0.43	
v/c Ratio	0.13	0.13	0.09	0.19	0.19		0.18	0.21		0.08	0.27	
Control Delay	21.1	17.0	8.0	21.4	12.9		21.4	7.7		23.4	11.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.1	17.0	8.0	21.4	12.9		21.4	7.7		23.4	11.6	
LOS	C	B	A	C	B		C	A		C	B	
Approach Delay		16.3			14.6			9.3			12.1	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	12	15	0	19	16		18	24		6	42	
Queue Length 95th (ft)	42	35	20	58	47		55	64		26	74	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	424	1893	865	424	2709		424	3051		283	2684	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.06	0.05	0.18	0.11		0.17	0.18		0.08	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 12.1

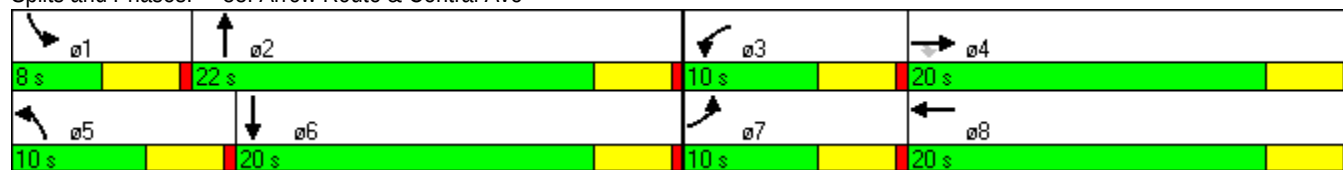
Intersection LOS: B

Intersection Capacity Utilization 36.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

89: Richton St & Central Ave

No Build Alternative

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	18	19	62	82	24	95	548	47	52	517	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1799	0	1770	3539	1583	1770	5050	0
Flt Permitted	0.714			0.744			0.357			0.427		
Satd. Flow (perm)	1330	1863	1583	1386	1799	0	665	3539	1583	795	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21		25				51		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	20	21	67	115	0	103	596	51	57	590	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	22.0	22.0	22.0	22.0	22.0	0.0	12.0	30.0	30.0	8.0	26.0	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
Act Effect Green (s)	8.9	8.9	8.9	8.9	8.9		17.1	17.3	17.3	13.8	14.4	
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29		0.55	0.56	0.56	0.44	0.46	
v/c Ratio	0.03	0.04	0.04	0.17	0.21		0.15	0.30	0.06	0.11	0.25	
Control Delay	13.5	13.4	7.5	14.4	12.1		4.4	7.2	3.4	4.9	9.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	13.5	13.4	7.5	14.4	12.1		4.4	7.2	3.4	4.9	9.3	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		11.1			13.0			6.6			8.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	2	3	0	11	15		7	24	0	4	33	
Queue Length 95th (ft)	12	16	12	38	50		22	84	13	14	62	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	826	1157	991	861	1127		769	2790	1258	521	3615	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.02	0.02	0.02	0.08	0.10		0.13	0.21	0.04	0.11	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 38.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

90: Arrow Hwy & Central Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	248	80	91	382	24	140	616	72	21	507	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	5040	0	1770	5004	0	1770	5024	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5040	0	1770	5004	0	1770	5024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87		16			35			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	270	87	99	441	0	152	748	0	23	597	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	9.0	20.0	20.0	9.0	20.0	0.0	11.0	23.0	0.0	8.0	20.0	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
Act Effect Green (s)	5.6	10.2	10.2	5.6	13.7		7.7	19.1		4.5	12.5	
Actuated g/C Ratio	0.12	0.22	0.22	0.12	0.30		0.17	0.42		0.10	0.27	
v/c Ratio	0.18	0.34	0.21	0.46	0.29		0.51	0.36		0.13	0.43	
Control Delay	25.3	18.6	6.5	34.0	14.5		31.7	10.3		26.0	16.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.3	18.6	6.5	34.0	14.5		31.7	10.3		26.0	16.1	
LOS	C	B	A	C	B		C	B		C	B	
Approach Delay		16.6			18.1			13.9			16.4	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	10	35	0	27	28		41	42		6	51	
Queue Length 95th (ft)	37	68	28	#97	68		#132	100		27	87	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	215	1375	668	215	2031		301	2738		172	1965	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.20	0.13	0.46	0.22		0.50	0.27		0.13	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 15.9

Intersection LOS: B

Intersection Capacity Utilization 43.7%

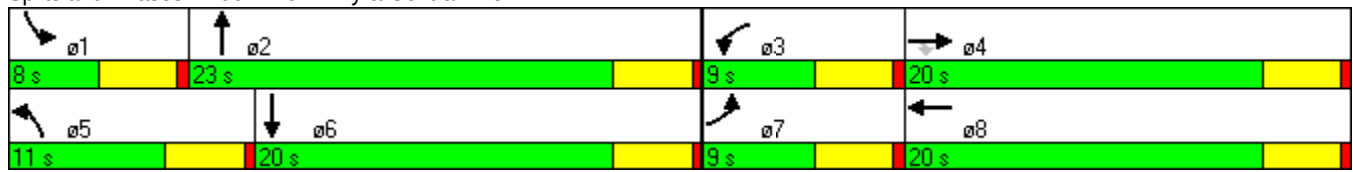
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave



PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	57	22	283	97	31	208	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	62	24	308	105	34	226	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	541	207			413		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	541	207			413		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	86	97			97		
cM capacity (veh/h)	457	800			1142		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	31	31	24	205	208	109	151
Volume Left	31	31	0	0	0	34	0
Volume Right	0	0	24	0	105	0	0
cSH	457	457	800	1700	1700	1142	1700
Volume to Capacity	0.07	0.07	0.03	0.12	0.12	0.03	0.09
Queue Length 95th (ft)	5	5	2	0	0	2	0
Control Delay (s)	13.4	13.4	9.6	0.0	0.0	2.7	0.0
Lane LOS	B	B	A			A	
Approach Delay (s)	12.4			0.0		1.1	
Approach LOS	B						
Intersection Summary							
Average Delay			1.8				
Intersection Capacity Utilization			30.9%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair

2: Foothill Blvd & Barranca Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	560	187	143	478	28	119	219	187	19	175	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3405	0	1770	3511	0	1770	3295	0	1770	3398	0
Flt Permitted	0.446			0.311			0.591			0.496		
Satd. Flow (perm)	831	3405	0	579	3511	0	1101	3295	0	924	3398	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		130			17			203			70	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	812	0	155	550	0	129	441	0	21	260	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	21.0	21.0	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
Act Effect Green (s)	18.3	18.3		18.3	18.3		10.7	10.7		10.7	10.7	
Actuated g/C Ratio	0.48	0.48		0.48	0.48		0.28	0.28		0.28	0.28	
v/c Ratio	0.31	0.48		0.56	0.32		0.41	0.41		0.08	0.26	
Control Delay	8.5	6.3		16.0	6.2		18.3	8.3		14.2	9.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.5	6.3		16.0	6.2		18.3	8.3		14.2	9.9	
LOS	A	A		B	A		B	A		B	A	
Approach Delay		6.6			8.4			10.6			10.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	13	37		18	27		18	16		3	13	
Queue Length 95th (ft)	45	89		73	65		82	67		20	52	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	724	2984		505	3062		553	1758		465	1743	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.27		0.31	0.18		0.23	0.25		0.05	0.15	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 8.4

Intersection LOS: A

Intersection Capacity Utilization 58.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	500	100	276	322	85	93	529	289	77	338	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		38			53				314			63
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	652	0	300	442	0	101	575	314	84	367	63
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	12.0	20.0	0.0	12.0	20.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	7.3	14.4		8.1	17.5		4.0	15.8	15.8	4.0	13.8	13.8
Actuated g/C Ratio	0.13	0.25		0.14	0.31		0.07	0.28	0.28	0.07	0.24	0.24
v/c Ratio	0.44	0.72		1.18	0.40		0.80	0.58	0.47	0.66	0.42	0.15
Control Delay	30.6	23.5		144.8	16.6		73.6	21.3	5.3	56.3	19.7	6.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	23.5		144.8	16.6		73.6	21.3	5.3	56.3	19.7	6.4
LOS	C	C		F	B		E	C	A	E	B	A
Approach Delay		24.5			68.4			21.6			24.1	
Approach LOS		C			E			C			C	
Queue Length 50th (ft)	35	104		~142	61		37	95	0	31	56	0
Queue Length 95th (ft)	75	155		#273	98		#114	142	51	#95	90	24
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	254	1016		254	1109		127	1014	677	127	1014	498
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.64		1.18	0.40		0.80	0.57	0.46	0.66	0.36	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 34.3

Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Analysis Period (min) 15

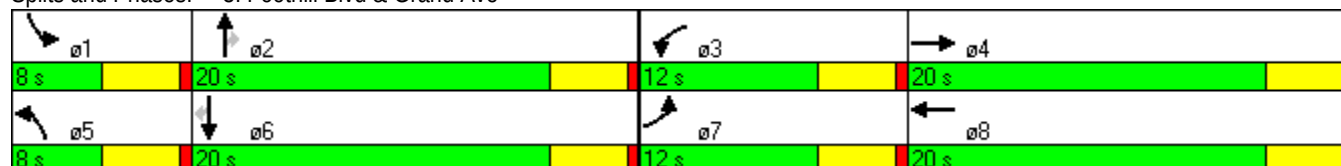
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Foothill Blvd & Grand Ave



Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

No Build Alternative
PM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	104	98	150	73	57	148			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	113	107	163	79	62	161			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage veh									
Upstream signal (ft)						1174			
pX, platoon unblocked									
vC, conflicting volume	488	203			242				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	488	203			242				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	78	87			95				
cM capacity (veh/h)	514	838			1324				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	220	242	223						
Volume Left	113	0	62						
Volume Right	107	79	0						
cSH	633	1700	1324						
Volume to Capacity	0.35	0.14	0.05						
Queue Length 95th (ft)	39	0	4						
Control Delay (s)	13.7	0.0	2.5						
Lane LOS	B		A						
Approach Delay (s)	13.7	0.0	2.5						
Approach LOS	B								
Intersection Summary									
Average Delay		5.2							
Intersection Capacity Utilization		45.1%	ICU Level of Service	A					
Analysis Period (min)		15							

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1152	16	24	815	78	3	24	10	56	41	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1853	1583	0	1811	1583
Flt Permitted	0.950			0.950				0.963			0.806	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1794	1583	0	1501	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			60			11			132
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	1252	17	26	886	85	0	29	11	0	106	132
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	9.0	32.0	32.0	8.0	31.0	31.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.1	26.1	26.1	4.9	24.6	24.6		9.4	9.4		9.4	9.4
Actuated g/C Ratio	0.15	0.66	0.66	0.12	0.62	0.62		0.24	0.24		0.24	0.24
v/c Ratio	0.18	0.54	0.02	0.12	0.40	0.08		0.07	0.03		0.30	0.28
Control Delay	23.2	7.5	4.4	24.0	7.7	3.9		16.9	10.3		19.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	23.2	7.5	4.4	24.0	7.7	3.9		16.9	10.3		19.3	6.2
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		8.0			7.8			15.1			12.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	10	73	1	6	44	2		5	0		21	0
Queue Length 95th (ft)	43	226	9	29	147	22		25	11		67	35
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	272	2572	1153	217	2447	1113		881	783		737	845
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.18	0.49	0.01	0.12	0.36	0.08		0.03	0.01		0.14	0.16

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.4

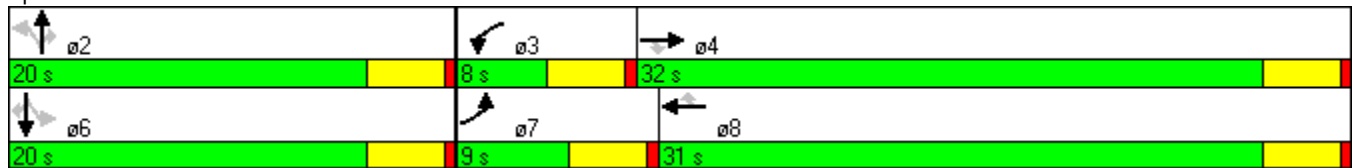
Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	646	59	35	517	76	84	72	37	47	76	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3493	0	1770	3472	0	1770	1768	0	0	1737	0
Flt Permitted	0.407			0.352			0.697				0.896	
Satd. Flow (perm)	758	3493	0	656	3472	0	1298	1768	0	0	1574	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			38			40			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	766	0	38	645	0	91	118	0	0	233	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	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
Act Effect Green (s)	17.7	17.7		17.7	17.7		9.8	9.8			9.8	
Actuated g/C Ratio	0.58	0.58		0.58	0.58		0.32	0.32			0.32	
v/c Ratio	0.21	0.38		0.10	0.32		0.22	0.20			0.42	
Control Delay	7.5	6.2		6.4	5.7		11.8	8.4			10.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	7.5	6.2		6.4	5.7		11.8	8.4			10.3	
LOS	A	A		A	A		B	A			B	
Approach Delay		6.4			5.8			9.9			10.3	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	8	37		3	28		11	9			20	
Queue Length 95th (ft)	34	90		16	71		43	41			76	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	662	3051		573	3035		969	1330			1193	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.14	0.25		0.07	0.21		0.09	0.09			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 30.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.0

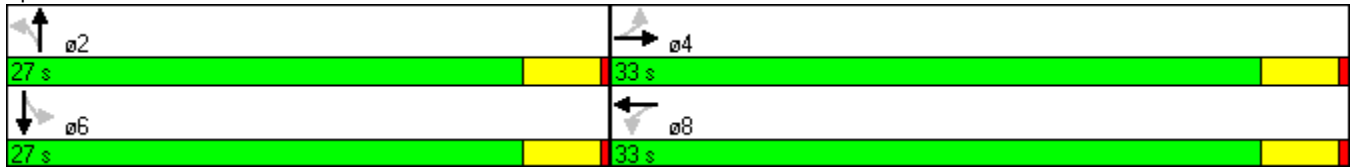
Intersection LOS: A

Intersection Capacity Utilization 51.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

No Build Alternative
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	76	0	19	141	189	63
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	0	21	153	205	68
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	400	205	274			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	400	205	274			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	100	98			
cM capacity (veh/h)	596	835	1289			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	83	174	205	68		
Volume Left	83	21	0	0		
Volume Right	0	0	0	68		
cSH	596	1289	1700	1700		
Volume to Capacity	0.14	0.02	0.12	0.04		
Queue Length 95th (ft)	12	1	0	0		
Control Delay (s)	12.0	1.1	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	12.0	1.1	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			32.6%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
8: Foothill Blvd & Glendora Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	522	159	177	438	69	147	189	89	66	196	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		66			29				97			82
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	740	0	192	551	0	160	205	97	72	213	82
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	22.0	22.0	8.0	21.0	21.0
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
Act Effect Green (s)	5.9	14.8		6.1	19.3		5.0	16.0	16.0	4.0	11.4	11.4
Actuated g/C Ratio	0.11	0.28		0.11	0.36		0.09	0.30	0.30	0.07	0.21	0.21
v/c Ratio	0.39	0.74		0.96	0.43		0.96	0.37	0.18	0.54	0.54	0.20
Control Delay	30.1	22.2		86.2	15.7		93.4	18.7	5.3	44.1	24.0	6.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	22.2		86.2	15.7		93.4	18.7	5.3	44.1	24.0	6.2
LOS	C	C		F	B		F	B	A	D	C	A
Approach Delay		22.9			33.9			41.7			24.0	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	23	100		63	72		53	58	0	23	62	0
Queue Length 95th (ft)	62	#181		#190	130		#168	107	28	#80	114	26
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	200	1076		200	1267		167	637	605	133	597	563
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.69		0.96	0.43		0.96	0.32	0.16	0.54	0.36	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 30.2

Intersection LOS: C

Intersection Capacity Utilization 61.1%

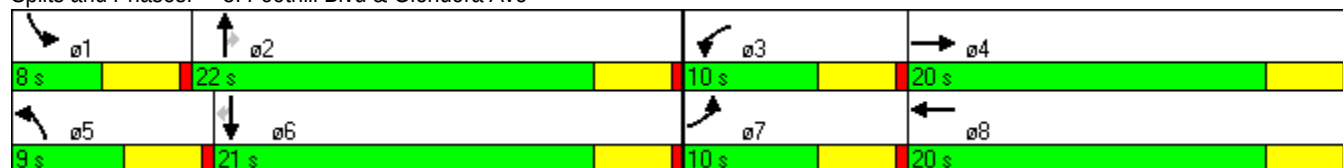
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
9: Ada Ave & Glendora Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	56	52	157	29	31	35	49	427	3	20	408	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	61	57	171	32	34	38	53	464	3	22	443	41
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	288	103	285	235	243	263						
Volume Left (vph)	61	32	53	0	22	0						
Volume Right (vph)	171	38	0	3	0	41						
Hadj (s)	-0.28	-0.13	0.13	0.02	0.08	-0.08						
Departure Headway (s)	6.4	7.1	6.9	6.8	6.8	6.7						
Degree Utilization, x	0.51	0.20	0.54	0.44	0.46	0.49						
Capacity (veh/h)	522	442	501	515	507	520						
Control Delay (s)	15.9	12.0	16.5	13.8	14.4	14.7						
Approach Delay (s)	15.9	12.0	15.3		14.5							
Approach LOS	C	B	C		B							
Intersection Summary												
Delay			14.9									
HCM Level of Service			B									
Intersection Capacity Utilization			54.8%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	56	982	0	219	637	111	105	469	370	230	468	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1863	1770	3539	1583	1770	3539	1583	1770	3483	0
Flt Permitted	0.377			0.116			0.352			0.235		
Satd. Flow (perm)	702	3539	1863	216	3539	1583	656	3539	1583	438	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						69			208			14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	1067	0	238	692	121	114	510	402	250	570	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	35.0	35.0	15.0	42.0	42.0	11.0	26.0	26.0	14.0	29.0	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
Act Effect Green (s)	33.7	29.6		44.2	38.1	38.1	25.8	19.0	19.0	32.2	24.5	
Actuated g/C Ratio	0.40	0.35		0.52	0.45	0.45	0.30	0.22	0.22	0.38	0.29	
v/c Ratio	0.19	0.87		0.78	0.44	0.16	0.40	0.65	0.78	0.78	0.56	
Control Delay	13.1	35.6		36.7	18.3	8.5	22.1	34.5	26.8	38.2	28.9	
Queue Delay	0.0	0.0		0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	13.1	35.6		36.7	19.1	8.5	22.1	34.5	26.8	38.2	28.9	
LOS	B	D		D	B	A	C	C	C	D	C	
Approach Delay		34.4			21.8			30.1			31.7	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	16	292		78	142	17	41	135	100	97	143	
Queue Length 95th (ft)	36	#413		#199	193	50	76	187	#219	#180	196	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100			100		50	100		100	200		
Base Capacity (vph)	327	1296		314	1588	748	292	920	565	323	1055	
Starvation Cap Reductn	0	0		0	548	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.82		0.76	0.67	0.16	0.39	0.55	0.71	0.77	0.54	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 85.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 78.3%

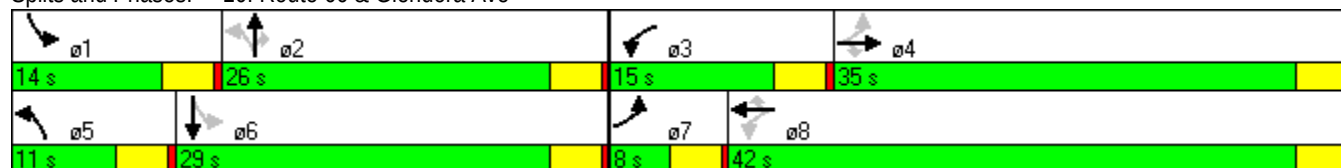
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

11: Lemon Ave & Pasadena Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	8	15	21	1	9	13	82	30	22	69	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	9	16	23	1	10	14	89	33	24	75	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	35	34	136	99								
Volume Left (vph)	10	23	14	24								
Volume Right (vph)	16	10	33	0								
Hadj (s)	-0.19	0.00	-0.09	0.08								
Departure Headway (s)	4.3	4.4	4.1	4.3								
Degree Utilization, x	0.04	0.04	0.15	0.12								
Capacity (veh/h)	796	755	859	822								
Control Delay (s)	7.4	7.6	7.8	7.8								
Approach Delay (s)	7.4	7.6	7.8	7.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.8									
HCM Level of Service			A									
Intersection Capacity Utilization			19.6%	ICU Level of Service			A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	1399	42	34	881	51	21	24	50	57	26	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1711	0	0	1718	0
Flt Permitted	0.232			0.152				0.909			0.889	
Satd. Flow (perm)	432	3539	1583	283	3539	1583	0	1573	0	0	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			19			35		54			68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	1521	46	37	958	55	0	103	0	0	165	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	10.0	32.0	32.0	8.0	30.0	30.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	29.9	29.7	29.7	27.5	27.2	27.2		9.3			9.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.61	0.60	0.60		0.21			0.21	
v/c Ratio	0.21	0.65	0.04	0.11	0.45	0.06		0.28			0.44	
Control Delay	4.9	11.1	5.1	4.9	9.6	5.1		12.4			15.9	
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	4.9	11.6	5.1	4.9	9.6	5.1		12.4			15.9	
LOS	A	B	A	A	A	A		B			B	
Approach Delay		11.0			9.2			12.4			15.9	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	8	104	2	3	99	3		12			24	
Queue Length 95th (ft)	27	#384	18	12	178	20		46			72	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	491	2335	1051	324	2207	1000		669			671	
Starvation Cap Reductn	0	379	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.21	0.78	0.04	0.11	0.43	0.06		0.15			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 66.8%

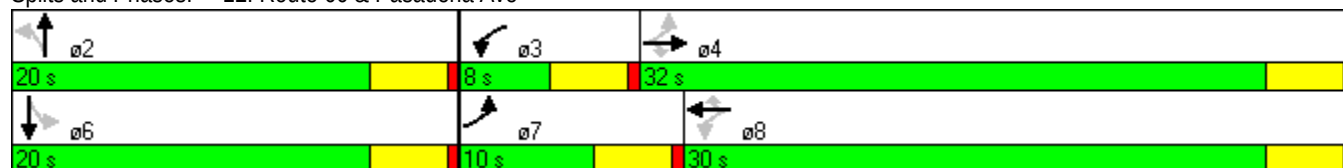
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair
13: Lemon Ave & Glenwood Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	15	9	5	6	3	19	118	8	17	124	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	16	10	5	7	3	21	128	9	18	135	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	353	353	138	366	351	133	140			137		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	353	353	138	366	351	133	140			137		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	97	99	99	99	100	99			99		
cM capacity (veh/h)	582	557	911	559	558	917	1443			1447		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	15	158	159								
Volume Left	16	5	21	18								
Volume Right	10	3	9	5								
cSH	623	711	1443	1447								
Volume to Capacity	0.07	0.02	0.01	0.01								
Queue Length 95th (ft)	5	2	1	1								
Control Delay (s)	11.2	11.0	1.1	1.0								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.2	11.0	1.1	1.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			26.2%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

14: Route 66 & Glenwood Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	1459	10	36	854	63	3	3	8	65	6	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	1586	11	39	928	68	3	3	9	71	7	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					651							
pX, platoon unblocked	0.86						0.86	0.86		0.86	0.86	0.86
vC, conflicting volume	997			1597			2349	2826	793	1975	2768	464
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	658			1597			2239	2797	793	1802	2729	35
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			90			68	74	97	0	53	94
cM capacity (veh/h)	792			406			10	13	331	29	14	881
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	83	793	793	11	39	464	464	68	15	129		
Volume Left	83	0	0	0	39	0	0	0	3	71		
Volume Right	0	0	0	11	0	0	0	68	9	52		
cSH	792	1700	1700	1700	406	1700	1700	1700	25	43		
Volume to Capacity	0.10	0.47	0.47	0.01	0.10	0.27	0.27	0.04	0.60	2.99		
Queue Length 95th (ft)	9	0	0	0	8	0	0	0	46	355		
Control Delay (s)	10.1	0.0	0.0	0.0	14.8	0.0	0.0	0.0	275.2	1097.3		
Lane LOS	B				B				F	F		
Approach Delay (s)	0.5				0.6				275.2	1097.3		
Approach LOS									F	F		
Intersection Summary												
Average Delay			51.6									
Intersection Capacity Utilization			67.2%		ICU Level of Service					C		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	24	13	8	2	2	7	148	6	8	98	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	26	14	9	2	2	8	161	7	9	107	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	309	309	109	333	309	164	112			167		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	309	309	109	333	309	164	112			167		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	100	100	99			99		
cM capacity (veh/h)	634	598	944	586	599	880	1478			1410		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	13	175	121								
Volume Left	2	9	8	9								
Volume Right	14	2	7	5								
cSH	684	623	1478	1410								
Volume to Capacity	0.06	0.02	0.01	0.01								
Queue Length 95th (ft)	5	2	0	0								
Control Delay (s)	10.6	10.9	0.4	0.6								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.6	10.9	0.4	0.6								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			20.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1367	34	33	837	68	43	17	22	50	15	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1798	1583	0	1794	1583
Flt Permitted	0.950			0.950				0.803			0.787	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1496	1583	0	1466	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			48			24			55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1486	37	36	910	74	0	65	24	0	70	55
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	11.0	32.0	32.0	8.0	29.0	29.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.6	28.6	28.6	4.0	25.3	25.3		16.1	16.1		16.1	16.1
Actuated g/C Ratio	0.12	0.51	0.51	0.07	0.45	0.45		0.29	0.29		0.29	0.29
v/c Ratio	0.39	0.82	0.05	0.28	0.57	0.10		0.15	0.05		0.17	0.11
Control Delay	30.0	17.6	6.1	32.2	13.9	6.0		17.5	8.1		17.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	30.0	17.6	6.1	32.2	13.9	6.0		17.5	8.1		17.7	6.4
LOS	C	B	A	C	B	A		B	A		B	A
Approach Delay		18.0			14.0			15.0			12.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	27	168	3	12	130	5		17	0		18	0
Queue Length 95th (ft)	65	#390	17	37	184	26		44	14		47	22
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	224	1857	838	128	1642	760		432	475		424	496
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.37	0.80	0.04	0.28	0.55	0.10		0.15	0.05		0.17	0.11

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.2

Intersection LOS: B

Intersection Capacity Utilization 61.3%

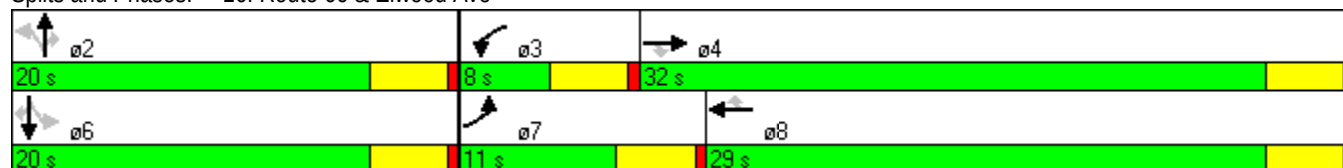
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

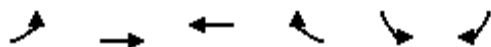
17: Lemon Ave & Loraine Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	6	27	8	5	10	15	330	14	8	360	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	7	29	9	5	11	16	359	15	9	391	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	636	817	197	645	811	187	395			374		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	636	817	197	645	811	187	395			374		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	96	97	98	99	99			99		
cM capacity (veh/h)	347	303	811	333	305	823	1161			1181		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	39	25	196	195	204	199						
Volume Left	3	9	16	0	9	0						
Volume Right	29	11	0	15	0	3						
cSH	583	438	1161	1700	1181	1700						
Volume to Capacity	0.07	0.06	0.01	0.11	0.01	0.12						
Queue Length 95th (ft)	5	5	1	0	1	0						
Control Delay (s)	11.6	13.7	0.8	0.0	0.4	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.6	13.7	0.4		0.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			30.8%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

No Build Alternative
PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	156	1165	771	209	295	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				139		112
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	170	1266	838	227	321	112
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	15.0	39.0	24.0	24.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	9.4	29.5	19.1	19.1	10.2	10.2
Actuated g/C Ratio	0.20	0.61	0.40	0.40	0.21	0.21
v/c Ratio	0.49	0.58	0.60	0.32	0.44	0.26
Control Delay	24.9	6.9	15.4	7.0	19.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	6.9	15.4	7.0	19.9	6.4
LOS	C	A	B	A	B	A
Approach Delay		9.0	13.6		16.4	
Approach LOS		A	B		B	
Queue Length 50th (ft)	47	87	105	17	45	0
Queue Length 95th (ft)	103	165	180	62	77	31
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	427	2608	1551	772	1279	660
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.49	0.54	0.29	0.25	0.17

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 11.8

Intersection LOS: B

Intersection Capacity Utilization 48.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

No Build Alternative
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	448	518	1048	457	645	1161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		415		497		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	487	563	1139	497	701	1262
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	24.0	24.0	16.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	13.7	13.7	20.0	20.0	12.0	36.0
Actuated g/C Ratio	0.24	0.24	0.35	0.35	0.21	0.62
v/c Ratio	0.60	0.81	0.93	0.57	0.98	0.57
Control Delay	22.8	17.2	34.5	4.7	56.5	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	17.2	34.5	4.7	56.5	8.1
LOS	C	B	C	A	E	A
Approach Delay	19.8		25.5			25.4
Approach LOS	B		C			C
Queue Length 50th (ft)	77	43	204	0	~131	124
Queue Length 95th (ft)	117	#198	#336	56	#237	180
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	951	739	1226	873	714	2207
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.76	0.93	0.57	0.98	0.57
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 57.8						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.98						
Intersection Signal Delay: 24.1				Intersection LOS: C		
Intersection Capacity Utilization 70.2%				ICU Level of Service C		

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

No Build Alternative
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	351	96	49	157	64	64
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	382	104	53	171	70	70
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			486		711	434
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			486		711	434
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		82	89
cM capacity (veh/h)			1077		380	622
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	486	53	171	139		
Volume Left	0	53	0	70		
Volume Right	104	0	0	70		
cSH	1700	1077	1700	472		
Volume to Capacity	0.29	0.05	0.10	0.29		
Queue Length 95th (ft)	0	4	0	30		
Control Delay (s)	0.0	8.5	0.0	15.8		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.0		15.8		
Approach LOS				C		
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization			45.1%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

21: Sierra Madre Ave & Glendora Ave

No Build Alternative

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	373	63	36	166	8	29	16	47	3	12	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	405	68	39	180	9	32	17	51	3	13	8
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	479	220	9	49	51	16	8					
Volume Left (vph)	5	39	0	32	0	3	0					
Volume Right (vph)	68	0	9	0	51	0	8					
Hadj (s)	-0.05	0.12	-0.67	0.36	-0.67	0.13	-0.67					
Departure Headway (s)	5.1	5.5	4.7	6.7	5.7	6.6	5.8					
Degree Utilization, x	0.68	0.33	0.01	0.09	0.08	0.03	0.01					
Capacity (veh/h)	686	638	739	490	571	479	539					
Control Delay (s)	18.3	10.0	6.5	9.2	8.0	8.6	7.7					
Approach Delay (s)	18.3	9.8		8.6		8.3						
Approach LOS	C	A		A		A						
Intersection Summary												
Delay			14.5									
HCM Level of Service			B									
Intersection Capacity Utilization			48.5%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

22: Glendora Marketplace & Lone Hill Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	624	1	182	7	0	22	113	835	0	3	714	721
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1655	0	3433	3539	0	1770	3539	1583
Flt Permitted	0.950	0.667			0.868		0.950			0.950		
Satd. Flow (perm)	1681	1180	2787	0	1454	0	3433	3539	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198		24							784
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	339	340	198	0	32	0	123	908	0	3	776	784
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	27.0	47.0	47.0	20.0	20.0	0.0	9.0	35.0	0.0	8.0	34.0	34.0
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
Act Effect Green (s)	30.4	30.4	43.0		12.5		5.0	36.0		4.0	28.5	28.5
Actuated g/C Ratio	0.34	0.34	0.49		0.14		0.06	0.41		0.05	0.32	0.32
v/c Ratio	0.59	0.59	0.14		0.14		0.63	0.63		0.04	0.68	0.75
Control Delay	33.3	33.3	2.3		17.2		57.1	23.9		42.3	29.5	7.2
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	33.3	33.3	2.3		17.2		57.1	23.9		42.3	29.5	7.2
LOS	C	C	A		B		E	C		D	C	A
Approach Delay		26.3			17.2			27.9			18.4	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)	202	203	0		4		36	201		2	196	0
Queue Length 95th (ft)	#331	#331	18		29		#73	309		11	260	94
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	593	579	1456		295		194	1437		80	1200	1055
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.57	0.59	0.14		0.11		0.63	0.63		0.04	0.65	0.74

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 23.1

Intersection LOS: C

Intersection Capacity Utilization 61.3%

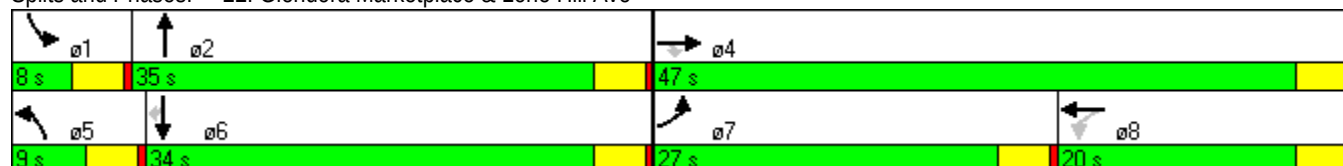
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

23: Gladstone St & Lone Hill Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	211	577	150	89	313	121	290	651	227	269	428	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			93				234			241
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	229	790	0	97	472	0	315	708	247	292	465	241
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	5.1	16.3		5.1	14.1		7.1	15.9	15.9	6.1	14.9	14.9
Actuated g/C Ratio	0.09	0.28		0.09	0.25		0.12	0.28	0.28	0.11	0.26	0.26
v/c Ratio	0.76	0.78		0.62	0.52		0.74	0.72	0.41	0.80	0.51	0.41
Control Delay	45.7	25.6		47.3	17.1		38.5	23.9	5.7	46.3	20.6	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	25.6		47.3	17.1		38.5	23.9	5.7	46.3	20.6	5.4
LOS	D	C		D	B		D	C	A	D	C	A
Approach Delay		30.1			22.2			24.0			24.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	43	131		35	59		58	119	3	54	74	0
Queue Length 95th (ft)	#94	#220		#98	98		#114	173	48	#115	113	45
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	303	1015		156	1023		424	1061	638	363	999	620
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.78		0.62	0.46		0.74	0.67	0.39	0.80	0.47	0.39

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.5

Intersection LOS: C

Intersection Capacity Utilization 64.7%

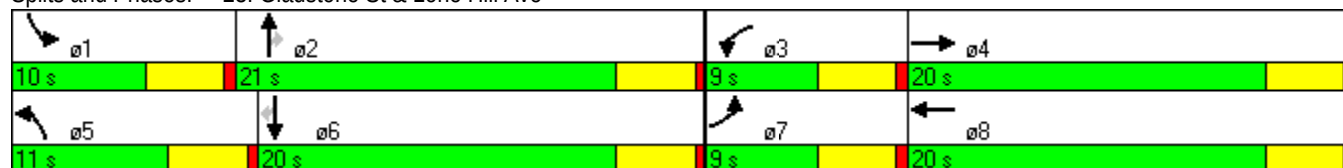
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

24: Arrow Hwy & SR-57 SB

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↑	↑↑↑		↑↑		↑	↑	↑	↑
Volume (vph)	0	1287	207	178	898	371	163	0	117	304	126	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	4979	0	1770	4862	0	3433	0	1583	1681	1732	1583
Flt Permitted				0.117			0.464			0.950	0.979	
Satd. Flow (perm)	0	4979	0	218	4862	0	1677	0	1583	1681	1732	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			310				48			127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	0	1624	0	193	1379	0	177	0	127	231	236	208
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		36.1		36.1	36.1		13.1		13.1	13.1	13.1	13.1
Actuated g/C Ratio		0.63		0.63	0.63		0.23		0.23	0.23	0.23	0.23
v/c Ratio		0.51		1.40	0.43		0.46		0.32	0.60	0.59	0.45
Control Delay		6.5		240.4	4.8		23.0		14.3	26.6	26.2	11.5
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		6.5		240.4	4.8		23.0		14.3	26.6	26.2	11.5
LOS		A		F	A		C		B	C	C	B
Approach Delay		6.5			33.7						21.8	
Approach LOS		A			C						C	
Queue Length 50th (ft)		95		~97	58		26		22	74	75	23
Queue Length 95th (ft)		134		#165	87		52		59	137	140	70
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3174		138	3181		470		478	471	485	535
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.51		1.40	0.43		0.38		0.27	0.49	0.49	0.39

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.40

Intersection Signal Delay: 20.2

Intersection LOS: C

Intersection Capacity Utilization 69.1%

ICU Level of Service C

Analysis Period (min) 15

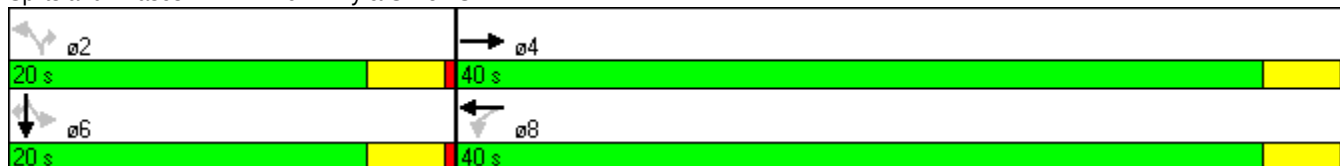
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

No Build Alternative
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	395	362	154	87	119	400	444	759	336	191	666	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3378	0	1770	3539	1583	3433	4851	0	1770	5034	0
Flt Permitted		0.774		0.174			0.950			0.950		
Satd. Flow (perm)	0	2671	0	324	3539	1583	3433	4851	0	1770	5034	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46				410		181			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	989	0	95	129	435	483	1190	0	208	777	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	13.0	20.0	0.0	13.0	20.0	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
Act Effect Green (s)		23.0		23.0	23.0	23.0	9.0	16.0		8.9	15.9	
Actuated g/C Ratio		0.38		0.38	0.38	0.38	0.15	0.27		0.15	0.27	
v/c Ratio		0.94		0.77	0.09	0.51	0.94	0.83		0.79	0.58	
Control Delay		35.7		59.7	12.1	4.4	55.1	24.1		48.7	20.6	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		35.7		59.7	12.1	4.4	55.1	24.1		48.7	20.6	
LOS		D		E	B	A	E	C		D	C	
Approach Delay		35.7			13.9			33.1			26.5	
Approach LOS		D			B			C			C	
Queue Length 50th (ft)		168		29	15	6	90	125		74	86	
Queue Length 95th (ft)		#293		#105	30	55	#172	#183		#172	120	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1054		124	1359	861	516	1428		266	1358	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.94		0.77	0.09	0.51	0.94	0.83		0.78	0.57	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 29.2

Intersection LOS: C

Intersection Capacity Utilization 77.3%

ICU Level of Service D

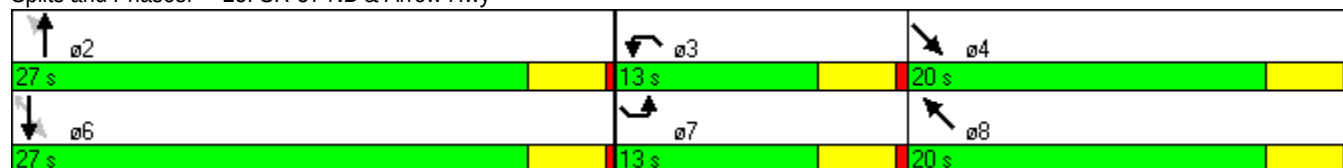
Gold Line Foothill Extension - Azusa to Montclair
 25: SR-57 NB & Arrow Hwy

No Build Alternative
 PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

26: Fifth St & Eucla Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	62	93	9	72	1	77	1	18	0	6	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	67	101	10	78	1	84	1	20	0	7	4
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	75	101	88	1	104	11						
Volume Left (vph)	8	0	10	0	84	0						
Volume Right (vph)	0	101	0	1	20	4						
Hadj (s)	0.08	-0.67	0.09	-0.67	0.08	-0.21						
Departure Headway (s)	4.9	4.2	5.0	4.3	4.6	4.4						
Degree Utilization, x	0.10	0.12	0.12	0.00	0.13	0.01						
Capacity (veh/h)	709	829	690	810	744	755						
Control Delay (s)	7.3	6.6	7.5	6.1	8.3	7.5						
Approach Delay (s)	6.9		7.5		8.3	7.5						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.4									
HCM Level of Service			A									
Intersection Capacity Utilization			29.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

No Build Alternative
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	23	4	151	20	6	138
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	4	164	22	7	150
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	327	164			186	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	327	164			186	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	100			100	
cM capacity (veh/h)	664	880			1389	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	29	164	22	7	150	
Volume Left	25	0	0	7	0	
Volume Right	4	0	22	0	0	
cSH	689	1700	1700	1389	1700	
Volume to Capacity	0.04	0.10	0.01	0.00	0.09	
Queue Length 95th (ft)	3	0	0	0	0	
Control Delay (s)	10.5	0.0	0.0	7.6	0.0	
Lane LOS	B			A		
Approach Delay (s)	10.5	0.0		0.3		
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			17.9%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	547	13	61	531	23	26	48	223	88	39	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3518	0	0	1668	0	0	1716	0
Flt Permitted	0.424			0.427				0.955			0.804	
Satd. Flow (perm)	790	3539	1583	795	3518	0	0	1599	0	0	1406	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			14		9			193			86	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	595	14	66	602	0	0	322	0	0	253	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	12.6	12.6	12.6	12.6	12.6			9.8			9.8	
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41			0.32			0.32	
v/c Ratio	0.31	0.41	0.02	0.20	0.42			0.50			0.50	
Control Delay	9.9	7.8	3.9	8.4	7.7			7.4			10.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	9.9	7.8	3.9	8.4	7.7			7.4			10.4	
LOS	A	A	A	A	A			A			B	
Approach Delay		8.0			7.8			7.4			10.4	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	9	28	0	6	28			14			18	
Queue Length 95th (ft)	39	77	6	28	77			68			77	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	682	3054	1368	686	3037			1358			1180	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.14	0.19	0.01	0.10	0.20			0.24			0.21	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 8.1

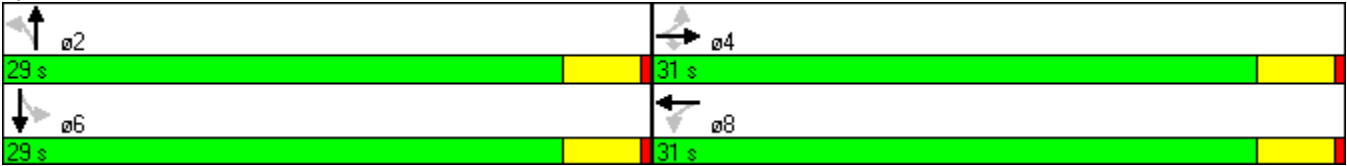
Intersection LOS: A

Intersection Capacity Utilization 64.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

29: Arrow Hwy & Eucla Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	55	778	126	260	674	20	91	94	329	24	62	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4979	0	1770	5065	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.353			0.187			0.713			0.691		
Satd. Flow (perm)	658	4979	0	348	5065	0	1328	1863	1583	1287	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			9				358			12
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	983	0	283	755	0	99	102	358	26	67	12
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	21.0	0.0	16.0	29.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	19.5	15.4		28.5	24.2		10.1	10.1	10.1	10.1	10.1	10.1
Actuated g/C Ratio	0.42	0.33		0.61	0.52		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.16	0.59		0.58	0.29		0.35	0.25	0.58	0.09	0.17	0.03
Control Delay	6.9	15.0		11.6	8.3		19.8	17.5	6.5	16.0	16.5	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	15.0		11.6	8.3		19.8	17.5	6.5	16.0	16.5	8.8
LOS	A	B		B	A		B	B	A	B	B	A
Approach Delay		14.5			9.2			10.9			15.5	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	5	71		27	43		24	24	0	6	15	0
Queue Length 95th (ft)	21	142		101	85		59	58	51	22	41	10
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	372	1897		588	2814		556	780	871	539	780	670
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.52		0.48	0.27		0.18	0.13	0.41	0.05	0.09	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 11.8

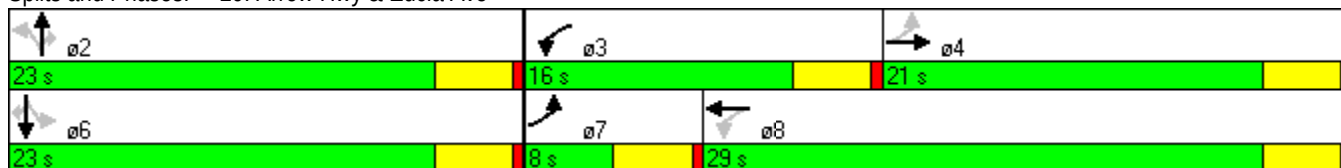
Intersection LOS: B

Intersection Capacity Utilization 54.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

No Build Alternative
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	76	11	2	69	12	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	12	2	75	13	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			95		168	89
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			95		168	89
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1499		821	970
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	95	77	18			
Volume Left	0	2	13			
Volume Right	12	0	5			
cSH	1700	1499	860			
Volume to Capacity	0.06	0.00	0.02			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.2	9.3			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.2	9.3			
Approach LOS			A			
Intersection Summary						
Average Delay		1.0				
Intersection Capacity Utilization		15.2%	ICU Level of Service	A		
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

31: Second St & Acacia St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	13	4	2	12	2	9	5	4	4	4	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	14	4	2	13	2	10	5	4	4	4	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	52	45	7	54	46	8	10			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	52	45	7	54	46	8	10			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	100	100	98	100	99			100		
cM capacity (veh/h)	928	839	1075	922	839	1075	1610			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	23	17	20	14								
Volume Left	4	2	10	4								
Volume Right	4	2	4	5								
cSH	893	872	1610	1610								
Volume to Capacity	0.03	0.02	0.01	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.1	9.2	3.6	2.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.1	9.2	3.6	2.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.4									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	812	23	23	573	15	15	2	35	2	6	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	883	25	25	623	16	16	2	38	2	7	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	639			908			1310	1621	454	1198	1626	320
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	639			908			1310	1621	454	1198	1626	320
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			97			84	98	93	98	93	98
cM capacity (veh/h)	941			746			104	97	553	124	96	676
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	18	588	319	25	415	224	18	38	22			
Volume Left	18	0	0	25	0	0	16	0	2			
Volume Right	0	0	25	0	0	16	0	38	13			
cSH	941	1700	1700	746	1700	1700	103	553	208			
Volume to Capacity	0.02	0.35	0.19	0.03	0.24	0.13	0.18	0.07	0.10			
Queue Length 95th (ft)	2	0	0	3	0	0	15	6	9			
Control Delay (s)	8.9	0.0	0.0	10.0	0.0	0.0	47.3	12.0	24.4			
Lane LOS	A			A			E	B	C			
Approach Delay (s)	0.2			0.4			23.5		24.4			
Approach LOS							C		C			
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			39.8%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	17	4	10	12	9	9	94	16	5	54	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	18	4	11	13	10	10	102	17	5	59	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	23			23			94	67	21	131	65	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			23			94	67	21	131	65	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	87	98	99	93	100
cM capacity (veh/h)	1592			1592			834	817	1057	744	820	1061
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	24	34	129	66								
Volume Left	1	11	10	5								
Volume Right	4	10	17	2								
cSH	1592	1592	844	819								
Volume to Capacity	0.00	0.01	0.15	0.08								
Queue Length 95th (ft)	0	1	13	7								
Control Delay (s)	0.3	2.4	10.0	9.8								
Lane LOS	A	A	B	A								
Approach Delay (s)	0.3	2.4	10.0	9.8								
Approach LOS			B	A								
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			20.6%	ICU Level of Service				A				
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	51	764	24	44	530	59	20	59	82	12	18	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	830	26	48	576	64	22	64	89	13	20	62
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	471	441	336	352	86	89	33	62				
Volume Left (vph)	55	0	48	0	22	0	13	0				
Volume Right (vph)	0	26	0	64	0	89	0	62				
Hadj (s)	0.09	-0.01	0.11	-0.09	0.16	-0.67	0.23	-0.67				
Departure Headway (s)	6.6	6.5	6.9	6.7	8.2	7.4	8.5	7.6				
Degree Utilization, x	0.86	0.79	0.64	0.65	0.20	0.18	0.08	0.13				
Capacity (veh/h)	539	546	506	522	412	453	395	439				
Control Delay (s)	36.4	28.8	20.1	20.1	12.0	10.9	11.0	10.6				
Approach Delay (s)	32.7		20.1		11.4		10.7					
Approach LOS	D		C		B		B					
Intersection Summary												
Delay			25.0									
HCM Level of Service			C									
Intersection Capacity Utilization			62.0%	ICU Level of Service					B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

35: Second St & Monte Vista Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	26	6	1	28	2	1	67	5	1	37	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	28	7	1	30	2	1	73	5	1	40	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	141	126	43	144	127	76	47			78		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	141	126	43	144	127	76	47			78		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	96	99	100	96	100	100			100		
cM capacity (veh/h)	801	763	1027	796	763	986	1561			1520		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	34	79	48								
Volume Left	8	1	1	1								
Volume Right	7	2	5	7								
cSH	802	775	1561	1520								
Volume to Capacity	0.05	0.04	0.00	0.00								
Queue Length 95th (ft)	4	3	0	0								
Control Delay (s)	9.7	9.9	0.1	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.7	9.9	0.1	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			16.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

36: Bonita Ave & Monte Vista Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	791	16	17	579	71	12	12	16	21	4	63
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	860	17	18	629	77	13	13	17	23	4	68
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					666							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	707			877			1764	1771	868	1747	1741	668
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	555			877			1814	1822	868	1794	1787	509
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			98			65	77	95	39	93	86
cM capacity (veh/h)	853			770			37	57	352	38	60	474
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	79	877	18	707	43	96						
Volume Left	79	0	18	0	13	23						
Volume Right	0	17	0	77	17	68						
cSH	853	1700	770	1700	70	116						
Volume to Capacity	0.09	0.52	0.02	0.42	0.62	0.82						
Queue Length 95th (ft)	8	0	2	0	68	121						
Control Delay (s)	9.7	0.0	9.8	0.0	119.5	110.4						
Lane LOS	A		A		F	F						
Approach Delay (s)	0.8		0.2		119.5	110.4						
Approach LOS					F	F						
Intersection Summary												
Average Delay			9.2									
Intersection Capacity Utilization			62.4%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
37: Second St & San Dimas Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	22	17	6	13	16	18	657	2	15	540	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	24	18	7	14	17	20	714	2	16	587	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1397	1375	587	1403	1377	714	591			716		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1383	1357	587	1389	1360	601	591			604		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	81	96	92	89	96	98			98		
cM capacity (veh/h)	90	125	510	84	125	437	984			852		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	49	38	20	714	2	16	587	4				
Volume Left	7	7	20	0	0	16	0	0				
Volume Right	18	17	0	0	2	0	0	4				
cSH	163	165	984	1700	1700	852	1700	1700				
Volume to Capacity	0.30	0.23	0.02	0.42	0.00	0.02	0.35	0.00				
Queue Length 95th (ft)	30	21	2	0	0	1	0	0				
Control Delay (s)	36.2	33.3	8.7	0.0	0.0	9.3	0.0	0.0				
Lane LOS	E	D	A			A						
Approach Delay (s)	36.2	33.3	0.2			0.2						
Approach LOS	E	D										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			44.6%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	98	655	48	80	419	138	98	384	147	223	228	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3391	0	1770	1771	0
Flt Permitted	0.371			0.168			0.437			0.386		
Satd. Flow (perm)	691	1863	1583	313	1863	1583	814	3391	0	719	1771	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23			105		118			52	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	712	52	87	455	150	107	577	0	242	370	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	23.8	23.8	23.8	23.8	23.8	23.8	22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.41	0.41		0.41	0.41	
v/c Ratio	0.35	0.87	0.07	0.63	0.55	0.20	0.32	0.40		0.83	0.49	
Control Delay	15.5	29.0	7.0	39.4	15.3	5.1	14.6	9.9		41.6	12.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	15.5	29.0	7.0	39.4	15.3	5.1	14.6	9.9		41.6	12.9	
LOS	B	C	A	D	B	A	B	A		D	B	
Approach Delay		26.0			16.1			10.6			24.3	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	25	225	6	23	117	9	24	54		71	75	
Queue Length 95th (ft)	61	#423	22	#91	196	37	57	87		#187	139	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	346	933	804	157	933	845	408	1756		360	913	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	0.76	0.06	0.55	0.49	0.18	0.26	0.33		0.67	0.41	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.6

Intersection LOS: B

Intersection Capacity Utilization 79.9%

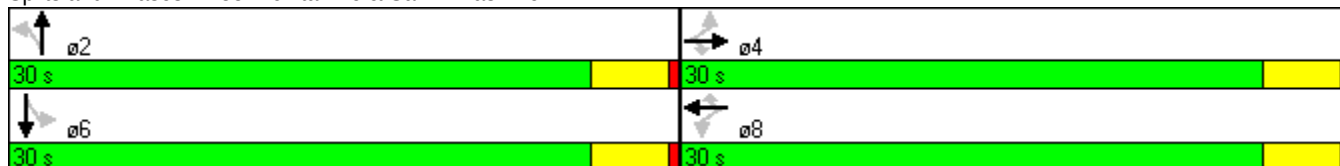
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

39: Arrow Hwy & San Dimas Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	244	1120	143	197	881	85	166	271	201	90	229	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3373	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3373	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26				218		115	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	265	1372	0	214	1050	0	180	295	218	98	364	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	11.0	20.0	0.0	11.0	20.0	0.0	8.0	21.0	21.0	8.0	21.0	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
Act Effect Green (s)	7.0	16.1		7.0	16.1		4.0	15.0	15.0	4.0	13.2	
Actuated g/C Ratio	0.12	0.29		0.12	0.29		0.07	0.27	0.27	0.07	0.23	
v/c Ratio	1.20	0.94		0.97	0.72		1.43	0.60	0.38	0.78	0.42	
Control Delay	154.0	36.1		84.9	21.9		259.9	24.3	5.1	70.1	13.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	154.0	36.1		84.9	21.9		259.9	24.3	5.1	70.1	13.4	
LOS	F	D		F	C		F	C	A	E	B	
Approach Delay		55.2			32.5			79.5			25.4	
Approach LOS		E			C			E			C	
Queue Length 50th (ft)	~119	168		~76	117		~89	90	0	35	36	
Queue Length 95th (ft)	#250	#278		#200	168		#200	158	42	#111	66	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	221	1452		221	1450		126	565	632	126	1102	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	1.20	0.94		0.97	0.72		1.43	0.52	0.34	0.78	0.33	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.43

Intersection Signal Delay: 48.9

Intersection LOS: D

Intersection Capacity Utilization 68.3%

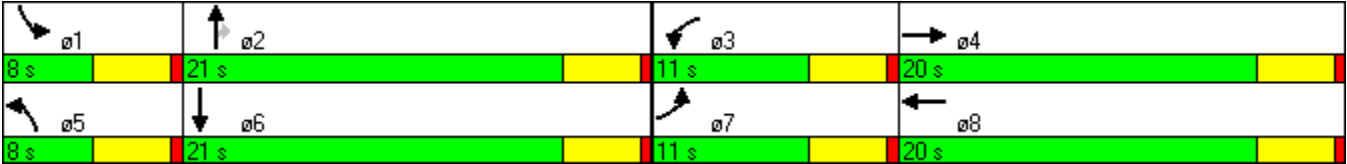
ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

40: Bonita Ave & Walnut Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	763	32	60	456	74	115	195	311	111	98	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3518	0	1770	3539	1583	1770	1691	0	1770	1727	0
Flt Permitted	0.451			0.230			0.627			0.285		
Satd. Flow (perm)	840	3518	0	428	3539	1583	1168	1691	0	531	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				80		61			102	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	864	0	65	496	80	125	550	0	121	209	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	33.0	33.0	0.0	33.0	33.0	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
Act Effect Green (s)	18.4	18.4		18.4	18.4	18.4	20.1	20.1		20.1	20.1	
Actuated g/C Ratio	0.39	0.39		0.39	0.39	0.39	0.43	0.43		0.43	0.43	
v/c Ratio	0.39	0.63		0.39	0.36	0.12	0.25	0.73		0.53	0.26	
Control Delay	16.6	14.8		20.8	12.0	4.1	10.6	16.6		20.7	5.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	16.6	14.8		20.8	12.0	4.1	10.6	16.6		20.7	5.9	
LOS	B	B		C	B	A	B	B		C	A	
Approach Delay		15.0			11.9			15.5			11.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	25	97		13	49	0	21	106		24	17	
Queue Length 95th (ft)	75	183		50	98	22	53	219		73	51	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	441	1852		225	1859	869	771	1137		351	1175	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.29	0.47		0.29	0.27	0.09	0.16	0.48		0.34	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 13.9

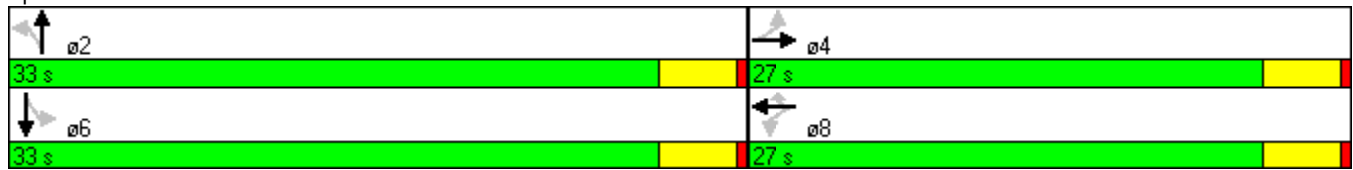
Intersection LOS: B

Intersection Capacity Utilization 74.3%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

41: Arrow Hwy & Walnut Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	222	1141	68	18	862	44	84	57	21	22	62	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5050	0	0	1809	1583	0	1839	1583
Flt Permitted	0.950			0.950				0.765			0.883	
Satd. Flow (perm)	1770	5045	0	1770	5050	0	0	1425	1583	0	1645	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			13				23			167
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	241	1314	0	20	985	0	0	153	23	0	91	167
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	19.0	31.0	0.0	8.0	20.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	12.7	30.2		5.1	20.0			11.7	11.7		11.4	11.4
Actuated g/C Ratio	0.28	0.67		0.11	0.44			0.26	0.26		0.25	0.25
v/c Ratio	0.48	0.39		0.10	0.44			0.41	0.05		0.22	0.32
Control Delay	21.2	6.5		26.0	15.3			21.9	8.2		18.5	5.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	21.2	6.5		26.0	15.3			21.9	8.2		18.5	5.5
LOS	C	A		C	B			C	A		B	A
Approach Delay		8.7			15.5			20.1			10.1	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	63	55		6	87			41	0		23	0
Queue Length 95th (ft)	135	153		24	154			90	14		56	37
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	757	3389		202	2257			657	742		758	820
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.32	0.39		0.10	0.44			0.23	0.03		0.12	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 11.8

Intersection LOS: B

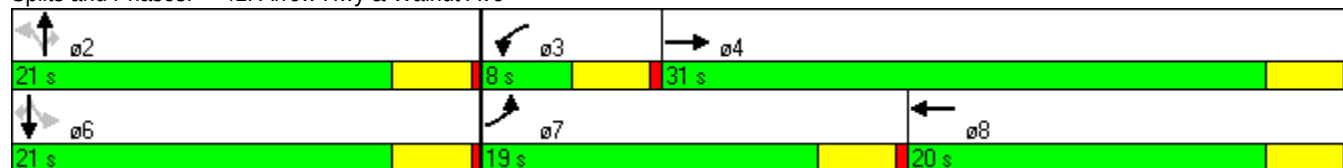
Intersection Capacity Utilization 54.2%

ICU Level of Service A

41: Arrow Hwy & Walnut Ave

Analysis Period (min) 15

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	190	772	123	33	333	98	52	274	87	130	227	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.536			0.292			0.599			0.570		
Satd. Flow (perm)	998	3539	1583	544	3539	1583	1116	3539	1583	1062	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			106			107			95			95
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	207	839	134	36	362	107	57	298	95	141	247	95
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	33.0	33.0	33.0	33.0	33.0	33.0	27.0	27.0	27.0	27.0	27.0	27.0
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
Act Effect Green (s)	19.5	19.5	19.5	19.5	19.5	19.5	12.1	12.1	12.1	12.1	12.1	12.1
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.48	0.30	0.30	0.30	0.30	0.30	0.30
v/c Ratio	0.43	0.49	0.16	0.14	0.21	0.13	0.17	0.28	0.18	0.44	0.23	0.18
Control Delay	11.0	8.6	3.2	8.4	6.8	2.4	13.2	12.3	4.4	17.7	12.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	8.6	3.2	8.4	6.8	2.4	13.2	12.3	4.4	17.7	12.0	4.4
LOS	B	A	A	A	A	A	B	B	A	B	B	A
Approach Delay		8.4			6.0			10.7			12.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	25	54	3	4	20	0	9	25	0	24	21	0
Queue Length 95th (ft)	89	134	27	21	54	19	35	61	24	76	51	24
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	753	2671	1221	410	2671	1221	696	2208	1023	663	2208	1023
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.11	0.09	0.14	0.09	0.08	0.13	0.09	0.21	0.11	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.0

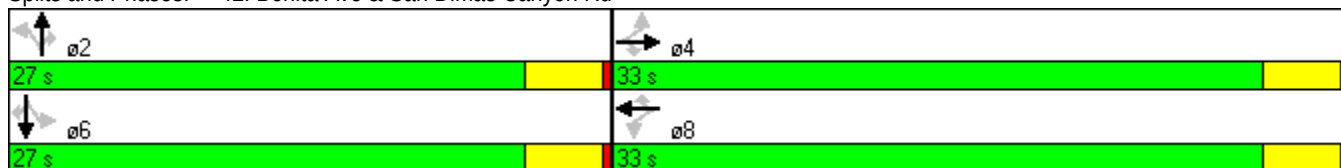
Intersection LOS: A

Intersection Capacity Utilization 52.8%

ICU Level of Service A

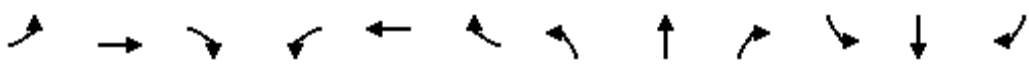
Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	289	872	71	41	696	166	27	41	30	140	49	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5029	0	1770	4938	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.187			0.267			0.722			0.728		
Satd. Flow (perm)	348	5029	0	497	4938	0	1345	1863	1583	1356	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			90				33			242
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	314	1025	0	45	937	0	29	45	33	152	53	242
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	18.0	30.0	0.0	8.0	20.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effect Green (s)	30.2	27.4		18.8	14.7		11.1	11.1	11.1	11.1	11.1	11.1
Actuated g/C Ratio	0.61	0.55		0.38	0.30		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.58	0.37		0.15	0.61		0.10	0.11	0.09	0.50	0.13	0.45
Control Delay	11.9	8.0		7.9	16.4		16.4	16.2	7.1	23.6	16.5	5.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	8.0		7.9	16.4		16.4	16.2	7.1	23.6	16.5	5.7
LOS	B	A		A	B		B	B	A	C	B	A
Approach Delay		8.9			16.0			13.5			13.1	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	33	39		4	74		7	11	0	41	13	0
Queue Length 95th (ft)	120	120		17	138		24	31	16	88	35	43
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	626	2907		294	1703		503	697	613	507	697	744
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.35		0.15	0.55		0.06	0.06	0.05	0.30	0.08	0.33

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 12.1

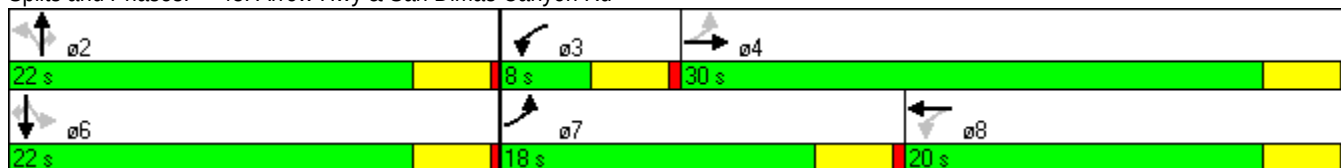
Intersection LOS: B

Intersection Capacity Utilization 57.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
44: Third St & Wheeler Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	3	43	18	6	62	18	562	17	39	338	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	3	47	20	7	67	20	611	18	42	367	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	874	1128	191	976	1126	315	382			629		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	874	1128	191	976	1126	315	382			629		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	98	94	89	97	90	98			96		
cM capacity (veh/h)	204	191	819	182	191	681	1174			949		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	27	47	26	67	325	324	226	198				
Volume Left	24	0	20	0	20	0	42	0				
Volume Right	0	47	0	67	0	18	0	14				
cSH	202	819	185	681	1174	1700	949	1700				
Volume to Capacity	0.13	0.06	0.14	0.10	0.02	0.19	0.04	0.12				
Queue Length 95th (ft)	11	5	12	8	1	0	4	0				
Control Delay (s)	25.5	9.7	27.7	10.9	0.6	0.0	2.0	0.0				
Lane LOS	D	A	D	B	A		A					
Approach Delay (s)	15.5		15.6		0.3		1.1					
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			45.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

45: Arrow Hwy & Wheeler Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	729	10	6	741	267	63	118	72	287	40	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5075	0	1770	4882	0	1770	1863	1583	0	3309	0
Flt Permitted	0.172			0.336			0.424				0.730	
Satd. Flow (perm)	320	5075	0	626	4882	0	790	1863	1583	0	2498	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			154				78		64	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	190	803	0	7	1095	0	68	128	78	0	454	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	14.0	28.0	0.0	8.0	22.0	0.0	24.0	24.0	24.0	24.0	24.0	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
Act Effect Green (s)	26.8	25.5		19.8	16.9		13.8	13.8	13.8		13.8	
Actuated g/C Ratio	0.54	0.52		0.40	0.34		0.28	0.28	0.28		0.28	
v/c Ratio	0.43	0.31		0.02	0.62		0.31	0.24	0.16		0.61	
Control Delay	9.3	8.0		7.0	14.7		19.7	16.6	5.1		18.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.3	8.0		7.0	14.7		19.7	16.6	5.1		18.0	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		8.2			14.6			14.1			18.0	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	23	36		1	87		18	33	0		57	
Queue Length 95th (ft)	63	100		6	150		46	67	24		97	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	492	3214		352	2020		346	817	738		1131	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.39	0.25		0.02	0.54		0.20	0.16	0.11		0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 12.9

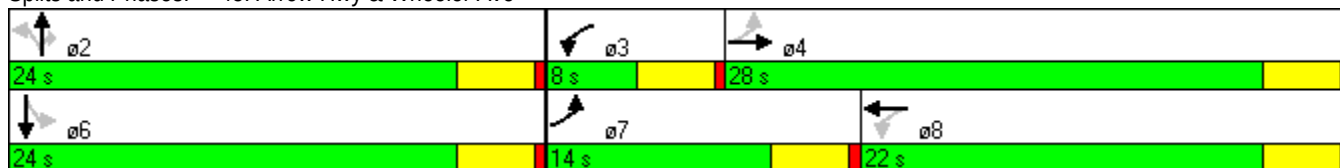
Intersection LOS: B

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

46: Third St & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	63	8	10	78	7	10	67	23	5	17	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	68	9	11	85	8	11	73	25	5	18	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92			77			198	193	68	247	195	85
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92			77			198	193	68	247	195	85
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	90	97	99	97	100
cM capacity (veh/h)	1502			1521			736	694	995	628	693	974
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	74	9	96	8	109	27						
Volume Left	5	0	11	0	11	5						
Volume Right	0	9	0	8	25	3						
cSH	1502	1700	1521	1700	751	703						
Volume to Capacity	0.00	0.01	0.01	0.00	0.14	0.04						
Queue Length 95th (ft)	0	0	1	0	13	3						
Control Delay (s)	0.6	0.0	0.9	0.0	10.6	10.3						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.5		0.8		10.6	10.3						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			24.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

47: First St & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	8	6	8	10	1	10	110	6	2	22	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	9	7	9	11	1	11	120	7	2	24	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	176	176	24	180	177	120	32			126		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	176	176	24	180	177	120	32			126		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	99	98	100	99			100		
cM capacity (veh/h)	771	711	1053	764	710	932	1581			1460		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	12	7	21	130	7	26	8					
Volume Left	3	0	9	11	0	2	0					
Volume Right	0	7	1	0	7	0	8					
cSH	727	1053	742	1581	1700	1460	1700					
Volume to Capacity	0.02	0.01	0.03	0.01	0.00	0.00	0.00					
Queue Length 95th (ft)	1	0	2	1	0	0	0					
Control Delay (s)	10.0	8.4	10.0	0.7	0.0	0.6	0.0					
Lane LOS	B	A	A	A		A						
Approach Delay (s)	9.5		10.0	0.6		0.5						
Approach LOS	A		A									
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			27.4%		ICU Level of Service					A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

48: Arrow Hwy & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	81	1143	10	2	857	56	7	2	10	14	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	88	1242	11	2	932	61	8	2	11	15	0	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	992			1253			1759	2421	420	1568	2396	341
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	992			1253			1759	2421	420	1568	2396	341
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	87			100			84	92	98	76	100	97
cM capacity (veh/h)	693			551			47	28	582	62	29	655
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	88	497	497	259	2	373	373	247	10	11	15	21
Volume Left	88	0	0	0	2	0	0	0	8	0	15	0
Volume Right	0	0	0	11	0	0	0	61	0	11	0	21
cSH	693	1700	1700	1700	551	1700	1700	1700	41	582	62	655
Volume to Capacity	0.13	0.29	0.29	0.15	0.00	0.22	0.22	0.15	0.24	0.02	0.24	0.03
Queue Length 95th (ft)	11	0	0	0	0	0	0	0	20	1	21	2
Control Delay (s)	11.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0	119.6	11.3	80.6	10.7
Lane LOS	B				B				F	B	F	B
Approach Delay (s)	0.7				0.0				62.6		40.3	
Approach LOS									F		E	
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			43.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

49: Third St & D St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	53	58	17	86	45	136	219	26	17	159	69
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	58	63	18	93	49	148	238	28	18	173	75
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	150	161	414	266								
Volume Left (vph)	29	18	148	18								
Volume Right (vph)	63	49	28	75								
Hadj (s)	-0.18	-0.13	0.06	-0.12								
Departure Headway (s)	5.9	5.9	5.3	5.4								
Degree Utilization, x	0.25	0.26	0.61	0.40								
Capacity (veh/h)	520	531	641	620								
Control Delay (s)	10.8	11.0	16.5	11.9								
Approach Delay (s)	10.8	11.0	16.5	11.9								
Approach LOS	B	B	C	B								
Intersection Summary												
Delay			13.5									
HCM Level of Service			B									
Intersection Capacity Utilization			56.8%	ICU Level of Service				B				
Analysis Period (min)			15									



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	38	32	29	266	134	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	35	32	289	146	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	517	165	184			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	517	165	184			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	96	98			
cM capacity (veh/h)	507	880	1391			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	76	321	184			
Volume Left	41	32	0			
Volume Right	35	0	38			
cSH	629	1391	1700			
Volume to Capacity	0.12	0.02	0.11			
Queue Length 95th (ft)	10	2	0			
Control Delay (s)	11.5	0.9	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.5	0.9	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			38.8%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

51: Arrow Hwy & D St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	1079	32	16	871	170	31	25	25	107	23	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5065	0	1770	4958	0	0	1812	1583	0	1788	1583
Flt Permitted	0.232			0.210				0.779			0.722	
Satd. Flow (perm)	432	5065	0	391	4958	0	0	1451	1583	0	1345	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			121				27			49
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	1208	0	17	1132	0	0	61	27	0	141	49
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	26.3	26.3		26.3	26.3			10.9	10.9		11.1	11.1
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.27	0.27		0.28	0.28
v/c Ratio	0.40	0.36		0.07	0.34			0.15	0.06		0.38	0.10
Control Delay	11.4	5.2		5.5	4.6			16.6	8.0		19.6	6.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	11.4	5.2		5.5	4.6			16.6	8.0		19.6	6.8
LOS	B	A		A	A			B	A		B	A
Approach Delay		5.7			4.6			13.9			16.3	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	12	45		1	37			11	0		27	0
Queue Length 95th (ft)	59	95		9	79			43	16		86	21
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	360	4229		326	4158			715	793		662	804
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.32	0.29		0.05	0.27			0.09	0.03		0.21	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 6.2

Intersection LOS: A

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

52: Third St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	48	22	9	47	11	66	343	33	10	133	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	52	24	10	51	12	72	373	36	11	145	15
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	75	24	61	12	445	36	155	15				
Volume Left (vph)	23	0	10	0	72	0	11	0				
Volume Right (vph)	0	24	0	12	0	36	0	15				
Hadj (s)	0.19	-0.67	0.11	-0.67	0.11	-0.67	0.07	-0.67				
Departure Headway (s)	6.4	5.5	6.4	5.6	5.3	4.5	5.6	4.8				
Degree Utilization, x	0.13	0.04	0.11	0.02	0.65	0.05	0.24	0.02				
Capacity (veh/h)	514	586	513	578	659	765	620	708				
Control Delay (s)	9.2	7.6	8.9	7.5	16.6	6.5	9.1	6.7				
Approach Delay (s)	8.8		8.7		15.8		8.9					
Approach LOS	A		A		C		A					
Intersection Summary												
Delay			12.9									
HCM Level of Service			B									
Intersection Capacity Utilization			49.6%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

53: Second St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	23	32	7	19	8	30	407	10	5	145	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	25	35	8	21	9	33	442	11	5	158	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	686	687	158	689	700	442	182			453		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	566	567	158	569	582	286	182			299		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	93	96	98	94	99	98			100		
cM capacity (veh/h)	350	367	888	336	360	656	1394			1100		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	104	37	475	11	163	24						
Volume Left	45	8	33	0	5	0						
Volume Right	35	9	0	11	0	24						
cSH	534	462	1394	1700	1100	1700						
Volume to Capacity	0.20	0.08	0.02	0.01	0.00	0.01						
Queue Length 95th (ft)	18	6	2	0	0	0						
Control Delay (s)	14.8	14.8	0.8	0.0	0.3	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	14.8	14.8	0.7		0.3							
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.1									
Intersection Capacity Utilization			51.1%		ICU Level of Service				A			
Analysis Period (min)			15									

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	25	19	433	16	10	162
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	21	471	17	11	176
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.86	0.86			0.86	
vC, conflicting volume	668	471			488	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	530	299			319	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	97			99	
cM capacity (veh/h)	432	635			1063	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	27	21	471	17	11	176
Volume Left	27	0	0	0	11	0
Volume Right	0	21	0	17	0	0
cSH	432	635	1700	1700	1063	1700
Volume to Capacity	0.06	0.03	0.28	0.01	0.01	0.10
Queue Length 95th (ft)	5	3	0	0	1	0
Control Delay (s)	13.9	10.9	0.0	0.0	8.4	0.0
Lane LOS	B	B			A	
Approach Delay (s)	12.6		0.0		0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			32.8%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

55: Arrow Hwy & E St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	53	965	192	73	660	37	322	336	141	27	152	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			9				153			45
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	1258	0	79	757	0	350	365	153	29	165	45
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	29.0	0.0	10.0	28.0	0.0	28.0	42.0	42.0	9.0	23.0	23.0
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
Act Effect Green (s)	6.8	24.2		6.3	25.7		19.5	32.9	32.9	5.2	12.3	12.3
Actuated g/C Ratio	0.09	0.32		0.08	0.34		0.26	0.43	0.43	0.07	0.16	0.16
v/c Ratio	0.36	0.78		0.54	0.44		0.77	0.45	0.20	0.24	0.54	0.15
Control Delay	44.0	28.8		53.9	22.7		40.3	19.1	3.8	43.7	38.7	10.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	28.8		53.9	22.7		40.3	19.1	3.8	43.7	38.7	10.9
LOS	D	C		D	C		D	B	A	D	D	B
Approach Delay		29.4			25.7			25.0			34.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	28	204		39	113		162	117	0	14	78	0
Queue Length 95th (ft)	70	#317		#112	171		#297	224	35	44	142	28
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	170	1733		146	1818		584	973	900	122	486	447
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.73		0.54	0.42		0.60	0.38	0.17	0.24	0.34	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 27.6

Intersection LOS: C

Intersection Capacity Utilization 66.1%

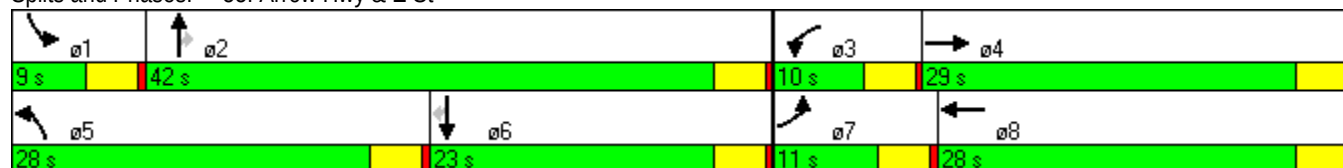
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	11	11	6	7	15	30	918	18	11	623	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	12	12	7	8	16	33	998	20	12	677	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											296	
pX, platoon unblocked	0.81	0.81	0.81	0.81	0.81		0.81					
vC, conflicting volume	1784	1784	677	1782	1783	998	696			1017		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1852	1852	480	1850	1850	998	503			1017		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	82	79	97	82	87	94	96			98		
cM capacity (veh/h)	37	57	473	36	57	296	856			682		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	18	12	14	16	1030	20	689	18				
Volume Left	7	0	7	0	33	0	12	0				
Volume Right	0	12	0	16	0	20	0	18				
cSH	48	473	45	296	856	1700	682	1700				
Volume to Capacity	0.39	0.03	0.32	0.06	0.04	0.01	0.02	0.01				
Queue Length 95th (ft)	34	2	27	4	3	0	1	0				
Control Delay (s)	121.7	12.8	118.8	17.9	1.1	0.0	0.5	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	78.9		64.7		1.1		0.5					
Approach LOS	F		F									
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			85.1%		ICU Level of Service			E				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	2	16	0	3	10	19	908	10	9	617	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	2	17	0	3	11	21	987	11	10	671	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											756	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1731	1729	671	1737	1729	987	682			998		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1769	1768	533	1776	1768	987	545			998		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	97	96	100	95	96	98			99		
cM capacity (veh/h)	50	69	469	50	69	300	878			694		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	16	17	3	11	1008	11	680	11				
Volume Left	14	0	0	0	21	0	10	0				
Volume Right	0	17	0	11	0	11	0	11				
cSH	52	469	69	300	878	1700	694	1700				
Volume to Capacity	0.31	0.04	0.05	0.04	0.02	0.01	0.01	0.01				
Queue Length 95th (ft)	27	3	4	3	2	0	1	0				
Control Delay (s)	102.7	13.0	59.8	17.4	0.7	0.0	0.4	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	56.4		27.2		0.7		0.4					
Approach LOS	F		D									
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			77.2%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
58: First St & White Ave

No Build Alternative

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	2	22	15	0	30	24	881	31	22	597	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	2	24	16	0	33	26	958	34	24	649	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											1008	
pX, platoon unblocked	0.93	0.93	0.93	0.93	0.93		0.93					
vC, conflicting volume	1739	1740	649	1732	1718	958	661			991		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1758	1759	582	1750	1736	958	595			991		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	71	97	95	70	100	90	97			97		
cM capacity (veh/h)	52	74	475	55	76	312	910			697		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	17	24	16	33	26	958	34	673	12			
Volume Left	15	0	16	0	26	0	0	24	0			
Volume Right	0	24	0	33	0	0	34	0	12			
cSH	54	475	55	312	910	1700	1700	697	1700			
Volume to Capacity	0.32	0.05	0.30	0.10	0.03	0.56	0.02	0.03	0.01			
Queue Length 95th (ft)	28	4	26	9	2	0	0	3	0			
Control Delay (s)	99.8	13.0	95.9	17.9	9.1	0.0	0.0	0.9	0.0			
Lane LOS	F	B	F	C	A			A				
Approach Delay (s)	49.5		43.9		0.2			0.9				
Approach LOS	E		E									
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			63.4%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

No Build Alternative
PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	13	17	921	11	30	613	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	14	18	1001	12	33	666	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.84	0.84			0.84		
vC, conflicting volume	1399	501			1013		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1094	24			634		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	92	98			96		
cM capacity (veh/h)	168	879			793		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	33	501	501	12	33	333	333
Volume Left	14	0	0	0	33	0	0
Volume Right	18	0	0	12	0	0	0
cSH	310	1700	1700	1700	793	1700	1700
Volume to Capacity	0.11	0.29	0.29	0.01	0.04	0.20	0.20
Queue Length 95th (ft)	9	0	0	0	3	0	0
Control Delay (s)	18.0	0.0	0.0	0.0	9.7	0.0	0.0
Lane LOS	C				A		
Approach Delay (s)	18.0	0.0			0.5		
Approach LOS	C						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utilization			35.5%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

No Build Alternative
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	177	590	174	141	373	59	170	850	197	112	514	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			189			64			86			128
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	641	189	153	405	64	185	1138	0	122	732	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	0.0	10.0	20.0	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
Act Effect Green (s)	6.1	14.7	14.7	6.1	14.7	14.7	6.1	16.8		6.1	14.3	
Actuated g/C Ratio	0.11	0.26	0.26	0.11	0.26	0.26	0.11	0.29		0.11	0.25	
v/c Ratio	1.03	0.71	0.35	0.82	0.45	0.14	0.99	0.75		0.65	0.55	
Control Delay	107.0	24.4	5.4	63.4	19.9	6.3	97.4	22.3		45.9	17.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	107.0	24.4	5.4	63.4	19.9	6.3	97.4	22.3		45.9	17.0	
LOS	F	C	A	E	B	A	F	C		D	B	
Approach Delay		36.4			29.2			32.8			21.2	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	~81	108	0	56	63	0	~75	130		44	66	
Queue Length 95th (ft)	#190	160	40	#149	99	24	#182	#183		#116	98	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	187	997	582	187	997	492	187	1508		187	1474	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.03	0.64	0.32	0.82	0.41	0.13	0.99	0.75		0.65	0.50	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 30.6

Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
10 s	20 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
10 s	20 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair

61: Bonita Ave & D St

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	357	40	39	382	117	61	181	37	117	179	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1809	0	1770	1863	1583
Flt Permitted	0.445			0.475				0.895		0.607		
Satd. Flow (perm)	829	1863	1583	885	1863	1583	0	1637	0	1131	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			37			103			15			155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	388	43	42	415	127	0	303	0	127	195	155
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	0.0	28.0	28.0	28.0
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
Act Effect Green (s)	14.4	14.4	14.4	14.4	14.4	14.4		12.2		12.2	12.2	12.2
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41	0.41		0.35		0.35	0.35	0.35
v/c Ratio	0.26	0.51	0.06	0.12	0.55	0.18		0.53		0.33	0.30	0.24
Control Delay	10.0	11.0	3.9	8.2	11.5	3.6		13.5		12.5	10.9	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	10.0	11.0	3.9	8.2	11.5	3.6		13.5		12.5	10.9	3.5
LOS	A	B	A	A	B	A		B		B	B	A
Approach Delay		10.2			9.5			13.5			8.9	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)	9	45	1	4	49	2		38		15	23	0
Queue Length 95th (ft)	40	137	14	21	149	26		125		61	80	28
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	678	1523	1301	723	1523	1313		1206		831	1368	1203
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.13	0.25	0.03	0.06	0.27	0.10		0.25		0.15	0.14	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.2

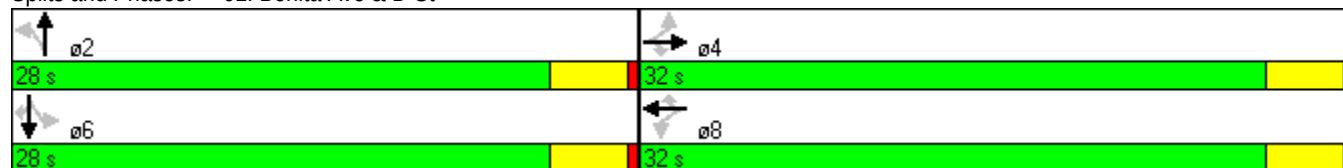
Intersection LOS: B

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair

62: Foothill Blvd & Fruit St

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 		 	 			 	
Volume (vph)	257	847	158	129	648	213	265	669	50	232	369	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4963	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4963	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43				161		8				195
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	279	1093	0	140	704	232	288	781	0	252	401	195
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	21.0	31.0	0.0	14.0	24.0	24.0	16.0	26.0	0.0	19.0	29.0	29.0
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
Act Effect Green (s)	16.2	26.4		9.6	19.7	19.7	11.2	21.6		14.5	24.9	24.9
Actuated g/C Ratio	0.18	0.30		0.11	0.22	0.22	0.13	0.25		0.16	0.28	0.28
v/c Ratio	0.86	0.72		0.73	0.89	0.48	0.66	0.90		0.86	0.40	0.33
Control Delay	60.5	29.8		61.3	48.7	14.2	44.7	47.5		65.2	27.4	5.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.5	29.8		61.3	48.7	14.2	44.7	47.5		65.2	27.4	5.6
LOS	E	C		E	D	B	D	D		E	C	A
Approach Delay		36.1			42.9			46.8			33.6	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	154	194		78	205	33	80	225		141	97	0
Queue Length 95th (ft)	#288	244		#166	#307	100	123	#335		#272	140	49
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	342	1555		202	805	485	469	884		302	1012	592
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.82	0.70		0.69	0.87	0.48	0.61	0.88		0.83	0.40	0.33

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 39.9

Intersection LOS: D

Intersection Capacity Utilization 78.4%

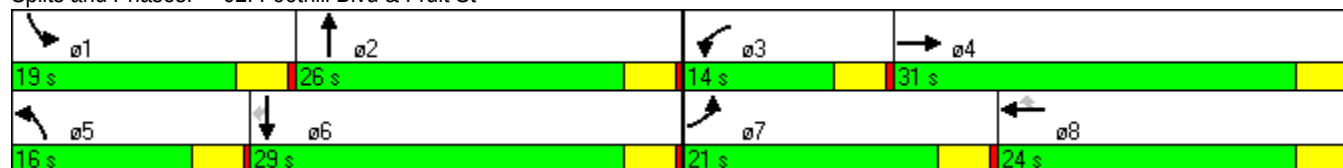
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	379	72	49	326	129	72	724	118	71	479	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.401			0.324			0.364			0.159		
Satd. Flow (perm)	747	1863	1583	604	1863	1583	678	1863	1583	296	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78			140			128			107
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	177	412	78	53	354	140	78	787	128	77	521	107
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	36.0	36.0	36.0	36.0	36.0
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
Act Effect Green (s)	16.8	16.8	16.8	16.8	16.8	16.8	26.9	26.9	26.9	26.9	26.9	26.9
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.52	0.52	0.52	0.52	0.52	0.52
v/c Ratio	0.74	0.69	0.14	0.27	0.59	0.23	0.22	0.82	0.15	0.50	0.54	0.12
Control Delay	39.1	23.3	4.9	19.0	20.5	4.4	9.4	19.9	2.1	23.4	11.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	23.3	4.9	19.0	20.5	4.4	9.4	19.9	2.1	23.4	11.3	2.2
LOS	D	C	A	B	C	A	A	B	A	C	B	A
Approach Delay		25.3			16.3			16.8			11.3	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	55	125	0	14	103	0	14	209	0	16	111	0
Queue Length 95th (ft)	#146	211	24	40	177	31	35	#382	19	#71	184	18
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	303	755	688	245	755	725	440	1209	1072	192	1209	1064
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.55	0.11	0.22	0.47	0.19	0.18	0.65	0.12	0.40	0.43	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.3

Intersection LOS: B

Intersection Capacity Utilization 81.6%

ICU Level of Service D

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

64: McKinley Ave & White Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	218	130	131	48	80	65	57	493	56	101	612	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1745	1583	0	1829	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.668	0.883			0.836		0.950			0.950		
Satd. Flow (perm)	1182	1563	1583	0	1557	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			71			61			88
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	24%											
Lane Group Flow (vph)	180	198	142	0	139	71	62	536	61	110	665	88
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	10.0	24.0	24.0	13.0	27.0	27.0
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
Act Effect Green (s)	13.1	13.1	13.1		13.1	13.1	6.8	14.2	14.2	8.3	15.5	15.5
Actuated g/C Ratio	0.31	0.31	0.31		0.31	0.31	0.16	0.33	0.33	0.19	0.36	0.36
v/c Ratio	0.50	0.41	0.24		0.29	0.13	0.22	0.45	0.11	0.32	0.52	0.14
Control Delay	20.2	17.2	4.6		15.8	5.3	24.5	14.6	5.3	22.8	13.5	4.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	17.2	4.6		15.8	5.3	24.5	14.6	5.3	22.8	13.5	4.1
LOS	C	B	A		B	A	C	B	A	C	B	A
Approach Delay		14.8			12.2			14.6			13.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	43	45	0		29	0	15	63	0	26	75	0
Queue Length 95th (ft)	110	110	32		76	23	53	117	21	79	135	23
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	612	809	888		806	854	289	1928	890	434	2189	1012
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.24	0.16		0.17	0.08	0.21	0.28	0.07	0.25	0.30	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 14.1

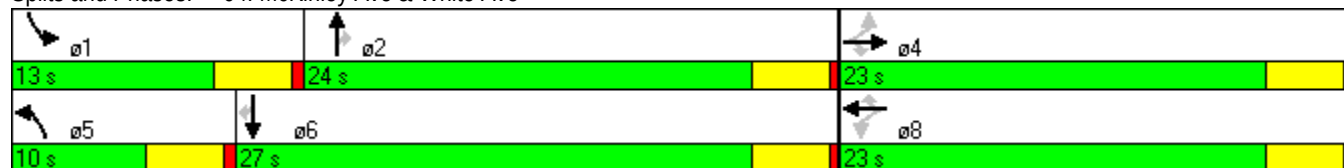
Intersection LOS: B

Intersection Capacity Utilization 49.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

65: Arrow Hwy & La Verne Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (veh/h)	6	940	0	6	519	3	187	0	5	2	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	1022	0	7	564	3	203	0	5	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	567			1022			1330	1615	341	931	1612	282
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	567			1022			1330	1615	341	931	1612	282
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	100	99	99	100	100
cM capacity (veh/h)	1001			675			111	101	655	217	102	715
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	7	341	341	341	7	282	282	3	209	2		
Volume Left	7	0	0	0	7	0	0	0	203	2		
Volume Right	0	0	0	0	0	0	0	3	5	0		
cSH	1001	1700	1700	1700	675	1700	1700	1700	114	217		
Volume to Capacity	0.01	0.20	0.20	0.20	0.01	0.17	0.17	0.00	1.83	0.01		
Queue Length 95th (ft)	0	0	0	0	1	0	0	0	414	1		
Control Delay (s)	8.6	0.0	0.0	0.0	10.4	0.0	0.0	0.0	471.1	21.7		
Lane LOS	A				B				F	C		
Approach Delay (s)	0.1				0.1				471.1	21.7		
Approach LOS									F	C		
Intersection Summary												
Average Delay				54.3								
Intersection Capacity Utilization			34.8%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	83	461	41	28	442	27	54	14	32	18	11	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	90	501	45	30	480	29	59	15	35	20	12	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	510			546			1298	1274	523	1280	1282	495
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	510			546			1298	1274	523	1280	1282	495
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			97			46	90	94	83	92	92
cM capacity (veh/h)	1055			1024			109	148	554	113	147	574
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	90	546	30	510	74	35	32	47				
Volume Left	90	0	30	0	59	0	20	0				
Volume Right	0	45	0	29	0	35	0	47				
cSH	1055	1700	1024	1700	116	554	124	574				
Volume to Capacity	0.09	0.32	0.03	0.30	0.64	0.06	0.26	0.08				
Queue Length 95th (ft)	7	0	2	0	82	5	24	7				
Control Delay (s)	8.7	0.0	8.6	0.0	79.8	11.9	43.8	11.8				
Lane LOS	A		A		F	B	E	B				
Approach Delay (s)	1.2		0.5		58.1		24.7					
Approach LOS					F		C					
Intersection Summary												
Average Delay			6.8									
Intersection Capacity Utilization			50.5%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

No Build Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	26	862	1	12	517	13	11	14	18	15	9	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	937	1	13	562	14	12	15	20	16	10	55
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	576			938			1361	1596	313	984	1583	281
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	576			938			1361	1596	313	984	1583	281
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			86	85	97	90	90	92
cM capacity (veh/h)	993			726			88	101	683	168	103	716
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	28	375	375	188	13	281	281	14	12	35	26	55
Volume Left	28	0	0	0	13	0	0	0	12	0	16	0
Volume Right	0	0	0	1	0	0	0	14	0	20	0	55
cSH	993	1700	1700	1700	726	1700	1700	1700	88	194	136	716
Volume to Capacity	0.03	0.22	0.22	0.11	0.02	0.17	0.17	0.01	0.14	0.18	0.19	0.08
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	11	16	17	6
Control Delay (s)	8.7	0.0	0.0	0.0	10.0	0.0	0.0	0.0	52.1	27.6	37.7	10.4
Lane LOS	A				B				F	D	E	B
Approach Delay (s)	0.3				0.2				33.9		19.2	
Approach LOS									D		C	
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			36.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	287	139	125	215	81	120	767	121	47	588	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.560			0.437			0.950			0.950		
Satd. Flow (perm)	1043	1863	1583	814	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			151			88			132			89
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	312	151	136	234	88	130	834	132	51	639	89
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	26.0	26.0	10.0	23.0	23.0
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
Act Effect Green (s)	14.2	14.2	14.2	14.2	14.2	14.2	8.4	20.0	20.0	6.5	15.9	15.9
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.17	0.42	0.42	0.14	0.33	0.33
v/c Ratio	0.38	0.57	0.26	0.57	0.43	0.17	0.42	0.57	0.18	0.21	0.55	0.15
Control Delay	19.4	20.3	4.6	26.9	17.9	4.9	26.5	14.3	3.8	26.2	16.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	20.3	4.6	26.9	17.9	4.9	26.5	14.3	3.8	26.2	16.8	4.9
LOS	B	C	A	C	B	A	C	B	A	C	B	A
Approach Delay		16.1			18.1			14.5			16.1	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	29	84	0	37	60	0	37	107	0	15	85	0
Queue Length 95th (ft)	69	154	32	89	115	25	90	182	28	46	146	26
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	480	858	810	375	858	776	367	1827	881	245	1548	743
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.36	0.19	0.36	0.27	0.11	0.35	0.46	0.15	0.21	0.41	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 15.8

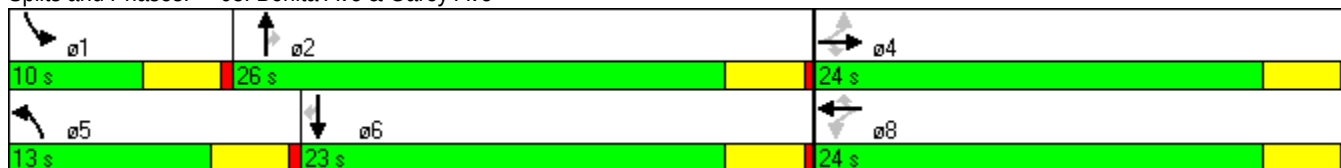
Intersection LOS: B

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

No Build Alternative
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	51	13	985	857	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	55	14	1071	932	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.89					
vC, conflicting volume	1498	469	938			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1320	469	938			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	90	98			
cM capacity (veh/h)	130	541	726			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	55	14	535	535	621	317
Volume Left	0	14	0	0	0	0
Volume Right	55	0	0	0	0	7
cSH	541	726	1700	1700	1700	1700
Volume to Capacity	0.10	0.02	0.31	0.31	0.37	0.19
Queue Length 95th (ft)	9	1	0	0	0	0
Control Delay (s)	12.4	10.1	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.4	0.1			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			33.9%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

70: Arrow Hwy & Garey Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	658	87	139	405	166	166	706	152	182	660	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4994	0	1770	4862	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4994	0	1770	4862	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			167				100			38
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	810	0	151	620	0	180	767	165	198	717	58
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	11.0	20.0	20.0	11.0	20.0	20.0
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
Act Effect Green (s)	5.0	14.7		5.0	16.7		7.0	15.5	15.5	7.0	15.5	15.5
Actuated g/C Ratio	0.09	0.25		0.09	0.29		0.12	0.27	0.27	0.12	0.27	0.27
v/c Ratio	0.66	0.63		0.99	0.41		0.85	0.81	0.33	0.93	0.76	0.13
Control Delay	50.3	20.9		105.6	13.7		62.5	29.0	10.3	77.5	26.4	9.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	20.9		105.6	13.7		62.5	29.0	10.3	77.5	26.4	9.8
LOS	D	C		F	B		E	C	B	E	C	A
Approach Delay		24.1			31.7			31.7			35.8	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	36	88		~58	48		65	136	18	73	124	5
Queue Length 95th (ft)	#101	124		#158	76		#166	#219	59	#184	#183	29
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	152	1401		152	1536		213	973	508	213	973	463
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.58		0.99	0.40		0.85	0.79	0.32	0.93	0.74	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 30.9

Intersection LOS: C

Intersection Capacity Utilization 65.3%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave

 ø1	 ø2	 ø3	 ø4
11 s	20 s	9 s	20 s
 ø5	 ø6	 ø7	 ø8
11 s	20 s	9 s	20 s

Gold Line Foothill Extension - Azusa to Montclair

71: Bonita Ave & Towne Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	273	184	80	135	120	105	995	113	87	767	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3291	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.581			0.418			0.293			0.196		
Satd. Flow (perm)	1082	3327	0	779	3291	0	546	3539	1583	365	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		148			79				86			60
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	497	0	87	277	0	114	1082	123	95	834	66
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	23.0	23.0	0.0	23.0	23.0	0.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)	14.7	14.7		14.7	14.7		25.1	25.1	25.1	25.1	25.1	25.1
Actuated g/C Ratio	0.30	0.30		0.30	0.30		0.52	0.52	0.52	0.52	0.52	0.52
v/c Ratio	0.65	0.45		0.37	0.26		0.40	0.59	0.14	0.50	0.45	0.08
Control Delay	27.4	11.5		20.4	10.7		12.9	9.8	3.3	19.4	8.4	2.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.4	11.5		20.4	10.7		12.9	9.8	3.3	19.4	8.4	2.7
LOS	C	B		C	B		B	A	A	B	A	A
Approach Delay		16.3			13.0			9.5			9.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	54	41		20	22		19	108	5	17	76	1
Queue Length 95th (ft)	#147	85		59	51		56	167	25	62	119	14
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	458	1495		330	1439		387	2508	1147	259	2508	1140
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.33		0.26	0.19		0.29	0.43	0.11	0.37	0.33	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 11.2

Intersection LOS: B

Intersection Capacity Utilization 64.2%

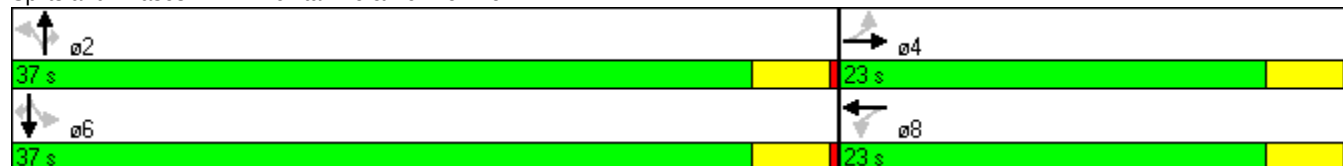
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

No Build Alternative
PM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	28	39	1187	15	31	1114		
Sign Control	Stop		Free		Free			
Grade	0%		0%		0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	30	42	1290	16	34	1211		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None				None			
Median storage (veh)								
Upstream signal (ft)	932							
pX, platoon unblocked	0.80	0.80				0.80		
vC, conflicting volume	1963	645				1307		
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1702	52				880		
tC, single (s)	6.8	6.9				4.1		
tC, 2 stage (s)								
tF (s)	3.5	3.3				2.2		
p0 queue free %	51	95				94		
cM capacity (veh/h)	62	803				610		
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	42	645	645	16	34	605	605
Volume Left	30	0	0	0	0	34	0	0
Volume Right	0	42	0	0	16	0	0	0
cSH	62	803	1700	1700	1700	610	1700	1700
Volume to Capacity	0.49	0.05	0.38	0.38	0.01	0.06	0.36	0.36
Queue Length 95th (ft)	48	4	0	0	0	4	0	0
Control Delay (s)	108.3	9.7	0.0	0.0	0.0	11.2	0.0	0.0
Lane LOS	F	A				B		
Approach Delay (s)	50.9	0.0		0.3				
Approach LOS	F							
Intersection Summary								
Average Delay			1.6					
Intersection Capacity Utilization			42.8%	ICU Level of Service			A	
Analysis Period (min)			15					

Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

73: Arrow Hwy & Towne Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	350	770	74	220	469	132	160	754	119	183	868	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	4917	0	1770	3468	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	4917	0	1770	3468	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			68			20				106
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	380	917	0	239	653	0	174	949	0	199	943	179
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	24.0	24.0	0.0	20.0	20.0	0.0	13.0	31.0	0.0	15.0	33.0	33.0
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
Act Effect Green (s)	20.0	20.1		14.9	15.0		9.0	26.4		11.0	28.4	28.4
Actuated g/C Ratio	0.23	0.23		0.17	0.17		0.10	0.30		0.12	0.32	0.32
v/c Ratio	0.95	0.79		0.80	0.73		0.97	0.90		0.90	0.83	0.31
Control Delay	69.8	38.0		56.7	36.7		101.3	42.7		81.1	35.5	11.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	69.8	38.0		56.7	36.7		101.3	42.7		81.1	35.5	11.6
LOS	E	D		E	D		F	D		F	D	B
Approach Delay		47.3			42.0			51.8			39.1	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	215	179		131	115		101	266		114	258	29
Queue Length 95th (ft)	#392	228		#242	156		#229	#384		#242	336	79
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	401	1155		321	947		180	1074		220	1162	591
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.95	0.79		0.74	0.69		0.97	0.88		0.90	0.81	0.30

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 45.1

Intersection LOS: D

Intersection Capacity Utilization 79.5%

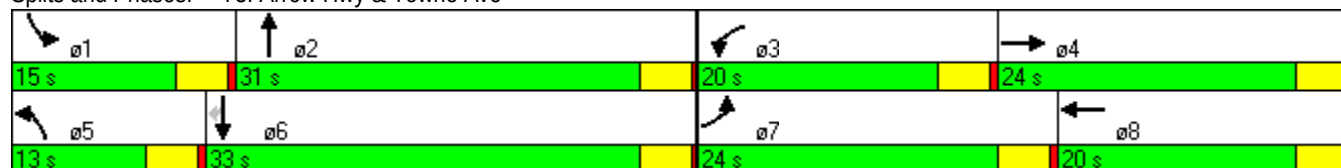
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair

74: Harrison Ave & Garey Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	6	33	85	21	78	38	865	73	55	611	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1792	1583	0	1792	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.722			0.746		0.399			0.280		
Satd. Flow (perm)	0	1345	1583	0	1390	1583	743	3539	1583	522	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			85			64			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	36	0	115	85	41	940	79	60	664	43
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)		9.4	9.4		9.4	9.4	21.2	21.2	21.2	21.2	21.2	21.2
Actuated g/C Ratio		0.28	0.28		0.28	0.28	0.63	0.63	0.63	0.63	0.63	0.63
v/c Ratio		0.09	0.08		0.29	0.17	0.09	0.42	0.08	0.18	0.30	0.04
Control Delay		13.7	6.6		15.6	5.4	5.1	5.7	2.2	6.5	5.0	1.9
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.7	6.6		15.6	5.4	5.1	5.7	2.2	6.5	5.0	1.9
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		10.0			11.3			5.4			4.9	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		5	0		17	0	3	47	1	5	30	0
Queue Length 95th (ft)		25	17		64	26	15	104	13	22	68	9
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		822	982		850	1001	658	3134	1409	462	3134	1407
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.04	0.04		0.14	0.08	0.06	0.30	0.06	0.13	0.21	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 6.0

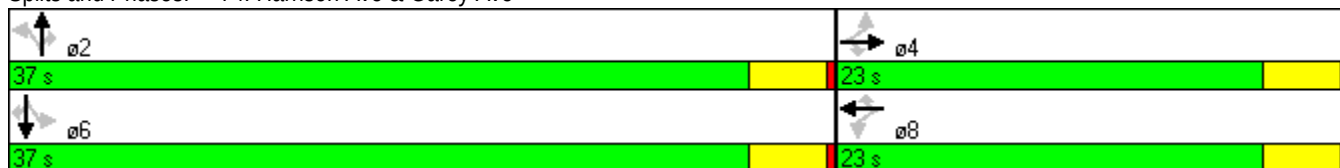
Intersection LOS: A

Intersection Capacity Utilization 49.7%

ICU Level of Service A

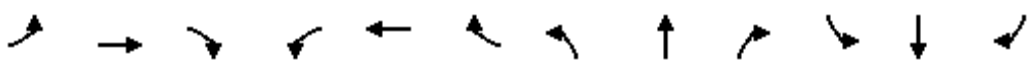
Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	153	130	64	144	82	101	600	47	49	517	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.657			0.652			0.390			0.325		
Satd. Flow (perm)	1224	1863	1583	1215	1863	1583	726	1863	1583	605	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			141			89			35			64
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	166	141	70	157	89	110	652	51	53	562	64
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	10.6	10.6	10.6	10.6	10.6	10.6	23.8	23.8	23.8	23.8	23.8	23.8
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28	0.28	0.64	0.64	0.64	0.64	0.64	0.64
v/c Ratio	0.31	0.31	0.25	0.20	0.30	0.17	0.24	0.55	0.05	0.14	0.47	0.06
Control Delay	17.5	16.2	5.2	16.1	16.1	5.6	6.9	8.3	2.7	6.0	7.3	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.5	16.2	5.2	16.1	16.1	5.6	6.9	8.3	2.7	6.0	7.3	1.8
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		12.8			13.1			7.8			6.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	18	27	0	11	26	0	10	75	1	4	60	0
Queue Length 95th (ft)	69	93	35	48	89	28	40	209	12	21	168	11
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	632	962	886	628	962	861	637	1636	1394	531	1636	1397
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.16	0.11	0.16	0.10	0.17	0.40	0.04	0.10	0.34	0.05

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 9.1

Intersection LOS: A

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

76: First St & Indian Hill Blvd

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	30	81	170	48	130	82	601	213	44	619	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1840	0
Flt Permitted	0.723			0.736			0.950			0.950		
Satd. Flow (perm)	1347	1863	1583	1371	1863	1583	1770	1863	1583	1770	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			88			141			232			9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	33	88	185	52	141	89	653	232	48	731	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	9.0	32.0	32.0	8.0	31.0	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
Act Effect Green (s)	12.5	12.5	12.5	13.1	13.1	13.1	6.2	30.2	30.2	5.0	28.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.13	0.61	0.61	0.10	0.57	
v/c Ratio	0.06	0.07	0.19	0.51	0.11	0.27	0.40	0.57	0.22	0.27	0.69	
Control Delay	17.3	17.2	5.9	24.5	17.6	5.5	34.0	13.6	2.3	30.5	18.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.3	17.2	5.9	24.5	17.6	5.5	34.0	13.6	2.3	30.5	18.7	
LOS	B	B	A	C	B	A	C	B	A	C	B	
Approach Delay		10.3			16.5			12.7			19.4	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	6	9	0	57	14	0	30	159	0	16	197	
Queue Length 95th (ft)	21	26	28	111	37	35	#89	#310	30	#47	#431	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	545	755	694	555	755	725	224	1145	1062	179	1071	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.04	0.04	0.13	0.33	0.07	0.19	0.40	0.57	0.22	0.27	0.68	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 15.5

Intersection LOS: B

Intersection Capacity Utilization 66.4%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

77: Santa Fe St & Indian Hill Blvd

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	91	0	0	21	12	879	2	0	861	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	99	0	0	23	13	955	2	0	936	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	0.83	0.83		0.83	0.83	0.83				0.83		
vC, conflicting volume	1465	1922	471	1548	1923	478	941			958		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1146	1698	471	1247	1699	0	941			533		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	82	100	100	97	98			100		
cM capacity (veh/h)	123	74	539	87	74	898	724			853		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	99	23	13	478	478	2	468	473				
Volume Left	0	0	13	0	0	0	0	0				
Volume Right	99	23	0	0	0	2	0	5				
cSH	539	898	724	1700	1700	1700	853	1700				
Volume to Capacity	0.18	0.03	0.02	0.28	0.28	0.00	0.00	0.28				
Queue Length 95th (ft)	17	2	1	0	0	0	0	0				
Control Delay (s)	13.2	9.1	10.1	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	A	B									
Approach Delay (s)	13.2	9.1	0.1	0.0								
Approach LOS	B	A										
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			42.9%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
78: Arrow Hwy & Indian Hill Blvd

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	1092	157	128	443	62	140	700	137	122	626	94
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			171			67			149			102
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	147	1187	171	139	482	67	152	761	149	133	680	102
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	19.0	37.0	37.0	13.0	31.0	31.0	14.0	28.0	28.0	12.0	26.0	26.0
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
Act Effect Green (s)	12.1	32.4	32.4	8.9	29.2	29.2	9.7	22.9	22.9	8.0	21.2	21.2
Actuated g/C Ratio	0.14	0.37	0.37	0.10	0.33	0.33	0.11	0.26	0.26	0.09	0.24	0.24
v/c Ratio	0.61	0.91	0.25	0.78	0.41	0.12	0.78	0.83	0.29	0.83	0.80	0.22
Control Delay	46.8	38.8	4.2	69.2	25.0	6.8	66.0	39.9	6.2	79.5	40.0	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.8	38.8	4.2	69.2	25.0	6.8	66.0	39.9	6.2	79.5	40.0	7.3
LOS	D	D	A	E	C	A	E	D	A	E	D	A
Approach Delay		35.7			32.2			38.9			42.1	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	80	333	0	79	111	0	85	212	0	76	190	0
Queue Length 95th (ft)	137	#466	40	#176	162	29	#184	282	44	#179	255	38
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	301	1326	700	181	1172	569	201	964	539	160	884	472
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.90	0.24	0.77	0.41	0.12	0.76	0.79	0.28	0.83	0.77	0.22

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 37.3

Intersection LOS: D

Intersection Capacity Utilization 76.7%

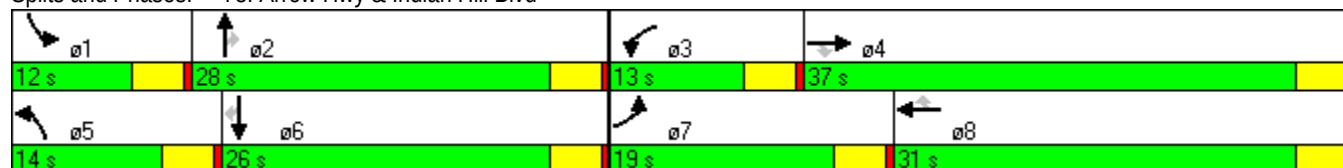
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

79: Bonita Ave & College Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	76	14	53	46	42	78	32	235	11	8	243	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	15	58	50	46	85	35	255	12	9	264	37
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	155	180	290	12	310							
Volume Left (vph)	83	50	35	0	9							
Volume Right (vph)	58	85	0	12	37							
Hadj (s)	-0.08	-0.19	0.09	-0.67	-0.03							
Departure Headway (s)	5.9	5.8	6.0	5.3	5.5							
Degree Utilization, x	0.26	0.29	0.49	0.02	0.48							
Capacity (veh/h)	535	554	559	638	614							
Control Delay (s)	10.9	11.1	13.4	7.2	13.4							
Approach Delay (s)	10.9	11.1	13.2		13.4							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.5									
HCM Level of Service			B									
Intersection Capacity Utilization			49.3%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
80: First St & College Ave

No Build Alternative

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	49	124	64	28	122	46	23	198	49	48	239	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	135	70	30	133	50	25	215	53	52	260	53
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	121	137	163	50	240	53	312	53				
Volume Left (vph)	53	0	30	0	25	0	52	0				
Volume Right (vph)	0	70	0	50	0	53	0	53				
Hadj (s)	0.25	-0.32	0.13	-0.67	0.09	-0.67	0.12	-0.67				
Departure Headway (s)	7.0	6.4	6.9	6.1	6.6	5.8	6.5	5.7				
Degree Utilization, x	0.23	0.24	0.31	0.09	0.44	0.09	0.56	0.08				
Capacity (veh/h)	480	522	484	538	515	580	534	595				
Control Delay (s)	10.9	10.3	11.9	8.5	13.4	8.2	16.2	8.0				
Approach Delay (s)	10.6		11.1		12.4		15.0					
Approach LOS	B		B		B		C					
Intersection Summary												
Delay			12.6									
HCM Level of Service			B									
Intersection Capacity Utilization			55.1%	ICU Level of Service					B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

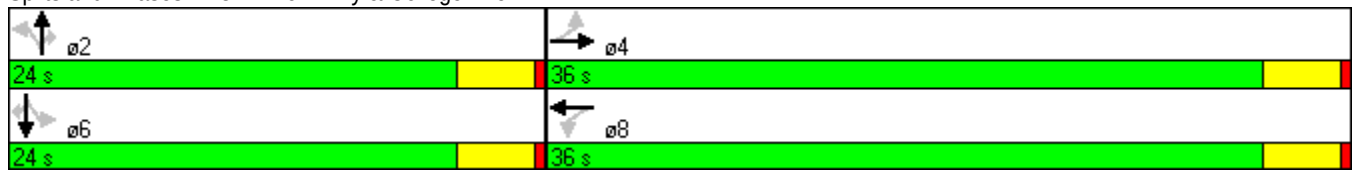
No Build Alternative

81: Arrow Hwy & College Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1049	32	25	583	76	16	49	33	110	104	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3525	0	1770	3479	0	0	1840	1583	1770	1863	1583
Flt Permitted	0.376			0.198				0.908		0.711		
Satd. Flow (perm)	700	3525	0	369	3479	0	0	1691	1583	1324	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			36				36			126
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1175	0	27	717	0	0	70	36	120	113	126
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	24.0	24.0	24.0	24.0	24.0	24.0
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
Act Effect Green (s)	25.7	25.7		25.7	25.7			10.7	10.7	10.7	10.7	10.7
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.18	0.51		0.11	0.31			0.15	0.08	0.33	0.22	0.24
Control Delay	6.4	6.7		6.5	5.1			15.2	6.8	17.9	15.7	5.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	6.7		6.5	5.1			15.2	6.8	17.9	15.7	5.2
LOS	A	A		A	A			B	A	B	B	A
Approach Delay		6.7			5.2			12.4			12.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	72		2	34			13	0	23	21	0
Queue Length 95th (ft)	31	166		14	84			42	17	69	61	31
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	552	2779		291	2748			960	914	751	1057	953
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.15	0.42		0.09	0.26			0.07	0.04	0.16	0.11	0.13
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 39.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.51												
Intersection Signal Delay: 7.3	Intersection LOS: A											
Intersection Capacity Utilization 56.1%	ICU Level of Service B											
Analysis Period (min) 15												

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	2	150	4	2	0	73	262	4	4	280	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.757			0.757			0.645			0.645		
Satd. Flow (perm)	1410	1863	1583	1410	1863	0	1201	3539	1583	1201	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			163						4			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	2	163	4	2	0	79	285	4	4	304	100
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	29.0	29.0	29.0	29.0
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
Act Effect Green (s)	11.4	11.4	11.4	9.3	9.3		10.9	10.9	10.9	9.1	9.1	9.1
Actuated g/C Ratio	0.49	0.49	0.49	0.40	0.40		0.47	0.47	0.47	0.39	0.39	0.39
v/c Ratio	0.26	0.00	0.19	0.01	0.00		0.14	0.17	0.01	0.01	0.22	0.15
Control Delay	7.7	6.0	2.3	6.0	6.0		7.5	6.6	5.0	6.5	6.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	6.0	2.3	6.0	6.0		7.5	6.6	5.0	6.5	6.8	2.8
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		5.1			6.0			6.8			5.8	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	14	0	0	0	0		6	11	0	0	12	0
Queue Length 95th (ft)	47	2	18	3	2		25	32	3	4	34	15
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1351	1785	1524	1351	1785		1119	3298	1475	1119	3298	1482
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.00	0.11	0.00	0.00		0.07	0.09	0.00	0.00	0.09	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 23.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 5.9

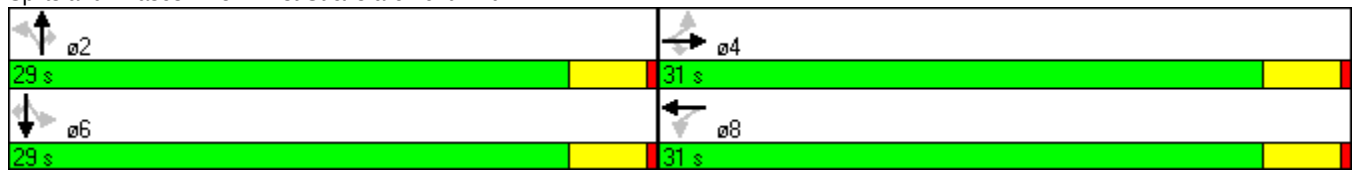
Intersection LOS: A

Intersection Capacity Utilization 37.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

83: Arrow Hwy & Claremont Blvd

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	1007	50	42	450	85	62	165	27	95	154	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			35			29				118
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	1149	0	46	581	0	67	208	0	103	167	118
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.0	23.0	0.0	8.0	20.0	0.0	8.0	21.0	0.0	8.0	21.0	21.0
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
Act Effect Green (s)	7.0	21.7		4.2	16.3		4.2	9.6		4.8	11.4	11.4
Actuated g/C Ratio	0.14	0.45		0.09	0.34		0.09	0.20		0.10	0.24	0.24
v/c Ratio	0.49	0.73		0.30	0.49		0.44	0.29		0.59	0.38	0.26
Control Delay	30.8	18.8		29.9	16.3		36.5	16.1		45.3	20.2	6.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	30.8	18.8		29.9	16.3		36.5	16.1		45.3	20.2	6.0
LOS	C	B		C	B		D	B		D	C	A
Approach Delay		20.0			17.3			21.1			22.5	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	36	122		13	73		20	24		31	44	0
Queue Length 95th (ft)	#103	#338		43	131		#71	48		#113	92	32
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	266	1580		152	1270		152	1282		174	679	652
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.47	0.73		0.30	0.46		0.44	0.16		0.59	0.25	0.18

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 19.8

Intersection LOS: B

Intersection Capacity Utilization 57.6%

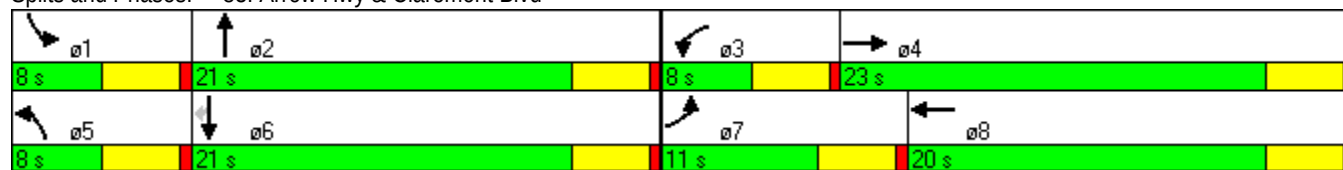
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 83: Arrow Hwy & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

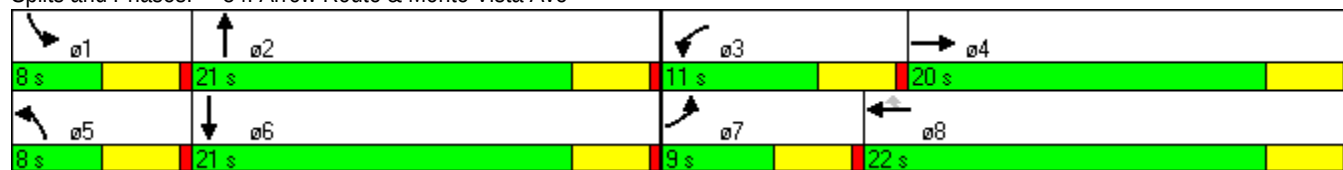
84: Arrow Route & Monte Vista Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	221	74	90	148	56	55	835	99	40	632	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74				61		34			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	320	0	98	161	61	60	1016	0	43	711	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	11.0	22.0	22.0	8.0	21.0	0.0	8.0	21.0	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
Act Effct Green (s)	5.6	9.5		7.3	12.0	12.0	4.5	16.8		4.5	15.4	
Actuated g/C Ratio	0.13	0.22		0.17	0.28	0.28	0.10	0.39		0.10	0.36	
v/c Ratio	0.19	0.40		0.33	0.31	0.13	0.17	0.52		0.23	0.39	
Control Delay	25.0	14.8		24.4	16.7	6.3	24.4	13.0		27.1	13.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.0	14.8		24.4	16.7	6.3	24.4	13.0		27.1	13.4	
LOS	C	B		C	B	A	C	B		C	B	
Approach Delay		16.0			17.1			13.6			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	12	33		27	29	0	8	68		12	62	
Queue Length 95th (ft)	41	67		71	87	23	25	146		41	101	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	231	1466		324	891	789	359	2335		185	2252	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.19	0.22		0.30	0.18	0.08	0.17	0.44		0.23	0.32	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 43.1												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.52												
Intersection Signal Delay: 14.6							Intersection LOS: B					
Intersection Capacity Utilization 48.5%							ICU Level of Service A					
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

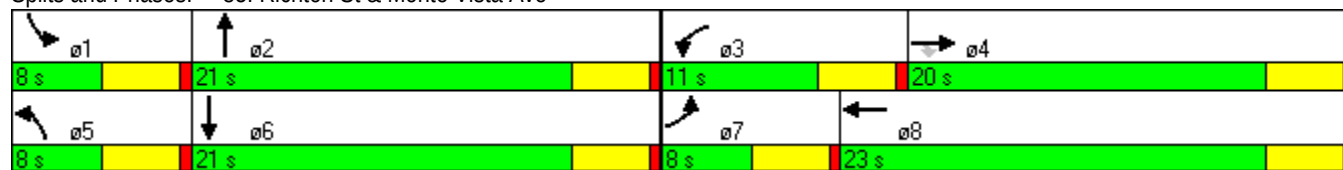


Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	0	0	103	0	104	1	879	70	51	753	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					353			21				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	0	0	112	113	0	1	1031	0	55	819	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	11.0	23.0	0.0	8.0	21.0	0.0	8.0	21.0	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
Act Effect Green (s)	5.1			9.0	7.5		5.1	19.7		5.1	20.9	
Actuated g/C Ratio	0.17			0.30	0.25		0.17	0.66		0.17	0.70	
v/c Ratio	0.00			0.21	0.11		0.00	0.31		0.09	0.23	
Control Delay	18.0			13.1	0.2		18.0	6.5		17.1	5.2	
Queue Delay	0.0			0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.0			13.1	0.2		18.0	6.5		17.1	5.2	
LOS	B			B	A		B	A		B	A	
Approach Delay					6.6			6.5			5.9	
Approach LOS					A			A			A	
Queue Length 50th (ft)	0			16	0		0	28		4	22	
Queue Length 95th (ft)	4			52	0		4	107		20	84	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)	304			582	2200		304	3338		589	3572	
Starvation Cap Reductn	0			0	0		0	0		0	0	
Spillback Cap Reductn	0			0	0		0	0		0	0	
Storage Cap Reductn	0			0	0		0	0		0	0	
Reduced v/c Ratio	0.00			0.19	0.05		0.00	0.31		0.09	0.23	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 29.7												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.31												
Intersection Signal Delay: 6.3	Intersection LOS: A											
Intersection Capacity Utilization 40.9%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair

86: Arrow Hwy & Monte Vista Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	833	218	46	337	99	144	683	60	104	661	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			89			10				116
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	1142	0	50	474	0	157	807	0	113	718	116
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	38.0	0.0	8.0	34.0	0.0	15.0	32.0	0.0	12.0	29.0	29.0
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
Act Effect Green (s)	7.9	31.2		4.1	23.5		10.5	24.5		8.0	22.0	22.0
Actuated g/C Ratio	0.10	0.39		0.05	0.29		0.13	0.31		0.10	0.27	0.27
v/c Ratio	0.51	0.84		0.28	0.32		0.68	0.75		0.65	0.74	0.22
Control Delay	43.2	29.7		45.2	18.2		53.1	30.7		57.4	32.9	6.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	43.2	29.7		45.2	18.2		53.1	30.7		57.4	32.9	6.5
LOS	D	C		D	B		D	C		E	C	A
Approach Delay		31.4			20.8			34.4			32.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	48	300		14	57		87	211		64	194	0
Queue Length 95th (ft)	81	#403		32	83		#179	281		#147	258	39
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)												
Base Capacity (vph)	353	1521		177	1948		250	1264		182	1136	587
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.48	0.75		0.28	0.24		0.63	0.64		0.62	0.63	0.20

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 31.0

Intersection LOS: C

Intersection Capacity Utilization 73.2%

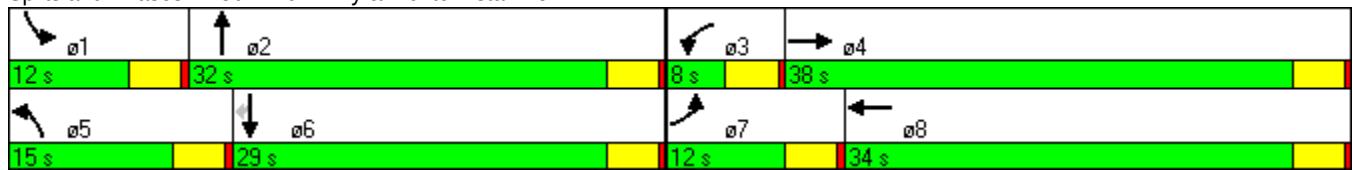
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

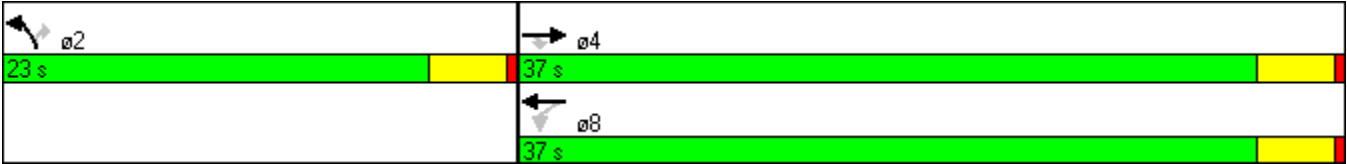


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

No Build Alternative
PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (vph)	918	74	50	404	63	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.275		0.950	
Satd. Flow (perm)	3539	1583	512	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		80				85
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	998	80	54	439	68	85
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	22.1	22.1	22.1	22.1	8.0	8.0
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.27	0.27
v/c Ratio	0.38	0.07	0.14	0.17	0.14	0.17
Control Delay	4.0	1.3	4.7	3.1	13.7	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	1.3	4.7	3.1	13.7	5.7
LOS	A	A	A	A	B	A
Approach Delay	3.8			3.3	9.3	
Approach LOS	A			A	A	
Queue Length 50th (ft)	44	0	4	15	10	0
Queue Length 95th (ft)	87	9	16	34	40	26
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3258	1464	471	3258	1244	1138
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.05	0.11	0.13	0.05	0.07
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 29.5						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.38						
Intersection Signal Delay: 4.1				Intersection LOS: A		
Intersection Capacity Utilization 42.2%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

No Build Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	268	101	209	320	44	63	738	208	68	828	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5019	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5019	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110		42			116			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	291	110	227	396	0	68	1028	0	74	982	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	12.0	22.0	0.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	6.0	10.1	10.1	8.2	16.8		4.1	15.2		4.1	16.8	
Actuated g/C Ratio	0.12	0.19	0.19	0.16	0.32		0.08	0.29		0.08	0.32	
v/c Ratio	0.33	0.42	0.28	0.81	0.24		0.49	0.67		0.53	0.60	
Control Delay	28.1	20.9	6.7	50.9	14.1		40.1	17.5		42.8	17.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	28.1	20.9	6.7	50.9	14.1		40.1	17.5		42.8	17.2	
LOS	C	C	A	D	B		D	B		D	B	
Approach Delay		18.6			27.5			18.9			19.0	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	20	44	0	72	34		21	90		23	95	
Queue Length 95th (ft)	55	73	32	#196	56		#74	146		#80	150	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	209	1117	575	279	1869		140	1630		140	1752	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.26	0.19	0.81	0.21		0.49	0.63		0.53	0.56	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 20.5

Intersection LOS: C

Intersection Capacity Utilization 55.0%

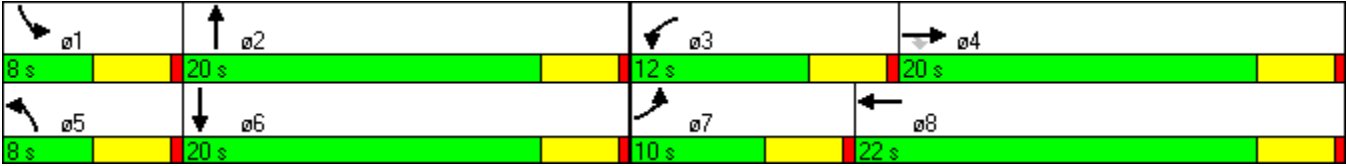
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

89: Richton St & Central Ave

No Build Alternative

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	69	110	99	117	43	101	877	58	45	1039	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1786	0	1770	3539	1583	1770	5060	0
Flt Permitted	0.632			0.708			0.173			0.286		
Satd. Flow (perm)	1177	1863	1583	1319	1786	0	322	3539	1583	533	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			120		30				63		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	75	120	108	174	0	110	953	63	49	1166	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	0.0	10.0	32.0	32.0	8.0	30.0	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
Act Effect Green (s)	11.1	11.1	11.1	11.2	11.2		27.7	28.4	28.4	24.2	24.0	
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25		0.63	0.64	0.64	0.55	0.54	
v/c Ratio	0.35	0.16	0.24	0.32	0.37		0.24	0.42	0.06	0.11	0.42	
Control Delay	21.6	17.8	5.8	20.7	17.3		5.7	8.1	3.1	5.2	10.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	21.6	17.8	5.8	20.7	17.3		5.7	8.1	3.1	5.2	10.3	
LOS	C	B	A	C	B		A	A	A	A	B	
Approach Delay		14.3			18.6			7.6			10.1	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	26	18	0	27	35		10	55	0	4	82	
Queue Length 95th (ft)	68	48	32	68	87		32	175	16	17	142	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	532	841	781	596	823		464	2303	1052	442	3085	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.20	0.09	0.15	0.18	0.21		0.24	0.41	0.06	0.11	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 55.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

No Build Alternative

90: Arrow Hwy & Central Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	601	203	163	282	55	127	858	114	89	939	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5014	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5014	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			221		60			39			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	653	221	177	367	0	138	1057	0	97	1130	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	11.0	21.0	0.0	9.0	20.0	0.0	9.0	20.0	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
Act Effect Green (s)	6.0	15.3	15.3	7.0	16.3		5.0	17.9		5.0	16.0	
Actuated g/C Ratio	0.10	0.26	0.26	0.12	0.27		0.08	0.30		0.08	0.27	
v/c Ratio	0.96	0.72	0.39	0.84	0.26		0.92	0.69		0.65	0.82	
Control Delay	89.5	25.1	5.3	62.8	14.4		89.1	21.4		49.9	26.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	89.5	25.1	5.3	62.8	14.4		89.1	21.4		49.9	26.4	
LOS	F	C	A	E	B		F	C		D	C	
Approach Delay		31.5			30.2			29.2			28.3	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	63	111	0	64	30		51	124		35	136	
Queue Length 95th (ft)	#168	162	43	#163	51		#144	168		#98	#193	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	179	956	589	210	1466		150	1535		150	1375	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.96	0.68	0.38	0.84	0.25		0.92	0.69		0.65	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 29.6

Intersection LOS: C

Intersection Capacity Utilization 66.4%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave

 ø1	 ø2	 ø3	 ø4
9 s	20 s	11 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	20 s	10 s	21 s

Appendix D

TSM (2035)

Synchro Analysis Output

AM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	↰↱	↱	↰↱			↰↱	
Volume (veh/h)	327	73	184	195	66	394	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	355	79	200	212	72	428	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	664	206			412		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	664	206			412		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	4	90			94		
cM capacity (veh/h)	369	800			1143		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	178	178	79	133	279	214	286
Volume Left	178	178	0	0	0	72	0
Volume Right	0	0	79	0	212	0	0
cSH	369	369	800	1700	1700	1143	1700
Volume to Capacity	0.48	0.48	0.10	0.08	0.16	0.06	0.17
Queue Length 95th (ft)	63	63	8	0	0	5	0
Control Delay (s)	23.5	23.5	10.0	0.0	0.0	3.2	0.0
Lane LOS	C	C	A			A	
Approach Delay (s)	21.0			0.0		1.4	
Approach LOS	C						
Intersection Summary							
Average Delay			7.3				
Intersection Capacity Utilization			43.5%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
2: Foothill Blvd & Barranca Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	186	176	207	640	35	174	302	122	114	444	172
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3281	0	1770	3511	0	1770	3387	0	1770	3391	0
Flt Permitted	0.300			0.520			0.350			0.486		
Satd. Flow (perm)	559	3281	0	969	3511	0	652	3387	0	905	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		191			11			133			98	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	393	0	225	734	0	189	461	0	124	670	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	27.0	27.0	0.0	27.0	27.0	0.0	33.0	33.0	0.0	33.0	33.0	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
Act Effect Green (s)	17.9	17.9		17.9	17.9		19.4	19.4		19.4	19.4	
Actuated g/C Ratio	0.39	0.39		0.39	0.39		0.42	0.42		0.42	0.42	
v/c Ratio	0.41	0.28		0.60	0.54		0.69	0.31		0.33	0.45	
Control Delay	19.6	6.5		21.4	13.5		26.7	6.8		12.1	9.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.6	6.5		21.4	13.5		26.7	6.8		12.1	9.1	
LOS	B	A		C	B		C	A		B	A	
Approach Delay		8.9			15.4			12.5			9.5	
Approach LOS		A			B			B			A	
Queue Length 50th (ft)	17	18		48	77		41	29		22	55	
Queue Length 95th (ft)	60	50		#133	150		#133	57		57	96	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	310	1906		538	1954		437	2315		607	2306	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.21		0.42	0.38		0.43	0.20		0.20	0.29	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 12.0

Intersection LOS: B

Intersection Capacity Utilization 64.0%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair
2: Foothill Blvd & Barranca Ave

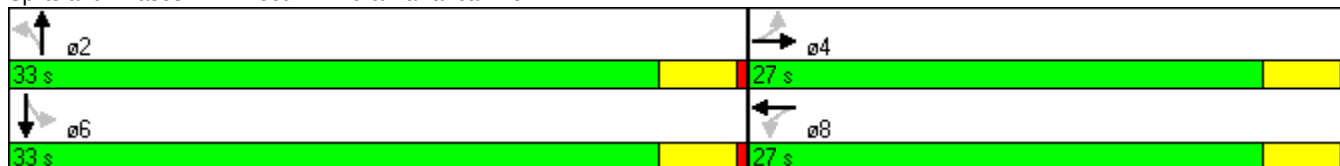
TSM Alternative
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	67	295	101	271	551	108	136	615	230	105	485	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3405	0	1770	3451	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	3451	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			27				250			107
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	431	0	295	716	0	148	668	250	114	527	114
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	13.0	20.0	0.0	27.0	34.0	0.0	18.0	28.0	28.0	15.0	25.0	25.0
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
Act Effect Green (s)	8.0	13.6		17.8	26.2		11.3	23.4	23.4	9.5	18.5	18.5
Actuated g/C Ratio	0.10	0.17		0.23	0.34		0.15	0.30	0.30	0.12	0.24	0.24
v/c Ratio	0.40	0.68		0.73	0.61		0.58	0.63	0.38	0.53	0.63	0.25
Control Delay	43.8	34.6		40.7	25.1		43.4	29.2	5.7	45.2	31.6	8.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	34.6		40.7	25.1		43.4	29.2	5.7	45.2	31.6	8.7
LOS	D	C		D	C		D	C	A	D	C	A
Approach Delay		35.9			29.7			25.7			30.2	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	37	102		147	170		75	165	0	58	127	3
Queue Length 95th (ft)	83	159		239	230		140	242	56	116	196	45
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	213	764		544	1399		331	1135	677	260	1005	526
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.56		0.54	0.51		0.45	0.59	0.37	0.44	0.52	0.22

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 77.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 29.5

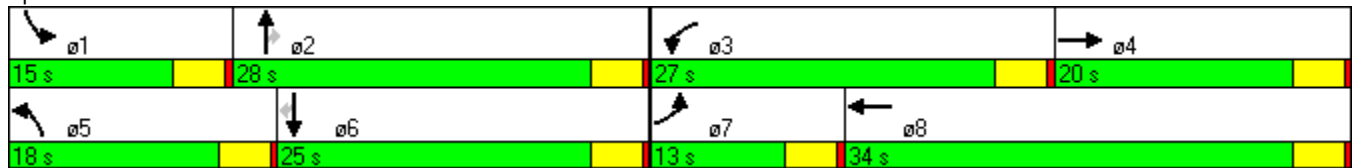
Intersection LOS: C

Intersection Capacity Utilization 62.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: Foothill Blvd & Grand Ave



Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

TSM Alternative
AM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	101	58	119	33	29	140			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	110	63	129	36	32	152			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage (veh)									
Upstream signal (ft)						1174			
pX, platoon unblocked									
vC, conflicting volume	362	147			165				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	362	147			165				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	82	93			98				
cM capacity (veh/h)	622	900			1413				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	173	165	184						
Volume Left	110	0	32						
Volume Right	63	36	0						
cSH	701	1700	1413						
Volume to Capacity	0.25	0.10	0.02						
Queue Length 95th (ft)	24	0	2						
Control Delay (s)	11.8	0.0	1.5						
Lane LOS	B		A						
Approach Delay (s)	11.8	0.0	1.5						
Approach LOS	B								
Intersection Summary									
Average Delay		4.4							
Intersection Capacity Utilization		36.4%	ICU Level of Service	A					
Analysis Period (min)		15							

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	520	10	10	1375	109	9	41	12	21	33	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1846	1583	0	1827	1583
Flt Permitted	0.950			0.950				0.922			0.848	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1717	1583	0	1580	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			51			13			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	565	11	11	1495	118	0	55	13	0	59	57
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	4.5	31.1	31.1	4.5	29.9	29.9		7.6	7.6		7.6	7.6
Actuated g/C Ratio	0.11	0.77	0.77	0.11	0.74	0.74		0.19	0.19		0.19	0.19
v/c Ratio	0.19	0.21	0.01	0.06	0.57	0.10		0.17	0.04		0.20	0.16
Control Delay	24.4	3.8	3.1	22.9	7.8	3.8		19.4	11.0		19.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	24.4	3.8	3.1	22.9	7.8	3.8		19.4	11.0		19.9	8.1
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		5.1			7.6			17.8			14.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	9	21	0	3	83	4		12	0		13	0
Queue Length 95th (ft)	34	73	5	16	265	29		40	12		43	24
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	199	2655	1191	199	2547	1153		774	721		712	745
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.19	0.21	0.01	0.06	0.59	0.10		0.07	0.02		0.08	0.08

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 54.7%

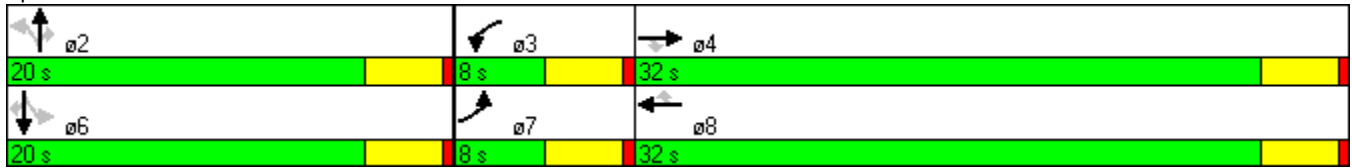
ICU Level of Service A

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

TSM Alternative
AM Peak Hour

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	353	22	60	828	77	60	106	33	35	105	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3507	0	1770	3493	0	1770	1796	0	0	1765	0
Flt Permitted	0.257			0.512			0.637				0.918	
Satd. Flow (perm)	479	3507	0	954	3493	0	1187	1796	0	0	1633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			23			30			47	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	408	0	65	984	0	65	151	0	0	228	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	26.0	26.0	0.0	26.0	26.0	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
Act Effect Green (s)	22.0	22.0		22.0	22.0		10.4	10.4			10.6	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.29	0.29			0.30	
v/c Ratio	0.08	0.19		0.11	0.46		0.19	0.28			0.44	
Control Delay	6.2	5.0		5.9	6.5		14.1	12.1			13.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	6.2	5.0		5.9	6.5		14.1	12.1			13.6	
LOS	A	A		A	A		B	B			B	
Approach Delay		5.1			6.5			12.7			13.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	2	18		6	56		10	18			29	
Queue Length 95th (ft)	12	46		23	125		40	66			97	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	390	2861		778	2851		773	1179			1080	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.06	0.14		0.08	0.35		0.08	0.13			0.21	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.7

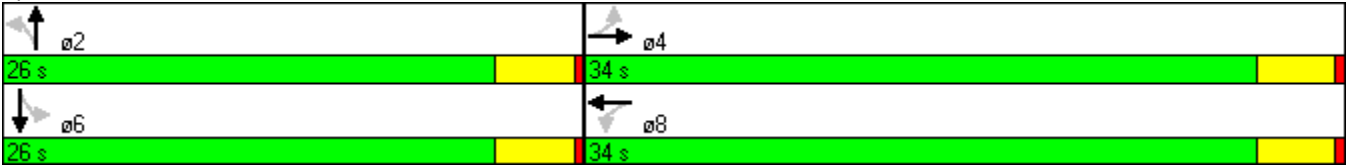
Intersection LOS: A

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

TSM Alternative
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	64	16	35	90	150	101
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	70	17	38	98	163	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	337	163	273			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	337	163	273			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	89	98	97			
cM capacity (veh/h)	639	882	1290			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	87	136	163	110		
Volume Left	70	38	0	0		
Volume Right	17	0	0	110		
cSH	676	1290	1700	1700		
Volume to Capacity	0.13	0.03	0.10	0.06		
Queue Length 95th (ft)	11	2	0	0		
Control Delay (s)	11.1	2.4	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	11.1	2.4	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay		2.6				
Intersection Capacity Utilization		29.1%		ICU Level of Service		A
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair
8: Foothill Blvd & Glendora Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	28	338	73	151	698	60	190	187	35	58	185	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			15				38			68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	30	446	0	164	824	0	207	203	38	63	201	68
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	4.2	12.0		5.3	18.8		7.4	13.8	13.8	6.2	10.9	10.9
Actuated g/C Ratio	0.09	0.24		0.11	0.38		0.15	0.28	0.28	0.13	0.22	0.22
v/c Ratio	0.20	0.51		0.86	0.61		0.78	0.39	0.08	0.28	0.49	0.17
Control Delay	28.4	17.7		70.4	17.8		49.5	18.7	7.0	27.0	22.5	6.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.4	17.7		70.4	17.8		49.5	18.7	7.0	27.0	22.5	6.6
LOS	C	B		E	B		D	B	A	C	C	A
Approach Delay		18.4			26.5			31.9			20.1	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	8	54		49	91		60	51	0	17	52	0
Queue Length 95th (ft)	33	101		#172	#232		#193	110	18	54	111	25
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	152	1211		190	1354		266	703	621	228	640	589
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.37		0.86	0.61		0.78	0.29	0.06	0.28	0.31	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 24.9

Intersection LOS: C

Intersection Capacity Utilization 58.1%

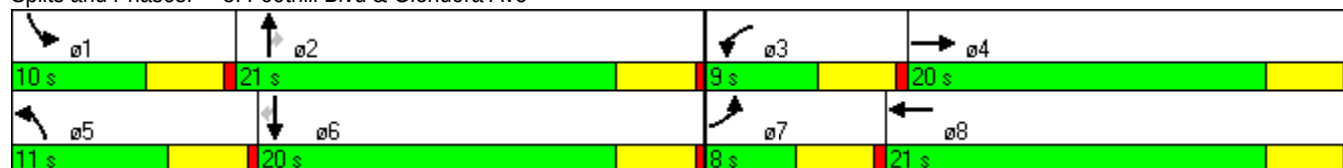
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
9: Ada Ave & Glendora Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	30	23	87	27	56	44	55	449	3	30	315	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	25	95	29	61	48	60	488	3	33	342	10
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	152	138	304	247	204	181						
Volume Left (vph)	33	29	60	0	33	0						
Volume Right (vph)	95	48	0	3	0	10						
Hadj (s)	-0.30	-0.13	0.13	0.02	0.11	0.00						
Departure Headway (s)	6.1	6.3	6.1	6.0	6.3	6.2						
Degree Utilization, x	0.26	0.24	0.52	0.41	0.36	0.31						
Capacity (veh/h)	532	513	561	578	540	550						
Control Delay (s)	11.2	11.3	14.4	12.0	11.7	10.8						
Approach Delay (s)	11.2	11.3	13.3		11.3							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.2									
HCM Level of Service			B									
Intersection Capacity Utilization			45.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	35	507	12	266	1202	157	138	553	371	106	351	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3479	0
Flt Permitted	0.242			0.275			0.428			0.276		
Satd. Flow (perm)	451	3539	1583	512	3539	1583	797	3539	1583	514	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			67			293		22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	551	13	289	1307	171	150	601	403	115	430	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	21.0	21.0	11.0	24.0	24.0	8.0	20.0	20.0	8.0	20.0	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
Act Effect Green (s)	18.0	13.9	13.9	24.9	22.3	22.3	17.6	14.7	14.7	17.6	14.7	
Actuated g/C Ratio	0.33	0.26	0.26	0.46	0.41	0.41	0.33	0.27	0.27	0.33	0.27	
v/c Ratio	0.15	0.61	0.03	0.72	0.89	0.25	0.45	0.63	0.63	0.44	0.45	
Control Delay	10.7	21.4	10.1	24.0	29.2	9.9	17.1	21.6	10.9	17.4	18.1	
Queue Delay	0.0	0.0	0.0	0.0	8.5	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.7	21.4	10.1	24.0	37.7	9.9	17.1	21.6	10.9	17.4	18.1	
LOS	B	C	B	C	D	A	B	C	B	B	B	
Approach Delay		20.5			32.8			17.3			18.0	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	7	88	1	62	196	20	32	94	29	24	60	
Queue Length 95th (ft)	20	132	11	#136	#410	66	68	148	107	54	101	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100		50	100		50	100		100	200		
Base Capacity (vph)	251	1147	520	403	1462	693	334	1079	686	263	1076	
Starvation Cap Reductn	0	0	0	0	142	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.15	0.48	0.03	0.72	0.99	0.25	0.45	0.56	0.59	0.44	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 24.6

Intersection LOS: C

Intersection Capacity Utilization 71.1%

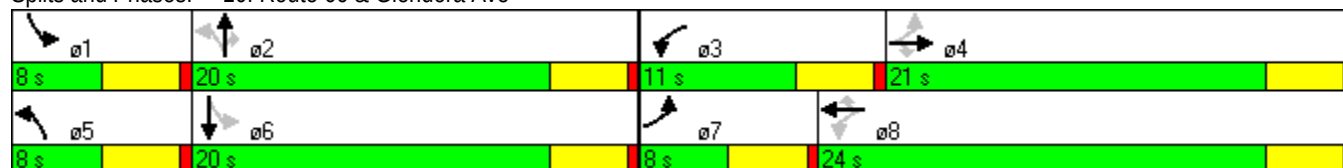
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
11: Lemon Ave & Pasadena Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	5	12	35	10	29	7	78	15	20	99	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	13	38	11	32	8	85	16	22	108	5
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	24	80	109	135								
Volume Left (vph)	5	38	8	22								
Volume Right (vph)	13	32	16	5								
Hadj (s)	-0.25	-0.11	-0.04	0.04								
Departure Headway (s)	4.3	4.4	4.2	4.3								
Degree Utilization, x	0.03	0.10	0.13	0.16								
Capacity (veh/h)	785	770	816	814								
Control Delay (s)	7.4	7.8	7.9	8.1								
Approach Delay (s)	7.4	7.8	7.9	8.1								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.9									
HCM Level of Service			A									
Intersection Capacity Utilization			26.4%	ICU Level of Service	A							
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	892	28	35	1526	76	43	22	58	45	24	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1716	0	0	1705	0
Flt Permitted	0.124			0.272				0.809			0.867	
Satd. Flow (perm)	231	3539	1583	507	3539	1583	0	1412	0	0	1500	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20			32		63			83	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	126	970	30	38	1659	83	0	134	0	0	158	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	33.7	33.5	33.5	32.2	30.4	30.4		8.4			8.4	
Actuated g/C Ratio	0.69	0.68	0.68	0.66	0.62	0.62		0.17			0.17	
v/c Ratio	0.43	0.40	0.03	0.09	0.75	0.08		0.45			0.48	
Control Delay	10.2	6.8	4.3	3.9	14.5	5.1		17.0			16.1	
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	10.2	7.0	4.3	3.9	14.5	5.1		17.0			16.1	
LOS	B	A	A	A	B	A		B			B	
Approach Delay		7.3			13.8			17.0			16.1	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	9	48	1	3	205	7		20			21	
Queue Length 95th (ft)	#45	160	12	12	#427	27		59			64	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	290	2421	1089	441	2199	996		523			566	
Starvation Cap Reductn	0	618	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.43	0.54	0.03	0.09	0.75	0.08		0.26			0.28	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 11.8

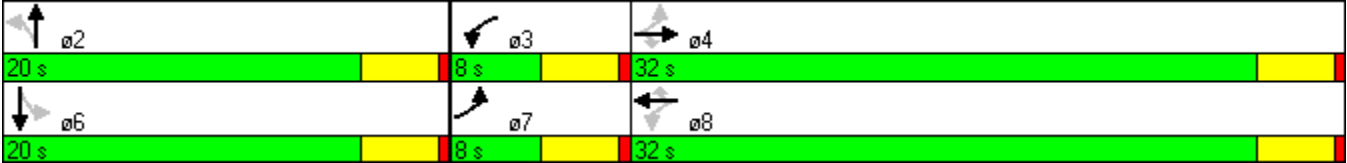
Intersection LOS: B

Intersection Capacity Utilization 69.2%

ICU Level of Service C

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair
13: Lemon Ave & Glenwood Ave

TSM Alternative
AM Peak Hour

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Volume (veh/h)	2	13	15	3	6	5	9	74	3	9	109	6								
Sign Control		Stop			Stop			Free			Free									
Grade		0%			0%			0%			0%									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92								
Hourly flow rate (vph)	2	14	16	3	7	5	10	80	3	10	118	7								
Pedestrians																				
Lane Width (ft)																				
Walking Speed (ft/s)																				
Percent Blockage																				
Right turn flare (veh)						2														
Median type								None			None									
Median storage veh																				
Upstream signal (ft)																				
pX, platoon unblocked																				
vC, conflicting volume	249	245	122	266	246	82	125			84										
vC1, stage 1 conf vol																				
vC2, stage 2 conf vol																				
vCu, unblocked vol	249	245	122	266	246	82	125			84										
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1										
tC, 2 stage (s)																				
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2										
p0 queue free %	100	98	98	100	99	99	99			99										
cM capacity (veh/h)	688	649	929	657	647	978	1462			1513										
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total	33	15	93	135																
Volume Left	2	3	10	10																
Volume Right	16	5	3	7																
cSH	768	1012	1462	1513																
Volume to Capacity	0.04	0.02	0.01	0.01																
Queue Length 95th (ft)	3	1	1	0																
Control Delay (s)	9.9	9.9	0.8	0.6																
Lane LOS	A	A	A	A																
Approach Delay (s)	9.9	9.9	0.8	0.6																
Approach LOS	A	A																		
Intersection Summary																				
Average Delay			2.3																	
Intersection Capacity Utilization			21.2%	ICU Level of Service						A										
Analysis Period (min)			15																	

Gold Line Foothill Extension - Azusa to Montclair
14: Route 66 & Glenwood Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	47	880	7	19	1629	41	12	3	6	87	1	51
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	957	8	21	1771	45	13	3	7	95	1	55
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					651							
pX, platoon unblocked	0.56						0.56	0.56		0.56	0.56	0.56
vC, conflicting volume	1815			964			2041	2915	478	2401	2878	885
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	874			964			1280	2848	478	1924	2782	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			97			74	59	99	0	88	91
cM capacity (veh/h)	428			710			50	8	533	14	9	604
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	51	478	478	8	21	885	885	45	23	151		
Volume Left	51	0	0	0	21	0	0	0	13	95		
Volume Right	0	0	0	8	0	0	0	45	7	55		
cSH	428	1700	1700	1700	710	1700	1700	1700	34	21		
Volume to Capacity	0.12	0.28	0.28	0.00	0.03	0.52	0.52	0.03	0.68	7.17		
Queue Length 95th (ft)	10	0	0	0	2	0	0	0	58	Err		
Control Delay (s)	14.6	0.0	0.0	0.0	10.2	0.0	0.0	0.0	234.5	Err		
Lane LOS	B				B				F	F		
Approach Delay (s)	0.7				0.1				234.5	Err		
Approach LOS									F	F		
Intersection Summary												
Average Delay			501.5									
Intersection Capacity Utilization			61.7%		ICU Level of Service				B			
Analysis Period (min)			15									

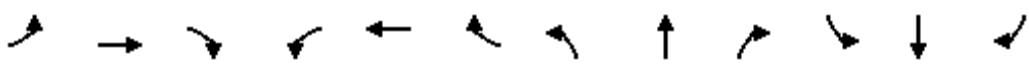
Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	23	8	7	12	0	1	100	2	7	108	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	25	9	8	13	0	1	109	2	8	117	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	251	246	117	266	245	110	117			111		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	251	246	117	266	245	110	117			111		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	98	100	100			99		
cM capacity (veh/h)	689	653	935	658	654	944	1471			1479		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	35	21	112	125								
Volume Left	1	8	1	8								
Volume Right	9	0	2	0								
cSH	707	655	1471	1479								
Volume to Capacity	0.05	0.03	0.00	0.01								
Queue Length 95th (ft)	4	2	0	0								
Control Delay (s)	10.4	10.7	0.1	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.4	10.7	0.1	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			21.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	842	24	23	1612	36	14	5	13	63	7	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1796	1583	0	1783	1583
Flt Permitted	0.950			0.950				0.841			0.756	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1567	1583	0	1408	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17			13			14			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	915	26	25	1752	39	0	20	14	0	76	57
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	10.0	60.0	60.0	9.0	59.0	59.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	6.0	54.1	54.1	5.1	49.9	49.9		17.5	17.5		17.5	17.5
Actuated g/C Ratio	0.07	0.65	0.65	0.06	0.60	0.60		0.21	0.21		0.21	0.21
v/c Ratio	0.45	0.40	0.03	0.23	0.82	0.04		0.06	0.04		0.26	0.15
Control Delay	51.8	7.6	3.7	46.0	17.4	5.4		30.7	15.1		34.0	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	51.8	7.6	3.7	46.0	17.4	5.4		30.7	15.1		34.0	10.0
LOS	D	A	A	D	B	A		C	B		C	A
Approach Delay		10.1			17.5			24.2			23.7	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	32	85	1	14	368	5		9	0		37	0
Queue Length 95th (ft)	#75	164	11	39	470	17		29	16		78	32
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	131	2571	1155	109	2409	1081		330	344		296	378
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.44	0.36	0.02	0.23	0.73	0.04		0.06	0.04		0.26	0.15

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 61.8%

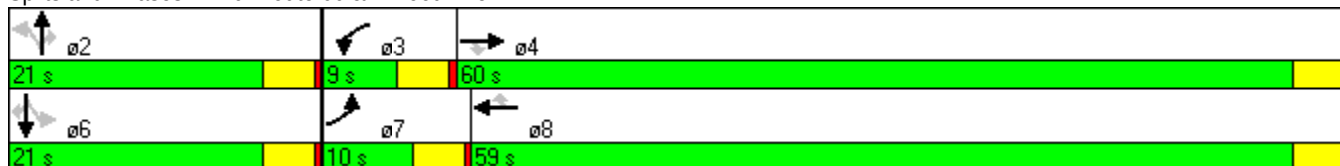
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



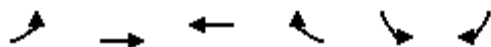
Gold Line Foothill Extension - Azusa to Montclair
17: Lemon Ave & Loraine Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	5	28	12	26	10	9	329	3	7	562	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	5	30	13	28	11	10	358	3	8	611	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	851	1008	307	733	1007	180	613			361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	851	1008	307	733	1007	180	613			361		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	98	96	95	88	99	99			99		
cM capacity (veh/h)	225	235	689	286	235	831	962			1194		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	50	52	189	182	313	308						
Volume Left	14	13	10	0	8	0						
Volume Right	30	11	0	3	0	2						
cSH	384	292	962	1700	1194	1700						
Volume to Capacity	0.13	0.18	0.01	0.11	0.01	0.18						
Queue Length 95th (ft)	11	16	1	0	0	0						
Control Delay (s)	15.8	20.0	0.6	0.0	0.3	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	15.8	20.0	0.3		0.1							
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			31.0%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

TSM Alternative
AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	126	842	1390	188	392	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				82		183
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	137	915	1511	204	426	193
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	9.0	39.0	30.0	30.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	5.0	35.1	26.1	26.1	12.3	12.3
Actuated g/C Ratio	0.09	0.63	0.47	0.47	0.22	0.22
v/c Ratio	0.86	0.41	0.91	0.26	0.56	0.39
Control Delay	73.5	6.1	25.0	7.0	22.0	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.5	6.1	25.0	7.0	22.0	6.4
LOS	E	A	C	A	C	A
Approach Delay		14.9	22.9		17.1	
Approach LOS		B	C		B	
Queue Length 50th (ft)	45	62	221	21	64	3
Queue Length 95th (ft)	#142	120	#422	61	100	43
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	160	2241	1665	788	1056	614
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.41	0.91	0.26	0.40	0.31

Intersection Summary

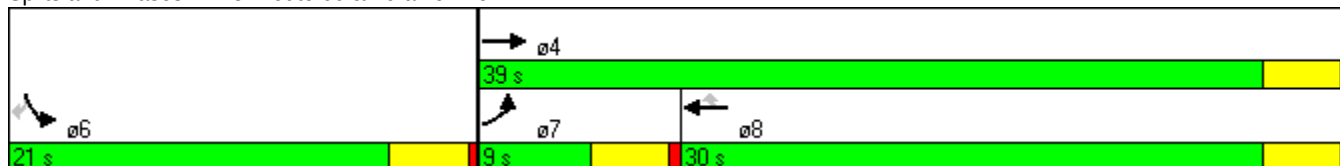
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	55.4
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.91
Intersection Signal Delay:	19.3
Intersection Capacity Utilization	66.6%
Intersection LOS:	B
ICU Level of Service	C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

TSM Alternative
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	359	411	568	218	734	999
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		447		237		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	390	447	617	237	798	1086
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	12.1	12.1	14.4	14.4	15.4	33.8
Actuated g/C Ratio	0.22	0.22	0.27	0.27	0.29	0.63
v/c Ratio	0.51	0.64	0.66	0.40	0.82	0.49
Control Delay	21.2	7.0	22.0	5.3	28.0	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	7.0	22.0	5.3	28.0	6.7
LOS	C	A	C	A	C	A
Approach Delay	13.6		17.4			15.7
Approach LOS	B		B			B
Queue Length 50th (ft)	59	0	93	0	128	82
Queue Length 95th (ft)	94	59	153	45	#234	144
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	1035	789	1067	643	1035	2400
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.57	0.58	0.37	0.77	0.45
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 54						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.82						
Intersection Signal Delay: 15.6				Intersection LOS: B		
Intersection Capacity Utilization 56.9%				ICU Level of Service B		

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

TSM Alternative
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	212	94	207	475	36	118
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	230	102	225	516	39	128
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			333		1248	282
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			333		1248	282
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			82		75	83
cM capacity (veh/h)			1227		156	757
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	333	225	516	167		
Volume Left	0	225	0	39		
Volume Right	102	0	0	128		
cSH	1700	1227	1700	399		
Volume to Capacity	0.20	0.18	0.30	0.42		
Queue Length 95th (ft)	0	17	0	51		
Control Delay (s)	0.0	8.6	0.0	20.4		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.6		20.4		
Approach LOS				C		
Intersection Summary						
Average Delay			4.3			
Intersection Capacity Utilization			47.6%	ICU Level of Service		A
Analysis Period (min)			15			

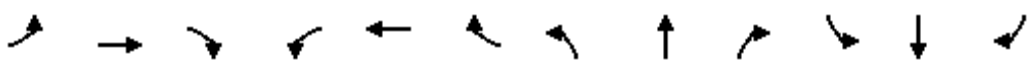
Gold Line Foothill Extension - Azusa to Montclair
21: Sierra Madre Ave & Glendora Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	290	42	87	501	1	131	8	36	7	12	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	315	46	95	545	1	142	9	39	8	13	10
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	371	639	1	151	39	21	10					
Volume Left (vph)	10	95	0	142	0	8	0					
Volume Right (vph)	46	0	1	0	39	0	10					
Hadj (s)	-0.03	0.11	-0.67	0.51	-0.67	0.22	-0.67					
Departure Headway (s)	6.2	5.9	5.1	7.7	6.5	7.9	7.0					
Degree Utilization, x	0.64	1.05	0.00	0.32	0.07	0.05	0.02					
Capacity (veh/h)	568	602	682	454	530	421	472					
Control Delay (s)	19.4	73.8	7.0	13.1	8.8	10.1	9.0					
Approach Delay (s)	19.4	73.7		12.2		9.7						
Approach LOS	C	F		B		A						
Intersection Summary												
Delay			46.3									
HCM Level of Service			E									
Intersection Capacity Utilization			73.8%	ICU Level of Service		D						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	229	2	84	6	0	2	48	517	6	38	820	404
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1740	0	3433	3532	0	1770	3539	1583
Flt Permitted	0.950	0.878					0.950			0.950		
Satd. Flow (perm)	1681	1554	2787	0	1807	0	3433	3532	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			91		2			2				439
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	124	127	91	0	9	0	52	569	0	41	891	439
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	10.0	30.0	30.0	20.0	20.0	0.0	8.0	21.0	0.0	9.0	22.0	22.0
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
Act Effect Green (s)	18.5	14.5	27.6		9.3		5.4	23.1		6.8	22.1	22.1
Actuated g/C Ratio	0.38	0.29	0.56		0.19		0.11	0.47		0.14	0.45	0.45
v/c Ratio	0.20	0.26	0.06		0.03		0.14	0.34		0.17	0.56	0.46
Control Delay	20.9	21.5	3.0		18.1		27.2	15.3		27.6	19.4	4.0
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.9	21.5	3.0		18.1		27.2	15.3		27.6	19.4	4.0
LOS	C	C	A		B		C	B		C	B	A
Approach Delay		16.3			18.1			16.3			14.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	27	28	0		2		9	69		14	156	0
Queue Length 95th (ft)	#127	#130	11		11		24	136		40	#251	56
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	631	495	1601		763		378	1658		244	1590	953
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.20	0.26	0.06		0.01		0.14	0.34		0.17	0.56	0.46

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 43.8%

ICU Level of Service A

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

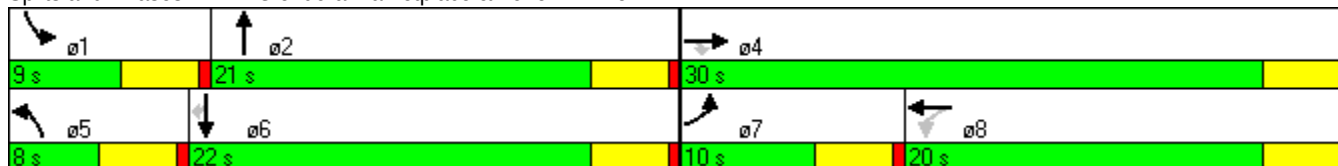
TSM Alternative
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

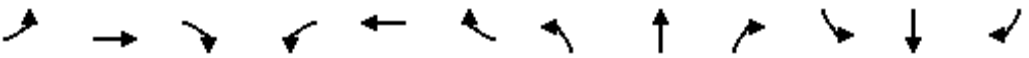
Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
23: Gladstone St & Lone Hill Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔	↕↕		↔↔	↕↕	↔	↔↔	↕↕	↔
Volume (vph)	172	183	151	147	448	70	147	311	106	123	505	322
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		164			29				115			350
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	187	363	0	160	563	0	160	338	115	134	549	350
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	20.0	0.0	12.0	21.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	7.3	13.5		8.3	14.3		4.4	14.9	14.9	4.4	14.9	14.9
Actuated g/C Ratio	0.14	0.26		0.16	0.28		0.09	0.29	0.29	0.09	0.29	0.29
v/c Ratio	0.38	0.37		0.56	0.57		0.55	0.33	0.21	0.46	0.54	0.50
Control Delay	26.3	11.0		34.5	19.4		36.4	17.7	5.5	32.9	19.7	5.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	11.0		34.5	19.4		36.4	17.7	5.5	32.9	19.7	5.3
LOS	C	B		C	B		D	B	A	C	B	A
Approach Delay		16.2			22.7			20.3			16.6	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	31	29		54	85		28	48	0	23	84	0
Queue Length 95th (ft)	60	60		#133	130		#70	83	32	#56	135	53
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	511	1230		301	1271		292	1203	614	292	1203	769
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.30		0.53	0.44		0.55	0.28	0.19	0.46	0.46	0.46

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 18.8

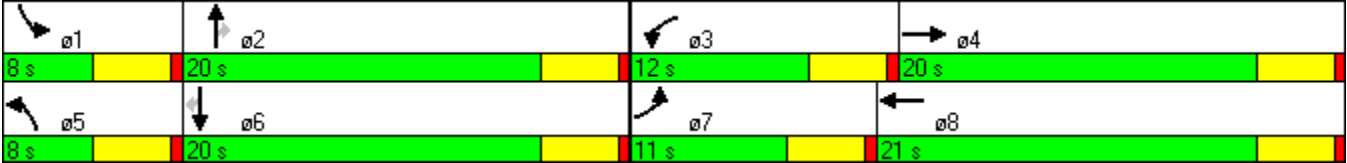
Intersection LOS: B

Intersection Capacity Utilization 51.0%

ICU Level of Service A

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

24: Arrow Hwy & SR-57 SB

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↑	↑↑↑		↑↑		↑	↑	↑	↑
Volume (vph)	0	857	41	176	858	375	17	0	18	170	63	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5050	0	1770	4851	0	3433	0	1583	1681	1729	1583
Flt Permitted				0.276			0.671			0.950	0.977	
Satd. Flow (perm)	0	5050	0	514	4851	0	2425	0	1583	1681	1729	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			329				20			141
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										32%		
Lane Group Flow (vph)	0	977	0	191	1341	0	18	0	20	126	127	234
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		27.7		27.7	27.7		10.3		10.3	10.3	10.3	10.3
Actuated g/C Ratio		0.59		0.59	0.59		0.22		0.22	0.22	0.22	0.22
v/c Ratio		0.33		0.63	0.45		0.03		0.06	0.34	0.34	0.51
Control Delay		5.0		18.5	4.3		16.9		8.9	20.4	20.2	12.6
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		5.0		18.5	4.3		16.9		8.9	20.4	20.2	12.6
LOS		A		B	A		B		A	C	C	B
Approach Delay		5.0			6.1						16.6	
Approach LOS		A			A						B	
Queue Length 50th (ft)		36		26	39		2		0	34	34	24
Queue Length 95th (ft)		73		#137	82		9		13	78	78	78
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3927		399	3841		907		604	629	646	680
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.25		0.48	0.35		0.02		0.03	0.20	0.20	0.34

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 7.5

Intersection LOS: A

Intersection Capacity Utilization 51.6%

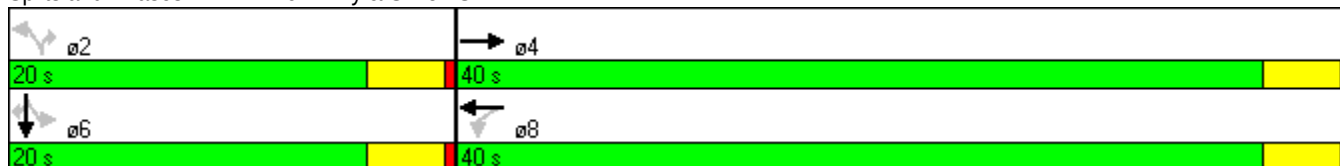
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

TSM Alternative
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	658	199	160	104	124	299	169	282	461	203	690	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3347	0	1770	3539	1583	3433	4612	0	1770	5045	0
Flt Permitted		0.715		0.164			0.950			0.950		
Satd. Flow (perm)	0	2470	0	305	3539	1583	3433	4612	0	1770	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36				325		400			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1105	0	113	135	325	184	808	0	221	795	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	51.0	51.0	0.0	51.0	51.0	51.0	12.0	20.0	0.0	19.0	27.0	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
Act Effect Green (s)		41.1		41.1	41.1	41.1	7.9	14.2		13.6	19.9	
Actuated g/C Ratio		0.51		0.51	0.51	0.51	0.10	0.17		0.17	0.25	
v/c Ratio		1.11dl		0.73	0.08	0.34	0.55	0.71		0.75	0.64	
Control Delay		26.5		47.8	10.7	2.4	44.5	20.2		51.2	30.3	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		26.5		47.8	10.7	2.4	44.5	20.2		51.2	30.3	
LOS		C		D	B	A	D	C		D	C	
Approach Delay		26.5			13.3			24.7			34.9	
Approach LOS		C			B			C			C	
Queue Length 50th (ft)		260		46	18	0	53	78		121	144	
Queue Length 95th (ft)		363		#146	33	39	87	123		#228	186	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1482		181	2102	1072	347	1252		336	1474	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.75		0.62	0.06	0.30	0.53	0.65		0.66	0.54	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 81.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 82.6%

ICU Level of Service E

Gold Line Foothill Extension - Azusa to Montclair
 25: SR-57 NB & Arrow Hwy

TSM Alternative
 AM Peak Hour

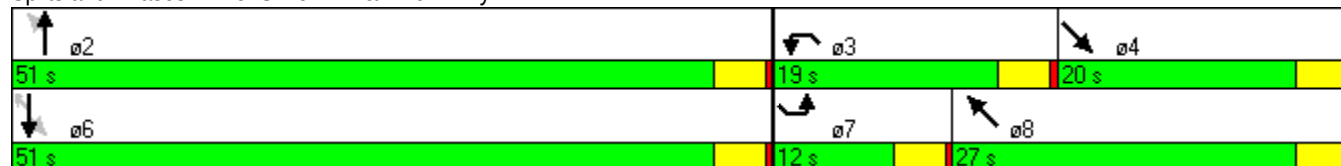
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair
26: Fifth St & Eucla Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	46	61	21	58	1	42	42	12	0	4	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	50	66	23	63	1	46	46	13	0	4	2
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	50	66	86	1	104	7						
Volume Left (vph)	0	0	23	0	46	0						
Volume Right (vph)	0	66	0	1	13	2						
Hadj (s)	0.03	-0.67	0.17	-0.67	0.05	-0.17						
Departure Headway (s)	4.9	4.2	5.0	4.2	4.4	4.3						
Degree Utilization, x	0.07	0.08	0.12	0.00	0.13	0.01						
Capacity (veh/h)	719	832	690	827	777	778						
Control Delay (s)	7.0	6.3	7.5	6.0	8.1	7.4						
Approach Delay (s)	6.6		7.5		8.1	7.4						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.4									
HCM Level of Service			A									
Intersection Capacity Utilization			29.5%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

TSM Alternative
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	1	64	8	5	127
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1	70	9	5	138
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	218	70			78	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	218	70			78	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			100	
cM capacity (veh/h)	767	993			1520	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	70	9	5	138	
Volume Left	12	0	0	5	0	
Volume Right	1	0	9	0	0	
cSH	782	1700	1700	1520	1700	
Volume to Capacity	0.02	0.04	0.01	0.00	0.08	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.7	0.0	0.0	7.4	0.0	
Lane LOS	A			A		
Approach Delay (s)	9.7	0.0		0.3		
Approach LOS	A					
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			16.7%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	344	15	78	425	11	15	18	23	16	55	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3525	0	0	1737	0	0	1720	0
Flt Permitted	0.513			0.530				0.857			0.954	
Satd. Flow (perm)	956	3539	1583	987	3525	0	0	1509	0	0	1649	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16		5			25			87	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	374	16	85	474	0	0	61	0	0	164	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	11.6	11.6	11.6	13.3	13.3			7.8			7.9	
Actuated g/C Ratio	0.56	0.56	0.56	0.65	0.65			0.38			0.38	
v/c Ratio	0.07	0.19	0.02	0.13	0.21			0.10			0.24	
Control Delay	5.3	4.5	2.9	5.5	4.5			5.8			5.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	5.3	4.5	2.9	5.5	4.5			5.8			5.2	
LOS	A	A	A	A	A			A			A	
Approach Delay		4.5			4.6			5.8			5.2	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	3	13	0	6	16			3			6	
Queue Length 95th (ft)	11	31	4	21	38			17			31	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	920	3407	1525	950	3394			1454			1591	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.04	0.11	0.01	0.09	0.14			0.04			0.10	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 20.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 4.7

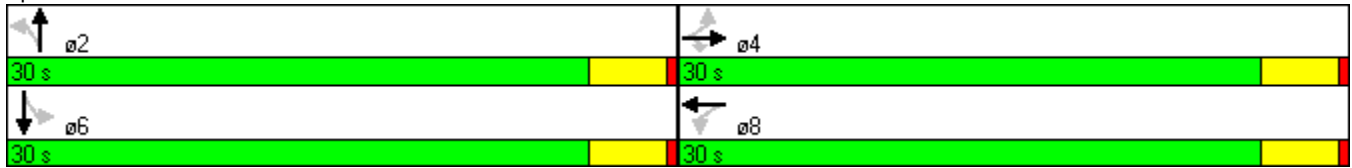
Intersection LOS: A

Intersection Capacity Utilization 34.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
29: Arrow Hwy & Eucla Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	1	384	93	348	780	12	16	44	178	18	120	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4938	0	1770	5075	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.317			0.349			0.674			0.726		
Satd. Flow (perm)	590	4938	0	650	5075	0	1255	1863	1583	1352	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		93			5				193			5
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	518	0	378	861	0	17	48	193	20	130	5
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	20.0	0.0	19.0	31.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	14.4	9.9		24.5	24.9		8.6	8.6	8.6	8.6	8.6	8.6
Actuated g/C Ratio	0.38	0.26		0.64	0.65		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.00	0.38		0.53	0.26		0.06	0.12	0.38	0.07	0.31	0.01
Control Delay	6.0	11.8		7.3	5.3		15.6	15.5	6.0	15.5	17.5	10.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.0	11.8		7.3	5.3		15.6	15.5	6.0	15.5	17.5	10.8
LOS	A	B		A	A		B	B	A	B	B	B
Approach Delay		11.8			5.9			8.4			17.0	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	0	28		34	26		3	9	0	4	25	0
Queue Length 95th (ft)	1	63		84	81		17	33	40	19	72	7
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	357	2329		900	3631		615	914	875	663	914	779
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.22		0.42	0.24		0.03	0.05	0.22	0.03	0.14	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 8.4

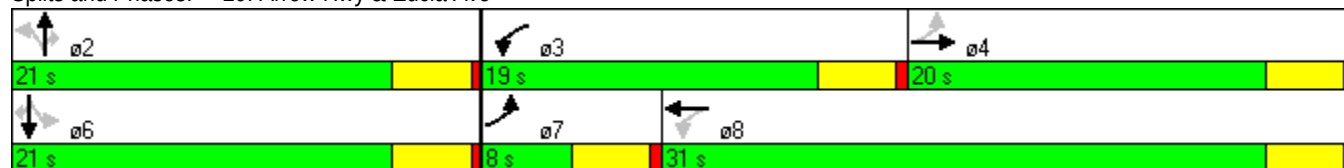
Intersection LOS: A

Intersection Capacity Utilization 46.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

TSM Alternative
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	52	5	7	67	12	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	57	5	8	73	13	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			62		147	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			62		147	59
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	100
cM capacity (veh/h)			1541		841	1006
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	62	80	17			
Volume Left	0	8	13			
Volume Right	5	0	4			
cSH	1700	1541	877			
Volume to Capacity	0.04	0.00	0.02			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.7	9.2			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.7	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		19.4%	ICU Level of Service	A		
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

31: Second St & Acacia St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	12	5	4	15	2	2	2	0	2	1	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	13	5	4	16	2	2	2	0	2	1	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	25	15	4	27	17	2	7			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	25	15	4	27	17	2	7			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	100	98	100	100			100		
cM capacity (veh/h)	968	877	1080	965	874	1082	1614			1620		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	18	23	4	9								
Volume Left	0	4	2	2								
Volume Right	5	2	0	5								
cSH	928	907	1614	1620								
Volume to Capacity	0.02	0.03	0.00	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.0	9.1	3.6	1.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.0	9.1	3.6	1.8								
Approach LOS	A	A										
Intersection Summary												
Average Delay			7.4									
Intersection Capacity Utilization			14.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	297	11	34	554	0	7	0	22	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	323	12	37	602	0	8	0	24	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	602			335			705	1005	167	861	1011	301
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	602			335			705	1005	167	861	1011	301
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			98	100	97	100	100	100
cM capacity (veh/h)	971			1221			315	233	847	236	231	695
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	0	215	120	37	401	201	8	24	1			
Volume Left	0	0	0	37	0	0	8	0	0			
Volume Right	0	0	12	0	0	0	0	24	1			
cSH	1700	1700	1700	1221	1700	1700	315	847	695			
Volume to Capacity	0.00	0.13	0.07	0.03	0.24	0.12	0.02	0.03	0.00			
Queue Length 95th (ft)	0	0	0	2	0	0	2	2	0			
Control Delay (s)	0.0	0.0	0.0	8.0	0.0	0.0	16.7	9.4	10.2			
Lane LOS				A			C	A	B			
Approach Delay (s)	0.0			0.5			11.1		10.2			
Approach LOS							B		B			
Intersection Summary												
Average Delay			0.7									
Intersection Capacity Utilization			34.5%		ICU Level of Service					A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	7	5	17	10	1	10	55	10	5	68	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	8	5	18	11	1	11	60	11	5	74	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	12			13			104	68	10	108	70	11
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	12			13			104	68	10	108	70	11
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	93	99	99	91	100
cM capacity (veh/h)	1607			1605			806	811	1071	805	809	1069
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	17	30	82	79								
Volume Left	4	18	11	5								
Volume Right	5	1	11	0								
cSH	1607	1605	837	808								
Volume to Capacity	0.00	0.01	0.10	0.10								
Queue Length 95th (ft)	0	1	8	8								
Control Delay (s)	1.8	4.4	9.8	9.9								
Lane LOS	A	A	A	A								
Approach Delay (s)	1.8	4.4	9.8	9.9								
Approach LOS			A	A								
Intersection Summary												
Average Delay			8.4									
Intersection Capacity Utilization			16.6%		ICU Level of Service				A			
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	13	266	10	100	533	10	13	50	25	8	49	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	289	11	109	579	11	14	54	27	9	53	37
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	159	155	398	301	68	27	62	37				
Volume Left (vph)	14	0	109	0	14	0	9	0				
Volume Right (vph)	0	11	0	11	0	27	0	37				
Hadj (s)	0.08	-0.01	0.17	0.01	0.14	-0.67	0.10	-0.67				
Departure Headway (s)	6.0	5.9	5.7	5.5	7.1	6.3	7.0	6.3				
Degree Utilization, x	0.27	0.26	0.63	0.46	0.13	0.05	0.12	0.06				
Capacity (veh/h)	571	584	622	638	472	525	471	526				
Control Delay (s)	10.0	9.8	16.6	11.9	10.0	8.4	9.8	8.5				
Approach Delay (s)	9.9		14.6		9.5		9.3					
Approach LOS	A		B		A		A					
Intersection Summary												
Delay			12.5									
HCM Level of Service			B									
Intersection Capacity Utilization			46.0%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
35: Second St & Monte Vista Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	18	2	6	16	8	0	22	4	0	21	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	20	2	7	17	9	0	24	4	0	23	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	70	54	26	64	55	26	29			28		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	70	54	26	64	55	26	29			28		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	100	99	98	99	100			100		
cM capacity (veh/h)	900	837	1050	911	836	1050	1584			1585		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	28	33	28	29								
Volume Left	7	7	0	0								
Volume Right	2	9	4	7								
cSH	864	900	1584	1585								
Volume to Capacity	0.03	0.04	0.00	0.00								
Queue Length 95th (ft)	3	3	0	0								
Control Delay (s)	9.3	9.2	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	9.3	9.2	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			4.7									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
36: Bonita Ave & Monte Vista Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	299	11	11	663	12	5	2	7	4	2	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	325	12	12	721	13	5	2	8	4	2	39
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					666							
pX, platoon unblocked	0.81						0.81	0.81		0.81	0.81	0.81
vC, conflicting volume	734			337			1155	1128	331	1124	1127	727
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556			337			1075	1042	331	1037	1041	548
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			96	99	99	97	99	91
cM capacity (veh/h)	824			1222			141	180	711	162	181	435
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	20	337	12	734	15	46						
Volume Left	20	0	12	0	5	4						
Volume Right	0	12	0	13	8	39						
cSH	824	1700	1222	1700	248	355						
Volume to Capacity	0.02	0.20	0.01	0.43	0.06	0.13						
Queue Length 95th (ft)	2	0	1	0	5	11						
Control Delay (s)	9.5	0.0	8.0	0.0	20.5	16.6						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.5		0.1		20.5	16.6						
Approach LOS					C	C						
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			45.6%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
37: Second St & San Dimas Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	10	7	1	8	15	7	397	4	8	533	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	11	8	1	9	16	8	432	4	9	579	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								780				
pX, platoon unblocked												
vC, conflicting volume	1064	1048	579	1057	1057	432	592			436		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1064	1048	579	1057	1057	432	592			436		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	95	99	99	96	97	99			99		
cM capacity (veh/h)	187	224	515	190	222	624	983			1124		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	26	26	8	432	4	9	579	13				
Volume Left	8	1	8	0	0	9	0	0				
Volume Right	8	16	0	0	4	0	0	13				
cSH	251	367	983	1700	1700	1124	1700	1700				
Volume to Capacity	0.10	0.07	0.01	0.25	0.00	0.01	0.34	0.01				
Queue Length 95th (ft)	9	6	1	0	0	1	0	0				
Control Delay (s)	21.0	15.6	8.7	0.0	0.0	8.2	0.0	0.0				
Lane LOS	C	C	A			A						
Approach Delay (s)	21.0	15.6	0.1			0.1						
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			38.9%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	238	15	92	469	81	62	238	61	131	273	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3433	0	1770	1783	0
Flt Permitted	0.338			0.599			0.391			0.555		
Satd. Flow (perm)	630	1863	1583	1116	1863	1583	728	3433	0	1034	1783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			58		63			40	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	259	16	100	510	88	67	325	0	142	415	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	0.0	28.0	28.0	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
Act Effect Green (s)	17.9	17.9	17.9	17.9	17.9	17.9	15.2	15.2		15.2	15.2	
Actuated g/C Ratio	0.43	0.43	0.43	0.43	0.43	0.43	0.36	0.36		0.36	0.36	
v/c Ratio	0.18	0.33	0.02	0.21	0.64	0.12	0.25	0.25		0.38	0.62	
Control Delay	10.5	9.9	4.7	9.8	14.4	4.7	13.8	8.7		14.7	15.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.5	9.9	4.7	9.8	14.4	4.7	13.8	8.7		14.7	15.4	
LOS	B	A	A	A	B	A	B	A		B	B	
Approach Delay		9.7			12.5			9.6			15.2	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	6	35	0	13	83	4	10	20		23	65	
Queue Length 95th (ft)	27	97	8	45	211	25	41	54		74	177	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	449	1329	1134	796	1329	1146	460	2192		654	1141	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.19	0.01	0.13	0.38	0.08	0.15	0.15		0.22	0.36	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 41.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 12.2

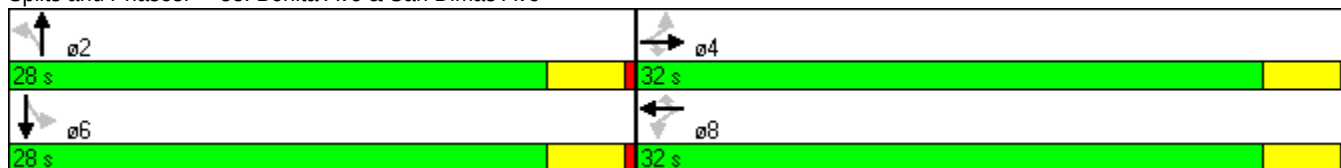
Intersection LOS: B

Intersection Capacity Utilization 65.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

39: Arrow Hwy & San Dimas Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	83	715	66	191	1355	69	146	220	233	107	154	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	5050	0	1770	1863	1583	1770	3348	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	5050	0	1770	1863	1583	1770	3348	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			13				223		95	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	849	0	208	1548	0	159	239	253	116	262	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	8.0	20.0	0.0	11.0	23.0	0.0	9.0	20.0	20.0	9.0	20.0	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
Act Effect Green (s)	4.1	14.9		7.1	19.9		5.1	14.1	14.1	5.1	11.8	
Actuated g/C Ratio	0.07	0.27		0.13	0.36		0.09	0.26	0.26	0.09	0.21	
v/c Ratio	0.69	0.62		0.91	0.84		0.98	0.50	0.44	0.71	0.33	
Control Delay	58.5	19.7		72.3	24.2		99.7	23.1	7.1	54.6	12.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	58.5	19.7		72.3	24.2		99.7	23.1	7.1	54.6	12.6	
LOS	E	B		E	C		F	C	A	D	B	
Approach Delay		23.5			29.9			35.6			25.5	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	31	88		72	181		~58	72	8	40	24	
Queue Length 95th (ft)	#102	132		#194	#297		#167	131	56	#120	50	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	130	1494		228	1836		163	548	623	163	1052	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.69	0.57		0.91	0.84		0.98	0.44	0.41	0.71	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 28.8

Intersection LOS: C

Intersection Capacity Utilization 63.2%

ICU Level of Service B

Analysis Period (min) 15

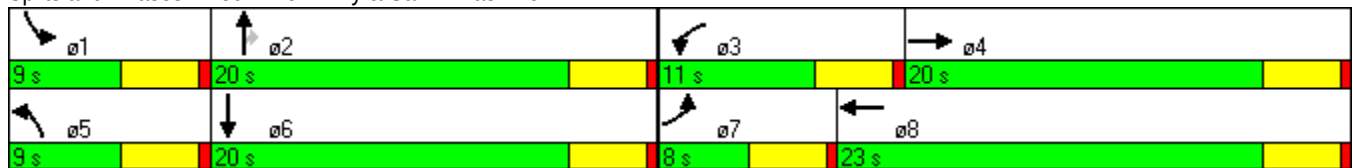
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair
40: Bonita Ave & Walnut Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	250	51	74	659	58	45	114	64	68	107	109
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3451	0	1770	3539	1583	1770	1762	0	1770	1721	0
Flt Permitted	0.379			0.554			0.613			0.636		
Satd. Flow (perm)	706	3451	0	1032	3539	1583	1142	1762	0	1185	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51				55		58			105	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	327	0	80	716	63	49	194	0	74	234	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	16.9	16.9		16.9	16.9	16.9	9.3	9.3		9.3	9.3	
Actuated g/C Ratio	0.58	0.58		0.58	0.58	0.58	0.32	0.32		0.32	0.32	
v/c Ratio	0.13	0.16		0.13	0.35	0.07	0.13	0.32		0.20	0.38	
Control Delay	6.4	4.5		6.1	6.0	2.6	11.1	9.2		11.6	8.2	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.4	4.5		6.1	6.0	2.6	11.1	9.2		11.6	8.2	
LOS	A	A		A	A	A	B	A		B	A	
Approach Delay		4.8			5.8			9.6			9.1	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	4	11		6	32	1	5	16		8	15	
Queue Length 95th (ft)	21	33		27	83	13	27	63		37	65	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	608	2977		888	3046	1370	937	1456		972	1431	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.09	0.11		0.09	0.24	0.05	0.05	0.13		0.08	0.16	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 29.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 6.6

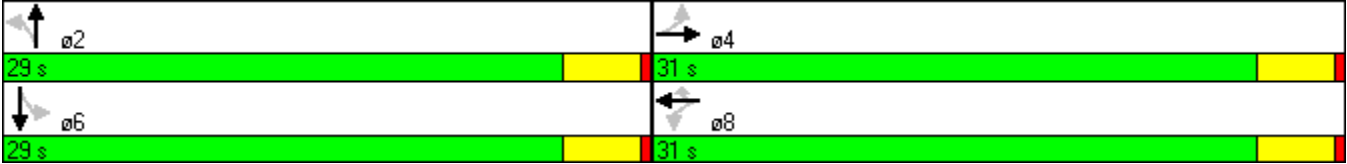
Intersection LOS: A

Intersection Capacity Utilization 50.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

41: Arrow Hwy & Walnut Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	756	45	21	1342	35	79	30	27	34	18	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5065	0	0	1798	1583	0	1805	1583
Flt Permitted	0.950			0.950				0.750			0.740	
Satd. Flow (perm)	1770	5045	0	1770	5065	0	0	1397	1583	0	1378	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			7				29			162
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	183	871	0	23	1497	0	0	119	29	0	57	162
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	14.0	31.0	0.0	8.0	25.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	9.8	32.5		4.6	24.2			10.0	10.0		9.9	9.9
Actuated g/C Ratio	0.21	0.69		0.10	0.52			0.21	0.21		0.21	0.21
v/c Ratio	0.50	0.25		0.13	0.57			0.40	0.08		0.20	0.35
Control Delay	25.8	5.0		26.0	13.7			23.2	8.2		19.6	6.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	25.8	5.0		26.0	13.7			23.2	8.2		19.6	6.3
LOS	C	A		C	B			C	A		B	A
Approach Delay		8.7			13.9			20.3			9.8	
Approach LOS		A			B			C			A	
Queue Length 50th (ft)	52	30		7	136			33	0		15	0
Queue Length 95th (ft)	#124	86		26	212			73	16		40	38
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	436	3506		174	2614			585	680		577	757
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.42	0.25		0.13	0.57			0.20	0.04		0.10	0.21

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 12.0

Intersection LOS: B

Intersection Capacity Utilization 58.6%

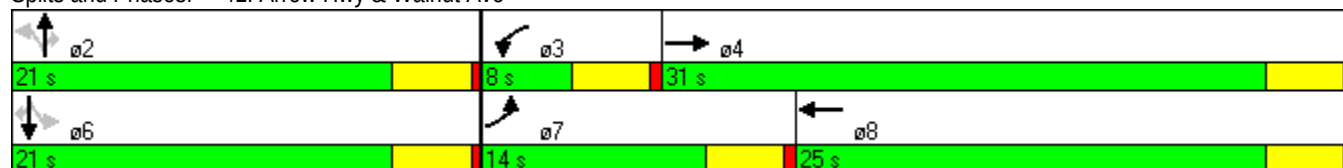
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	248	65	61	382	109	90	249	204	176	188	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.509			0.585			0.624			0.585		
Satd. Flow (perm)	948	3539	1583	1090	3539	1583	1162	3539	1583	1090	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			118			222			137
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	270	71	66	415	118	98	271	222	191	204	137
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	34.0	34.0	34.0	34.0	34.0	34.0
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
Act Effect Green (s)	10.3	10.3	10.3	10.3	10.3	10.3	11.9	11.9	11.9	11.9	11.9	11.9
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33	0.33	0.39	0.39	0.39	0.39	0.39	0.39
v/c Ratio	0.25	0.23	0.12	0.18	0.35	0.19	0.22	0.20	0.30	0.45	0.15	0.20
Control Delay	11.2	8.8	3.8	10.1	9.5	3.6	8.0	6.8	2.6	11.3	6.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	8.8	3.8	10.1	9.5	3.6	8.0	6.8	2.6	11.3	6.6	2.5
LOS	B	A	A	B	A	A	A	A	A	B	A	A
Approach Delay		8.4			8.4			5.4			7.2	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	8	14	0	6	22	0	9	12	0	19	9	0
Queue Length 95th (ft)	38	45	18	32	67	23	35	35	25	67	27	20
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	719	2685	1218	827	2685	1230	1049	3194	1450	984	3194	1442
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.10	0.06	0.08	0.15	0.10	0.09	0.08	0.15	0.19	0.06	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 30.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.3

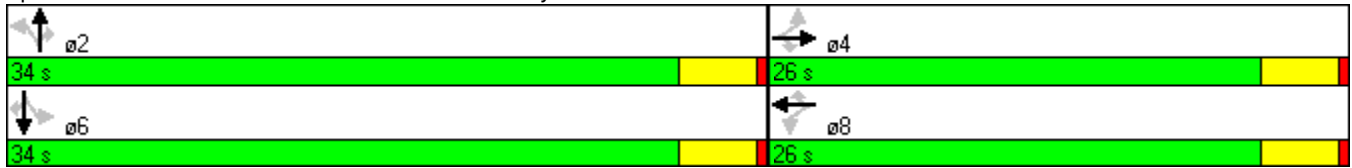
Intersection LOS: A

Intersection Capacity Utilization 44.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	238	510	18	25	1072	133	41	52	69	140	34	267
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	4999	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.155			0.425			0.733			0.720		
Satd. Flow (perm)	289	5060	0	792	4999	0	1365	1863	1583	1341	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		12			39				75			290
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	259	574	0	27	1310	0	45	57	75	152	37	290
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	16.0	32.0	0.0	8.0	24.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	34.1	31.2		23.3	19.2		11.3	11.3	11.3	11.3	11.3	11.3
Actuated g/C Ratio	0.64	0.58		0.44	0.36		0.21	0.21	0.21	0.21	0.21	0.21
v/c Ratio	0.54	0.19		0.06	0.72		0.16	0.15	0.19	0.54	0.09	0.52
Control Delay	11.5	6.7		6.2	17.8		18.8	18.2	6.5	26.8	17.6	6.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	6.7		6.2	17.8		18.8	18.2	6.5	26.8	17.6	6.4
LOS	B	A		A	B		B	B	A	C	B	A
Approach Delay		8.2			17.6			13.4			13.8	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	30	22		3	130		12	16	0	45	10	0
Queue Length 95th (ft)	97	60		11	196		34	39	26	93	29	49
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	522	2970		419	1926		415	567	534	408	567	683
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.19		0.06	0.68		0.11	0.10	0.14	0.37	0.07	0.42

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 13.9

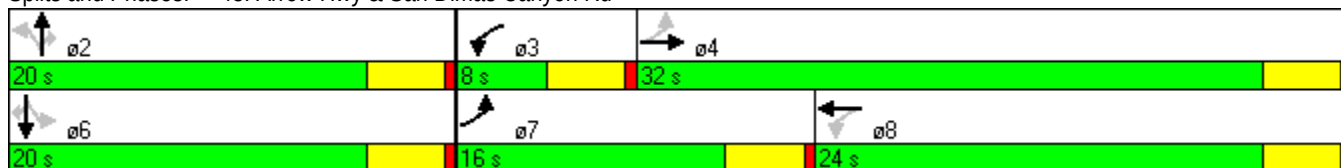
Intersection LOS: B

Intersection Capacity Utilization 61.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
44: Third St & Wheeler Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	9	49	17	8	39	30	300	9	52	535	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	10	53	18	9	42	33	326	10	57	582	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	975	1101	296	858	1102	168	592			336		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	975	1101	296	858	1102	168	592			336		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	95	92	91	96	95	97			95		
cM capacity (veh/h)	178	194	700	209	194	847	979			1220		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	27	53	27	42	196	173	347	302				
Volume Left	17	0	18	0	33	0	57	0				
Volume Right	0	53	0	42	0	10	0	11				
cSH	183	700	204	847	979	1700	1220	1700				
Volume to Capacity	0.15	0.08	0.13	0.05	0.03	0.10	0.05	0.18				
Queue Length 95th (ft)	13	6	11	4	3	0	4	0				
Control Delay (s)	28.0	10.6	25.3	9.5	1.7	0.0	1.7	0.0				
Lane LOS	D	B	D	A	A		A					
Approach Delay (s)	16.5		15.7		0.9		0.9					
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			44.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
45: Arrow Hwy & Wheeler Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	102	494	34	35	983	342	30	32	15	333	98	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5034	0	1770	4887	0	1770	1863	1583	0	3292	0
Flt Permitted	0.156			0.425			0.272				0.793	
Satd. Flow (perm)	291	5034	0	792	4887	0	507	1863	1583	0	2683	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			165				16		111	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	111	574	0	38	1440	0	33	35	16	0	661	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	10.0	28.0	0.0	8.0	26.0	0.0	24.0	24.0	24.0	24.0	24.0	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
Act Effect Green (s)	27.7	25.6		24.0	21.1		16.6	16.6	16.6		16.6	
Actuated g/C Ratio	0.52	0.48		0.45	0.39		0.31	0.31	0.31		0.31	
v/c Ratio	0.34	0.24		0.09	0.71		0.21	0.06	0.03		0.73	
Control Delay	9.9	9.4		7.4	15.5		18.5	14.1	7.5		19.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.9	9.4		7.4	15.5		18.5	14.1	7.5		19.4	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		9.5			15.2			14.6			19.4	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	17	33		6	139		8	8	0		87	
Queue Length 95th (ft)	39	69		17	193		28	25	11		141	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	326	2676		433	2216		200	736	635		1126	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.34	0.21		0.09	0.65		0.17	0.05	0.03		0.59	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 14.8

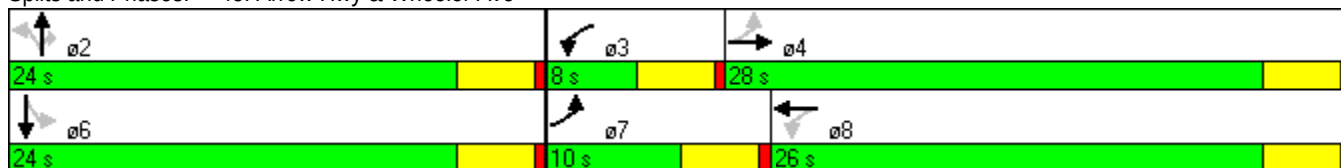
Intersection LOS: B

Intersection Capacity Utilization 67.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair
46: Third St & A St

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	58	3	3	62	2	15	52	11	0	48	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	63	3	3	67	2	16	57	12	0	52	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	70			66			180	146	63	184	147	67
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	70			66			180	146	63	184	147	67
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	92	99	100	93	99
cM capacity (veh/h)	1531			1535			729	743	1002	721	741	996
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	66	3	71	2	85	63						
Volume Left	3	0	3	0	16	0						
Volume Right	0	3	0	2	12	11						
cSH	1531	1700	1535	1700	768	776						
Volume to Capacity	0.00	0.00	0.00	0.00	0.11	0.08						
Queue Length 95th (ft)	0	0	0	0	9	7						
Control Delay (s)	0.4	0.0	0.4	0.0	10.3	10.1						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.4		0.3		10.3	10.1						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			23.3%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

47: First St & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	2	10	3	1	2	1	65	2	3	48	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	2	11	3	1	2	1	71	2	3	52	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	134	134	52	143	137	71	58			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134	134	52	143	137	71	58			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	99	100	100	100	100			100		
cM capacity (veh/h)	833	755	1015	813	752	992	1547			1527		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	5	11	7	72	2	55	5					
Volume Left	3	0	3	1	0	3	0					
Volume Right	0	11	2	0	2	0	5					
cSH	800	1015	853	1547	1700	1527	1700					
Volume to Capacity	0.01	0.01	0.01	0.00	0.00	0.00	0.00					
Queue Length 95th (ft)	1	1	1	0	0	0	0					
Control Delay (s)	9.5	8.6	9.3	0.1	0.0	0.4	0.0					
Lane LOS	A	A	A	A		A						
Approach Delay (s)	8.9		9.3	0.1		0.4						
Approach LOS	A		A									
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utilization			20.1%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

48: Arrow Hwy & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	32	776	5	8	1338	26	7	6	7	32	2	25
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	843	5	9	1454	28	8	7	8	35	2	27
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	1483			849			1446	2416	284	1847	2404	499
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1483			849			1446	2416	284	1847	2404	499
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			99			90	78	99	2	93	95
cM capacity (veh/h)	450			785			77	29	713	35	30	517
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	35	337	337	174	9	582	582	319	14	8	37	27
Volume Left	35	0	0	0	9	0	0	0	8	0	35	0
Volume Right	0	0	0	5	0	0	0	28	0	8	0	27
cSH	450	1700	1700	1700	785	1700	1700	1700	44	713	35	517
Volume to Capacity	0.08	0.20	0.20	0.10	0.01	0.34	0.34	0.19	0.32	0.01	1.06	0.05
Queue Length 95th (ft)	6	0	0	0	1	0	0	0	27	1	96	4
Control Delay (s)	13.7	0.0	0.0	0.0	9.6	0.0	0.0	0.0	121.4	10.1	341.7	12.3
Lane LOS	B				A				F	B	F	B
Approach Delay (s)	0.5				0.1				82.4		202.1	
Approach LOS									F		F	
Intersection Summary												
Average Delay			6.2									
Intersection Capacity Utilization			43.1%		ICU Level of Service				A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	27	19	9	106	30	67	103	11	19	164	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	29	21	10	115	33	73	112	12	21	178	52
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	65	158	197	251								
Volume Left (vph)	15	10	73	21								
Volume Right (vph)	21	33	12	52								
Hadj (s)	-0.11	-0.08	0.07	-0.07								
Departure Headway (s)	5.1	5.0	4.9	4.7								
Degree Utilization, x	0.09	0.22	0.27	0.33								
Capacity (veh/h)	625	656	698	729								
Control Delay (s)	8.6	9.4	9.6	9.9								
Approach Delay (s)	8.6	9.4	9.6	9.9								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.6									
HCM Level of Service			A									
Intersection Capacity Utilization			40.8%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
50: First St & D St

TSM Alternative
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	11	29	169	156	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	12	32	184	170	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	421	174	179			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	421	174	179			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	99	98			
cM capacity (veh/h)	576	869	1396			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	15	215	179			
Volume Left	3	32	0			
Volume Right	12	0	10			
cSH	783	1396	1700			
Volume to Capacity	0.02	0.02	0.11			
Queue Length 95th (ft)	1	2	0			
Control Delay (s)	9.7	1.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.7	1.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		1.0				
Intersection Capacity Utilization		32.6%		ICU Level of Service	A	
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

51: Arrow Hwy & D St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	704	29	14	1272	95	57	27	15	66	39	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5055	0	1770	5034	0	0	1801	1583	0	1805	1583
Flt Permitted	0.153			0.338				0.726			0.754	
Satd. Flow (perm)	285	5055	0	630	5034	0	0	1352	1583	0	1405	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			35				16			49
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	797	0	15	1486	0	0	91	16	0	114	51
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	28.0	28.0		28.0	28.0			9.6	9.6		9.6	9.6
Actuated g/C Ratio	0.69	0.69		0.69	0.69			0.24	0.24		0.24	0.24
v/c Ratio	0.31	0.23		0.03	0.43			0.29	0.04		0.34	0.12
Control Delay	10.1	3.9		4.2	4.8			19.3	9.5		20.1	7.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	10.1	3.9		4.2	4.8			19.3	9.5		20.1	7.5
LOS	B	A		A	A			B	A		C	A
Approach Delay		4.4			4.8			17.9			16.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	6	24		1	55			19	0		24	0
Queue Length 95th (ft)	32	51		7	108			60	12		72	23
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	239	4238		528	4223			630	747		655	764
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.25	0.19		0.03	0.35			0.14	0.02		0.17	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 5.9

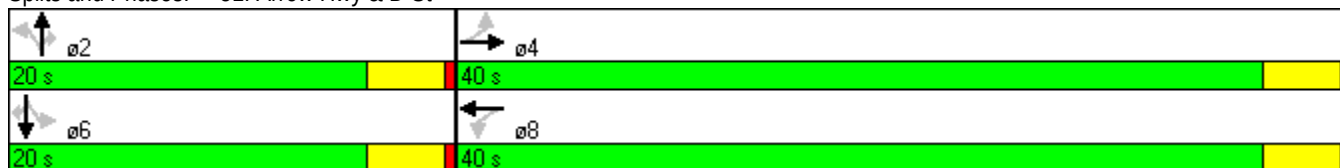
Intersection LOS: A

Intersection Capacity Utilization 52.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	19	16	23	74	24	66	175	7	9	222	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	21	17	25	80	26	72	190	8	10	241	9
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	33	17	105	26	262	8	251	9				
Volume Left (vph)	12	0	25	0	72	0	10	0				
Volume Right (vph)	0	17	0	26	0	8	0	9				
Hadj (s)	0.22	-0.67	0.15	-0.67	0.17	-0.67	0.05	-0.67				
Departure Headway (s)	6.2	5.4	6.0	5.2	5.4	4.6	5.3	4.6				
Degree Utilization, x	0.06	0.03	0.18	0.04	0.40	0.01	0.37	0.01				
Capacity (veh/h)	525	605	550	629	642	744	649	742				
Control Delay (s)	8.4	7.3	9.1	7.2	10.8	6.5	10.3	6.5				
Approach Delay (s)	8.0		8.8		10.6		10.1					
Approach LOS	A		A		B		B					
Intersection Summary												
Delay			9.9									
HCM Level of Service			A									
Intersection Capacity Utilization			46.9%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

53: Second St & E St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	10	30	6	34	13	47	221	5	1	254	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	11	33	7	37	14	51	240	5	1	276	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	0.97	0.97		0.97	0.97	0.97				0.97		
vC, conflicting volume	639	626	276	626	639	240	295			246		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	611	598	276	598	611	200	295			205		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	97	96	98	90	98	96			100		
cM capacity (veh/h)	346	386	763	364	379	815	1267			1324		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	51	58	291	5	277	18						
Volume Left	8	7	51	0	1	0						
Volume Right	33	14	0	5	0	18						
cSH	1022	500	1267	1700	1324	1700						
Volume to Capacity	0.05	0.12	0.04	0.00	0.00	0.01						
Queue Length 95th (ft)	4	10	3	0	0	0						
Control Delay (s)	11.9	14.2	1.7	0.0	0.0	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.9	14.2	1.7		0.0							
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			44.5%	ICU Level of Service						A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
54: First St & E St

TSM Alternative
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	14	14	254	16	26	259
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	15	276	17	28	282
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.92	0.92			0.92	
vC, conflicting volume	614	276			293	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	533	164			183	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	98			98	
cM capacity (veh/h)	455	807			1275	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	15	15	276	17	28	282
Volume Left	15	0	0	0	28	0
Volume Right	0	15	0	17	0	0
cSH	455	807	1700	1700	1275	1700
Volume to Capacity	0.03	0.02	0.16	0.01	0.02	0.17
Queue Length 95th (ft)	3	1	0	0	2	0
Control Delay (s)	13.2	9.5	0.0	0.0	7.9	0.0
Lane LOS	B	A			A	
Approach Delay (s)	11.4		0.0		0.7	
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			30.0%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

55: Arrow Hwy & E St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	15	532	234	145	1139	55	214	221	41	34	170	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4851	0	1770	5050	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4851	0	1770	5050	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		181			12				45			50
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	832	0	158	1298	0	233	240	45	37	185	50
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	22.0	22.0	9.0	20.0	20.0
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
Act Effect Green (s)	4.2	13.6		5.2	21.7		7.3	15.8	15.8	5.2	10.6	10.6
Actuated g/C Ratio	0.08	0.27		0.10	0.43		0.14	0.31	0.31	0.10	0.21	0.21
v/c Ratio	0.11	0.58		0.86	0.59		0.90	0.41	0.09	0.20	0.47	0.13
Control Delay	27.2	14.8		70.8	15.3		67.5	17.5	6.3	27.3	23.1	7.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	14.8		70.8	15.3		67.5	17.5	6.3	27.3	23.1	7.1
LOS	C	B		E	B		E	B	A	C	C	A
Approach Delay		15.0			21.3			39.0			20.7	
Approach LOS		B			C			D			C	
Queue Length 50th (ft)	5	62		51	103		~77	50	0	11	53	0
Queue Length 95th (ft)	22	108		#165	#245		#219	125	19	38	103	21
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	147	1734		184	2182		258	736	652	184	620	560
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.48		0.86	0.59		0.90	0.33	0.07	0.20	0.30	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 22.5

Intersection LOS: C

Intersection Capacity Utilization 60.7%

ICU Level of Service B

55: Arrow Hwy & E St

Analysis Period (min) 15

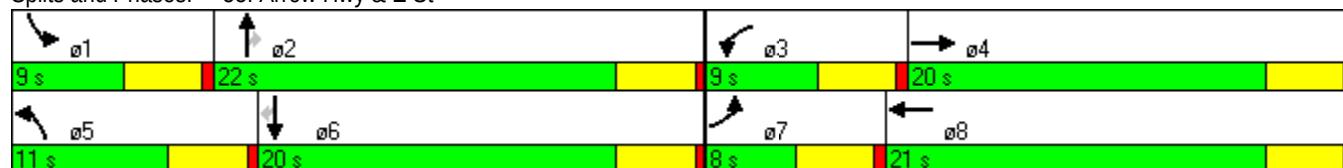
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1	22	3	5	19	59	533	3	2	706	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	24	3	5	21	64	579	3	2	767	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											296	
pX, platoon unblocked	0.75	0.75	0.75	0.75	0.75		0.75					
vC, conflicting volume	1503	1483	767	1504	1515	579	803			583		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1504	1477	525	1505	1520	579	573			583		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	94	95	93	96	91			100		
cM capacity (veh/h)	64	86	415	65	81	515	752			992		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	1	24	9	21	643	3	770	36				
Volume Left	0	0	3	0	64	0	2	0				
Volume Right	0	24	0	21	0	3	0	36				
cSH	86	415	74	515	752	1700	992	1700				
Volume to Capacity	0.01	0.06	0.12	0.04	0.09	0.00	0.00	0.02				
Queue Length 95th (ft)	1	5	9	3	7	0	0	0				
Control Delay (s)	47.2	14.2	59.7	12.3	2.2	0.0	0.1	0.0				
Lane LOS	E	B	F	B	A		A					
Approach Delay (s)	15.6		26.3		2.2		0.1					
Approach LOS	C		D									
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utilization			81.9%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	15	7	0	18	27	547	2	11	711	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	16	8	0	20	29	595	2	12	773	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												756
Upstream signal (ft)												
pX, platoon unblocked	0.79	0.79	0.79	0.79	0.79		0.79					
vC, conflicting volume	1470	1452	773	1467	1465	595	788			597		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1462	1440	582	1458	1456	595	601			597		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	96	90	100	96	96			99		
cM capacity (veh/h)	78	100	406	78	98	504	773			980		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	3	16	8	20	624	2	785	15				
Volume Left	2	0	8	0	29	0	12	0				
Volume Right	0	16	0	20	0	2	0	15				
cSH	84	406	78	504	773	1700	980	1700				
Volume to Capacity	0.04	0.04	0.10	0.04	0.04	0.00	0.01	0.01				
Queue Length 95th (ft)	3	3	8	3	3	0	1	0				
Control Delay (s)	49.4	14.2	56.2	12.4	1.0	0.0	0.3	0.0				
Lane LOS	E	B	F	B	A		A					
Approach Delay (s)	20.1		24.7		1.0		0.3					
Approach LOS	C		C									
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			63.3%		ICU Level of Service			B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
58: First St & White Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	2	10	13	3	38	34	554	26	39	684	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	14	3	41	37	602	28	42	743	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (ft)											1008	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1547	1533	743	1516	1515	602	754			630		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1555	1538	618	1519	1518	602	630			630		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	97	81	96	92	95			96		
cM capacity (veh/h)	66	90	420	75	93	499	816			952		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	2	11	17	41	37	602	28	786	11			
Volume Left	0	0	14	0	37	0	0	42	0			
Volume Right	0	11	0	41	0	0	28	0	11			
cSH	90	420	77	499	816	1700	1700	952	1700			
Volume to Capacity	0.02	0.03	0.22	0.08	0.05	0.35	0.02	0.04	0.01			
Queue Length 95th (ft)	2	2	20	7	4	0	0	3	0			
Control Delay (s)	45.8	13.8	64.5	12.9	9.6	0.0	0.0	1.2	0.0			
Lane LOS	E	B	F	B	A			A				
Approach Delay (s)	19.1		28.2		0.5			1.1				
Approach LOS	C		D									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			82.1%		ICU Level of Service				E			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

TSM Alternative
AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	5	25	560	9	25	679	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	5	27	609	10	27	738	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh							
Upstream signal (ft)			249				
pX, platoon unblocked	0.93	0.93			0.93		
vC, conflicting volume	1032	304			618		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	893	114			451		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	98	97			97		
cM capacity (veh/h)	256	856			1033		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	33	304	304	10	27	369	369
Volume Left	5	0	0	0	27	0	0
Volume Right	27	0	0	10	0	0	0
cSH	615	1700	1700	1700	1033	1700	1700
Volume to Capacity	0.05	0.18	0.18	0.01	0.03	0.22	0.22
Queue Length 95th (ft)	4	0	0	0	2	0	0
Control Delay (s)	11.2	0.0	0.0	0.0	8.6	0.0	0.0
Lane LOS	B				A		
Approach Delay (s)	11.2	0.0			0.3		
Approach LOS	B						
Intersection Summary							
Average Delay			0.4				
Intersection Capacity Utilization			30.8%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

TSM Alternative
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	246	335	86	106	440	135	52	420	175	90	961	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4963	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4963	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			93			147			171			65
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	267	364	93	115	478	147	57	647	0	98	1248	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	12.0	20.0	20.0	12.0	20.0	20.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	8.1	16.1	16.1	7.4	13.0	13.0	4.1	14.9		4.1	16.7	
Actuated g/C Ratio	0.15	0.30	0.30	0.14	0.24	0.24	0.08	0.27		0.08	0.31	
v/c Ratio	1.01	0.35	0.17	0.48	0.57	0.30	0.43	0.44		0.74	0.80	
Control Delay	90.3	18.2	5.7	30.6	21.4	5.7	38.3	13.7		64.3	23.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	90.3	18.2	5.7	30.6	21.4	5.7	38.3	13.7		64.3	23.3	
LOS	F	B	A	C	C	A	D	B		E	C	
Approach Delay		43.2			19.7			15.7			26.2	
Approach LOS		D			B			B			C	
Queue Length 50th (ft)	~108	56	0	37	76	0	19	47		34	142	
Queue Length 95th (ft)	#241	89	29	83	117	36	#62	79		#111	#234	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	264	1128	568	264	1057	576	132	1572		132	1569	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.01	0.32	0.16	0.44	0.45	0.26	0.43	0.41		0.74	0.80	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 26.2

Intersection LOS: C

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

60: White Ave & Arrow Hwy

TSM Alternative
AM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
12 s	20 s	8 s	20 s
 ø5	 ø6	 ø7	 ø8
12 s	20 s	8 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
61: Bonita Ave & D St

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	277	34	34	453	86	36	96	18	106	152	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1809	0	1770	1863	1583
Flt Permitted	0.431			0.577				0.881		0.825		
Satd. Flow (perm)	803	1863	1583	1075	1863	1583	0	1613	0	1537	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			37			70			13			161
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	301	37	37	492	93	0	163	0	115	165	161
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	25.0	25.0	0.0	25.0	25.0	25.0
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
Act Effect Green (s)	18.4	18.4	18.4	18.4	18.4	18.4		10.4		10.5	10.5	10.5
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58		0.33		0.33	0.33	0.33
v/c Ratio	0.20	0.28	0.04	0.06	0.46	0.10		0.30		0.23	0.27	0.26
Control Delay	7.4	6.7	2.7	5.9	8.2	2.9		12.0		12.2	12.2	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	7.4	6.7	2.7	5.9	8.2	2.9		12.0		12.2	12.2	4.0
LOS	A	A	A	A	A	A		B		B	B	A
Approach Delay		6.5			7.3			12.0			9.2	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	7	26	0	3	48	2		18		14	20	0
Queue Length 95th (ft)	35	87	10	16	155	19		73		57	75	31
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	706	1639	1397	945	1639	1401		1123		1066	1292	1147
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.13	0.18	0.03	0.04	0.30	0.07		0.15		0.11	0.13	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 8.1

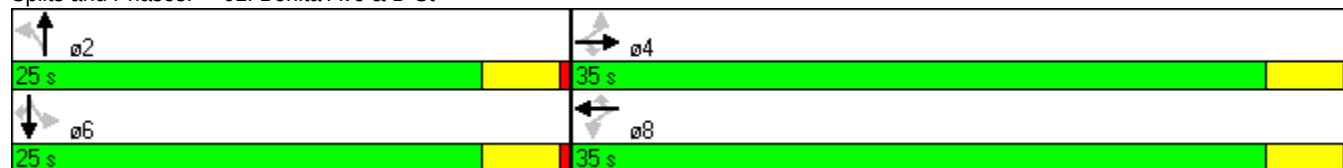
Intersection LOS: A

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair
62: Foothill Blvd & Fruit St

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	145	332	71	80	622	206	122	338	24	213	542	227
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		76				224		12				247
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	158	438	0	87	676	224	133	393	0	232	589	247
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	20.0	9.0	20.0	0.0	11.0	22.0	22.0
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
Act Effect Green (s)	5.0	17.2		5.0	15.0	15.0	5.0	13.4		7.1	17.5	17.5
Actuated g/C Ratio	0.09	0.30		0.09	0.27	0.27	0.09	0.24		0.13	0.31	0.31
v/c Ratio	1.00	0.28		0.55	0.72	0.38	0.44	0.47		1.05	0.54	0.37
Control Delay	107.8	14.2		42.3	24.4	5.3	30.7	19.9		106.9	19.3	4.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	107.8	14.2		42.3	24.4	5.3	30.7	19.9		106.9	19.3	4.6
LOS	F	B		D	C	A	C	B		F	B	A
Approach Delay		39.0			21.6			22.7			34.9	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	~64	36		31	114	0	23	59		~98	92	0
Queue Length 95th (ft)	#165	60		#87	169	44	47	94		#218	137	43
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	158	1560		158	1008	611	305	1006		221	1147	680
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	1.00	0.28		0.55	0.67	0.37	0.44	0.39		1.05	0.51	0.36

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

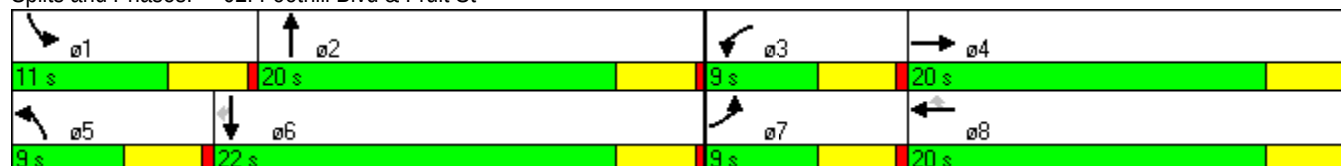
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	251	71	102	460	86	80	378	56	75	512	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.299			0.558			0.282			0.425		
Satd. Flow (perm)	557	1863	1583	1039	1863	1583	525	1863	1583	792	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			77			93			61			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	273	77	111	500	93	87	411	61	82	557	109
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	32.0	32.0	32.0	32.0	32.0	32.0
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
Act Effect Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	20.1	20.1	20.1	20.1	20.1	20.1
Actuated g/C Ratio	0.38	0.38	0.38	0.38	0.38	0.38	0.43	0.43	0.43	0.43	0.43	0.43
v/c Ratio	0.18	0.38	0.12	0.28	0.70	0.14	0.39	0.51	0.09	0.24	0.70	0.15
Control Delay	13.8	13.3	4.0	13.6	19.2	3.8	16.1	12.9	3.3	11.5	16.8	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	13.3	4.0	13.6	19.2	3.8	16.1	12.9	3.3	11.5	16.8	2.9
LOS	B	B	A	B	B	A	B	B	A	B	B	A
Approach Delay		11.5			16.3			12.4			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	7	51	0	20	110	0	16	78	0	14	118	0
Queue Length 95th (ft)	28	119	21	59	238	22	52	161	16	41	238	21
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	311	1041	918	580	1041	925	341	1210	1049	515	1210	1066
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.26	0.08	0.19	0.48	0.10	0.26	0.34	0.06	0.16	0.46	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 13.9

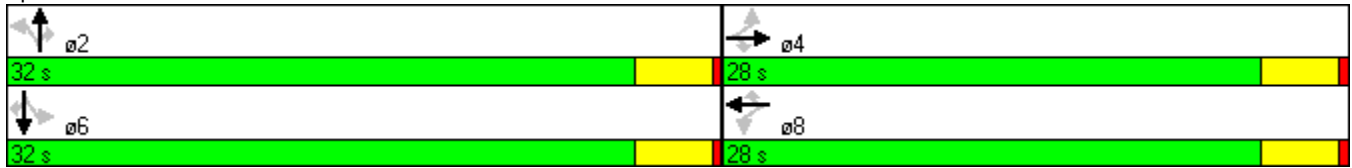
Intersection LOS: B

Intersection Capacity Utilization 72.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
64: McKinley Ave & White Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	75	59	67	160	63	87	424	100	7	514	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1764	1583	0	1835	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.525	0.976			0.873		0.950			0.950		
Satd. Flow (perm)	929	1727	1583	0	1626	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			68			109			143
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	49	87	64	0	247	68	95	461	109	8	559	143
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	13.0	29.0	29.0	8.0	24.0	24.0
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
Act Effect Green (s)	13.5	13.5	13.5		14.3	14.3	9.7	23.5	23.5	5.8	18.8	18.8
Actuated g/C Ratio	0.34	0.34	0.34		0.36	0.36	0.24	0.59	0.59	0.14	0.47	0.47
v/c Ratio	0.16	0.15	0.11		0.43	0.11	0.22	0.22	0.11	0.03	0.34	0.17
Control Delay	15.8	14.6	5.4		17.2	5.3	21.2	7.5	2.8	24.9	12.9	4.0
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	14.6	5.4		17.2	5.3	21.2	7.5	2.8	24.9	12.9	4.0
LOS	B	B	A		B	A	C	A	A	C	B	A
Approach Delay		11.9			14.7			8.7			11.2	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	10	18	0		57	0	23	27	0	2	63	0
Queue Length 95th (ft)	36	52	22		130	23	69	86	24	14	123	31
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	509	946	896		890	898	573	2511	1155	255	2003	958
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.07		0.28	0.08	0.17	0.18	0.09	0.03	0.28	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 11.0

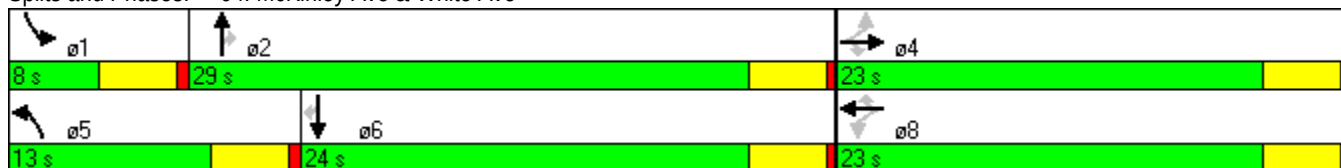
Intersection LOS: B

Intersection Capacity Utilization 48.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
65: Arrow Hwy & La Verne Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (veh/h)	3	352	0	1	573	7	245	0	5	5	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	383	0	1	623	8	266	0	5	5	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	630			383			703	1022	128	759	1014	311
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	630			383			703	1022	128	759	1014	311
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			17	100	99	98	100	100
cM capacity (veh/h)	948			1172			322	234	899	293	236	684
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	3	128	128	128	1	311	311	8	272	7		
Volume Left	3	0	0	0	1	0	0	0	266	5		
Volume Right	0	0	0	0	0	0	0	8	5	0		
cSH	948	1700	1700	1700	1172	1700	1700	1700	327	281		
Volume to Capacity	0.00	0.08	0.08	0.08	0.00	0.18	0.18	0.00	0.83	0.02		
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	180	2		
Control Delay (s)	8.8	0.0	0.0	0.0	8.1	0.0	0.0	0.0	52.5	18.1		
Lane LOS	A				A				F	C		
Approach Delay (s)	0.1				0.0				52.5	18.1		
Approach LOS									F	C		
Intersection Summary												
Average Delay				11.1								
Intersection Capacity Utilization			37.6%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	341	41	13	364	8	47	4	32	15	12	81
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	371	45	14	396	9	51	4	35	16	13	88
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	404			415			940	854	393	864	872	400
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	404			415			940	854	393	864	872	400
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			74	98	95	94	95	86
cM capacity (veh/h)	1154			1144			200	289	656	252	282	650
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	14	415	14	404	55	35	29	88				
Volume Left	14	0	14	0	51	0	16	0				
Volume Right	0	45	0	9	0	35	0	88				
cSH	1154	1700	1144	1700	205	656	265	650				
Volume to Capacity	0.01	0.24	0.01	0.24	0.27	0.05	0.11	0.14				
Queue Length 95th (ft)	1	0	1	0	26	4	9	12				
Control Delay (s)	8.2	0.0	8.2	0.0	29.0	10.8	20.3	11.4				
Lane LOS	A		A		D	B	C	B				
Approach Delay (s)	0.3		0.3		22.0		13.6					
Approach LOS					C		B					
Intersection Summary												
Average Delay			3.6									
Intersection Capacity Utilization			38.0%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	338	0	9	624	30	19	23	8	18	13	22
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	367	0	10	678	33	21	25	9	20	14	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	711			367			807	1148	122	891	1115	339
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	711			367			807	1148	122	891	1115	339
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			91	87	99	90	93	96
cM capacity (veh/h)	884			1188			242	190	906	205	199	657
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	25	147	147	73	10	339	339	33	21	34	34	24
Volume Left	25	0	0	0	10	0	0	0	21	0	20	0
Volume Right	0	0	0	0	0	0	0	33	0	9	0	24
cSH	884	1700	1700	1700	1188	1700	1700	1700	242	239	203	657
Volume to Capacity	0.03	0.09	0.09	0.04	0.01	0.20	0.20	0.02	0.09	0.14	0.17	0.04
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	7	12	15	3
Control Delay (s)	9.2	0.0	0.0	0.0	8.1	0.0	0.0	0.0	21.3	22.5	26.3	10.7
Lane LOS	A				A				C	C	D	B
Approach Delay (s)	0.6				0.1				22.0		19.8	
Approach LOS									C		C	
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			34.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	219	123	110	269	40	125	468	138	57	775	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.436			0.530			0.950			0.950		
Satd. Flow (perm)	812	1863	1583	987	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			134			43			150			140
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	238	134	120	292	43	136	509	150	62	842	140
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	14.0	29.0	29.0	10.0	25.0	25.0
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
Act Effect Green (s)	13.3	13.3	13.3	13.3	13.3	13.3	9.0	22.7	22.7	6.5	18.3	18.3
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.18	0.45	0.45	0.13	0.37	0.37
v/c Ratio	0.27	0.48	0.26	0.46	0.59	0.10	0.43	0.32	0.19	0.27	0.65	0.21
Control Delay	20.7	21.2	5.3	24.3	23.4	6.7	26.7	10.6	3.2	27.8	17.4	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.7	21.2	5.3	24.3	23.4	6.7	26.7	10.6	3.2	27.8	17.4	4.1
LOS	C	C	A	C	C	A	C	B	A	C	B	A
Approach Delay		16.2			22.1			11.9			16.2	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	16	69	0	35	88	0	42	56	0	20	118	0
Queue Length 95th (ft)	44	128	33	79	157	19	92	95	27	53	190	30
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	308	706	683	374	706	626	394	2033	973	237	1657	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.34	0.20	0.32	0.41	0.07	0.35	0.25	0.15	0.26	0.51	0.17

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 16.0

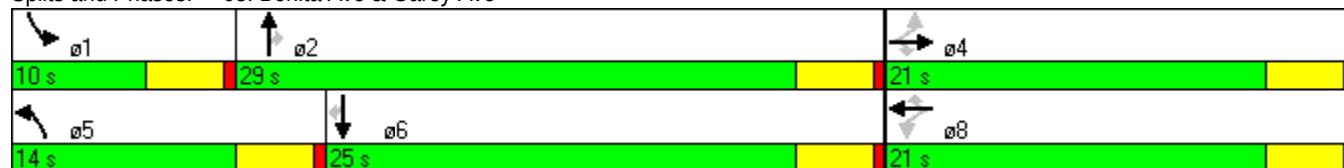
Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

TSM Alternative
AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	18	25	741	974	29
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	20	27	805	1059	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.91	0.91	0.91			
vC, conflicting volume	1532	545	1090			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1380	291	893			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	97	96			
cM capacity (veh/h)	118	639	685			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	20	27	403	403	706	384
Volume Left	0	27	0	0	0	0
Volume Right	20	0	0	0	0	32
cSH	639	685	1700	1700	1700	1700
Volume to Capacity	0.03	0.04	0.24	0.24	0.42	0.23
Queue Length 95th (ft)	2	3	0	0	0	0
Control Delay (s)	10.8	10.5	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	10.8	0.3			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			37.8%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
70: Arrow Hwy & Garey Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	610	110	139	740	139	126	595	133	119	761	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4968	0	1770	4963	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4968	0	1770	4963	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			62				107			40
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	783	0	151	955	0	137	647	145	129	827	70
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	21.0	21.0	9.0	21.0	21.0
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
Act Effect Green (s)	6.0	14.9		6.0	17.1		5.0	16.4	16.4	5.0	16.4	16.4
Actuated g/C Ratio	0.10	0.26		0.10	0.29		0.09	0.28	0.28	0.09	0.28	0.28
v/c Ratio	0.66	0.60		0.83	0.64		0.90	0.65	0.28	0.85	0.83	0.15
Control Delay	46.9	19.8		65.2	19.9		84.1	22.3	7.9	74.3	29.1	10.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	19.8		65.2	19.9		84.1	22.3	7.9	74.3	29.1	10.0
LOS	D	B		E	B		F	C	A	E	C	A
Approach Delay		23.4			26.1			29.2			33.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	43	82		55	105		51	107	10	47	146	8
Queue Length 95th (ft)	#114	116		#147	146		#143	157	46	#135	#234	33
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	182	1407		182	1500		152	1033	538	152	1033	490
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.56		0.83	0.64		0.90	0.63	0.27	0.85	0.80	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 28.1

Intersection LOS: C

Intersection Capacity Utilization 64.9%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave

 ø1	 ø2	 ø3	 ø4
9 s	21 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	21 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
71: Bonita Ave & Towne Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	121	80	128	198	75	167	870	96	105	988	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3394	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.570			0.615			0.221			0.267		
Satd. Flow (perm)	1062	3327	0	1146	3394	0	412	3539	1583	497	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		87			82				94			141
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	219	0	139	297	0	182	946	104	114	1074	177
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	11.4	11.4		11.4	11.4		28.9	28.9	28.9	28.9	28.9	28.9
Actuated g/C Ratio	0.23	0.23		0.23	0.23		0.59	0.59	0.59	0.59	0.59	0.59
v/c Ratio	0.23	0.26		0.52	0.35		0.75	0.45	0.11	0.39	0.52	0.18
Control Delay	20.0	11.6		26.4	13.6		32.2	6.5	1.9	10.6	7.0	2.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	11.6		26.4	13.6		32.2	6.5	1.9	10.6	7.0	2.2
LOS	B	B		C	B		C	A	A	B	A	A
Approach Delay		13.4			17.7			9.9			6.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	16	18		42	32		32	65	1	14	78	4
Queue Length 95th (ft)	42	42		89	60		#152	120	16	51	142	24
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	378	1238		407	1259		305	2625	1198	369	2625	1210
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.18		0.34	0.24		0.60	0.36	0.09	0.31	0.41	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 9.9

Intersection LOS: A

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

TSM Alternative
AM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	4	12	1186	35	41	1209		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	4	13	1289	38	45	1314		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None				None			
Median storage veh								
Upstream signal (ft)	932							
pX, platoon unblocked	0.80	0.80			0.80			
vC, conflicting volume	2035	645			1327			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1792	50			905			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	92	98			93			
cM capacity (veh/h)	53	805			597			
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	4	13	645	645	38	45	657	657
Volume Left	4	0	0	0	0	45	0	0
Volume Right	0	13	0	0	38	0	0	0
cSH	53	805	1700	1700	1700	597	1700	1700
Volume to Capacity	0.08	0.02	0.38	0.38	0.02	0.07	0.39	0.39
Queue Length 95th (ft)	6	1	0	0	0	6	0	0
Control Delay (s)	78.6	9.5	0.0	0.0	0.0	11.5	0.0	0.0
Lane LOS	F	A				B		
Approach Delay (s)	26.8		0.0			0.4		
Approach LOS	D							
Intersection Summary								
Average Delay			0.4					
Intersection Capacity Utilization			44.1%	ICU Level of Service			A	
Analysis Period (min)			15					

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

73: Arrow Hwy & Towne Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	362	70	116	773	227	171	759	102	229	996	286
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4963	0	1770	4912	0	1770	3476	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4963	0	1770	4912	0	1770	3476	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			75			17				169
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	469	0	126	1087	0	186	936	0	249	1083	311
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	16.0	23.0	0.0	16.0	23.0	0.0	15.0	33.0	0.0	18.0	36.0	36.0
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
Act Effect Green (s)	12.0	20.5		10.5	19.0		10.9	28.2		13.9	31.2	31.2
Actuated g/C Ratio	0.13	0.23		0.12	0.21		0.12	0.32		0.16	0.35	0.35
v/c Ratio	0.90	0.40		0.61	0.98		0.86	0.84		0.90	0.87	0.47
Control Delay	77.5	28.3		50.0	57.1		74.1	36.1		73.0	36.4	12.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	77.5	28.3		50.0	57.1		74.1	36.1		73.0	36.4	12.4
LOS	E	C		D	E		E	D		E	D	B
Approach Delay		43.7			56.3			42.4			37.4	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	122	77		68	213		105	252		141	296	56
Queue Length 95th (ft)	#252	109		125	#311		#223	331		#280	#394	129
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	238	1173		238	1106		218	1143		278	1270	677
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.90	0.40		0.53	0.98		0.85	0.82		0.90	0.85	0.46

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 89.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 44.5

Intersection LOS: D

Intersection Capacity Utilization 81.3%

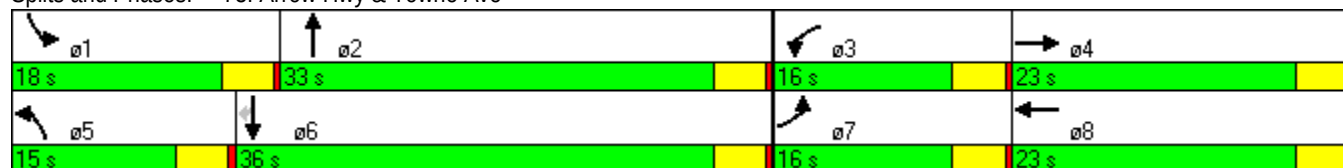
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

74: Harrison Ave & Garey Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	15	63	150	19	57	34	458	87	56	907	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1805	1583	0	1785	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.762			0.718		0.252			0.470		
Satd. Flow (perm)	0	1419	1583	0	1337	1583	469	3539	1583	875	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			68			62			95			16
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	68	0	184	62	37	498	95	61	986	21
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)		11.9	11.9		12.2	12.2	23.3	23.3	23.3	23.3	23.3	23.3
Actuated g/C Ratio		0.31	0.31		0.32	0.32	0.61	0.61	0.61	0.61	0.61	0.61
v/c Ratio		0.10	0.12		0.43	0.11	0.13	0.23	0.09	0.11	0.45	0.02
Control Delay		13.5	5.2		17.3	5.3	7.4	5.8	2.0	6.5	7.2	3.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.5	5.2		17.3	5.3	7.4	5.8	2.0	6.5	7.2	3.7
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		8.5			14.3			5.4			7.1	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		7	0		32	0	4	26	0	6	63	1
Queue Length 95th (ft)		31	23		103	22	20	67	16	25	147	8
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		802	925		756	922	387	2921	1323	722	2921	1309
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.06	0.07		0.24	0.07	0.10	0.17	0.07	0.08	0.34	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.5

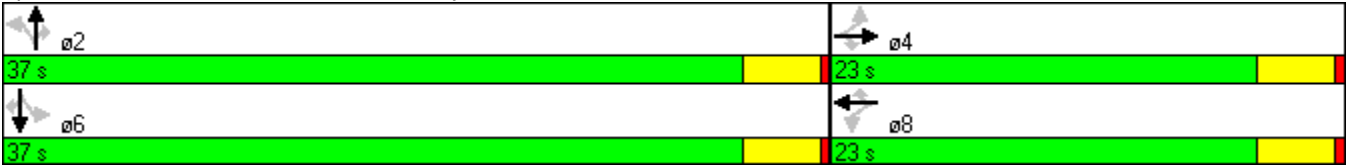
Intersection LOS: A

Intersection Capacity Utilization 54.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	111	148	16	79	29	112	475	27	43	518	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.701			0.679			0.365			0.409		
Satd. Flow (perm)	1306	1863	1583	1265	1863	1583	680	1863	1583	762	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			161			32			24			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	121	161	17	86	32	122	516	29	47	563	43
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	39.0	39.0	39.0	39.0	39.0	39.0
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
Act Effect Green (s)	9.8	9.8	9.8	9.8	9.8	9.8	17.2	17.2	17.2	17.3	17.3	17.3
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.55	0.55	0.55	0.55	0.55	0.55
v/c Ratio	0.17	0.21	0.27	0.04	0.15	0.06	0.33	0.50	0.03	0.11	0.55	0.05
Control Delay	13.4	13.2	4.6	12.6	12.7	6.3	8.2	7.5	2.7	5.4	8.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	13.2	4.6	12.6	12.7	6.3	8.2	7.5	2.7	5.4	8.1	2.1
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		9.3			11.2			7.4			7.5	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	9	16	0	2	11	0	10	47	1	3	53	0
Queue Length 95th (ft)	42	61	34	15	46	15	42	134	8	17	151	9
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	773	1103	1003	749	1103	951	628	1721	1464	704	1721	1466
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.11	0.16	0.02	0.08	0.03	0.19	0.30	0.02	0.07	0.33	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 53.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
76: First St & Indian Hill Blvd

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	13	54	87	19	49	42	533	139	43	597	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1855	0
Flt Permitted	0.744			0.748			0.950			0.950		
Satd. Flow (perm)	1386	1863	1583	1393	1863	1583	1770	1863	1583	1770	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			59			53			151			3
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	14	59	95	21	53	46	579	151	47	667	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0	32.0	32.0	8.0	32.0	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
Act Effect Green (s)	10.2	10.2	10.2	10.2	10.2	10.2	5.5	23.9	23.9	5.5	23.9	
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26	0.14	0.62	0.62	0.14	0.62	
v/c Ratio	0.01	0.03	0.13	0.26	0.04	0.12	0.18	0.50	0.15	0.19	0.58	
Control Delay	17.0	17.0	7.0	19.1	17.1	7.2	24.8	9.7	2.2	24.8	11.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.0	17.0	7.0	19.1	17.1	7.2	24.8	9.7	2.2	24.8	11.0	
LOS	B	B	A	B	B	A	C	A	A	C	B	
Approach Delay		9.2			15.1			9.1			11.9	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	0	3	0	18	4	0	10	63	0	10	78	
Queue Length 95th (ft)	5	16	24	62	20	22	43	226	23	43	280	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	697	936	825	700	936	822	250	1359	1196	250	1354	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.00	0.01	0.07	0.14	0.02	0.06	0.18	0.43	0.13	0.19	0.49	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
77: Santa Fe St & Indian Hill Blvd

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	16	0	0	10	44	720	7	0	703	40
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	11	48	783	8	0	764	43
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	1.00	1.00		1.00	1.00	1.00				1.00		
vC, conflicting volume	1284	1672	404	1278	1686	391	808			790		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1279	1668	404	1273	1682	384	808			784		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	100	100	98	94			100		
cM capacity (veh/h)	115	90	596	115	88	613	813			828		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	17	11	48	391	391	8	382	426				
Volume Left	0	0	48	0	0	0	0	0				
Volume Right	17	11	0	0	0	8	0	43				
cSH	596	613	813	1700	1700	1700	828	1700				
Volume to Capacity	0.03	0.02	0.06	0.23	0.23	0.00	0.00	0.25				
Queue Length 95th (ft)	2	1	5	0	0	0	0	0				
Control Delay (s)	11.2	11.0	9.7	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	B	A									
Approach Delay (s)	11.2	11.0	0.6									
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.5									
Intersection Capacity Utilization			46.6%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
78: Arrow Hwy & Indian Hill Blvd

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	338	134	91	443	48	171	651	113	65	571	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			146			52			123			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	367	146	99	482	52	186	708	123	71	621	57
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	11.0	24.0	24.0	8.0	21.0	21.0
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
Act Effect Green (s)	4.1	12.5	12.5	4.1	14.2	14.2	7.3	21.6	21.6	4.1	14.5	14.5
Actuated g/C Ratio	0.08	0.24	0.24	0.08	0.27	0.27	0.14	0.41	0.41	0.08	0.28	0.28
v/c Ratio	0.37	0.44	0.30	0.71	0.51	0.11	0.76	0.49	0.17	0.51	0.64	0.12
Control Delay	35.0	19.7	5.8	59.7	19.5	6.6	50.3	15.3	4.2	42.8	21.0	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	19.7	5.8	59.7	19.5	6.6	50.3	15.3	4.2	42.8	21.0	6.2
LOS	D	B	A	E	B	A	D	B	A	D	C	A
Approach Delay		17.5			24.7			20.4			21.9	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	18	56	0	35	76	0	64	102	0	24	95	0
Queue Length 95th (ft)	#55	90	36	#112	118	22	#172	160	29	#79	150	22
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	140	1116	599	140	1135	543	244	1457	724	140	1186	568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.33	0.24	0.71	0.42	0.10	0.76	0.49	0.17	0.51	0.52	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 21.1

Intersection LOS: C

Intersection Capacity Utilization 54.2%

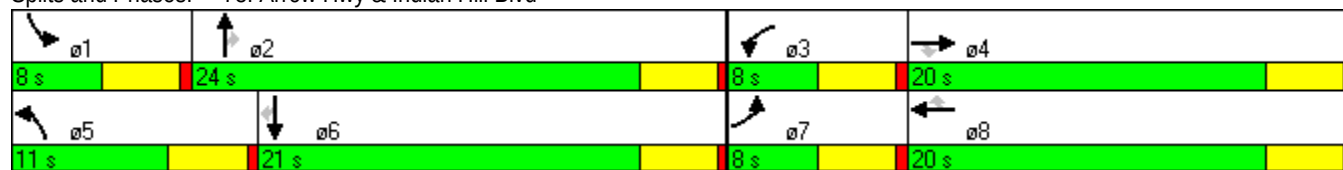
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	34	19	36	6	7	16	50	228	34	17	151	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	37	21	39	7	8	17	54	248	37	18	164	39
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	97	32	302	37	222							
Volume Left (vph)	37	7	54	0	18							
Volume Right (vph)	39	17	0	37	39							
Hadj (s)	-0.13	-0.26	0.12	-0.67	-0.06							
Departure Headway (s)	5.1	5.1	5.2	4.4	4.7							
Degree Utilization, x	0.14	0.04	0.43	0.04	0.29							
Capacity (veh/h)	630	615	679	794	735							
Control Delay (s)	9.0	8.4	10.9	6.4	9.6							
Approach Delay (s)	9.0	8.4	10.4		9.6							
Approach LOS	A	A	B		A							
Intersection Summary												
Delay			9.8									
HCM Level of Service			A									
Intersection Capacity Utilization			41.5%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
80: First St & College Ave

TSM Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	57	34	58	95	78	20	246	27	30	141	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	62	37	63	103	85	22	267	29	33	153	17
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	55	68	166	85	289	29	186	17				
Volume Left (vph)	24	0	63	0	22	0	33	0				
Volume Right (vph)	0	37	0	85	0	29	0	17				
Hadj (s)	0.25	-0.35	0.22	-0.67	0.07	-0.67	0.12	-0.67				
Departure Headway (s)	6.6	6.0	6.3	5.5	5.9	5.2	6.1	5.3				
Degree Utilization, x	0.10	0.11	0.29	0.13	0.47	0.04	0.31	0.03				
Capacity (veh/h)	505	554	533	614	590	659	560	634				
Control Delay (s)	9.1	8.5	10.7	8.1	12.9	7.2	10.7	7.2				
Approach Delay (s)	8.8		9.8		12.4		10.4					
Approach LOS	A		A		B		B					
Intersection Summary												
Delay			10.7									
HCM Level of Service			B									
Intersection Capacity Utilization			48.0%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
81: Arrow Hwy & College Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	381	29	31	578	91	28	106	10	51	97	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3500	0	1770	3468	0	0	1844	1583	1770	1863	1583
Flt Permitted	0.375			0.494				0.906		0.665		
Satd. Flow (perm)	699	3500	0	920	3468	0	0	1688	1583	1239	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			40				11			86
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	446	0	34	727	0	0	145	11	55	105	86
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
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
Act Effect Green (s)	15.3	15.3		15.3	15.3			9.0	9.0	8.9	8.9	8.9
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.33	0.33	0.33	0.33	0.33
v/c Ratio	0.21	0.23		0.07	0.37			0.26	0.02	0.13	0.17	0.15
Control Delay	7.1	5.1		5.4	5.6			10.9	6.1	10.3	10.1	4.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	7.1	5.1		5.4	5.6			10.9	6.1	10.3	10.1	4.0
LOS	A	A		A	A			B	A	B	B	A
Approach Delay		5.4			5.6			10.6			8.0	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	6	17		2	30			16	0	6	11	0
Queue Length 95th (ft)	27	42		12	68			54	7	26	41	20
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	664	3324		874	3295			1361	1279	999	1502	1293
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.13	0.13		0.04	0.22			0.11	0.01	0.06	0.07	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 27.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 6.4

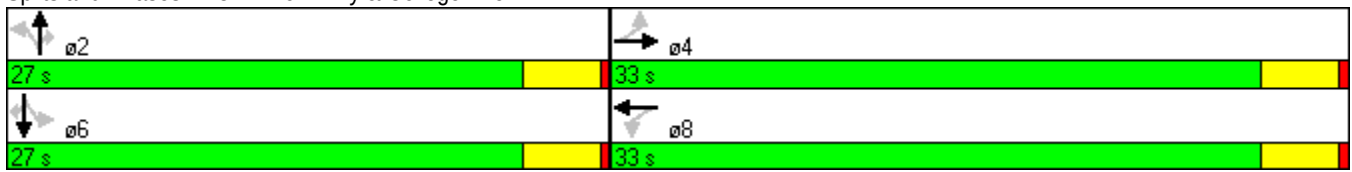
Intersection LOS: A

Intersection Capacity Utilization 46.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	1	52	1	3	0	113	235	3	2	295	149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted							0.557			0.594		
Satd. Flow (perm)	1863	1863	1583	1863	1863	0	1038	3539	1583	1106	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57						3			162
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	1	57	1	3	0	123	255	3	2	321	162
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	25.0	25.0	25.0	25.0	25.0	0.0	35.0	35.0	35.0	35.0	35.0	35.0
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
Act Effect Green (s)	7.6	7.6	7.6	7.3	7.3		11.9	11.9	11.9	11.9	11.9	11.9
Actuated g/C Ratio	0.44	0.44	0.44	0.42	0.42		0.68	0.68	0.68	0.68	0.68	0.68
v/c Ratio	0.07	0.00	0.08	0.00	0.00		0.17	0.11	0.00	0.00	0.13	0.14
Control Delay	6.4	7.0	3.3	7.0	7.0		4.5	3.2	3.3	4.0	3.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	7.0	3.3	7.0	7.0		4.5	3.2	3.3	4.0	3.2	1.6
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		4.9			7.0			3.6			2.7	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	0	0	0	0	0		0	0	0	0	0	0
Queue Length 95th (ft)	18	2	12	2	3		26	19	2	2	24	13
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1694	1694	1445	1694	1694		1038	3539	1583	1106	3539	1583
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.00	0.04	0.00	0.00		0.12	0.07	0.00	0.00	0.09	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 17.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.17

Intersection Signal Delay: 3.3

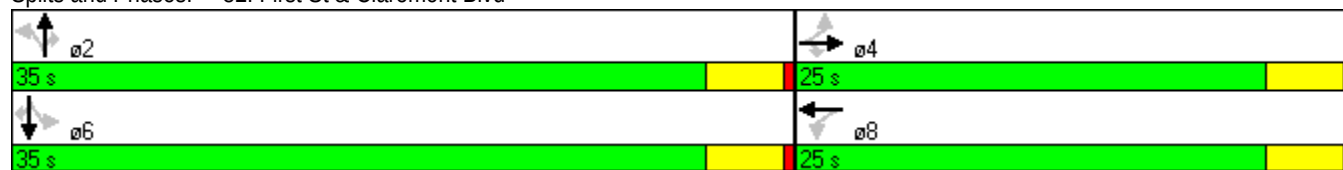
Intersection LOS: A

Intersection Capacity Utilization 34.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair

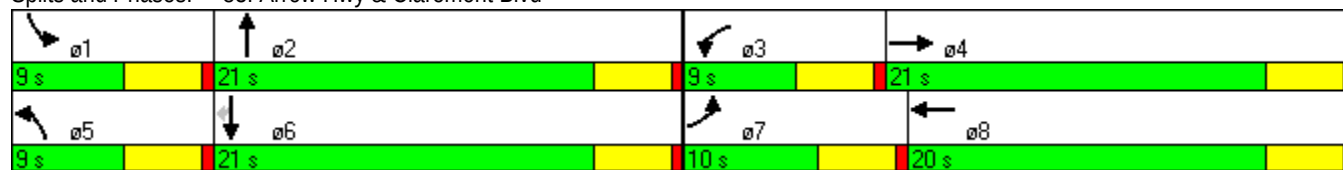
TSM Alternative

83: Arrow Hwy & Claremont Blvd

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	296	27	34	402	83	75	186	17	34	179	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3497	0	1770	3447	0	1770	3497	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3497	0	1770	3447	0	1770	3497	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			39			15				140
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	351	0	37	527	0	82	220	0	37	195	140
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	10.0	21.0	0.0	9.0	20.0	0.0	9.0	21.0	0.0	9.0	21.0	21.0
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
Act Effct Green (s)	8.6	19.7		7.4	17.8		7.4	14.2		7.4	12.9	12.9
Actuated g/C Ratio	0.21	0.49		0.18	0.44		0.18	0.35		0.18	0.32	0.32
v/c Ratio	0.24	0.21		0.11	0.34		0.25	0.18		0.11	0.33	0.23
Control Delay	24.9	11.9		24.6	14.1		27.3	13.4		24.6	18.0	5.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	24.9	11.9		24.6	14.1		27.3	13.4		24.6	18.0	5.2
LOS	C	B		C	B		C	B		C	B	A
Approach Delay		14.6			14.8			17.1			13.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	26	29		10	65		24	20		10	52	0
Queue Length 95th (ft)	#79	80		37	121		#80	53		37	106	34
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	389	1881		324	1719		324	1831		324	952	878
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.23	0.19		0.11	0.31		0.25	0.12		0.11	0.20	0.16
Intersection Summary												
Area Type: Other												
Cycle Length: 60												
Actuated Cycle Length: 40.6												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.34												
Intersection Signal Delay: 14.9												
Intersection LOS: B												
Intersection Capacity Utilization 45.3%												
ICU Level of Service A												
Analysis Period (min) 15												
# 95th percentile volume exceeds capacity, queue may be longer.												
Queue shown is maximum after two cycles.												

Splits and Phases: 83: Arrow Hwy & Claremont Blvd

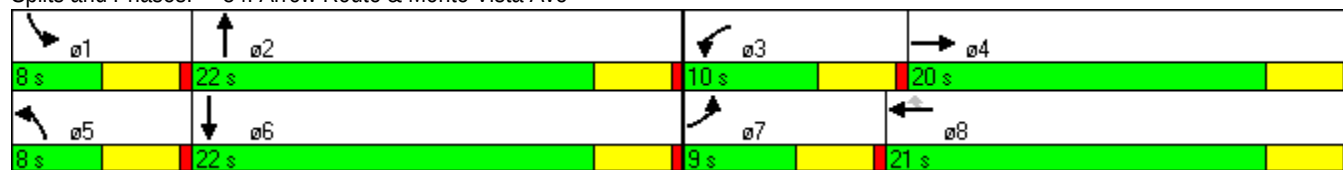


Gold Line Foothill Extension - Azusa to Montclair
84: Arrow Route & Monte Vista Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	78	19	56	181	40	70	521	58	23	804	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3433	0	1770	1863	1583	3433	5009	0	1770	5045	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3433	0	1770	1863	1583	3433	5009	0	1770	5045	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21				43		32			14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	106	0	61	197	43	76	629	0	25	922	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	10.0	21.0	21.0	8.0	22.0	0.0	8.0	22.0	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
Act Effct Green (s)	6.9	10.6		8.0	13.0	13.0	5.5	22.3		5.5	19.9	
Actuated g/C Ratio	0.17	0.26		0.20	0.32	0.32	0.13	0.54		0.13	0.49	
v/c Ratio	0.15	0.12		0.18	0.33	0.08	0.16	0.23		0.10	0.38	
Control Delay	24.8	14.8		23.8	17.4	7.0	24.5	9.0		26.0	12.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	24.8	14.8		23.8	17.4	7.0	24.5	9.0		26.0	12.5	
LOS	C	B		C	B	A	C	A		C	B	
Approach Delay		17.8			17.2			10.7			12.9	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	12		17	43	0	11	32		7	75	
Queue Length 95th (ft)	43	28		51	107	19	30	86		29	133	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	299	1695		359	948	827	464	2954		239	2666	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.15	0.06		0.17	0.21	0.05	0.16	0.21		0.10	0.35	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 41												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.38												
Intersection Signal Delay: 13.1					Intersection LOS: B							
Intersection Capacity Utilization 46.0%					ICU Level of Service A							
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

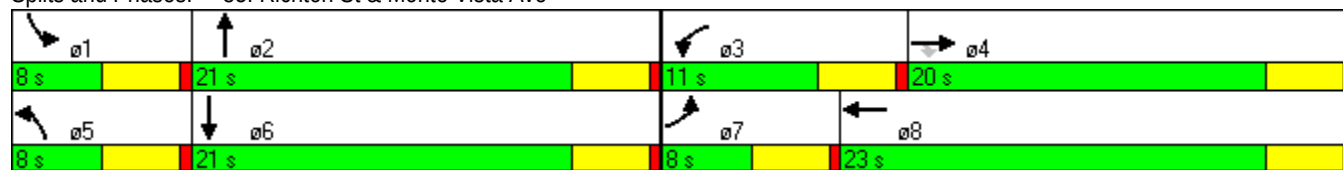


Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

TSM Alternative
AM Peak Hour

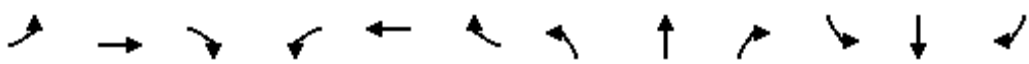
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	78	0	39	0	612	87	38	831	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	1863	1863	1770	3008	0	1863	4989	0	3433	5085	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	1863	1863	1770	3008	0	1863	4989	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					381			43				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	85	42	0	0	760	0	41	903	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	11.0	23.0	0.0	8.0	21.0	0.0	8.0	21.0	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
Act Effect Green (s)				7.7	7.1			17.9		4.9	18.8	
Actuated g/C Ratio				0.34	0.31			0.79		0.21	0.82	
v/c Ratio				0.14	0.03			0.19		0.06	0.22	
Control Delay				10.7	0.1			3.5		12.8	2.3	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				10.7	0.1			3.5		12.8	2.3	
LOS				B	A			A		B	A	
Approach Delay					7.2			3.5			2.7	
Approach LOS					A			A			A	
Queue Length 50th (ft)				3	0			0		1	0	
Queue Length 95th (ft)				43	0			56		13	37	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)				663	2542			3984		735	4251	
Starvation Cap Reductn				0	0			0		0	0	
Spillback Cap Reductn				0	0			0		0	0	
Storage Cap Reductn				0	0			0		0	0	
Reduced v/c Ratio				0.13	0.02			0.19		0.06	0.21	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 22.8												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.22												
Intersection Signal Delay: 3.3	Intersection LOS: A											
Intersection Capacity Utilization 27.2%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair
86: Arrow Hwy & Monte Vista Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔↔	↕↕↕		↔	↕↕		↔	↕↕	↔
Volume (vph)	66	260	71	29	460	74	138	578	42	65	718	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	80		0	250		200
Storage Lanes	2		0	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3426	0	3433	4979	0	1770	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3426	0	3433	4979	0	1770	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			50			13				129
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	360	0	32	580	0	150	674	0	71	780	129
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	8.0	20.0	0.0	8.0	20.0	0.0	12.0	22.0	0.0	10.0	20.0	20.0
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
Act Effect Green (s)	4.5	13.4		4.5	12.0		8.2	19.0		6.5	15.5	15.5
Actuated g/C Ratio	0.09	0.27		0.09	0.24		0.17	0.39		0.13	0.32	0.32
v/c Ratio	0.23	0.37		0.10	0.46		0.51	0.49		0.30	0.70	0.22
Control Delay	27.5	14.8		26.4	17.1		31.4	15.4		28.0	22.1	5.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	27.5	14.8		26.4	17.1		31.4	15.4		28.0	22.1	5.2
LOS	C	B		C	B		C	B		C	C	A
Approach Delay		16.9			17.6			18.3			20.3	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	12	36		5	57		48	95		23	124	0
Queue Length 95th (ft)	30	78		17	85		#122	157		59	#225	34
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)	150			200			80			250		200
Base Capacity (vph)	311	1327		311	1837		321	1586		240	1283	656
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.23	0.27		0.10	0.32		0.47	0.42		0.30	0.61	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 18.6

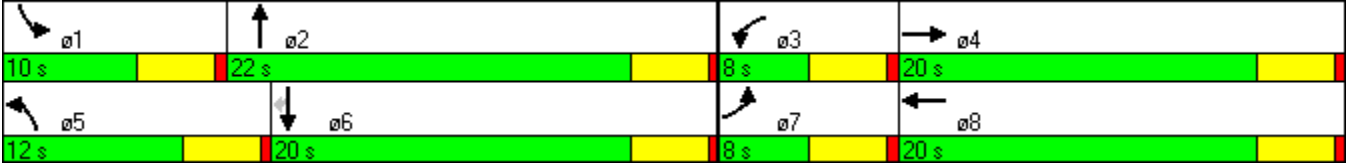
Intersection LOS: B

Intersection Capacity Utilization 54.7%

ICU Level of Service A

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

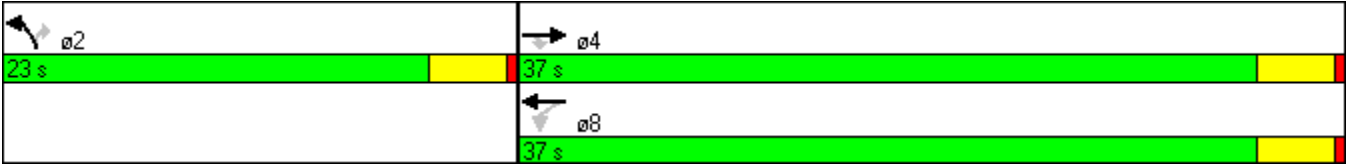


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

TSM Alternative
AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (vph)	351	16	14	468	15	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.556		0.950	
Satd. Flow (perm)	3539	1583	1036	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		17				14
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	382	17	15	509	16	14
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	12.0	12.0	12.0	12.0	6.5	6.5
Actuated g/C Ratio	0.82	0.82	0.82	0.82	0.44	0.44
v/c Ratio	0.13	0.01	0.02	0.18	0.02	0.02
Control Delay	1.6	1.6	2.3	1.7	5.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.6	1.6	2.3	1.7	5.7	4.0
LOS	A	A	A	A	A	A
Approach Delay	1.6			1.7	4.9	
Approach LOS	A			A	A	
Queue Length 50th (ft)	0	0	0	0	1	0
Queue Length 95th (ft)	23	3	4	30	8	6
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3539	1583	1036	3539	1662	1488
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.01	0.01	0.14	0.01	0.01
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 14.7						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.18						
Intersection Signal Delay: 1.8				Intersection LOS: A		
Intersection Capacity Utilization 22.9%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	110	36	70	249	33	67	416	91	22	450	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4948	0	1770	4968	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4948	0	1770	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			39		36			82			59	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	120	39	76	307	0	73	551	0	24	577	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	10.0	20.0	0.0	10.0	22.0	0.0	8.0	20.0	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
Act Effect Green (s)	8.4	9.8	9.8	8.5	11.6		8.4	19.2		5.9	15.8	
Actuated g/C Ratio	0.23	0.27	0.27	0.23	0.32		0.23	0.52		0.16	0.43	
v/c Ratio	0.13	0.13	0.09	0.19	0.19		0.18	0.21		0.08	0.27	
Control Delay	21.1	17.0	8.1	21.4	12.9		21.4	7.7		23.4	11.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.1	17.0	8.1	21.4	12.9		21.4	7.7		23.4	11.6	
LOS	C	B	A	C	B		C	A		C	B	
Approach Delay		16.4			14.6			9.3			12.1	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	12	15	0	19	16		18	24		6	42	
Queue Length 95th (ft)	42	35	20	57	47		55	63		26	73	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	424	1893	865	424	2707		424	3052		283	2685	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.06	0.05	0.18	0.11		0.17	0.18		0.08	0.21	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 12.1

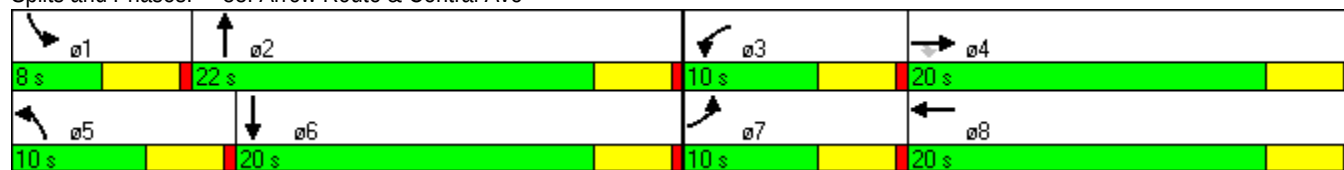
Intersection LOS: B

Intersection Capacity Utilization 36.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair
89: Richton St & Central Ave

TSM Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	18	19	62	81	24	95	546	47	52	516	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1799	0	1770	3539	1583	1770	5050	0
Flt Permitted	0.702			0.744			0.377			0.428		
Satd. Flow (perm)	1308	1863	1583	1386	1799	0	702	3539	1583	797	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21		25				51		14	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	20	21	67	114	0	103	593	51	57	588	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	22.0	22.0	22.0	22.0	22.0	0.0	11.0	28.0	28.0	10.0	27.0	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
Act Effct Green (s)	9.1	9.1	9.1	9.1	9.1		16.9	17.4	17.4	15.5	15.2	
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29		0.53	0.55	0.55	0.49	0.48	
v/c Ratio	0.03	0.04	0.04	0.17	0.21		0.16	0.31	0.06	0.09	0.24	
Control Delay	14.2	14.1	7.9	15.0	12.6		4.5	7.9	3.7	4.3	8.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	14.2	14.1	7.9	15.0	12.6		4.5	7.9	3.7	4.3	8.8	
LOS	B	B	A	B	B		A	A	A	A	A	
Approach Delay		11.7			13.5			7.1			8.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	2	3	0	11	15		7	24	0	4	33	
Queue Length 95th (ft)	13	17	13	41	53		22	92	15	14	59	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	804	1145	981	852	1115		700	2652	1199	635	3688	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.02	0.02	0.02	0.08	0.10		0.15	0.22	0.04	0.09	0.16	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 31.8												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.31												
Intersection Signal Delay: 8.5					Intersection LOS: A							
Intersection Capacity Utilization 38.5%					ICU Level of Service A							
Analysis Period (min) 15												

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

90: Arrow Hwy & Central Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	247	80	91	381	24	140	614	72	21	506	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	5040	0	1770	5004	0	1770	5024	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5040	0	1770	5004	0	1770	5024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87		16			35			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	268	87	99	440	0	152	745	0	23	596	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	9.0	20.0	20.0	9.0	20.0	0.0	11.0	23.0	0.0	8.0	20.0	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
Act Effect Green (s)	5.6	10.2	10.2	5.6	13.7		7.7	19.1		4.5	12.5	
Actuated g/C Ratio	0.12	0.22	0.22	0.12	0.30		0.17	0.42		0.10	0.27	
v/c Ratio	0.18	0.34	0.21	0.46	0.29		0.51	0.35		0.13	0.43	
Control Delay	25.3	18.6	6.5	33.9	14.6		31.6	10.3		26.0	16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.3	18.6	6.5	33.9	14.6		31.6	10.3		26.0	16.0	
LOS	C	B	A	C	B		C	B		C	B	
Approach Delay		16.6			18.1			13.9			16.4	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	10	35	0	27	28		41	42		6	50	
Queue Length 95th (ft)	37	68	28	#97	68		#131	99		27	87	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	215	1376	669	215	2032		301	2740		172	1966	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.18	0.19	0.13	0.46	0.22		0.50	0.27		0.13	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 15.9

Intersection LOS: B

Intersection Capacity Utilization 43.7%

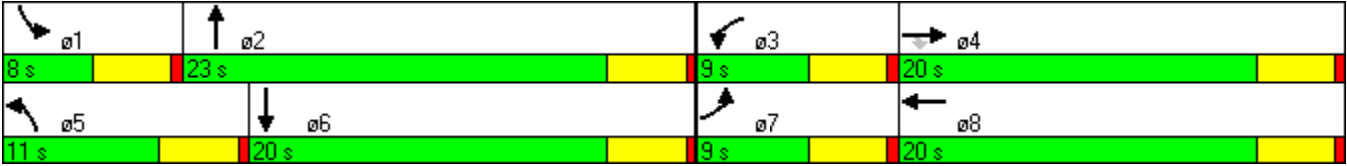
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave



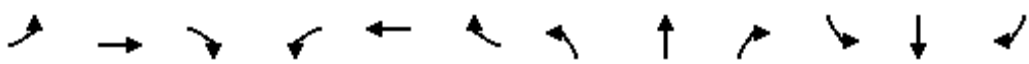
PM Peak Hour



Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	↰↱	↱	↰↱			↰↱	
Volume (veh/h)	57	22	283	97	31	207	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	62	24	308	105	34	225	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	540	207			413		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	540	207			413		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	86	97			97		
cM capacity (veh/h)	458	800			1142		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	31	31	24	205	208	109	150
Volume Left	31	31	0	0	0	34	0
Volume Right	0	0	24	0	105	0	0
cSH	458	458	800	1700	1700	1142	1700
Volume to Capacity	0.07	0.07	0.03	0.12	0.12	0.03	0.09
Queue Length 95th (ft)	5	5	2	0	0	2	0
Control Delay (s)	13.4	13.4	9.6	0.0	0.0	2.7	0.0
Lane LOS	B	B	A			A	
Approach Delay (s)	12.4			0.0		1.1	
Approach LOS	B						
Intersection Summary							
Average Delay			1.8				
Intersection Capacity Utilization			30.9%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
2: Foothill Blvd & Barranca Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	558	186	143	477	28	119	219	186	19	174	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3408	0	1770	3511	0	1770	3295	0	1770	3394	0
Flt Permitted	0.447			0.312			0.592			0.497		
Satd. Flow (perm)	833	3408	0	581	3511	0	1103	3295	0	926	3394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		130			17			202			70	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	809	0	155	548	0	129	440	0	21	259	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	21.0	21.0	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
Act Effect Green (s)	17.9	17.9		17.9	17.9		10.7	10.7		10.7	10.7	
Actuated g/C Ratio	0.47	0.47		0.47	0.47		0.28	0.28		0.28	0.28	
v/c Ratio	0.32	0.48		0.56	0.33		0.41	0.41		0.08	0.25	
Control Delay	8.6	6.3		16.2	6.3		18.2	8.2		14.2	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.6	6.3		16.2	6.3		18.2	8.2		14.2	9.8	
LOS	A	A		B	A		B	A		B	A	
Approach Delay		6.6			8.5			10.5			10.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	13	37		18	27		18	16		3	13	
Queue Length 95th (ft)	45	88		73	65		82	67		20	52	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	726	2988		507	3063		562	1777		472	1763	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.27		0.31	0.18		0.23	0.25		0.04	0.15	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 8.4

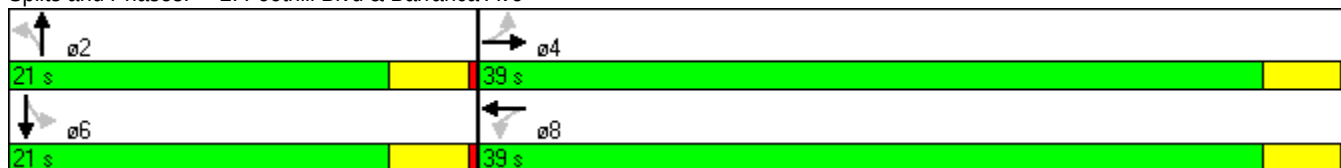
Intersection LOS: A

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	499	100	276	321	85	93	528	288	77	337	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			54				313			63
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	651	0	300	441	0	101	574	313	84	366	63
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	12.0	20.0	0.0	12.0	20.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	7.3	14.4		8.1	17.5		4.0	15.8	15.8	4.0	13.8	13.8
Actuated g/C Ratio	0.13	0.25		0.14	0.31		0.07	0.28	0.28	0.07	0.24	0.24
v/c Ratio	0.44	0.72		1.18	0.40		0.80	0.58	0.47	0.66	0.42	0.15
Control Delay	30.6	23.5		144.8	16.5		73.6	21.3	5.3	56.3	19.7	6.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	23.5		144.8	16.5		73.6	21.3	5.3	56.3	19.7	6.4
LOS	C	C		F	B		E	C	A	E	B	A
Approach Delay		24.4			68.5			21.6			24.1	
Approach LOS		C			E			C			C	
Queue Length 50th (ft)	35	104		~142	60		37	95	0	31	56	0
Queue Length 95th (ft)	75	155		#273	98		#114	141	51	#95	90	24
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	254	1016		254	1109		127	1014	677	127	1014	498
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.64		1.18	0.40		0.80	0.57	0.46	0.66	0.36	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 34.3

Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

3: Foothill Blvd & Grand Ave

TSM Alternative
PM Peak Hour

Analysis Period (min) 15

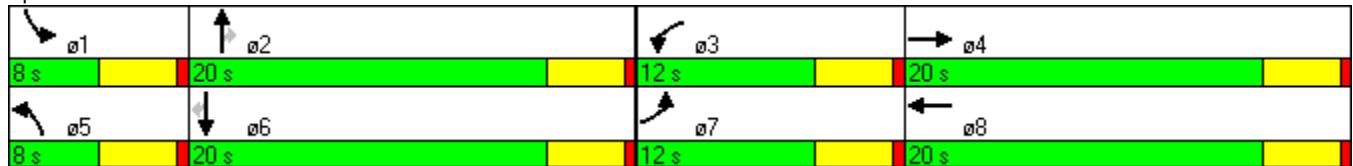
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Foothill Blvd & Grand Ave



Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

TSM Alternative
PM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	104	98	150	73	57	148			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	113	107	163	79	62	161			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage (veh)									
Upstream signal (ft)						1174			
pX, platoon unblocked									
vC, conflicting volume	488	203			242				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	488	203			242				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	78	87			95				
cM capacity (veh/h)	514	838			1324				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	220	242	223						
Volume Left	113	0	62						
Volume Right	107	79	0						
cSH	633	1700	1324						
Volume to Capacity	0.35	0.14	0.05						
Queue Length 95th (ft)	39	0	4						
Control Delay (s)	13.7	0.0	2.5						
Lane LOS	B		A						
Approach Delay (s)	13.7	0.0	2.5						
Approach LOS	B								
Intersection Summary									
Average Delay		5.2							
Intersection Capacity Utilization		45.1%	ICU Level of Service	A					
Analysis Period (min)		15							

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1155	16	24	819	78	3	24	10	56	41	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1853	1583	0	1811	1583
Flt Permitted	0.950			0.950				0.963			0.806	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1794	1583	0	1501	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			59			11			132
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	1255	17	26	890	85	0	29	11	0	106	132
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	9.0	32.0	32.0	8.0	31.0	31.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.1	26.2	26.2	4.9	24.6	24.6		9.4	9.4		9.4	9.4
Actuated g/C Ratio	0.15	0.66	0.66	0.12	0.62	0.62		0.24	0.24		0.24	0.24
v/c Ratio	0.18	0.54	0.02	0.12	0.41	0.08		0.07	0.03		0.30	0.28
Control Delay	23.2	7.5	4.4	24.0	7.8	3.9		16.9	10.3		19.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	23.2	7.5	4.4	24.0	7.8	3.9		16.9	10.3		19.3	6.2
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		8.0			7.9			15.1			12.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	10	74	1	6	45	2		5	0		21	0
Queue Length 95th (ft)	43	227	9	29	147	22		25	11		67	35
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	272	2571	1152	217	2445	1112		881	783		737	844
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.18	0.49	0.01	0.12	0.36	0.08		0.03	0.01		0.14	0.16

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.4

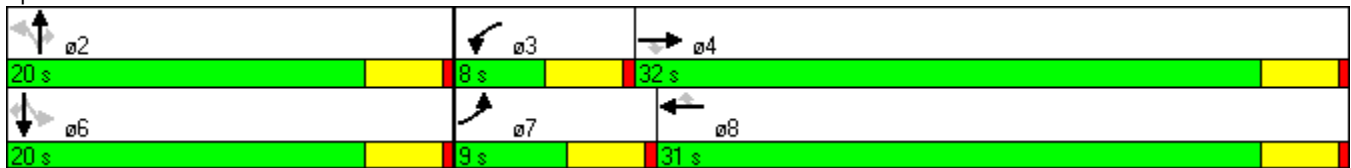
Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	644	59	35	515	76	84	72	37	47	76	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3493	0	1770	3472	0	1770	1768	0	0	1737	0
Flt Permitted	0.408			0.353			0.697				0.896	
Satd. Flow (perm)	760	3493	0	658	3472	0	1298	1768	0	0	1574	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			38			40			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	764	0	38	643	0	91	118	0	0	233	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	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
Act Effect Green (s)	17.6	17.6		17.6	17.6		9.7	9.7			9.8	
Actuated g/C Ratio	0.58	0.58		0.58	0.58		0.32	0.32			0.32	
v/c Ratio	0.21	0.38		0.10	0.32		0.22	0.20			0.42	
Control Delay	7.5	6.2		6.5	5.7		11.8	8.4			10.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	7.5	6.2		6.5	5.7		11.8	8.4			10.3	
LOS	A	A		A	A		B	A			B	
Approach Delay		6.4			5.8			9.9			10.3	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	8	36		3	28		11	9			20	
Queue Length 95th (ft)	34	89		16	71		43	41			76	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	664	3054		575	3038		970	1331			1194	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.14	0.25		0.07	0.21		0.09	0.09			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 30.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.0

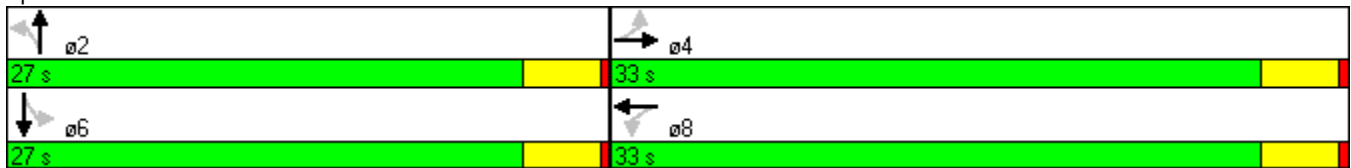
Intersection LOS: A

Intersection Capacity Utilization 51.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

TSM Alternative
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	76	0	19	141	188	63
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	0	21	153	204	68
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	399	204	273			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399	204	273			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	100	98			
cM capacity (veh/h)	597	836	1290			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	83	174	204	68		
Volume Left	83	21	0	0		
Volume Right	0	0	0	68		
cSH	597	1290	1700	1700		
Volume to Capacity	0.14	0.02	0.12	0.04		
Queue Length 95th (ft)	12	1	0	0		
Control Delay (s)	12.0	1.1	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	12.0	1.1	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			32.6%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
8: Foothill Blvd & Glendora Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	521	158	177	437	69	147	188	88	66	195	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			29				96			80
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	738	0	192	550	0	160	204	96	72	212	80
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	22.0	22.0	8.0	21.0	21.0
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
Act Effect Green (s)	5.9	14.6		6.1	19.1		5.1	16.0	16.0	4.0	11.4	11.4
Actuated g/C Ratio	0.11	0.27		0.11	0.36		0.10	0.30	0.30	0.08	0.21	0.21
v/c Ratio	0.38	0.75		0.95	0.44		0.95	0.36	0.18	0.54	0.53	0.20
Control Delay	30.0	22.4		84.5	15.8		91.9	18.7	5.3	43.9	23.9	6.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	22.4		84.5	15.8		91.9	18.7	5.3	43.9	23.9	6.3
LOS	C	C		F	B		F	B	A	D	C	A
Approach Delay		23.2			33.5			41.3			24.0	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	23	100		63	72		53	57	0	23	61	0
Queue Length 95th (ft)	62	#181		#190	130		#168	107	28	#80	114	26
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	202	1081		202	1261		168	640	606	134	601	565
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.68		0.95	0.44		0.95	0.32	0.16	0.54	0.35	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 30.0

Intersection LOS: C

Intersection Capacity Utilization 61.0%

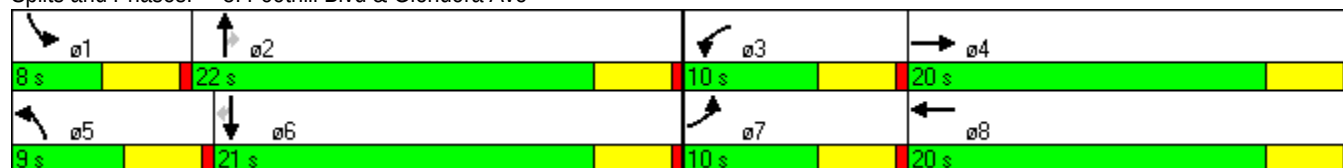
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
9: Ada Ave & Glendora Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	56	52	157	29	31	35	49	426	3	20	407	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	61	57	171	32	34	38	53	463	3	22	442	41
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	288	103	285	235	243	263						
Volume Left (vph)	61	32	53	0	22	0						
Volume Right (vph)	171	38	0	3	0	41						
Hadj (s)	-0.28	-0.13	0.13	0.02	0.08	-0.08						
Departure Headway (s)	6.4	7.1	6.9	6.8	6.8	6.7						
Degree Utilization, x	0.51	0.20	0.54	0.44	0.46	0.49						
Capacity (veh/h)	523	443	502	515	507	520						
Control Delay (s)	15.8	12.0	16.5	13.8	14.4	14.7						
Approach Delay (s)	15.8	12.0	15.3		14.5							
Approach LOS	C	B	C		B							
Intersection Summary												
Delay			14.9									
HCM Level of Service			B									
Intersection Capacity Utilization			54.7%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Volume (vph)	56	985	0	219	641	111	105	468	369	229	466	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1863	1770	3539	1583	1770	3539	1583	1770	3483	0
Flt Permitted	0.373			0.116			0.353			0.236		
Satd. Flow (perm)	695	3539	1863	216	3539	1583	658	3539	1583	440	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						68			208			14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	1071	0	238	697	121	114	509	401	249	568	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	35.0	35.0	15.0	42.0	42.0	11.0	26.0	26.0	14.0	29.0	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
Act Effect Green (s)	33.7	29.7		44.3	38.1	38.1	25.8	19.0	19.0	32.2	24.5	
Actuated g/C Ratio	0.40	0.35		0.52	0.45	0.45	0.30	0.22	0.22	0.38	0.29	
v/c Ratio	0.19	0.87		0.78	0.44	0.16	0.39	0.65	0.78	0.77	0.56	
Control Delay	13.1	35.7		36.6	18.3	8.5	22.1	34.6	26.6	37.9	28.9	
Queue Delay	0.0	0.0		0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	13.1	35.7		36.6	19.1	8.5	22.1	34.6	26.6	37.9	28.9	
LOS	B	D		D	B	A	C	C	C	D	C	
Approach Delay		34.5			21.8			30.1			31.7	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	16	293		77	143	17	41	134	100	97	142	
Queue Length 95th (ft)	36	#415		#199	195	51	76	187	#215	#178	196	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100			100		50	100		100	200		
Base Capacity (vph)	326	1296		314	1588	748	293	920	565	323	1054	
Starvation Cap Reductn	0	0		0	547	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.83		0.76	0.67	0.16	0.39	0.55	0.71	0.77	0.54	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 85.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 78.3%

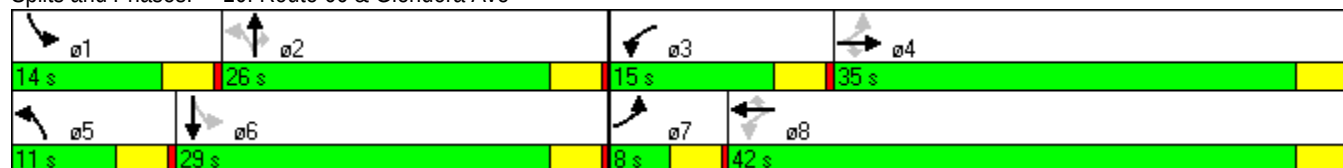
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

11: Lemon Ave & Pasadena Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	8	15	21	1	9	13	81	30	22	69	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	9	16	23	1	10	14	88	33	24	75	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	35	34	135	99								
Volume Left (vph)	10	23	14	24								
Volume Right (vph)	16	10	33	0								
Hadj (s)	-0.19	0.00	-0.09	0.08								
Departure Headway (s)	4.3	4.4	4.1	4.3								
Degree Utilization, x	0.04	0.04	0.15	0.12								
Capacity (veh/h)	796	755	859	822								
Control Delay (s)	7.4	7.6	7.8	7.8								
Approach Delay (s)	7.4	7.6	7.8	7.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.8									
HCM Level of Service			A									
Intersection Capacity Utilization			19.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	1402	42	34	885	51	21	24	50	57	26	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1711	0	0	1718	0
Flt Permitted	0.231			0.152				0.909			0.889	
Satd. Flow (perm)	430	3539	1583	283	3539	1583	0	1573	0	0	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			19			35		54			68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	1524	46	37	962	55	0	103	0	0	165	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	10.0	32.0	32.0	8.0	30.0	30.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	29.9	29.7	29.7	27.5	27.2	27.2		9.3			9.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.61	0.60	0.60		0.21			0.21	
v/c Ratio	0.21	0.65	0.04	0.11	0.45	0.06		0.28			0.44	
Control Delay	4.9	11.1	5.1	4.9	9.6	5.1		12.4			15.9	
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	4.9	11.7	5.1	4.9	9.6	5.1		12.4			15.9	
LOS	A	B	A	A	A	A		B			B	
Approach Delay		11.1			9.2			12.4			15.9	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	8	105	2	3	100	3		12			24	
Queue Length 95th (ft)	27	#385	18	12	179	20		46			72	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	489	2336	1051	323	2206	1000		668			669	
Starvation Cap Reductn	0	381	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.21	0.78	0.04	0.11	0.44	0.06		0.15			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 66.9%

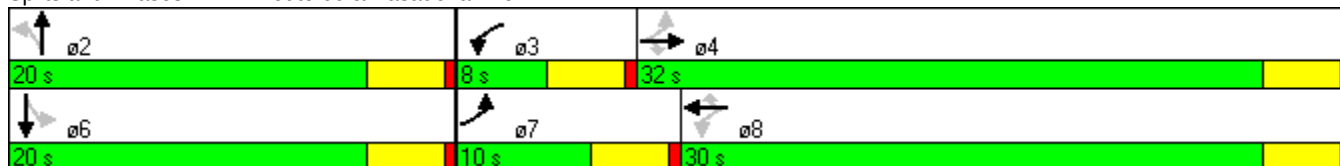
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair
13: Lemon Ave & Glenwood Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	15	9	5	6	3	19	117	8	17	123	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	16	10	5	7	3	21	127	9	18	134	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	351	351	136	364	349	132	139			136		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	351	351	136	364	349	132	139			136		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	97	99	99	99	100	99			99		
cM capacity (veh/h)	584	558	912	561	560	918	1444			1448		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	15	157	158								
Volume Left	16	5	21	18								
Volume Right	10	3	9	5								
cSH	625	713	1444	1448								
Volume to Capacity	0.07	0.02	0.01	0.01								
Queue Length 95th (ft)	5	2	1	1								
Control Delay (s)	11.2	11.0	1.1	1.0								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.2	11.0	1.1	1.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			26.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
14: Route 66 & Glenwood Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	1461	10	36	857	63	3	3	8	65	6	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	1588	11	39	932	68	3	3	9	71	7	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					651							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1000			1599			2353	2832	794	1979	2774	466
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	657			1599			2242	2803	794	1804	2735	31
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			90			68	74	97	0	53	94
cM capacity (veh/h)	791			406			10	12	331	28	14	884
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	83	794	794	11	39	466	466	68	15	129		
Volume Left	83	0	0	0	39	0	0	0	3	71		
Volume Right	0	0	0	11	0	0	0	68	9	52		
cSH	791	1700	1700	1700	406	1700	1700	1700	25	43		
Volume to Capacity	0.10	0.47	0.47	0.01	0.10	0.27	0.27	0.04	0.61	3.02		
Queue Length 95th (ft)	9	0	0	0	8	0	0	0	46	Err		
Control Delay (s)	10.1	0.0	0.0	0.0	14.8	0.0	0.0	0.0	280.1	Err		
Lane LOS	B				B				F	F		
Approach Delay (s)	0.5				0.6				280.1	Err		
Approach LOS									F	F		
Intersection Summary												
Average Delay			453.4									
Intersection Capacity Utilization			67.2%		ICU Level of Service				C			
Analysis Period (min)			15									

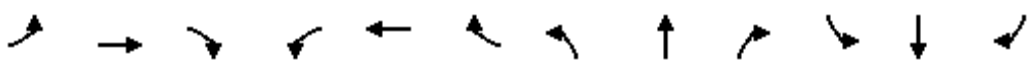
Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	24	13	8	2	2	7	148	6	8	98	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	26	14	9	2	2	8	161	7	9	107	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	309	309	109	333	309	164	112			167		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	309	309	109	333	309	164	112			167		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	100	100	99			99		
cM capacity (veh/h)	634	598	944	586	599	880	1478			1410		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	13	175	121								
Volume Left	2	9	8	9								
Volume Right	14	2	7	5								
cSH	684	623	1478	1410								
Volume to Capacity	0.06	0.02	0.01	0.01								
Queue Length 95th (ft)	5	2	0	0								
Control Delay (s)	10.6	10.9	0.4	0.6								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.6	10.9	0.4	0.6								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			20.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1369	34	33	841	67	43	17	22	50	15	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1798	1583	0	1794	1583
Flt Permitted	0.950			0.950				0.803			0.787	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1496	1583	0	1466	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			47			24			55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1488	37	36	914	73	0	65	24	0	70	55
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	11.0	32.0	32.0	8.0	29.0	29.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.6	28.6	28.6	4.0	25.3	25.3		16.1	16.1		16.1	16.1
Actuated g/C Ratio	0.12	0.51	0.51	0.07	0.45	0.45		0.29	0.29		0.29	0.29
v/c Ratio	0.39	0.82	0.05	0.28	0.57	0.10		0.15	0.05		0.17	0.11
Control Delay	30.0	17.7	6.1	32.2	13.9	6.0		17.5	8.1		17.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	30.0	17.7	6.1	32.2	13.9	6.0		17.5	8.1		17.7	6.4
LOS	C	B	A	C	B	A		B	A		B	A
Approach Delay		18.0			14.0			15.0			12.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	27	169	3	12	130	5		17	0		18	0
Queue Length 95th (ft)	65	#391	17	37	185	26		44	14		47	22
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	224	1857	838	128	1642	759		432	475		424	496
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.37	0.80	0.04	0.28	0.56	0.10		0.15	0.05		0.17	0.11

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 61.4%

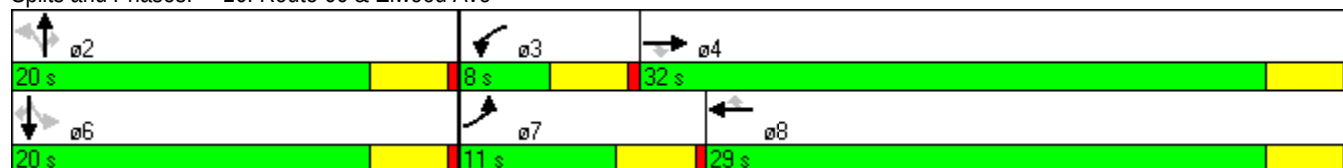
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



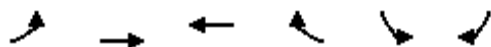
Gold Line Foothill Extension - Azusa to Montclair
17: Lemon Ave & Loraine Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	6	27	8	5	10	15	329	14	8	359	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	7	29	9	5	11	16	358	15	9	390	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	634	815	197	643	809	186	393			373		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	634	815	197	643	809	186	393			373		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	96	97	98	99	99			99		
cM capacity (veh/h)	348	304	811	334	306	824	1162			1182		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	39	25	195	194	204	198						
Volume Left	3	9	16	0	9	0						
Volume Right	29	11	0	15	0	3						
cSH	584	439	1162	1700	1182	1700						
Volume to Capacity	0.07	0.06	0.01	0.11	0.01	0.12						
Queue Length 95th (ft)	5	5	1	0	1	0						
Control Delay (s)	11.6	13.7	0.8	0.0	0.4	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.6	13.7	0.4		0.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			30.8%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

TSM Alternative
PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	156	1168	775	208	294	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				138		111
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	170	1270	842	226	320	111
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	15.0	39.0	24.0	24.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	9.4	29.5	19.1	19.1	10.2	10.2
Actuated g/C Ratio	0.20	0.61	0.40	0.40	0.21	0.21
v/c Ratio	0.49	0.59	0.60	0.32	0.44	0.26
Control Delay	24.9	6.9	15.4	7.1	19.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	6.9	15.4	7.1	19.9	6.4
LOS	C	A	B	A	B	A
Approach Delay		9.1	13.6		16.4	
Approach LOS		A	B		B	
Queue Length 50th (ft)	47	87	106	17	45	0
Queue Length 95th (ft)	103	165	181	62	77	31
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	427	2608	1551	772	1279	659
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.49	0.54	0.29	0.25	0.17

Intersection Summary

Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 48.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 48.5%	ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

TSM Alternative
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	447	516	1052	456	643	1165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		415		496		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	486	561	1143	496	699	1266
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	24.0	24.0	16.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	13.7	13.7	20.0	20.0	12.0	36.1
Actuated g/C Ratio	0.24	0.24	0.35	0.35	0.21	0.62
v/c Ratio	0.60	0.81	0.93	0.57	0.98	0.57
Control Delay	22.8	17.0	34.8	4.7	55.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	17.0	34.8	4.7	55.7	8.0
LOS	C	B	C	A	E	A
Approach Delay	19.7		25.7			25.0
Approach LOS	B		C			C
Queue Length 50th (ft)	76	42	204	0	~129	123
Queue Length 95th (ft)	117	#197	#338	56	#236	181
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	952	739	1227	873	714	2209
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.76	0.93	0.57	0.98	0.57
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 57.8						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.98						
Intersection Signal Delay: 24.1				Intersection LOS: C		
Intersection Capacity Utilization 70.2%				ICU Level of Service C		

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

TSM Alternative
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	350	95	49	158	64	64
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	380	103	53	172	70	70
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			484		710	432
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			484		710	432
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		82	89
cM capacity (veh/h)			1079		380	623
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	484	53	172	139		
Volume Left	0	53	0	70		
Volume Right	103	0	0	70		
cSH	1700	1079	1700	472		
Volume to Capacity	0.28	0.05	0.10	0.29		
Queue Length 95th (ft)	0	4	0	30		
Control Delay (s)	0.0	8.5	0.0	15.8		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.0		15.8		
Approach LOS				C		
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization			45.0%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
21: Sierra Madre Ave & Glendora Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	372	63	36	165	8	29	16	47	3	12	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	404	68	39	179	9	32	17	51	3	13	8
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	478	218	9	49	51	16	8					
Volume Left (vph)	5	39	0	32	0	3	0					
Volume Right (vph)	68	0	9	0	51	0	8					
Hadj (s)	-0.05	0.12	-0.67	0.36	-0.67	0.13	-0.67					
Departure Headway (s)	5.1	5.5	4.7	6.7	5.7	6.6	5.8					
Degree Utilization, x	0.68	0.33	0.01	0.09	0.08	0.03	0.01					
Capacity (veh/h)	687	638	739	491	572	479	540					
Control Delay (s)	18.3	9.9	6.5	9.2	8.0	8.6	7.7					
Approach Delay (s)	18.3	9.8		8.6		8.3						
Approach LOS	C	A		A		A						
Intersection Summary												
Delay			14.5									
HCM Level of Service			B									
Intersection Capacity Utilization			48.5%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	622	1	181	7	0	22	113	839	0	3	718	719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1655	0	3433	3539	0	1770	3539	1583
Flt Permitted	0.950	0.667			0.868		0.950			0.950		
Satd. Flow (perm)	1681	1180	2787	0	1454	0	3433	3539	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197		24							782
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	338	339	197	0	32	0	123	912	0	3	780	782
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	27.0	47.0	47.0	20.0	20.0	0.0	9.0	35.0	0.0	8.0	34.0	34.0
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
Act Effect Green (s)	30.4	30.4	43.0		12.5		5.0	36.0		4.0	28.5	28.5
Actuated g/C Ratio	0.34	0.34	0.49		0.14		0.06	0.41		0.05	0.32	0.32
v/c Ratio	0.59	0.59	0.14		0.14		0.63	0.63		0.04	0.68	0.75
Control Delay	33.3	33.2	2.3		17.2		57.1	24.0		42.3	29.6	7.2
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	33.3	33.2	2.3		17.2		57.1	24.0		42.3	29.6	7.2
LOS	C	C	A		B		E	C		D	C	A
Approach Delay		26.3			17.2			27.9			18.4	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)	201	202	0		4		36	202		2	197	0
Queue Length 95th (ft)	#328	#330	18		29		#73	310		11	261	94
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	593	579	1455		295		194	1437		80	1200	1054
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.57	0.59	0.14		0.11		0.63	0.63		0.04	0.65	0.74

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 23.2

Intersection LOS: C

Intersection Capacity Utilization 61.2%

ICU Level of Service B

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

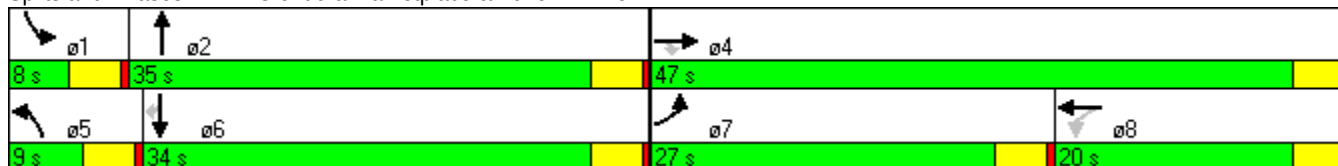
TSM Alternative
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
23: Gladstone St & Lone Hill Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔	↕↕		↔↔	↕↕	↔	↔↔	↕↕	↔
Volume (vph)	210	574	149	89	312	120	289	654	226	268	432	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			91				235			240
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	786	0	97	469	0	314	711	246	291	470	240
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	5.1	16.3		5.1	14.1		7.1	15.9	15.9	6.1	14.9	14.9
Actuated g/C Ratio	0.09	0.28		0.09	0.25		0.12	0.28	0.28	0.11	0.26	0.26
v/c Ratio	0.75	0.77		0.62	0.52		0.74	0.72	0.40	0.80	0.51	0.41
Control Delay	45.4	25.4		47.3	17.1		38.4	24.0	5.6	46.1	20.7	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	25.4		47.3	17.1		38.4	24.0	5.6	46.1	20.7	5.4
LOS	D	C		D	B		D	C	A	D	C	A
Approach Delay		29.9			22.3			24.0			24.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	42	130		35	58		58	120	3	54	75	0
Queue Length 95th (ft)	#94	#218		#98	97		#114	174	48	#114	114	45
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	303	1015		156	1022		424	1061	639	363	999	619
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.77		0.62	0.46		0.74	0.67	0.38	0.80	0.47	0.39

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.4

Intersection LOS: C

Intersection Capacity Utilization 64.6%

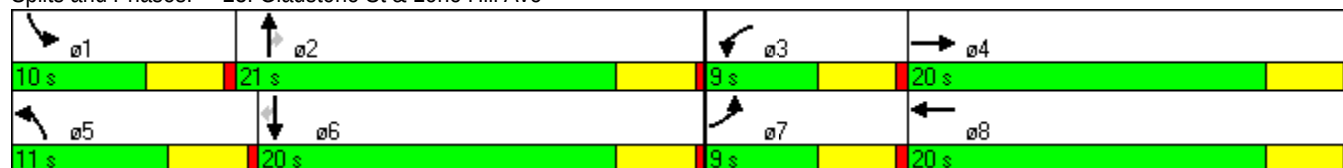
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

24: Arrow Hwy & SR-57 SB

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↖	↑↑↑		↖↗		↖	↖	↖	↖
Volume (vph)	0	1288	206	177	901	369	163	0	117	302	125	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	4979	0	1770	4862	0	3433	0	1583	1681	1732	1583
Flt Permitted				0.117			0.468			0.950	0.979	
Satd. Flow (perm)	0	4979	0	218	4862	0	1691	0	1583	1681	1732	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			308				48			127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	0	1624	0	192	1380	0	177	0	127	230	234	208
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		36.1		36.1	36.1		13.1		13.1	13.1	13.1	13.1
Actuated g/C Ratio		0.63		0.63	0.63		0.23		0.23	0.23	0.23	0.23
v/c Ratio		0.51		1.39	0.43		0.46		0.32	0.60	0.59	0.45
Control Delay		6.5		237.5	4.8		22.9		14.3	26.5	26.1	11.5
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		6.5		237.5	4.8		22.9		14.3	26.5	26.1	11.5
LOS		A		F	A		C		B	C	C	B
Approach Delay		6.5			33.2						21.7	
Approach LOS		A			C						C	
Queue Length 50th (ft)		95		~95	58		26		22	73	74	23
Queue Length 95th (ft)		134		#165	87		52		59	136	137	70
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3175		138	3181		474		478	471	486	535
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.51		1.39	0.43		0.37		0.27	0.49	0.48	0.39

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.39

Intersection Signal Delay: 20.0

Intersection LOS: B

Intersection Capacity Utilization 68.9%

ICU Level of Service C

Analysis Period (min) 15

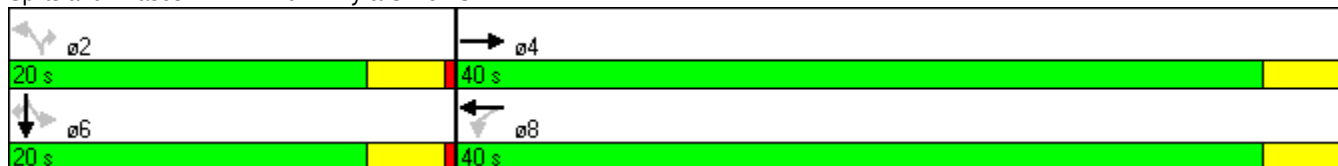
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

TSM Alternative
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	393	361	159	86	119	398	448	756	335	191	663	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3375	0	1770	3539	1583	3433	4851	0	1770	5034	0
Flt Permitted		0.775		0.174			0.950			0.950		
Satd. Flow (perm)	0	2672	0	324	3539	1583	3433	4851	0	1770	5034	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48				411		182			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	992	0	93	129	433	487	1186	0	208	774	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	13.0	20.0	0.0	13.0	20.0	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
Act Effect Green (s)		23.0		23.0	23.0	23.0	9.0	16.0		8.9	15.9	
Actuated g/C Ratio		0.38		0.38	0.38	0.38	0.15	0.27		0.15	0.27	
v/c Ratio		0.94		0.75	0.09	0.50	0.94	0.83		0.79	0.57	
Control Delay		35.8		57.3	12.1	4.3	56.6	23.9		48.7	20.5	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		35.8		57.3	12.1	4.3	56.6	23.9		48.7	20.5	
LOS		D		E	B	A	E	C		D	C	
Approach Delay		35.8			13.4			33.4			26.5	
Approach LOS		D			B			C			C	
Queue Length 50th (ft)		168		28	15	5	91	124		74	85	
Queue Length 95th (ft)		#294		#103	30	54	#174	#181		#172	120	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1056		124	1359	861	516	1429		266	1358	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.94		0.75	0.09	0.50	0.94	0.83		0.78	0.57	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 29.3

Intersection LOS: C

Intersection Capacity Utilization 77.3%

ICU Level of Service D

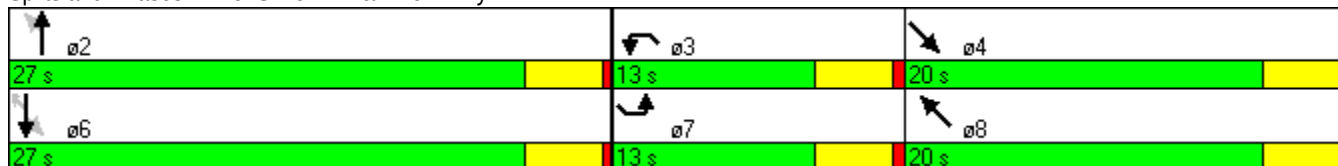
Gold Line Foothill Extension - Azusa to Montclair
 25: SR-57 NB & Arrow Hwy

TSM Alternative
 PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair
26: Fifth St & Eucla Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	62	92	8	72	1	76	1	18	0	6	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	67	100	9	78	1	83	1	20	0	7	4
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	75	100	87	1	103	11						
Volume Left (vph)	8	0	9	0	83	0						
Volume Right (vph)	0	100	0	1	20	4						
Hadj (s)	0.08	-0.67	0.08	-0.67	0.08	-0.21						
Departure Headway (s)	4.9	4.2	5.0	4.3	4.6	4.4						
Degree Utilization, x	0.10	0.12	0.12	0.00	0.13	0.01						
Capacity (veh/h)	710	830	691	811	745	756						
Control Delay (s)	7.3	6.5	7.5	6.1	8.3	7.5						
Approach Delay (s)	6.9		7.5		8.3	7.5						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.4									
HCM Level of Service			A									
Intersection Capacity Utilization			29.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

TSM Alternative
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	23	4	151	19	6	137
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	4	164	21	7	149
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	326	164			185	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	164			185	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	100			100	
cM capacity (veh/h)	665	880			1390	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	29	164	21	7	149	
Volume Left	25	0	0	7	0	
Volume Right	4	0	21	0	0	
cSH	690	1700	1700	1390	1700	
Volume to Capacity	0.04	0.10	0.01	0.00	0.09	
Queue Length 95th (ft)	3	0	0	0	0	
Control Delay (s)	10.4	0.0	0.0	7.6	0.0	
Lane LOS	B			A		
Approach Delay (s)	10.4	0.0		0.3		
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			17.9%		ICU Level of Service	A
Analysis Period (min)			15			

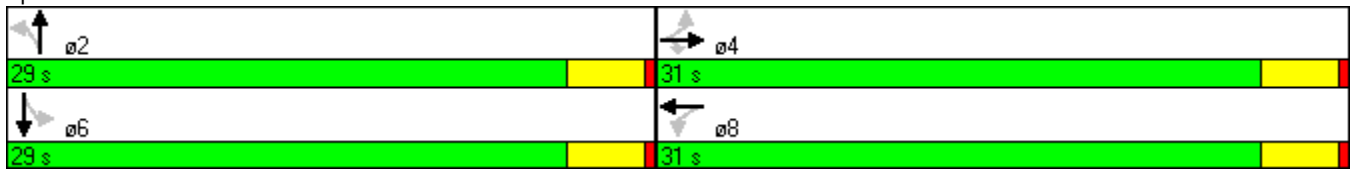
Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	551	13	61	535	23	25	47	222	87	39	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3518	0	0	1666	0	0	1714	0
Flt Permitted	0.422			0.426				0.956			0.807	
Satd. Flow (perm)	786	3539	1583	794	3518	0	0	1599	0	0	1410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			14		9			191			86	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	599	14	66	607	0	0	319	0	0	252	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	12.7	12.7	12.7	12.7	12.7			9.8			9.8	
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41			0.31			0.31	
v/c Ratio	0.31	0.41	0.02	0.20	0.42			0.50			0.50	
Control Delay	9.8	7.7	3.8	8.3	7.7			7.4			10.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	9.8	7.7	3.8	8.3	7.7			7.4			10.5	
LOS	A	A	A	A	A			A			B	
Approach Delay		7.9			7.7			7.4			10.5	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	9	29	0	6	29			13			18	
Queue Length 95th (ft)	40	78	6	28	78			71			80	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	676	3044	1363	683	3027			1354			1179	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.14	0.20	0.01	0.10	0.20			0.24			0.21	
Intersection Summary												
Area Type:	Other											
Cycle Length:	60											
Actuated Cycle Length:	31.2											
Control Type:	Actuated-Uncoordinated											
Maximum v/c Ratio:	0.50											
Intersection Signal Delay:	8.1					Intersection LOS: A						
Intersection Capacity Utilization	64.7%					ICU Level of Service C						

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
29: Arrow Hwy & Eucla Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	55	775	125	259	671	19	91	93	328	24	62	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4979	0	1770	5065	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.355			0.187			0.713			0.692		
Satd. Flow (perm)	661	4979	0	348	5065	0	1328	1863	1583	1289	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			9				357			12
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	978	0	282	750	0	99	101	357	26	67	12
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	21.0	0.0	16.0	29.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	19.5	15.4		28.5	24.2		10.1	10.1	10.1	10.1	10.1	10.1
Actuated g/C Ratio	0.42	0.33		0.61	0.52		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.16	0.59		0.58	0.29		0.35	0.25	0.57	0.09	0.17	0.03
Control Delay	6.9	14.9		11.5	8.2		19.8	17.4	6.5	16.0	16.5	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	14.9		11.5	8.2		19.8	17.4	6.5	16.0	16.5	8.8
LOS	A	B		B	A		B	B	A	B	B	A
Approach Delay		14.5			9.1			10.8			15.5	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	5	71		27	43		24	24	0	6	15	0
Queue Length 95th (ft)	21	141		101	84		59	57	51	22	41	10
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	373	1898		588	2816		556	780	871	540	780	670
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.52		0.48	0.27		0.18	0.13	0.41	0.05	0.09	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 11.8

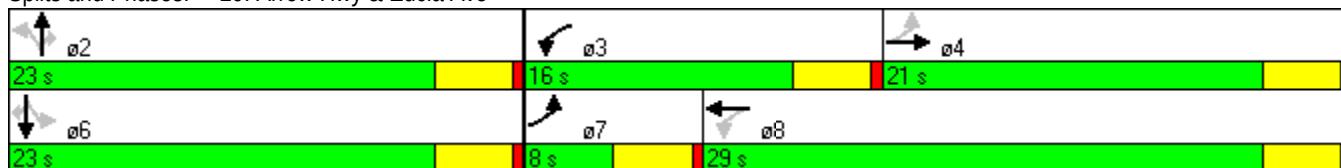
Intersection LOS: B

Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

TSM Alternative
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	75	11	2	69	12	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	12	2	75	13	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			93		167	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			93		167	88
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1501		822	971
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	93	77	18			
Volume Left	0	2	13			
Volume Right	12	0	5			
cSH	1700	1501	861			
Volume to Capacity	0.05	0.00	0.02			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.2	9.3			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.2	9.3			
Approach LOS			A			
Intersection Summary						
Average Delay		1.0				
Intersection Capacity Utilization		15.2%		ICU Level of Service		A
Analysis Period (min)		15				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	13	4	2	12	2	8	5	4	4	4	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	14	4	2	13	2	9	5	4	4	4	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	49	43	7	52	43	8	10			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	49	43	7	52	43	8	10			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	100	100	98	100	99			100		
cM capacity (veh/h)	932	842	1075	925	842	1075	1610			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	23	17	18	14								
Volume Left	4	2	9	4								
Volume Right	4	2	4	5								
cSH	895	875	1610	1610								
Volume to Capacity	0.03	0.02	0.01	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.1	9.2	3.4	2.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.1	9.2	3.4	2.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.4									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	815	23	23	577	15	15	2	35	2	6	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	886	25	25	627	16	16	2	38	2	7	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	643			911			1315	1629	455	1204	1633	322
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	643			911			1315	1629	455	1204	1633	322
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			97			84	98	93	98	93	98
cM capacity (veh/h)	937			744			103	96	552	123	95	674
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	18	591	320	25	418	225	18	38	22			
Volume Left	18	0	0	25	0	0	16	0	2			
Volume Right	0	0	25	0	0	16	0	38	13			
cSH	937	1700	1700	744	1700	1700	102	552	206			
Volume to Capacity	0.02	0.35	0.19	0.03	0.25	0.13	0.18	0.07	0.11			
Queue Length 95th (ft)	2	0	0	3	0	0	16	6	9			
Control Delay (s)	8.9	0.0	0.0	10.0	0.0	0.0	47.8	12.0	24.6			
Lane LOS	A			B			E	B	C			
Approach Delay (s)	0.2			0.4			23.7		24.6			
Approach LOS							C		C			
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			39.9%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	17	4	10	12	9	8	93	16	5	53	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	18	4	11	13	10	9	101	17	5	58	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	23			23			93	67	21	130	65	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			23			93	67	21	130	65	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	88	98	99	93	100
cM capacity (veh/h)	1592			1592			836	817	1057	745	820	1061
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	24	34	127	65								
Volume Left	1	11	9	5								
Volume Right	4	10	17	2								
cSH	1592	1592	845	819								
Volume to Capacity	0.00	0.01	0.15	0.08								
Queue Length 95th (ft)	0	1	13	6								
Control Delay (s)	0.3	2.4	10.0	9.8								
Lane LOS	A	A	B	A								
Approach Delay (s)	0.3	2.4	10.0	9.8								
Approach LOS			B	A								
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			20.3%	ICU Level of Service		A						
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	51	767	24	44	534	58	19	58	81	12	18	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	834	26	48	580	63	21	63	88	13	20	62
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	472	443	338	353	84	88	33	62				
Volume Left (vph)	55	0	48	0	21	0	13	0				
Volume Right (vph)	0	26	0	63	0	88	0	62				
Hadj (s)	0.09	-0.01	0.10	-0.09	0.16	-0.67	0.23	-0.67				
Departure Headway (s)	6.6	6.5	6.9	6.7	8.2	7.4	8.5	7.6				
Degree Utilization, x	0.86	0.80	0.64	0.65	0.19	0.18	0.08	0.13				
Capacity (veh/h)	540	546	506	523	412	453	395	440				
Control Delay (s)	36.7	29.0	20.3	20.2	12.0	10.9	11.0	10.6				
Approach Delay (s)	32.9		20.2		11.4		10.7					
Approach LOS	D		C		B		B					
Intersection Summary												
Delay			25.1									
HCM Level of Service			D									
Intersection Capacity Utilization			62.1%	ICU Level of Service				B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
35: Second St & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	25	6	1	28	2	1	67	5	1	36	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	27	7	1	30	2	1	73	5	1	39	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	140	125	42	142	126	76	46			78		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	140	125	42	142	126	76	46			78		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	96	99	100	96	100	100			100		
cM capacity (veh/h)	803	764	1028	799	764	986	1562			1520		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	41	34	79	47								
Volume Left	8	1	1	1								
Volume Right	7	2	5	7								
cSH	804	776	1562	1520								
Volume to Capacity	0.05	0.04	0.00	0.00								
Queue Length 95th (ft)	4	3	0	0								
Control Delay (s)	9.7	9.8	0.1	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.7	9.8	0.1	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			16.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
36: Bonita Ave & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	794	16	17	583	70	12	12	16	21	4	63
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	863	17	18	634	76	13	13	17	23	4	68
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					666							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	710			880			1772	1777	872	1754	1748	672
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	555			880			1825	1831	872	1804	1796	510
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			98			64	77	95	38	93	85
cM capacity (veh/h)	849			768			37	56	350	37	59	471
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	79	880	18	710	43	96						
Volume Left	79	0	18	0	13	23						
Volume Right	0	17	0	76	17	68						
cSH	849	1700	768	1700	68	114						
Volume to Capacity	0.09	0.52	0.02	0.42	0.64	0.84						
Queue Length 95th (ft)	8	0	2	0	69	124						
Control Delay (s)	9.7	0.0	9.8	0.0	123.7	115.6						
Lane LOS	A		A		F	F						
Approach Delay (s)	0.8		0.2		123.7	115.6						
Approach LOS					F	F						
Intersection Summary												
Average Delay			9.5									
Intersection Capacity Utilization			62.6%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
37: Second St & San Dimas Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	22	17	6	13	16	18	654	2	15	538	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	24	18	7	14	17	20	711	2	16	585	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1392	1370	585	1398	1372	711	589			713		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1376	1351	585	1383	1353	598	589			600		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	81	96	92	89	96	98			98		
cM capacity (veh/h)	91	126	511	85	126	439	986			854		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	49	38	20	711	2	16	585	4				
Volume Left	7	7	20	0	0	16	0	0				
Volume Right	18	17	0	0	2	0	0	4				
cSH	165	166	986	1700	1700	854	1700	1700				
Volume to Capacity	0.30	0.23	0.02	0.42	0.00	0.02	0.34	0.00				
Queue Length 95th (ft)	29	21	2	0	0	1	0	0				
Control Delay (s)	35.8	33.0	8.7	0.0	0.0	9.3	0.0	0.0				
Lane LOS	E	D	A			A						
Approach Delay (s)	35.8	33.0	0.2			0.3						
Approach LOS	E	D										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			44.4%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	658	47	80	424	137	97	382	147	222	227	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3391	0	1770	1770	0
Flt Permitted	0.367			0.167			0.437			0.387		
Satd. Flow (perm)	684	1863	1583	311	1863	1583	814	3391	0	721	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23			103		118			52	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	715	51	87	461	149	105	575	0	241	369	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	23.8	23.8	23.8	23.8	23.8	23.8	21.8	21.8		21.8	21.8	
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.40	0.40		0.40	0.40	
v/c Ratio	0.35	0.87	0.07	0.64	0.56	0.20	0.32	0.40		0.83	0.49	
Control Delay	15.4	29.1	7.0	39.7	15.3	5.1	14.5	9.9		41.5	13.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	15.4	29.1	7.0	39.7	15.3	5.1	14.5	9.9		41.5	13.0	
LOS	B	C	A	D	B	A	B	A		D	B	
Approach Delay		26.1			16.2			10.6			24.2	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	24	226	6	24	119	9	24	54		70	75	
Queue Length 95th (ft)	60	#425	22	#92	200	38	56	86		#186	138	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	343	935	806	156	935	845	409	1760		362	914	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	0.76	0.06	0.56	0.49	0.18	0.26	0.33		0.67	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.6

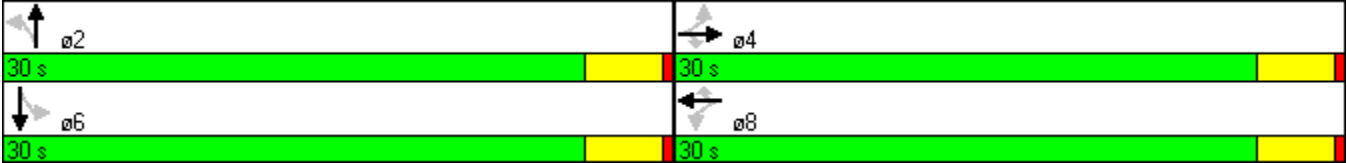
Intersection LOS: B

Intersection Capacity Utilization 80.0%

ICU Level of Service D

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

39: Arrow Hwy & San Dimas Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	243	1116	142	197	878	85	165	270	200	90	228	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26				217		115	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	1367	0	214	1046	0	179	293	217	98	363	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	11.0	20.0	0.0	11.0	20.0	0.0	8.0	21.0	21.0	8.0	21.0	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
Act Effect Green (s)	7.0	16.1		7.0	16.1		4.0	15.0	15.0	4.0	13.1	
Actuated g/C Ratio	0.12	0.29		0.12	0.29		0.07	0.27	0.27	0.07	0.23	
v/c Ratio	1.19	0.94		0.97	0.72		1.42	0.59	0.37	0.78	0.42	
Control Delay	152.4	35.5		84.9	21.7		255.8	24.3	5.1	69.9	13.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	152.4	35.5		84.9	21.7		255.8	24.3	5.1	69.9	13.4	
LOS	F	D		F	C		F	C	A	E	B	
Approach Delay		54.4			32.5			78.4			25.4	
Approach LOS		D			C			E			C	
Queue Length 50th (ft)	~118	166		~76	117		~88	89	0	35	36	
Queue Length 95th (ft)	#250	#276		#200	167		#199	157	42	#111	66	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	221	1452		221	1451		126	565	631	126	1102	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	1.19	0.94		0.97	0.72		1.42	0.52	0.34	0.78	0.33	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.42

Intersection Signal Delay: 48.4

Intersection LOS: D

Intersection Capacity Utilization 68.2%

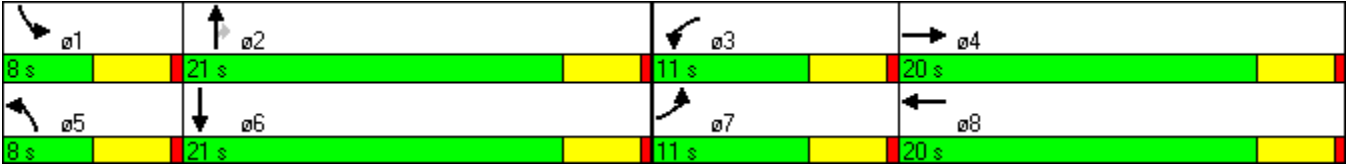
ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

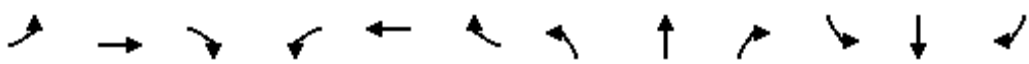
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair
40: Bonita Ave & Walnut Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	766	32	59	460	74	114	194	310	110	97	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3518	0	1770	3539	1583	1770	1691	0	1770	1725	0
Flt Permitted	0.450			0.232			0.629			0.280		
Satd. Flow (perm)	838	3518	0	432	3539	1583	1172	1691	0	522	1725	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				80		68			101	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	868	0	64	500	80	124	548	0	120	206	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	32.0	32.0	0.0	32.0	32.0	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
Act Effect Green (s)	18.8	18.8		18.8	18.8	18.8	19.8	19.8		19.8	19.8	
Actuated g/C Ratio	0.40	0.40		0.40	0.40	0.40	0.42	0.42		0.42	0.42	
v/c Ratio	0.38	0.62		0.37	0.36	0.12	0.25	0.73		0.55	0.26	
Control Delay	16.0	14.3		19.6	11.7	3.9	11.0	17.0		22.2	6.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	16.0	14.3		19.6	11.7	3.9	11.0	17.0		22.2	6.1	
LOS	B	B		B	B	A	B	B		C	A	
Approach Delay		14.6			11.5			15.9			12.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	24	96		12	48	0	21	105		24	17	
Queue Length 95th (ft)	72	178		48	96	21	54	223		77	53	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	459	1932		237	1940	904	749	1106		334	1140	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.28	0.45		0.27	0.26	0.09	0.17	0.50		0.36	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 13.8

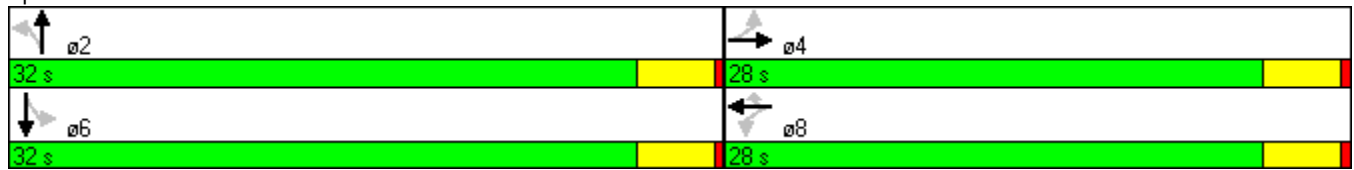
Intersection LOS: B

Intersection Capacity Utilization 74.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

41: Arrow Hwy & Walnut Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	221	1137	68	18	858	44	84	57	21	22	62	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5050	0	0	1809	1583	0	1839	1583
Flt Permitted	0.950			0.950				0.765			0.883	
Satd. Flow (perm)	1770	5045	0	1770	5050	0	0	1425	1583	0	1645	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			13				23			166
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	1310	0	20	981	0	0	153	23	0	91	166
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	19.0	31.0	0.0	8.0	20.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	12.7	30.2		5.1	20.0			11.7	11.7		11.4	11.4
Actuated g/C Ratio	0.28	0.67		0.11	0.44			0.26	0.26		0.25	0.25
v/c Ratio	0.48	0.39		0.10	0.44			0.41	0.05		0.22	0.32
Control Delay	21.2	6.4		26.0	15.2			21.9	8.2		18.5	5.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	21.2	6.4		26.0	15.2			21.9	8.2		18.5	5.5
LOS	C	A		C	B			C	A		B	A
Approach Delay		8.7			15.4			20.1			10.1	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	63	55		6	86			40	0		23	0
Queue Length 95th (ft)	134	152		24	153			90	14		56	37
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	757	3388		202	2258			657	742		759	819
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.32	0.39		0.10	0.43			0.23	0.03		0.12	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 11.8

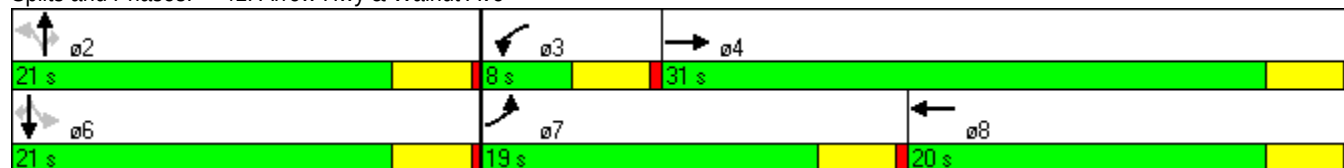
Intersection LOS: B

Intersection Capacity Utilization 54.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	769	129	33	331	97	58	273	86	130	226	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.537			0.295			0.599			0.570		
Satd. Flow (perm)	1000	3539	1583	550	3539	1583	1116	3539	1583	1062	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111			105			93			93
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	205	836	140	36	360	105	63	297	93	141	246	93
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	33.0	33.0	33.0	33.0	33.0	33.0	27.0	27.0	27.0	27.0	27.0	27.0
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
Act Effect Green (s)	19.4	19.4	19.4	19.4	19.4	19.4	11.9	11.9	11.9	11.9	11.9	11.9
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.48	0.30	0.30	0.30	0.30	0.30	0.30
v/c Ratio	0.42	0.49	0.17	0.14	0.21	0.13	0.19	0.28	0.17	0.45	0.23	0.17
Control Delay	10.8	8.4	3.1	8.2	6.7	2.4	13.5	12.3	4.4	17.9	12.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	8.4	3.1	8.2	6.7	2.4	13.5	12.3	4.4	17.9	12.0	4.4
LOS	B	A	A	A	A	A	B	B	A	B	B	A
Approach Delay		8.2			5.9			10.9			12.3	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	24	54	3	4	20	0	10	25	0	24	21	0
Queue Length 95th (ft)	87	133	27	20	54	19	37	61	24	76	51	24
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	759	2685	1228	417	2685	1226	701	2222	1028	667	2222	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.11	0.09	0.13	0.09	0.09	0.13	0.09	0.21	0.11	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.0

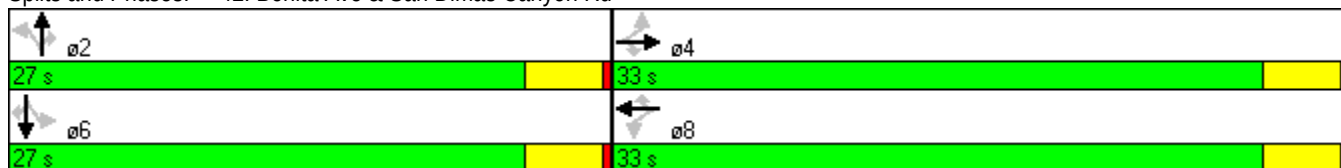
Intersection LOS: A

Intersection Capacity Utilization 52.7%

ICU Level of Service A

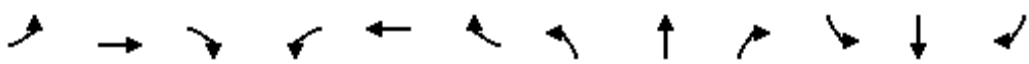
Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	288	868	70	41	693	171	27	41	30	146	49	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5029	0	1770	4933	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.187			0.269			0.722			0.728		
Satd. Flow (perm)	348	5029	0	501	4933	0	1345	1863	1583	1356	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			96				33			241
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	313	1019	0	45	939	0	29	45	33	159	53	241
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	18.0	30.0	0.0	8.0	20.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effect Green (s)	30.2	27.4		18.8	14.7		11.3	11.3	11.3	11.3	11.3	11.3
Actuated g/C Ratio	0.61	0.55		0.38	0.30		0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.58	0.37		0.15	0.62		0.10	0.11	0.09	0.52	0.13	0.44
Control Delay	11.9	8.0		7.9	16.4		16.3	16.2	7.1	23.9	16.4	5.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	8.0		7.9	16.4		16.3	16.2	7.1	23.9	16.4	5.7
LOS	B	A		A	B		B	B	A	C	B	A
Approach Delay		9.0			16.0			13.4			13.3	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	34	40		4	75		7	11	0	43	13	0
Queue Length 95th (ft)	119	119		17	138		24	31	16	92	35	43
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	624	2899		294	1699		501	695	611	506	695	741
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.35		0.15	0.55		0.06	0.06	0.05	0.31	0.08	0.33

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 12.2

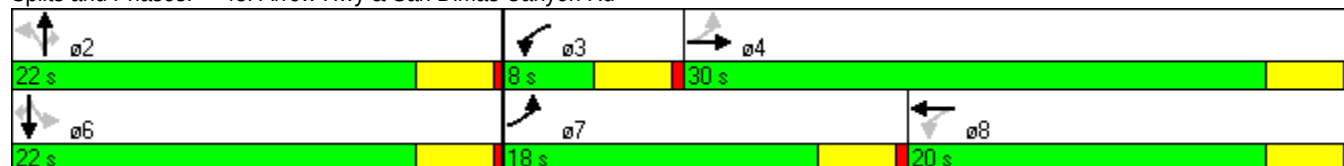
Intersection LOS: B

Intersection Capacity Utilization 57.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
44: Third St & Wheeler Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	3	43	18	6	62	18	561	17	39	338	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	3	47	20	7	67	20	610	18	42	367	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	874	1127	191	975	1124	314	382			628		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	874	1127	191	975	1124	314	382			628		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	98	94	89	97	90	98			96		
cM capacity (veh/h)	204	191	819	183	192	682	1174			950		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	27	47	26	67	324	323	226	198				
Volume Left	24	0	20	0	20	0	42	0				
Volume Right	0	47	0	67	0	18	0	14				
cSH	203	819	185	682	1174	1700	950	1700				
Volume to Capacity	0.13	0.06	0.14	0.10	0.02	0.19	0.04	0.12				
Queue Length 95th (ft)	11	5	12	8	1	0	3	0				
Control Delay (s)	25.5	9.7	27.6	10.9	0.6	0.0	2.0	0.0				
Lane LOS	D	A	D	B	A		A					
Approach Delay (s)	15.5		15.5		0.3		1.1					
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			45.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
45: Arrow Hwy & Wheeler Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	734	10	6	745	267	63	117	72	286	40	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5075	0	1770	4882	0	1770	1863	1583	0	3309	0
Flt Permitted	0.172			0.334			0.425				0.731	
Satd. Flow (perm)	320	5075	0	622	4882	0	792	1863	1583	0	2502	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			153				78		64	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	190	809	0	7	1100	0	68	127	78	0	453	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	14.0	28.0	0.0	8.0	22.0	0.0	24.0	24.0	24.0	24.0	24.0	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
Act Effect Green (s)	26.8	25.5		19.8	16.9		13.8	13.8	13.8		13.8	
Actuated g/C Ratio	0.54	0.52		0.40	0.34		0.28	0.28	0.28		0.28	
v/c Ratio	0.43	0.31		0.02	0.62		0.31	0.24	0.16		0.61	
Control Delay	9.3	8.0		7.0	14.7		19.7	16.6	5.1		17.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.3	8.0		7.0	14.7		19.7	16.6	5.1		17.9	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		8.2			14.7			14.1			17.9	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	23	36		1	87		18	32	0		57	
Queue Length 95th (ft)	63	101		6	152		46	66	24		96	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	492	3067		351	2018		347	816	737		1132	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.39	0.26		0.02	0.55		0.20	0.16	0.11		0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 12.9

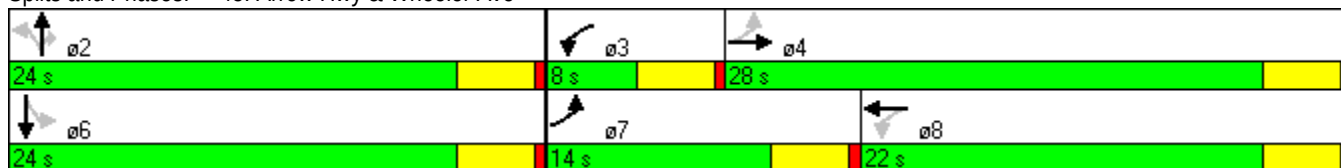
Intersection LOS: B

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair
46: Third St & A St

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	63	8	10	78	7	10	67	23	5	17	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	68	9	11	85	8	11	73	25	5	18	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None				None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92			77			198	193	68	247	195	85
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92			77			198	193	68	247	195	85
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	90	97	99	97	100
cM capacity (veh/h)	1502			1521			736	694	995	628	693	974
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	74	9	96	8	109	27						
Volume Left	5	0	11	0	11	5						
Volume Right	0	9	0	8	25	3						
cSH	1502	1700	1521	1700	751	703						
Volume to Capacity	0.00	0.01	0.01	0.00	0.14	0.04						
Queue Length 95th (ft)	0	0	1	0	13	3						
Control Delay (s)	0.6	0.0	0.9	0.0	10.6	10.3						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.5			0.8	10.6	10.3						
Approach LOS					B	B						
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			24.3%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

47: First St & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	8	6	8	10	1	10	109	6	2	22	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	9	7	9	11	1	11	118	7	2	24	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	175	175	24	179	176	118	32			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	175	175	24	179	176	118	32			125		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	99	98	100	99			100		
cM capacity (veh/h)	773	712	1053	765	711	933	1581			1462		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	12	7	21	129	7	26	8					
Volume Left	3	0	9	11	0	2	0					
Volume Right	0	7	1	0	7	0	8					
cSH	728	1053	743	1581	1700	1462	1700					
Volume to Capacity	0.02	0.01	0.03	0.01	0.00	0.00	0.00					
Queue Length 95th (ft)	1	0	2	1	0	0	0					
Control Delay (s)	10.0	8.4	10.0	0.7	0.0	0.6	0.0					
Lane LOS	B	A	A	A		A						
Approach Delay (s)	9.5		10.0	0.6		0.5						
Approach LOS	A		A									
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			27.3%		ICU Level of Service					A		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
48: Arrow Hwy & A St

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	81	1147	10	2	861	56	7	2	10	14	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	88	1247	11	2	936	61	8	2	11	15	0	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	997			1258			1765	2429	421	1574	2404	342
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	997			1258			1765	2429	421	1574	2404	342
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	87			100			84	92	98	75	100	97
cM capacity (veh/h)	690			549			46	27	581	62	28	654
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	88	499	499	260	2	374	374	248	10	11	15	21
Volume Left	88	0	0	0	2	0	0	0	8	0	15	0
Volume Right	0	0	0	11	0	0	0	61	0	11	0	21
cSH	690	1700	1700	1700	549	1700	1700	1700	40	581	62	654
Volume to Capacity	0.13	0.29	0.29	0.15	0.00	0.22	0.22	0.15	0.24	0.02	0.25	0.03
Queue Length 95th (ft)	11	0	0	0	0	0	0	0	20	1	21	2
Control Delay (s)	11.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0	121.3	11.3	81.7	10.7
Lane LOS	B				B				F	B	F	B
Approach Delay (s)	0.7				0.0				63.4		40.8	
Approach LOS									F		E	
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			43.2%		ICU Level of Service				A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	52	58	17	86	44	136	219	26	17	159	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	57	63	18	93	48	148	238	28	18	173	74
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	149	160	414	265								
Volume Left (vph)	29	18	148	18								
Volume Right (vph)	63	48	28	74								
Hadj (s)	-0.18	-0.12	0.06	-0.12								
Departure Headway (s)	5.9	5.9	5.3	5.4								
Degree Utilization, x	0.24	0.26	0.61	0.40								
Capacity (veh/h)	520	532	643	621								
Control Delay (s)	10.8	11.0	16.4	11.9								
Approach Delay (s)	10.8	11.0	16.4	11.9								
Approach LOS	B	B	C	B								
Intersection Summary												
Delay			13.5									
HCM Level of Service			B									
Intersection Capacity Utilization			56.7%	ICU Level of Service				B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
50: First St & D St

TSM Alternative
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	38	32	29	266	133	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	35	32	289	145	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	516	164	183			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	516	164	183			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	96	98			
cM capacity (veh/h)	508	881	1392			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	76	321	183			
Volume Left	41	32	0			
Volume Right	35	0	38			
cSH	630	1392	1700			
Volume to Capacity	0.12	0.02	0.11			
Queue Length 95th (ft)	10	2	0			
Control Delay (s)	11.5	0.9	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.5	0.9	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			38.8%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

51: Arrow Hwy & D St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	1083	32	16	875	170	31	25	25	107	23	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5065	0	1770	4963	0	0	1812	1583	0	1788	1583
Flt Permitted	0.231			0.209				0.779			0.722	
Satd. Flow (perm)	430	5065	0	389	4963	0	0	1451	1583	0	1345	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			120				27			48
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	1212	0	17	1136	0	0	61	27	0	141	48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	26.3	26.3		26.3	26.3			11.0	11.0		11.1	11.1
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.28	0.28		0.28	0.28
v/c Ratio	0.40	0.36		0.07	0.34			0.15	0.06		0.38	0.10
Control Delay	11.5	5.2		5.5	4.6			16.6	8.0		19.6	6.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	11.5	5.2		5.5	4.6			16.6	8.0		19.6	6.8
LOS	B	A		A	A			B	A		B	A
Approach Delay		5.7			4.6			13.9			16.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	13	46		1	37			11	0		27	0
Queue Length 95th (ft)	59	95		9	80			43	16		86	21
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	359	4225		324	4158			714	793		662	804
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.32	0.29		0.05	0.27			0.09	0.03		0.21	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 6.2

Intersection LOS: A

Intersection Capacity Utilization 50.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

52: Third St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	48	22	9	47	11	66	342	33	10	132	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	52	24	10	51	12	72	372	36	11	143	15
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	75	24	61	12	443	36	154	15				
Volume Left (vph)	23	0	10	0	72	0	11	0				
Volume Right (vph)	0	24	0	12	0	36	0	15				
Hadj (s)	0.19	-0.67	0.11	-0.67	0.11	-0.67	0.07	-0.67				
Departure Headway (s)	6.4	5.5	6.4	5.6	5.3	4.5	5.5	4.8				
Degree Utilization, x	0.13	0.04	0.11	0.02	0.65	0.05	0.24	0.02				
Capacity (veh/h)	515	586	513	579	659	766	620	708				
Control Delay (s)	9.2	7.6	8.9	7.5	16.5	6.5	9.1	6.7				
Approach Delay (s)	8.8		8.7		15.8		8.9					
Approach LOS	A		A		C		A					
Intersection Summary												
Delay			12.9									
HCM Level of Service			B									
Intersection Capacity Utilization			49.5%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

53: Second St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	23	32	7	19	8	30	406	10	5	145	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	25	35	8	21	9	33	441	11	5	158	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	685	686	158	688	699	441	182			452		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	566	566	158	568	581	286	182			298		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	93	96	98	94	99	98			100		
cM capacity (veh/h)	350	367	888	337	360	657	1394			1101		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	104	37	474	11	163	24						
Volume Left	45	8	33	0	5	0						
Volume Right	35	9	0	11	0	24						
cSH	535	463	1394	1700	1101	1700						
Volume to Capacity	0.20	0.08	0.02	0.01	0.00	0.01						
Queue Length 95th (ft)	18	6	2	0	0	0						
Control Delay (s)	14.8	14.8	0.8	0.0	0.3	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	14.8	14.8	0.7		0.3							
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.1									
Intersection Capacity Utilization			51.1%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
54: First St & E St

TSM Alternative
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	25	19	432	16	10	162
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	21	470	17	11	176
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.86	0.86			0.86	
vC, conflicting volume	667	470			487	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	529	299			319	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	97			99	
cM capacity (veh/h)	433	635			1065	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	27	21	470	17	11	176
Volume Left	27	0	0	0	11	0
Volume Right	0	21	0	17	0	0
cSH	433	635	1700	1700	1065	1700
Volume to Capacity	0.06	0.03	0.28	0.01	0.01	0.10
Queue Length 95th (ft)	5	3	0	0	1	0
Control Delay (s)	13.9	10.9	0.0	0.0	8.4	0.0
Lane LOS	B	B			A	
Approach Delay (s)	12.6		0.0		0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			32.7%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
55: Arrow Hwy & E St

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	52	969	192	73	664	36	322	335	140	27	152	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			9				152			45
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	1262	0	79	761	0	350	364	152	29	165	45
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	29.0	0.0	10.0	28.0	0.0	28.0	42.0	42.0	9.0	23.0	23.0
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
Act Effect Green (s)	6.8	24.2		6.3	25.7		19.5	32.9	32.9	5.2	12.3	12.3
Actuated g/C Ratio	0.09	0.32		0.08	0.34		0.26	0.43	0.43	0.07	0.16	0.16
v/c Ratio	0.36	0.78		0.54	0.44		0.77	0.45	0.20	0.24	0.55	0.15
Control Delay	43.9	28.8		54.0	22.8		40.3	19.1	3.8	43.7	38.7	10.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	28.8		54.0	22.8		40.3	19.1	3.8	43.7	38.7	10.9
LOS	D	C		D	C		D	B	A	D	D	B
Approach Delay		29.5			25.7			25.0			34.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	28	205		39	114		162	116	0	14	78	0
Queue Length 95th (ft)	69	#320		#112	172		#297	223	34	44	142	28
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	170	1732		146	1817		583	972	899	122	486	446
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.73		0.54	0.42		0.60	0.37	0.17	0.24	0.34	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

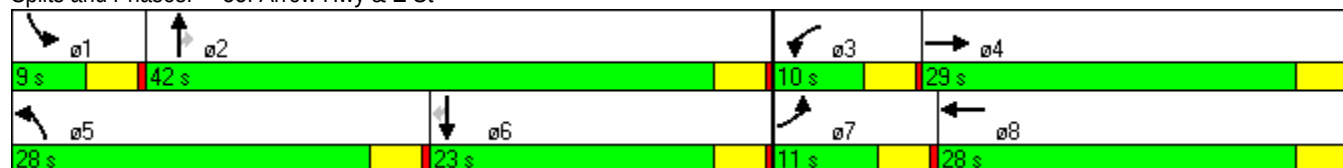
55: Arrow Hwy & E St

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	11	11	6	7	15	30	918	18	11	622	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	12	12	7	8	16	33	998	20	12	676	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											296	
pX, platoon unblocked	0.81	0.81	0.81	0.81	0.81		0.81					
vC, conflicting volume	1783	1783	676	1781	1782	998	695			1017		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1851	1850	479	1848	1849	998	502			1017		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	79	97	82	87	94	96			98		
cM capacity (veh/h)	37	57	473	36	57	296	857			682		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	18	12	14	16	1030	20	688	18				
Volume Left	7	0	7	0	33	0	12	0				
Volume Right	0	12	0	16	0	20	0	18				
cSH	48	473	45	296	857	1700	682	1700				
Volume to Capacity	0.39	0.03	0.31	0.06	0.04	0.01	0.02	0.01				
Queue Length 95th (ft)	34	2	27	4	3	0	1	0				
Control Delay (s)	121.1	12.8	118.2	17.9	1.1	0.0	0.5	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	78.6		64.5		1.1		0.5					
Approach LOS	F		F									
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			85.1%		ICU Level of Service					E		
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	2	16	0	3	10	19	906	10	9	616	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	2	17	0	3	11	21	985	11	10	670	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											756	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1728	1726	670	1734	1726	985	680			996		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1765	1763	532	1772	1763	985	545			996		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	97	96	100	95	96	98			99		
cM capacity (veh/h)	51	69	470	51	69	301	879			695		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	16	17	3	11	1005	11	679	11				
Volume Left	14	0	0	0	21	0	10	0				
Volume Right	0	17	0	11	0	11	0	11				
cSH	53	470	69	301	879	1700	695	1700				
Volume to Capacity	0.31	0.04	0.05	0.04	0.02	0.01	0.01	0.01				
Queue Length 95th (ft)	27	3	4	3	2	0	1	0				
Control Delay (s)	101.7	13.0	59.4	17.4	0.7	0.0	0.4	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	55.9		27.1		0.7		0.4					
Approach LOS	F		D									
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			77.1%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
58: First St & White Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	2	22	15	0	30	24	879	31	22	595	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	2	24	16	0	33	26	955	34	24	647	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											1008	
pX, platoon unblocked	0.93	0.93	0.93	0.93	0.93		0.93					
vC, conflicting volume	1735	1736	647	1727	1714	955	659			989		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1753	1754	581	1745	1731	955	594			989		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	71	97	95	71	100	90	97			97		
cM capacity (veh/h)	53	74	477	56	77	313	912			699		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	17	24	16	33	26	955	34	671	12			
Volume Left	15	0	16	0	26	0	0	24	0			
Volume Right	0	24	0	33	0	0	34	0	12			
cSH	55	477	56	313	912	1700	1700	699	1700			
Volume to Capacity	0.32	0.05	0.29	0.10	0.03	0.56	0.02	0.03	0.01			
Queue Length 95th (ft)	28	4	26	9	2	0	0	3	0			
Control Delay (s)	98.4	12.9	94.6	17.8	9.1	0.0	0.0	0.9	0.0			
Lane LOS	F	B	F	C	A			A				
Approach Delay (s)	48.9		43.4		0.2			0.9				
Approach LOS	E		E									
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			63.3%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

TSM Alternative
PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	13	17	919	11	30	611	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	14	18	999	12	33	664	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.84	0.84			0.84		
vC, conflicting volume	1396	499			1011		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1091	24			633		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	92	98			96		
cM capacity (veh/h)	169	879			795		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	33	499	499	12	33	332	332
Volume Left	14	0	0	0	33	0	0
Volume Right	18	0	0	12	0	0	0
cSH	311	1700	1700	1700	795	1700	1700
Volume to Capacity	0.10	0.29	0.29	0.01	0.04	0.20	0.20
Queue Length 95th (ft)	9	0	0	0	3	0	0
Control Delay (s)	17.9	0.0	0.0	0.0	9.7	0.0	0.0
Lane LOS	C				A		
Approach Delay (s)	17.9	0.0			0.5		
Approach LOS	C						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utilization			35.4%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

TSM Alternative
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	177	589	173	140	372	59	170	855	196	112	519	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188			64			85			126
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	640	188	152	404	64	185	1142	0	122	737	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	0.0	10.0	20.0	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
Act Effect Green (s)	6.1	14.7	14.7	6.1	14.7	14.7	6.1	16.8		6.1	14.4	
Actuated g/C Ratio	0.11	0.26	0.26	0.11	0.26	0.26	0.11	0.29		0.11	0.25	
v/c Ratio	1.03	0.70	0.34	0.81	0.44	0.14	0.99	0.76		0.65	0.56	
Control Delay	107.0	24.4	5.4	62.6	19.9	6.3	97.4	22.4		45.9	17.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	107.0	24.4	5.4	62.6	19.9	6.3	97.4	22.4		45.9	17.2	
LOS	F	C	A	E	B	A	F	C		D	B	
Approach Delay		36.4			29.0			32.9			21.2	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	~81	108	0	55	63	0	~75	131		44	67	
Queue Length 95th (ft)	#190	159	40	#148	98	24	#182	#186		#116	100	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	187	997	581	187	997	492	187	1509		187	1472	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.03	0.64	0.32	0.81	0.41	0.13	0.99	0.76		0.65	0.50	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 30.6

Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

60: White Ave & Arrow Hwy

TSM Alternative
PM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
10 s	20 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
10 s	20 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
61: Bonita Ave & D St

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	356	40	39	381	116	60	180	36	116	179	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1809	0	1770	1863	1583
Flt Permitted	0.447			0.477				0.896		0.611		
Satd. Flow (perm)	833	1863	1583	889	1863	1583	0	1639	0	1138	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			37			103		15				155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	387	43	42	414	126	0	300	0	126	195	155
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	0.0	28.0	28.0	28.0
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
Act Effect Green (s)	14.3	14.3	14.3	14.3	14.3	14.3		12.1		12.1	12.1	12.1
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41	0.41		0.34		0.34	0.34	0.34
v/c Ratio	0.26	0.51	0.06	0.12	0.55	0.18		0.52		0.32	0.30	0.24
Control Delay	9.9	10.9	3.9	8.1	11.4	3.5		13.4		12.4	10.9	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	9.9	10.9	3.9	8.1	11.4	3.5		13.4		12.4	10.9	3.5
LOS	A	B	A	A	B	A		B		B	B	A
Approach Delay		10.1			9.5			13.4			8.9	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)	9	44	1	4	48	2		37		15	23	0
Queue Length 95th (ft)	40	136	14	21	147	26		123		60	80	28
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	683	1528	1305	729	1528	1317		1211		838	1372	1207
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.13	0.25	0.03	0.06	0.27	0.10		0.25		0.15	0.14	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.1

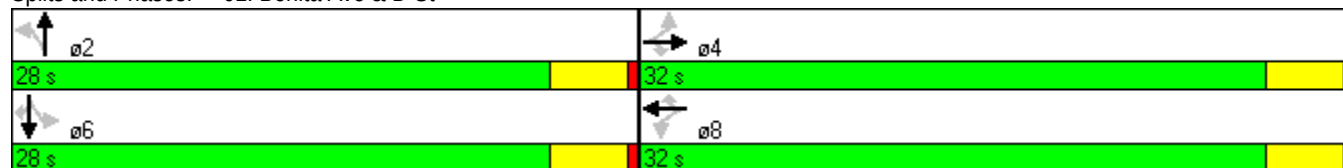
Intersection LOS: B

Intersection Capacity Utilization 62.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair
62: Foothill Blvd & Fruit St

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	257	845	157	129	647	212	265	667	50	232	368	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4963	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4963	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43				160		8				195
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	279	1089	0	140	703	230	288	779	0	252	400	195
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	21.0	31.0	0.0	14.0	24.0	24.0	16.0	26.0	0.0	19.0	29.0	29.0
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
Act Effect Green (s)	16.2	26.3		9.6	19.7	19.7	11.2	21.6		14.5	24.9	24.9
Actuated g/C Ratio	0.18	0.30		0.11	0.22	0.22	0.13	0.25		0.16	0.28	0.28
v/c Ratio	0.86	0.72		0.73	0.89	0.48	0.66	0.90		0.86	0.40	0.33
Control Delay	60.5	29.8		61.3	48.5	14.1	44.7	47.3		65.2	27.4	5.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.5	29.8		61.3	48.5	14.1	44.7	47.3		65.2	27.4	5.6
LOS	E	C		E	D	B	D	D		E	C	A
Approach Delay		36.0			42.8			46.6			33.6	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	154	193		78	205	33	80	224		141	97	0
Queue Length 95th (ft)	#288	243		#166	#306	99	123	#333		#272	139	49
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	342	1555		202	805	484	469	884		302	1013	592
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.82	0.70		0.69	0.87	0.48	0.61	0.88		0.83	0.39	0.33

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 39.8

Intersection LOS: D

Intersection Capacity Utilization 78.3%

ICU Level of Service D

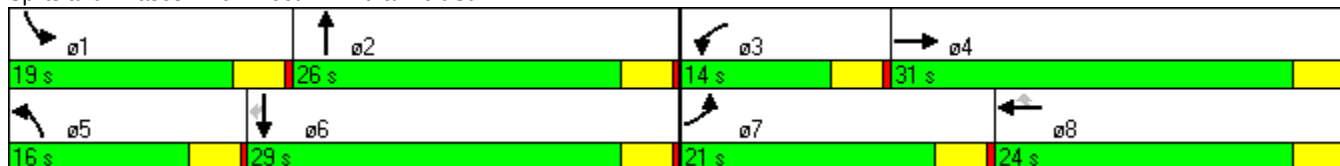
62: Foothill Blvd & Fruit St

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	379	72	49	325	129	72	722	117	71	478	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.402			0.324			0.365			0.161		
Satd. Flow (perm)	749	1863	1583	604	1863	1583	680	1863	1583	300	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78			140			127			107
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	177	412	78	53	353	140	78	785	127	77	520	107
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	36.0	36.0	36.0	36.0	36.0
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
Act Effect Green (s)	16.8	16.8	16.8	16.8	16.8	16.8	26.9	26.9	26.9	26.9	26.9	26.9
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.52	0.52	0.52	0.52	0.52	0.52
v/c Ratio	0.73	0.69	0.14	0.27	0.59	0.23	0.22	0.82	0.14	0.50	0.54	0.12
Control Delay	38.8	23.3	4.9	19.0	20.5	4.4	9.4	19.8	2.1	22.7	11.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	23.3	4.9	19.0	20.5	4.4	9.4	19.8	2.1	22.7	11.3	2.2
LOS	D	C	A	B	C	A	A	B	A	C	B	A
Approach Delay		25.3			16.2			16.7			11.2	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	55	125	0	14	103	0	14	207	0	16	110	0
Queue Length 95th (ft)	#146	211	24	40	176	31	35	#379	19	#70	184	18
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	305	757	690	245	757	726	442	1211	1074	195	1211	1066
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.54	0.11	0.22	0.47	0.19	0.18	0.65	0.12	0.39	0.43	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.2

Intersection LOS: B

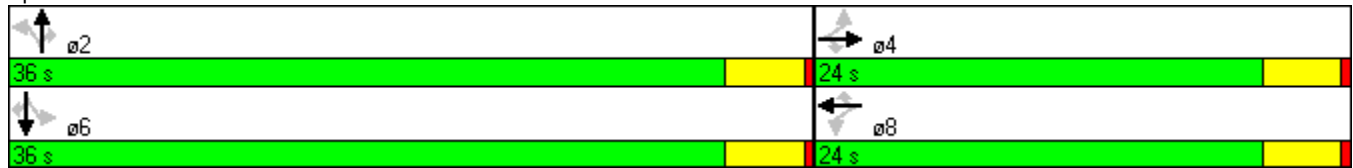
Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
64: McKinley Ave & White Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	218	130	131	48	80	65	57	492	56	100	610	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1745	1583	0	1829	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.668	0.883			0.836		0.950			0.950		
Satd. Flow (perm)	1182	1563	1583	0	1557	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			71			61			88
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	24%											
Lane Group Flow (vph)	180	198	142	0	139	71	62	535	61	109	663	88
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	10.0	24.0	24.0	13.0	27.0	27.0
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
Act Effect Green (s)	13.1	13.1	13.1		13.1	13.1	6.8	14.2	14.2	8.3	15.5	15.5
Actuated g/C Ratio	0.31	0.31	0.31		0.31	0.31	0.16	0.33	0.33	0.19	0.36	0.36
v/c Ratio	0.50	0.41	0.24		0.29	0.13	0.22	0.45	0.11	0.31	0.52	0.14
Control Delay	20.2	17.2	4.6		15.8	5.3	24.5	14.6	5.3	22.8	13.5	4.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	17.2	4.6		15.8	5.3	24.5	14.6	5.3	22.8	13.5	4.1
LOS	C	B	A		B	A	C	B	A	C	B	A
Approach Delay		14.8			12.2			14.6			13.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	43	45	0		29	0	15	63	0	26	75	0
Queue Length 95th (ft)	110	110	32		76	23	53	117	21	78	135	23
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	612	809	888		806	854	289	1928	890	434	2189	1012
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.24	0.16		0.17	0.08	0.21	0.28	0.07	0.25	0.30	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 14.1

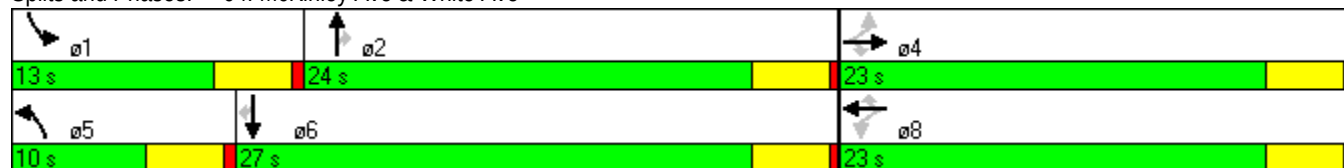
Intersection LOS: B

Intersection Capacity Utilization 49.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
65: Arrow Hwy & La Verne Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	944	0	6	524	3	187	0	5	2	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	1026	0	7	570	3	203	0	5	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	573			1026			1337	1625	342	938	1622	285
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	573			1026			1337	1625	342	938	1622	285
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	100	99	99	100	100
cM capacity (veh/h)	996			672			110	100	654	215	100	712
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	7	342	342	342	7	285	285	3	209	2		
Volume Left	7	0	0	0	7	0	0	0	203	2		
Volume Right	0	0	0	0	0	0	0	3	5	0		
cSH	996	1700	1700	1700	672	1700	1700	1700	113	215		
Volume to Capacity	0.01	0.20	0.20	0.20	0.01	0.17	0.17	0.00	1.85	0.01		
Queue Length 95th (ft)	0	0	0	0	1	0	0	0	418	1		
Control Delay (s)	8.6	0.0	0.0	0.0	10.4	0.0	0.0	0.0	481.6	21.9		
Lane LOS	A				B				F	C		
Approach Delay (s)	0.1				0.1				481.6	21.9		
Approach LOS									F	C		
Intersection Summary												
Average Delay				55.2								
Intersection Capacity Utilization			34.9%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	83	459	41	28	440	27	54	14	32	18	11	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	90	499	45	30	478	29	59	15	35	20	12	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	508			543			1293	1270	521	1276	1278	493
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	508			543			1293	1270	521	1276	1278	493
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			97			47	90	94	83	92	92
cM capacity (veh/h)	1057			1025			110	149	555	114	148	576
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	90	543	30	508	74	35	32	47				
Volume Left	90	0	30	0	59	0	20	0				
Volume Right	0	45	0	29	0	35	0	47				
cSH	1057	1700	1025	1700	116	555	124	576				
Volume to Capacity	0.09	0.32	0.03	0.30	0.64	0.06	0.25	0.08				
Queue Length 95th (ft)	7	0	2	0	81	5	24	7				
Control Delay (s)	8.7	0.0	8.6	0.0	78.7	11.9	43.5	11.8				
Lane LOS	A		A		F	B	E	B				
Approach Delay (s)	1.2		0.5		57.3		24.6					
Approach LOS					F		C					
Intersection Summary												
Average Delay			6.8									
Intersection Capacity Utilization			50.4%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Volume (veh/h)	26	865	1	12	521	13	11	14	18	15	9	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	940	1	13	566	14	12	15	20	16	10	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	580			941			1366	1604	314	989	1590	283
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	580			941			1366	1604	314	989	1590	283
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			86	85	97	90	90	92
cM capacity (veh/h)	990			724			88	100	682	166	102	714
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	28	376	376	189	13	283	283	14	12	35	26	54
Volume Left	28	0	0	0	13	0	0	0	12	0	16	0
Volume Right	0	0	0	1	0	0	0	14	0	20	0	54
cSH	990	1700	1700	1700	724	1700	1700	1700	88	192	134	714
Volume to Capacity	0.03	0.22	0.22	0.11	0.02	0.17	0.17	0.01	0.14	0.18	0.19	0.08
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	11	16	17	6
Control Delay (s)	8.7	0.0	0.0	0.0	10.1	0.0	0.0	0.0	52.5	27.9	38.2	10.5
Lane LOS	A				B				F	D	E	B
Approach Delay (s)	0.3				0.2				34.2		19.4	
Approach LOS									D		C	
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			36.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	286	138	124	214	81	119	764	121	47	585	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.562			0.438			0.950			0.950		
Satd. Flow (perm)	1047	1863	1583	816	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			150			88			132			89
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	311	150	135	233	88	129	830	132	51	636	89
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	26.0	26.0	10.0	23.0	23.0
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
Act Effect Green (s)	14.2	14.2	14.2	14.2	14.2	14.2	8.4	19.9	19.9	6.5	15.9	15.9
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.18	0.41	0.41	0.14	0.33	0.33
v/c Ratio	0.38	0.57	0.26	0.56	0.42	0.17	0.42	0.56	0.18	0.21	0.54	0.15
Control Delay	19.4	20.3	4.6	26.6	17.9	4.9	26.4	14.2	3.8	26.2	16.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	20.3	4.6	26.6	17.9	4.9	26.4	14.2	3.8	26.2	16.8	4.9
LOS	B	C	A	C	B	A	C	B	A	C	B	A
Approach Delay		16.0			17.9			14.4			16.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	29	84	0	36	60	0	37	106	0	15	84	0
Queue Length 95th (ft)	69	154	32	88	114	25	90	181	28	46	145	26
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	483	859	811	376	859	778	367	1827	881	245	1551	744
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.36	0.18	0.36	0.27	0.11	0.35	0.45	0.15	0.21	0.41	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 15.7

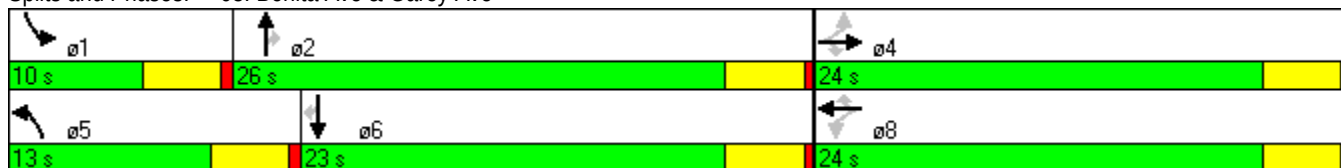
Intersection LOS: B

Intersection Capacity Utilization 59.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

TSM Alternative
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	50	13	981	853	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	54	14	1066	927	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.90					
vC, conflicting volume	1492	467	934			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1317	467	934			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	90	98			
cM capacity (veh/h)	131	543	729			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	54	14	533	533	618	316
Volume Left	0	14	0	0	0	0
Volume Right	54	0	0	0	0	7
cSH	543	729	1700	1700	1700	1700
Volume to Capacity	0.10	0.02	0.31	0.31	0.36	0.19
Queue Length 95th (ft)	8	1	0	0	0	0
Control Delay (s)	12.4	10.0	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.4	0.1			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			33.8%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
70: Arrow Hwy & Garey Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	662	87	138	410	165	165	703	151	181	658	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	4867	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	4867	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			165				100			38
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	815	0	150	625	0	179	764	164	197	715	58
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	11.0	20.0	20.0	11.0	20.0	20.0
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
Act Effect Green (s)	5.0	14.7		5.0	16.7		7.0	15.5	15.5	7.0	15.5	15.5
Actuated g/C Ratio	0.09	0.25		0.09	0.29		0.12	0.27	0.27	0.12	0.27	0.27
v/c Ratio	0.65	0.63		0.99	0.41		0.84	0.81	0.33	0.92	0.76	0.13
Control Delay	49.8	20.9		103.8	13.8		61.9	28.9	10.2	76.7	26.3	9.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	20.9		103.8	13.8		61.9	28.9	10.2	76.7	26.3	9.8
LOS	D	C		F	B		E	C	B	E	C	A
Approach Delay		24.0			31.2			31.4			35.5	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	36	89		~57	49		65	135	18	72	124	5
Queue Length 95th (ft)	#101	124		#157	77		#164	#217	58	#183	#182	29
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	152	1402		152	1535		213	973	507	213	973	463
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.58		0.99	0.41		0.84	0.79	0.32	0.92	0.73	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 30.7

Intersection LOS: C

Intersection Capacity Utilization 65.2%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

70: Arrow Hwy & Garey Ave

TSM Alternative
PM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave

 ø1	 ø2	 ø3	 ø4
11 s	20 s	9 s	20 s
 ø5	 ø6	 ø7	 ø8
11 s	20 s	9 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
71: Bonita Ave & Towne Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	272	184	80	135	119	104	991	112	87	764	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3291	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.582			0.420			0.294			0.197		
Satd. Flow (perm)	1084	3327	0	782	3291	0	548	3539	1583	367	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		150			80				86			60
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	496	0	87	276	0	113	1077	122	95	830	66
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	23.0	23.0	0.0	23.0	23.0	0.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)	14.7	14.7		14.7	14.7		24.7	24.7	24.7	24.7	24.7	24.7
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.51	0.51	0.51	0.51	0.51	0.51
v/c Ratio	0.65	0.44		0.36	0.26		0.40	0.59	0.14	0.50	0.46	0.08
Control Delay	27.2	11.4		20.3	10.6		12.8	9.8	3.3	19.5	8.4	2.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	11.4		20.3	10.6		12.8	9.8	3.3	19.5	8.4	2.7
LOS	C	B		C	B		B	A	A	B	A	A
Approach Delay		16.2			13.0			9.5			9.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	54	41		20	22		19	107	5	17	75	1
Queue Length 95th (ft)	#147	85		59	51		55	166	24	62	118	14
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	465	1513		336	1457		388	2510	1148	260	2510	1140
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.33		0.26	0.19		0.29	0.43	0.11	0.37	0.33	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 64.0%

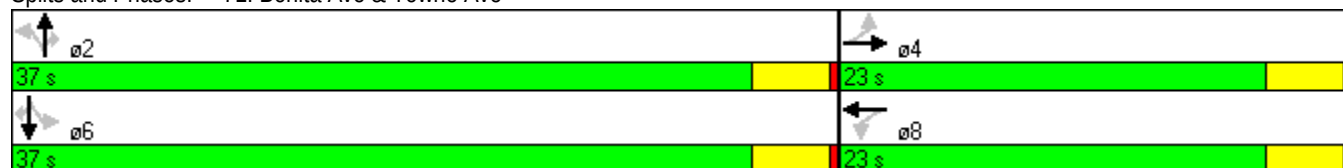
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

TSM Alternative
PM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	28	39	1182	15	30	1110		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	30	42	1285	16	33	1207		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None				None			
Median storage veh								
Upstream signal (ft)	932							
pX, platoon unblocked	0.80	0.80			0.80			
vC, conflicting volume	1953	642			1301			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1692	53			876			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	52	95			95			
cM capacity (veh/h)	64	803			613			
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	42	642	642	16	33	603	603
Volume Left	30	0	0	0	0	33	0	0
Volume Right	0	42	0	0	16	0	0	0
cSH	64	803	1700	1700	1700	613	1700	1700
Volume to Capacity	0.48	0.05	0.38	0.38	0.01	0.05	0.35	0.35
Queue Length 95th (ft)	47	4	0	0	0	4	0	0
Control Delay (s)	105.2	9.7	0.0	0.0	0.0	11.2	0.0	0.0
Lane LOS	F	A				B		
Approach Delay (s)	49.6		0.0			0.3		
Approach LOS	E							
Intersection Summary								
Average Delay	1.5							
Intersection Capacity Utilization	42.7%				ICU Level of Service		A	
Analysis Period (min)	15							

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

73: Arrow Hwy & Towne Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	349	773	74	219	473	131	159	751	118	183	865	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	4923	0	1770	3468	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	4923	0	1770	3468	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			68			20				106
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	920	0	238	656	0	173	944	0	199	940	178
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	24.0	24.0	0.0	20.0	20.0	0.0	13.0	31.0	0.0	15.0	33.0	33.0
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
Act Effect Green (s)	20.0	20.2		14.8	15.0		9.0	26.4		11.0	28.4	28.4
Actuated g/C Ratio	0.23	0.23		0.17	0.17		0.10	0.30		0.12	0.32	0.32
v/c Ratio	0.95	0.79		0.80	0.74		0.96	0.90		0.90	0.83	0.31
Control Delay	69.3	38.0		56.5	36.7		100.0	42.3		80.9	35.5	11.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	69.3	38.0		56.5	36.7		100.0	42.3		80.9	35.5	11.5
LOS	E	D		E	D		F	D		F	D	B
Approach Delay		47.1			42.0			51.3			39.1	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	214	180		130	116		100	264		114	257	29
Queue Length 95th (ft)	#391	228		#241	157		#228	#381		#242	335	78
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	401	1158		321	948		180	1074		220	1162	591
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.95	0.79		0.74	0.69		0.96	0.88		0.90	0.81	0.30

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 44.8

Intersection LOS: D

Intersection Capacity Utilization 79.4%

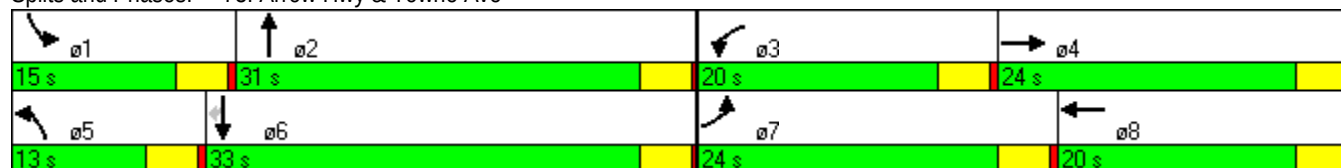
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

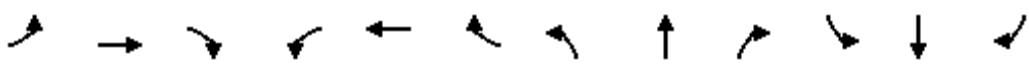
Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
74: Harrison Ave & Garey Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	6	33	84	21	77	37	862	73	55	609	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1792	1583	0	1792	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.723			0.746		0.400			0.281		
Satd. Flow (perm)	0	1347	1583	0	1390	1583	745	3539	1583	523	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			84			64			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	36	0	114	84	40	937	79	60	662	43
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)		9.4	9.4		9.4	9.4	20.9	20.9	20.9	20.9	20.9	20.9
Actuated g/C Ratio		0.28	0.28		0.28	0.28	0.63	0.63	0.63	0.63	0.63	0.63
v/c Ratio		0.09	0.08		0.29	0.17	0.09	0.42	0.08	0.18	0.30	0.04
Control Delay		13.5	6.5		15.4	5.4	5.1	5.7	2.2	6.5	5.0	2.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.5	6.5		15.4	5.4	5.1	5.7	2.2	6.5	5.0	2.0
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		9.9			11.1			5.4			5.0	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		5	0		17	0	3	47	1	5	30	0
Queue Length 95th (ft)		25	16		63	25	14	104	13	22	68	9
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		828	987		855	1006	664	3154	1418	466	3154	1416
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.04	0.04		0.13	0.08	0.06	0.30	0.06	0.13	0.21	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 5.9

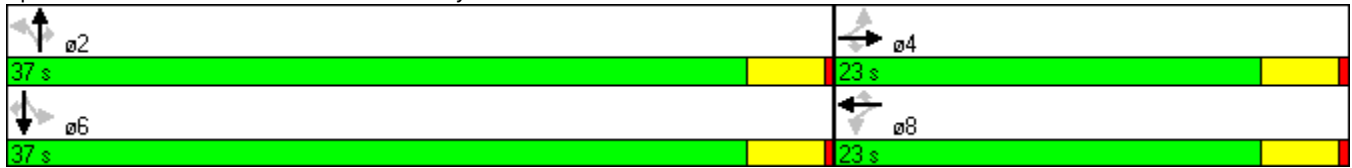
Intersection LOS: A

Intersection Capacity Utilization 49.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	153	129	64	143	82	100	597	47	49	515	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.659			0.652			0.391			0.327		
Satd. Flow (perm)	1228	1863	1583	1215	1863	1583	728	1863	1583	609	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			89			35			63
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	166	140	70	155	89	109	649	51	53	560	63
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	10.6	10.6	10.6	10.6	10.6	10.6	23.8	23.8	23.8	23.8	23.8	23.8
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28	0.28	0.64	0.64	0.64	0.64	0.64	0.64
v/c Ratio	0.31	0.31	0.25	0.20	0.29	0.17	0.23	0.54	0.05	0.14	0.47	0.06
Control Delay	17.4	16.2	5.2	16.1	16.0	5.6	6.8	8.3	2.7	6.0	7.3	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	16.2	5.2	16.1	16.0	5.6	6.8	8.3	2.7	6.0	7.3	1.8
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		12.8			13.1			7.7			6.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	18	27	0	11	25	0	10	74	1	4	60	0
Queue Length 95th (ft)	69	93	35	48	88	28	39	207	12	21	167	11
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	635	964	887	629	964	862	640	1637	1395	535	1637	1399
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.16	0.11	0.16	0.10	0.17	0.40	0.04	0.10	0.34	0.05

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 9.1

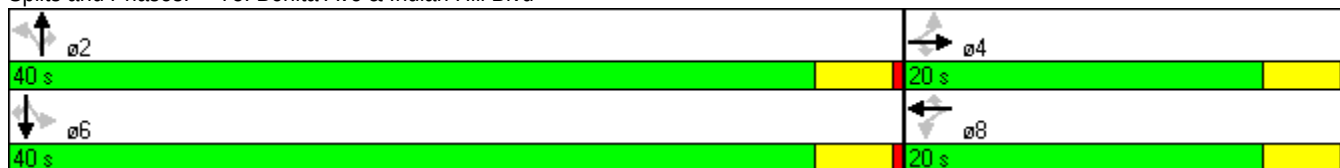
Intersection LOS: A

Intersection Capacity Utilization 61.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
76: First St & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	30	80	169	48	129	82	598	212	44	616	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1840	0
Flt Permitted	0.723			0.736			0.950			0.950		
Satd. Flow (perm)	1347	1863	1583	1371	1863	1583	1770	1863	1583	1770	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87			140			230			9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	33	87	184	52	140	89	650	230	48	727	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	9.0	32.0	32.0	8.0	31.0	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
Act Effect Green (s)	12.5	12.5	12.5	13.1	13.1	13.1	6.2	30.2	30.2	5.0	27.9	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.13	0.62	0.62	0.10	0.57	
v/c Ratio	0.06	0.07	0.19	0.50	0.10	0.27	0.39	0.57	0.22	0.27	0.69	
Control Delay	17.3	17.2	6.0	24.4	17.6	5.5	33.9	13.5	2.3	30.4	18.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.3	17.2	6.0	24.4	17.6	5.5	33.9	13.5	2.3	30.4	18.6	
LOS	B	B	A	C	B	A	C	B	A	C	B	
Approach Delay		10.3			16.4			12.7			19.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	6	9	0	56	14	0	30	157	0	16	195	
Queue Length 95th (ft)	21	26	28	111	37	35	#89	#306	30	#47	#428	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	549	759	696	559	759	728	226	1144	1061	180	1072	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.04	0.04	0.13	0.33	0.07	0.19	0.39	0.57	0.22	0.27	0.68	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
77: Santa Fe St & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	91	0	0	21	12	874	2	0	857	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	99	0	0	23	13	950	2	0	932	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	0.83	0.83		0.83	0.83	0.83				0.83		
vC, conflicting volume	1458	1912	468	1541	1913	475	937			952		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1140	1688	468	1240	1689	0	937			530		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	82	100	100	97	98			100		
cM capacity (veh/h)	124	75	541	88	75	899	727			857		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	99	23	13	475	475	2	466	471				
Volume Left	0	0	13	0	0	0	0	0				
Volume Right	99	23	0	0	0	2	0	5				
cSH	541	899	727	1700	1700	1700	857	1700				
Volume to Capacity	0.18	0.03	0.02	0.28	0.28	0.00	0.00	0.28				
Queue Length 95th (ft)	17	2	1	0	0	0	0	0				
Control Delay (s)	13.1	9.1	10.0	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	A	B									
Approach Delay (s)	13.1	9.1	0.1	0.0								
Approach LOS	B	A										
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			42.8%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
78: Arrow Hwy & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	134	1092	156	127	447	62	140	696	136	121	623	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			170			67			148			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	1187	170	138	486	67	152	757	148	132	677	101
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	18.0	37.0	37.0	13.0	32.0	32.0	14.0	28.0	28.0	12.0	26.0	26.0
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
Act Effect Green (s)	11.7	32.4	32.4	8.9	29.6	29.6	9.7	22.9	22.9	8.0	21.2	21.2
Actuated g/C Ratio	0.13	0.37	0.37	0.10	0.34	0.34	0.11	0.26	0.26	0.09	0.24	0.24
v/c Ratio	0.62	0.91	0.25	0.78	0.41	0.12	0.78	0.82	0.28	0.82	0.80	0.22
Control Delay	48.2	38.8	4.2	68.7	24.7	6.6	66.0	39.6	6.2	78.3	39.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	38.8	4.2	68.7	24.7	6.6	66.0	39.6	6.2	78.3	39.8	7.2
LOS	D	D	A	E	C	A	E	D	A	E	D	A
Approach Delay		35.8			31.7			38.7			41.8	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	79	333	0	78	112	0	85	211	0	75	189	0
Queue Length 95th (ft)	138	#466	40	#174	161	29	#184	280	44	#177	254	38
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	281	1327	700	181	1186	575	201	965	540	161	884	471
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.89	0.24	0.76	0.41	0.12	0.76	0.78	0.27	0.82	0.77	0.21

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 37.2

Intersection LOS: D

Intersection Capacity Utilization 76.5%

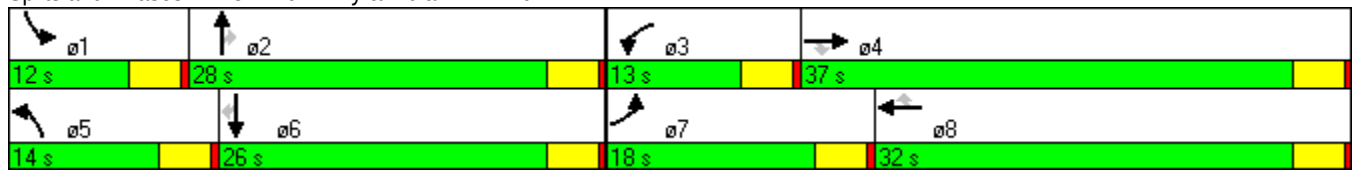
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	76	14	52	45	42	78	31	234	10	8	242	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	15	57	49	46	85	34	254	11	9	263	37
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	154	179	288	11	309							
Volume Left (vph)	83	49	34	0	9							
Volume Right (vph)	57	85	0	11	37							
Hadj (s)	-0.08	-0.20	0.09	-0.67	-0.03							
Departure Headway (s)	5.9	5.7	6.0	5.3	5.5							
Degree Utilization, x	0.25	0.29	0.48	0.02	0.47							
Capacity (veh/h)	537	556	560	639	616							
Control Delay (s)	10.9	11.0	13.3	7.1	13.3							
Approach Delay (s)	10.9	11.0	13.1		13.3							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.4									
HCM Level of Service			B									
Intersection Capacity Utilization			48.6%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
80: First St & College Ave

TSM Alternative
PM Peak Hour

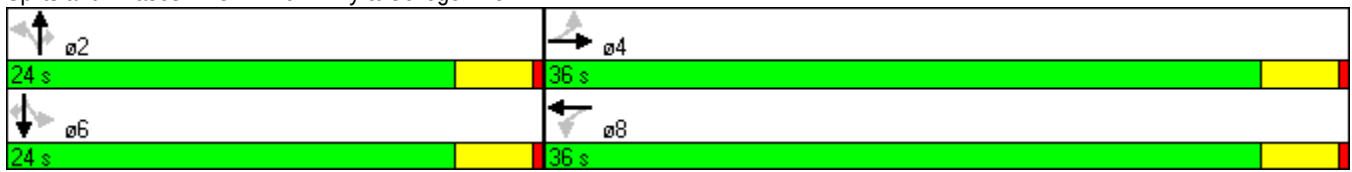
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	49	123	64	28	121	45	23	197	49	48	238	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	134	70	30	132	49	25	214	53	52	259	53
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	120	136	162	49	239	53	311	53				
Volume Left (vph)	53	0	30	0	25	0	52	0				
Volume Right (vph)	0	70	0	49	0	53	0	53				
Hadj (s)	0.26	-0.32	0.13	-0.67	0.09	-0.67	0.12	-0.67				
Departure Headway (s)	7.0	6.4	6.9	6.1	6.5	5.8	6.5	5.7				
Degree Utilization, x	0.23	0.24	0.31	0.08	0.43	0.09	0.56	0.08				
Capacity (veh/h)	481	523	484	539	516	581	535	597				
Control Delay (s)	10.9	10.2	11.8	8.5	13.3	8.1	16.1	8.0				
Approach Delay (s)	10.5		11.1		12.3		14.9					
Approach LOS	B		B		B		B					
Intersection Summary												
Delay			12.5									
HCM Level of Service			B									
Intersection Capacity Utilization			54.9%	ICU Level of Service				A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
81: Arrow Hwy & College Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1050	31	24	586	76	16	49	33	110	104	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3525	0	1770	3479	0	0	1840	1583	1770	1863	1583
Flt Permitted	0.375			0.198				0.908		0.711		
Satd. Flow (perm)	699	3525	0	369	3479	0	0	1691	1583	1324	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			36				36			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1175	0	26	720	0	0	70	36	120	113	125
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	24.0	24.0	24.0	24.0	24.0	24.0
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
Act Effect Green (s)	25.7	25.7		25.7	25.7			10.7	10.7	10.7	10.7	10.7
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.18	0.51		0.11	0.31			0.15	0.08	0.33	0.22	0.24
Control Delay	6.4	6.7		6.5	5.1			15.2	6.8	17.9	15.7	5.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	6.7		6.5	5.1			15.2	6.8	17.9	15.7	5.2
LOS	A	A		A	A			B	A	B	B	A
Approach Delay		6.7			5.1			12.4			12.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	72		2	35			13	0	23	21	0
Queue Length 95th (ft)	32	166		14	84			42	17	69	61	31
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	551	2778		291	2748			960	914	751	1057	952
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.15	0.42		0.09	0.26			0.07	0.04	0.16	0.11	0.13
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 39.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.51												
Intersection Signal Delay: 7.3	Intersection LOS: A											
Intersection Capacity Utilization 56.1%	ICU Level of Service B											
Analysis Period (min) 15												

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	2	149	3	2	0	72	261	3	3	278	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.757			0.757			0.645			0.645		
Satd. Flow (perm)	1410	1863	1583	1410	1863	0	1201	3539	1583	1201	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			162						3			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	178	2	162	3	2	0	78	284	3	3	302	100
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	29.0	29.0	29.0	29.0
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
Act Effect Green (s)	11.3	11.3	11.3	9.3	9.3		10.9	10.9	10.9	9.0	9.0	9.0
Actuated g/C Ratio	0.48	0.48	0.48	0.40	0.40		0.47	0.47	0.47	0.39	0.39	0.39
v/c Ratio	0.26	0.00	0.19	0.01	0.00		0.14	0.17	0.00	0.01	0.22	0.15
Control Delay	7.7	6.0	2.3	6.0	6.0		7.5	6.6	5.0	6.7	6.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	6.0	2.3	6.0	6.0		7.5	6.6	5.0	6.7	6.8	2.8
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		5.1			6.0			6.8			5.8	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	13	0	0	0	0		6	11	0	0	12	0
Queue Length 95th (ft)	46	2	18	3	2		25	32	3	3	34	15
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1352	1786	1524	1352	1786		1120	3302	1477	1120	3302	1483
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.00	0.11	0.00	0.00		0.07	0.09	0.00	0.00	0.09	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 23.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 5.9

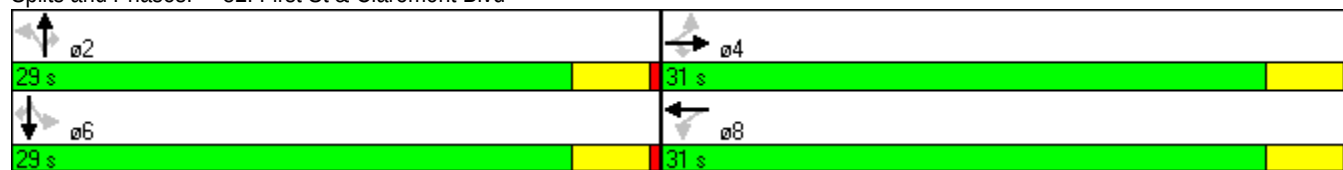
Intersection LOS: A

Intersection Capacity Utilization 37.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd

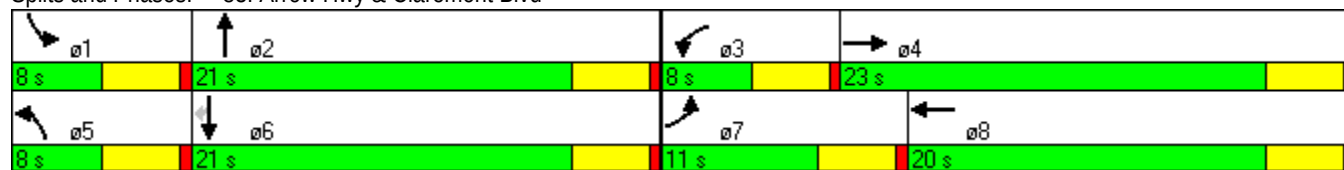


Gold Line Foothill Extension - Azusa to Montclair
83: Arrow Hwy & Claremont Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	1009	50	42	454	85	62	164	27	94	154	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			35			29				117
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	1151	0	46	585	0	67	207	0	102	167	117
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.0	23.0	0.0	8.0	20.0	0.0	8.0	21.0	0.0	8.0	21.0	21.0
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
Act Effct Green (s)	7.0	21.7		4.2	16.3		4.2	9.6		4.8	11.4	11.4
Actuated g/C Ratio	0.14	0.45		0.09	0.34		0.09	0.20		0.10	0.24	0.24
v/c Ratio	0.49	0.73		0.30	0.49		0.44	0.29		0.59	0.38	0.25
Control Delay	30.7	18.8		29.9	16.3		36.5	16.1		44.9	20.2	6.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	30.7	18.8		29.9	16.3		36.5	16.1		44.9	20.2	6.0
LOS	C	B		C	B		D	B		D	C	A
Approach Delay		20.0			17.3			21.1			22.4	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	35	123		13	73		20	24		31	45	0
Queue Length 95th (ft)	#102	#340		43	131		#71	48		#112	92	32
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	265	1580		152	1270		152	1281		174	679	651
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.47	0.73		0.30	0.46		0.44	0.16		0.59	0.25	0.18
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 48.5												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.73												
Intersection Signal Delay: 19.8						Intersection LOS: B						
Intersection Capacity Utilization 57.7%						ICU Level of Service B						
Analysis Period (min) 15												
# 95th percentile volume exceeds capacity, queue may be longer.												
Queue shown is maximum after two cycles.												

Splits and Phases: 83: Arrow Hwy & Claremont Blvd

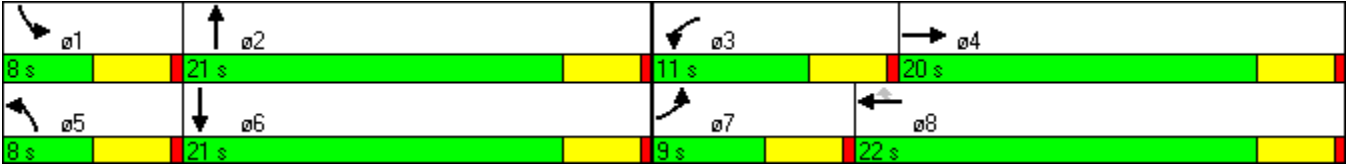


Gold Line Foothill Extension - Azusa to Montclair
84: Arrow Route & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	221	74	90	148	56	55	833	98	40	630	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74				61		34			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	320	0	98	161	61	60	1012	0	43	709	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	11.0	22.0	22.0	8.0	21.0	0.0	8.0	21.0	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
Act Effct Green (s)	5.6	9.5		7.3	12.1	12.1	4.5	16.8		4.5	15.4	
Actuated g/C Ratio	0.13	0.22		0.17	0.28	0.28	0.10	0.39		0.10	0.36	
v/c Ratio	0.19	0.39		0.33	0.31	0.13	0.17	0.51		0.23	0.39	
Control Delay	25.0	14.7		24.3	16.7	6.3	24.4	12.9		27.1	13.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.0	14.7		24.3	16.7	6.3	24.4	12.9		27.1	13.4	
LOS	C	B		C	B	A	C	B		C	B	
Approach Delay		16.0			17.1			13.6			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	12	33		27	29	0	8	68		12	61	
Queue Length 95th (ft)	41	67		71	87	23	25	145		41	100	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	232	1469		324	893	790	359	2339		185	2257	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.19	0.22		0.30	0.18	0.08	0.17	0.43		0.23	0.31	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 43.1												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.51												
Intersection Signal Delay: 14.6						Intersection LOS: B						
Intersection Capacity Utilization 48.4%						ICU Level of Service A						
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

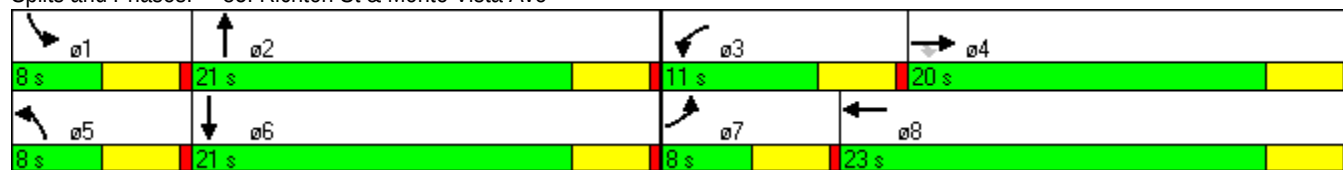


Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	0	0	102	0	104	1	877	69	51	751	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					353			21				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	0	0	111	113	0	1	1028	0	55	817	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	11.0	23.0	0.0	8.0	21.0	0.0	8.0	21.0	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
Act Effect Green (s)	5.1			9.0	7.5		5.1	19.7		5.1	20.8	
Actuated g/C Ratio	0.17			0.30	0.25		0.17	0.67		0.17	0.70	
v/c Ratio	0.00			0.21	0.11		0.00	0.31		0.09	0.23	
Control Delay	18.0			13.1	0.2		18.0	6.5		17.1	5.2	
Queue Delay	0.0			0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.0			13.1	0.2		18.0	6.5		17.1	5.2	
LOS	B			B	A		B	A		B	A	
Approach Delay					6.6			6.5			5.9	
Approach LOS					A			A			A	
Queue Length 50th (ft)	0			16	0		0	28		4	22	
Queue Length 95th (ft)	4			51	0		4	107		20	84	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)	305			583	2200		305	3338		591	3572	
Starvation Cap Reductn	0			0	0		0	0		0	0	
Spillback Cap Reductn	0			0	0		0	0		0	0	
Storage Cap Reductn	0			0	0		0	0		0	0	
Reduced v/c Ratio	0.00			0.19	0.05		0.00	0.31		0.09	0.23	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 29.6												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.31												
Intersection Signal Delay: 6.3	Intersection LOS: A											
Intersection Capacity Utilization 40.8%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair
86: Arrow Hwy & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	837	218	46	337	99	144	681	60	104	659	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			89			11				116
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	1147	0	50	474	0	157	805	0	113	716	116
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	38.0	0.0	8.0	34.0	0.0	15.0	32.0	0.0	12.0	29.0	29.0
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
Act Effect Green (s)	7.9	31.2		4.1	23.5		10.5	24.5		8.0	22.0	22.0
Actuated g/C Ratio	0.10	0.39		0.05	0.29		0.13	0.30		0.10	0.27	0.27
v/c Ratio	0.51	0.84		0.28	0.32		0.68	0.75		0.65	0.74	0.22
Control Delay	43.2	29.8		45.3	18.2		53.0	30.6		57.4	32.9	6.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	43.2	29.8		45.3	18.2		53.0	30.6		57.4	32.9	6.5
LOS	D	C		D	B		D	C		E	C	A
Approach Delay		31.5			20.8			34.3			32.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	48	302		14	57		87	210		64	193	0
Queue Length 95th (ft)	81	#407		32	83		#179	279		#147	258	39
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)												
Base Capacity (vph)	352	1520		176	1946		250	1264		182	1135	587
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.49	0.75		0.28	0.24		0.63	0.64		0.62	0.63	0.20

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 31.0

Intersection LOS: C

Intersection Capacity Utilization 73.3%

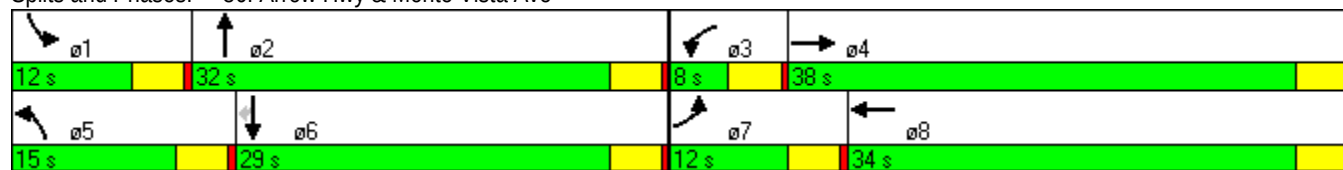
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

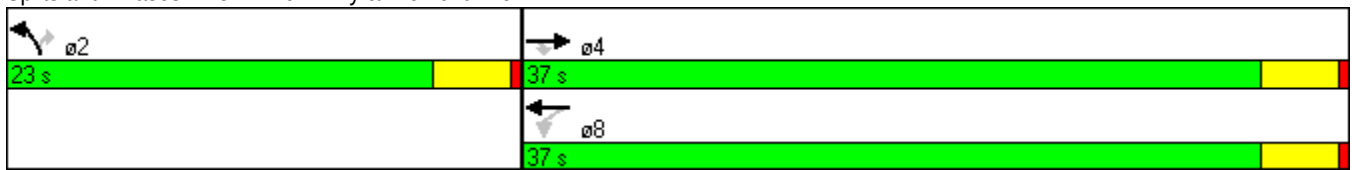


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

TSM Alternative
PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (vph)	916	74	49	403	62	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.276		0.950	
Satd. Flow (perm)	3539	1583	514	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		80				85
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	996	80	53	438	67	85
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	22.1	22.1	22.1	22.1	8.0	8.0
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.27	0.27
v/c Ratio	0.38	0.07	0.14	0.17	0.14	0.17
Control Delay	3.9	1.3	4.7	3.1	13.7	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	1.3	4.7	3.1	13.7	5.7
LOS	A	A	A	A	B	A
Approach Delay	3.7			3.3	9.2	
Approach LOS	A			A	A	
Queue Length 50th (ft)	44	0	4	15	9	0
Queue Length 95th (ft)	86	9	16	34	40	26
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3262	1465	474	3262	1245	1139
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.05	0.11	0.13	0.05	0.07
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 29.5						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.38						
Intersection Signal Delay: 4.1				Intersection LOS: A		
Intersection Capacity Utilization 42.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	267	101	209	319	44	63	736	208	68	825	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5019	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5019	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110		42			116			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	290	110	227	395	0	68	1026	0	74	979	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	12.0	22.0	0.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	6.0	10.1	10.1	8.2	16.8		4.1	15.2		4.1	16.8	
Actuated g/C Ratio	0.12	0.19	0.19	0.16	0.32		0.08	0.29		0.08	0.32	
v/c Ratio	0.33	0.42	0.28	0.81	0.24		0.49	0.67		0.53	0.60	
Control Delay	28.1	20.9	6.7	50.7	14.1		40.1	17.4		42.8	17.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	28.1	20.9	6.7	50.7	14.1		40.1	17.4		42.8	17.1	
LOS	C	C	A	D	B		D	B		D	B	
Approach Delay		18.6			27.5			18.8			18.9	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	20	43	0	72	34		21	90		23	94	
Queue Length 95th (ft)	55	73	32	#196	56		#74	146		#80	149	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	210	1118	575	279	1869		140	1632		140	1753	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.26	0.19	0.81	0.21		0.49	0.63		0.53	0.56	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 20.5

Intersection LOS: C

Intersection Capacity Utilization 54.9%

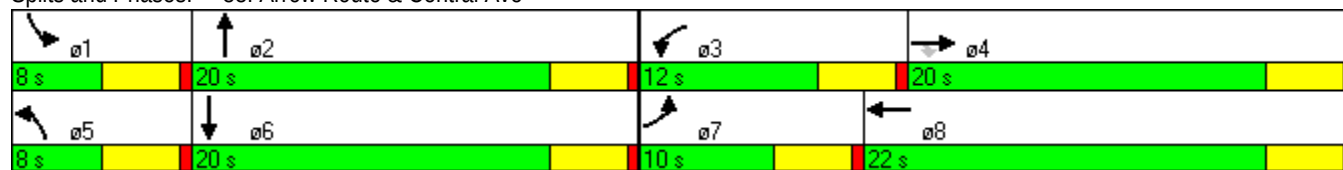
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair
89: Richton St & Central Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	69	109	98	117	42	101	875	58	45	1037	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1788	0	1770	3539	1583	1770	5060	0
Flt Permitted	0.635			0.708			0.174			0.287		
Satd. Flow (perm)	1183	1863	1583	1319	1788	0	324	3539	1583	535	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			118		30				63		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	75	118	107	173	0	110	951	63	49	1164	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	0.0	10.0	32.0	32.0	8.0	30.0	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
Act Effect Green (s)	11.1	11.1	11.1	11.2	11.2		27.7	28.4	28.4	24.2	23.9	
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25		0.63	0.64	0.64	0.55	0.54	
v/c Ratio	0.35	0.16	0.24	0.32	0.36		0.24	0.42	0.06	0.11	0.42	
Control Delay	21.5	17.8	5.8	20.6	17.3		5.7	8.1	3.1	5.2	10.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	21.5	17.8	5.8	20.6	17.3		5.7	8.1	3.1	5.2	10.3	
LOS	C	B	A	C	B		A	A	A	A	B	
Approach Delay		14.4			18.6			7.6			10.1	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	26	18	0	26	35		10	55	0	4	82	
Queue Length 95th (ft)	68	48	32	68	87		32	174	16	17	142	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	534	842	780	596	824		465	2304	1053	442	3087	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.19	0.09	0.15	0.18	0.21		0.24	0.41	0.06	0.11	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

90: Arrow Hwy & Central Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	599	202	162	281	55	127	856	114	88	937	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5009	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5009	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			220		60			39			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	651	220	176	365	0	138	1054	0	96	1127	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	11.0	21.0	0.0	9.0	20.0	0.0	9.0	20.0	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
Act Effect Green (s)	6.0	15.2	15.2	7.0	16.2		5.0	17.9		5.0	16.0	
Actuated g/C Ratio	0.10	0.26	0.26	0.12	0.27		0.08	0.30		0.08	0.27	
v/c Ratio	0.96	0.72	0.39	0.84	0.26		0.92	0.69		0.64	0.82	
Control Delay	89.2	25.1	5.3	62.1	14.4		89.1	21.3		49.3	26.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	89.2	25.1	5.3	62.1	14.4		89.1	21.3		49.3	26.3	
LOS	F	C	A	E	B		F	C		D	C	
Approach Delay		31.4			29.9			29.2			28.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	63	111	0	64	30		51	123		35	136	
Queue Length 95th (ft)	#168	162	43	#162	50		#144	167		#98	#192	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	179	956	588	210	1466		150	1536		150	1374	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.96	0.68	0.37	0.84	0.25		0.92	0.69		0.64	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave

 ø1	 ø2	 ø3	 ø4
9 s	20 s	11 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	20 s	10 s	21 s

Appendix E

Build (2035)

Synchro Analysis Output

AM Peak Hour

Gold Line Foothill Extension - Azusa to Montclair
1: Bennett Ave & Barranca Ave

Build Alternative
AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	330	72	181	192	65	398	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	359	78	197	209	71	433	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	659	203			405		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	659	203			405		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	4	90			94		
cM capacity (veh/h)	372	804			1150		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	179	179	78	131	274	215	288
Volume Left	179	179	0	0	0	71	0
Volume Right	0	0	78	0	209	0	0
cSH	372	372	804	1700	1700	1150	1700
Volume to Capacity	0.48	0.48	0.10	0.08	0.16	0.06	0.17
Queue Length 95th (ft)	63	63	8	0	0	5	0
Control Delay (s)	23.3	23.3	10.0	0.0	0.0	3.1	0.0
Lane LOS	C	C	A			A	
Approach Delay (s)	20.9			0.0		1.3	
Approach LOS	C						
Intersection Summary							
Average Delay			7.3				
Intersection Capacity Utilization			43.5%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
2: Foothill Blvd & Barranca Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	205	173	135	630	34	172	298	135	131	438	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3295	0	1770	3511	0	1770	3373	0	1770	3391	0
Flt Permitted	0.304			0.511			0.363			0.482		
Satd. Flow (perm)	566	3295	0	952	3511	0	676	3373	0	898	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		188			10			147			81	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	411	0	147	722	0	187	471	0	142	661	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	25.0	25.0	0.0	25.0	25.0	0.0	35.0	35.0	0.0	35.0	35.0	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
Act Effect Green (s)	16.0	16.0		16.0	16.0		18.5	18.5		18.5	18.5	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.43	0.43		0.43	0.43	
v/c Ratio	0.42	0.31		0.42	0.55		0.65	0.31		0.37	0.44	
Control Delay	20.3	7.0		17.1	13.8		22.0	5.9		11.8	8.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.3	7.0		17.1	13.8		22.0	5.9		11.8	8.5	
LOS	C	A		B	B		C	A		B	A	
Approach Delay		9.3			14.4			10.5			9.0	
Approach LOS		A			B			B			A	
Queue Length 50th (ft)	15	18		25	67		33	23		21	46	
Queue Length 95th (ft)	63	57		87	156		100	52		60	90	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	303	1853		510	1886		504	2553		670	2550	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.29	0.22		0.29	0.38		0.37	0.18		0.21	0.26	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 43.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 11.1

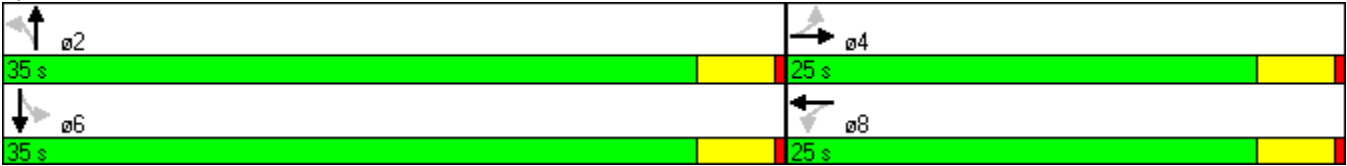
Intersection LOS: B

Intersection Capacity Utilization 63.3%

ICU Level of Service B

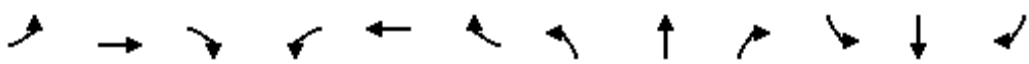
Analysis Period (min) 15

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	66	346	100	267	543	107	134	606	234	105	478	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3419	0	1770	3451	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3419	0	1770	3451	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes				Yes		Yes
Satd. Flow (RTOR)		20			13				178			55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	485	0	290	706	0	146	659	254	114	520	112
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	20.0	0.0	18.0	27.0	0.0	11.0	21.0	21.0	11.0	21.0	21.0
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
Act Effect Green (s)	7.0	16.0		14.0	23.0		7.0	17.0	17.0	7.0	17.0	17.0
Actuated g/C Ratio	0.10	0.23		0.20	0.33		0.10	0.24	0.24	0.10	0.24	0.24
v/c Ratio	0.41	0.61		0.82	0.62		0.82	0.77	0.49	0.64	0.61	0.26
Control Delay	37.0	26.9		47.8	22.2		68.3	31.8	11.4	49.2	27.0	14.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	26.9		47.8	22.2		68.3	31.8	11.4	49.2	27.0	14.1
LOS	D	C		D	C		E	C	B	D	C	B
Approach Delay		28.2			29.7			31.9			28.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	30	94		120	130		63	138	26	48	104	19
Queue Length 95th (ft)	67	141		#243	184		#157	#198	86	#117	152	57
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	177	797		354	1143		177	859	519	177	859	426
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.61		0.82	0.62		0.82	0.77	0.49	0.64	0.61	0.26

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 29.9

Intersection LOS: C

Intersection Capacity Utilization 63.5%

ICU Level of Service B

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	80.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

3: Foothill Blvd & Grand Ave

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Foothill Blvd & Grand Ave

 ø1	 ø2	 ø3	 ø4	 ø9
11 s	21 s	18 s	20 s	80 s
 ø5	 ø6	 ø7	 ø8	
11 s	21 s	11 s	27 s	

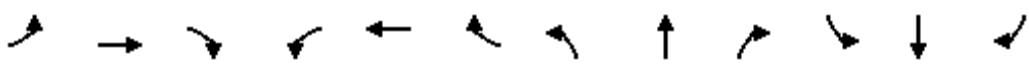
Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

Build Alternative
AM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	127	57	117	32	29	217			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	138	62	127	35	32	236			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage veh									
Upstream signal (ft)						1174			
pX, platoon unblocked									
vC, conflicting volume	443	145			162				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	443	145			162				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	75	93			98				
cM capacity (veh/h)	559	903			1417				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	200	162	267						
Volume Left	138	0	32						
Volume Right	62	35	0						
cSH	634	1700	1417						
Volume to Capacity	0.32	0.10	0.02						
Queue Length 95th (ft)	34	0	2						
Control Delay (s)	13.3	0.0	1.1						
Lane LOS	B		A						
Approach Delay (s)	13.3	0.0	1.1						
Approach LOS	B								
Intersection Summary									
Average Delay		4.7							
Intersection Capacity Utilization		41.6%	ICU Level of Service	A					
Analysis Period (min)		15							

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	506	10	10	1348	144	9	54	11	21	32	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1850	1583	0	1827	1583
Flt Permitted	0.950			0.950				0.937			0.840	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1745	1583	0	1565	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			69			12			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	550	11	11	1465	157	0	69	12	0	58	57
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	4.7	30.0	30.0	4.7	28.8	28.8		7.9	7.9		7.9	7.9
Actuated g/C Ratio	0.12	0.77	0.77	0.12	0.74	0.74		0.20	0.20		0.20	0.20
v/c Ratio	0.23	0.20	0.01	0.05	0.56	0.13		0.19	0.04		0.18	0.16
Control Delay	24.8	3.9	3.1	23.0	7.6	3.8		19.2	11.1		19.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	24.8	3.9	3.1	23.0	7.6	3.8		19.2	11.1		19.4	7.9
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		5.5			7.3			18.0			13.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	11	22	0	3	85	6		15	0		13	0
Queue Length 95th (ft)	42	72	6	16	258	36		48	11		42	24
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	213	2729	1224	213	2621	1190		838	767		752	790
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.23	0.20	0.01	0.05	0.56	0.13		0.08	0.02		0.08	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 38.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 7.5

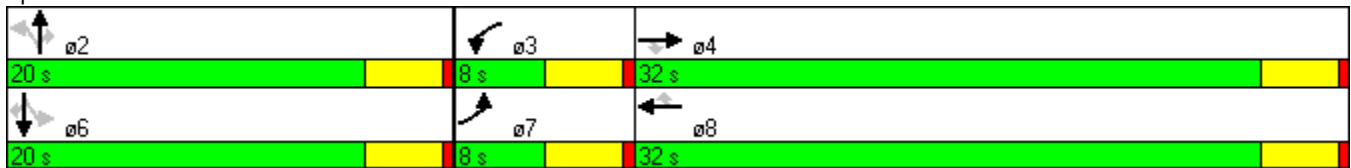
Intersection LOS: A

Intersection Capacity Utilization 53.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	347	86	69	816	76	60	104	32	34	109	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3433	0	1770	3493	0	1770	1798	0	0	1767	0
Flt Permitted	0.262			0.483			0.634				0.922	
Satd. Flow (perm)	488	3433	0	900	3493	0	1181	1798	0	0	1642	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72			23			29			46	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	25	470	0	75	970	0	65	148	0	0	230	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	34.0	34.0	0.0	34.0	34.0	0.0	26.0	26.0	0.0	26.0	26.0	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
Act Effect Green (s)	22.0	22.0		22.0	22.0		10.5	10.5			10.7	
Actuated g/C Ratio	0.62	0.62		0.62	0.62		0.29	0.29			0.30	
v/c Ratio	0.08	0.22		0.14	0.45		0.19	0.27			0.44	
Control Delay	6.2	4.6		6.2	6.5		14.1	12.0			13.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	6.2	4.6		6.2	6.5		14.1	12.0			13.5	
LOS	A	A		A	A		B	B			B	
Approach Delay		4.7			6.5			12.6			13.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	2	19		7	55		10	18			30	
Queue Length 95th (ft)	12	48		26	124		40	65			98	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	398	2815		734	2855		770	1182			1086	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.06	0.17		0.10	0.34		0.08	0.13			0.21	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.5

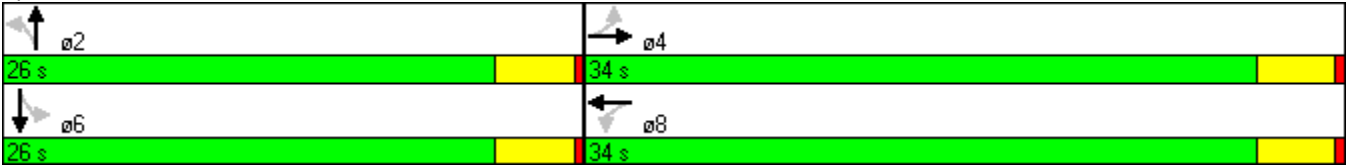
Intersection LOS: A

Intersection Capacity Utilization 60.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

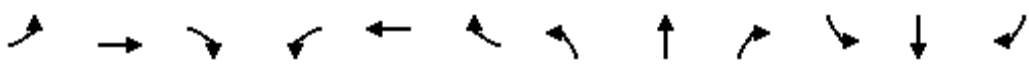
Build Alternative
AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	63	16	34	88	258	100
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	68	17	37	96	280	109
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	450	280	389			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	450	280	389			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	88	98	97			
cM capacity (veh/h)	549	758	1169			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	86	133	280	109		
Volume Left	68	37	0	0		
Volume Right	17	0	0	109		
cSH	581	1169	1700	1700		
Volume to Capacity	0.15	0.03	0.16	0.06		
Queue Length 95th (ft)	13	2	0	0		
Control Delay (s)	12.3	2.5	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	12.3	2.5	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			34.6%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
8: Foothill Blvd & Glendora Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	27	333	72	157	696	60	187	184	34	57	192	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3444	0	1770	3497	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		41			15				37			68
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	29	440	0	171	822	0	203	200	37	62	209	68
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	8.0	20.0	0.0	9.0	21.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	4.1	11.8		5.1	18.1		7.1	16.6	16.6	6.0	10.9	10.9
Actuated g/C Ratio	0.08	0.23		0.10	0.35		0.14	0.32	0.32	0.12	0.21	0.21
v/c Ratio	0.21	0.53		0.97	0.66		0.83	0.33	0.07	0.30	0.53	0.17
Control Delay	28.9	18.4		95.1	19.1		55.7	17.8	6.9	27.5	23.5	6.6
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	18.4		95.1	19.1		55.7	17.8	6.9	27.5	23.5	6.6
LOS	C	B		F	B		E	B	A	C	C	A
Approach Delay		19.1			32.1			34.4			20.8	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	8	54		51	91		59	50	0	17	54	0
Queue Length 95th (ft)	32	100		#179	#231		#190	108	18	53	115	25
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	141	1121		176	1254		246	660	585	211	592	549
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.39		0.97	0.66		0.83	0.30	0.06	0.29	0.35	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 28.1

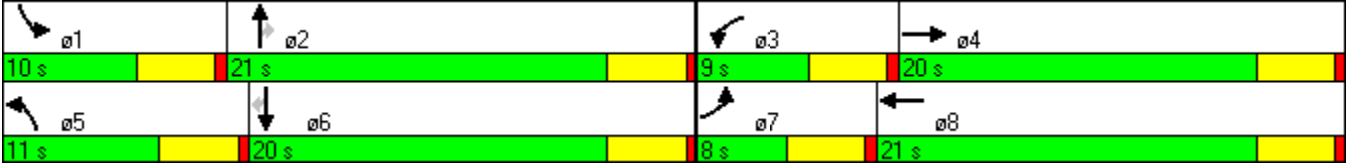
Intersection LOS: C

Intersection Capacity Utilization 58.3%

ICU Level of Service B

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
9: Ada Ave & Glendora Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	30	23	86	26	60	44	58	442	3	30	310	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	25	93	28	65	48	63	480	3	33	337	30
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	151	141	303	243	201	199						
Volume Left (vph)	33	28	63	0	33	0						
Volume Right (vph)	93	48	0	3	0	30						
Hadj (s)	-0.29	-0.13	0.14	0.02	0.12	-0.07						
Departure Headway (s)	6.1	6.3	6.2	6.1	6.4	6.2						
Degree Utilization, x	0.26	0.25	0.52	0.41	0.36	0.34						
Capacity (veh/h)	528	512	557	575	540	556						
Control Delay (s)	11.3	11.4	14.5	12.0	11.6	11.1						
Approach Delay (s)	11.3	11.4	13.4		11.4							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.3									
HCM Level of Service			B									
Intersection Capacity Utilization			45.5%	ICU Level of Service				A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	494	11	261	1178	248	136	571	365	104	346	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3479	0
Flt Permitted	0.244			0.283			0.435			0.272		
Satd. Flow (perm)	455	3539	1583	527	3539	1583	810	3539	1583	507	3479	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			108			297			22
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	537	12	284	1280	270	148	621	397	113	424	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	21.0	21.0	11.0	24.0	24.0	8.0	20.0	20.0	8.0	20.0	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
Act Effect Green (s)	17.9	13.8	13.8	24.8	22.3	22.3	17.7	14.7	14.7	17.7	14.7	
Actuated g/C Ratio	0.33	0.26	0.26	0.46	0.41	0.41	0.33	0.27	0.27	0.33	0.27	
v/c Ratio	0.16	0.59	0.03	0.70	0.88	0.38	0.44	0.64	0.61	0.43	0.44	
Control Delay	10.8	21.3	9.6	22.8	27.9	10.4	16.7	21.8	10.2	17.2	18.0	
Queue Delay	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	10.8	21.3	9.6	22.8	33.7	10.4	16.7	21.8	10.2	17.2	18.0	
LOS	B	C	A	C	C	B	B	C	B	B	B	
Approach Delay		20.4			28.6			17.2			17.8	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	7	85	0	61	191	33	31	97	26	23	58	
Queue Length 95th (ft)	21	128	10	#127	#398	99	67	154	102	53	100	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100		50	100		50	100		100	200		
Base Capacity (vph)	251	1146	520	407	1456	715	339	1079	689	262	1076	
Starvation Cap Reductn	0	0	0	0	138	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.16	0.47	0.02	0.70	0.97	0.38	0.44	0.58	0.58	0.43	0.39	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 22.8

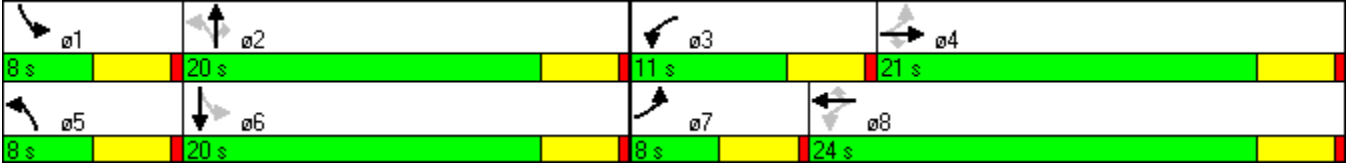
Intersection LOS: C

Intersection Capacity Utilization 70.8%

ICU Level of Service C

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
11: Lemon Ave & Pasadena Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	5	13	38	10	29	7	77	15	10	108	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	5	14	41	11	32	8	84	16	11	117	5
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	25	84	108	134								
Volume Left (vph)	5	41	8	11								
Volume Right (vph)	14	32	16	5								
Hadj (s)	-0.26	-0.09	-0.04	0.03								
Departure Headway (s)	4.3	4.4	4.2	4.3								
Degree Utilization, x	0.03	0.10	0.13	0.16								
Capacity (veh/h)	788	769	814	804								
Control Delay (s)	7.4	7.9	7.9	8.1								
Approach Delay (s)	7.4	7.9	7.9	8.1								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay				7.9								
HCM Level of Service				A								
Intersection Capacity Utilization				24.4%	ICU Level of Service	A						
Analysis Period (min)				15								

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	873	27	34	1572	74	46	22	57	45	24	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1716	0	0	1697	0
Flt Permitted	0.124			0.280				0.769			0.875	
Satd. Flow (perm)	231	3539	1583	522	3539	1583	0	1344	0	0	1506	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			20			30		62			98	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	949	29	37	1709	80	0	136	0	0	173	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	8.0	32.0	32.0	8.0	32.0	32.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	33.7	33.5	33.5	32.2	30.5	30.5		8.5			8.5	
Actuated g/C Ratio	0.69	0.68	0.68	0.66	0.62	0.62		0.17			0.17	
v/c Ratio	0.43	0.39	0.03	0.08	0.78	0.08		0.48			0.50	
Control Delay	10.2	6.8	4.3	4.0	15.5	5.2		18.0			15.4	
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	10.2	7.0	4.3	4.0	15.5	5.2		18.0			15.4	
LOS	B	A	A	A	B	A		B			B	
Approach Delay		7.3			14.8			18.0			15.4	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	9	47	1	3	218	6		21			21	
Queue Length 95th (ft)	#44	157	12	12	#451	26		61			65	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	290	2417	1088	448	2196	993		498			577	
Starvation Cap Reductn	0	623	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.43	0.53	0.03	0.08	0.78	0.08		0.27			0.30	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 12.4

Intersection LOS: B

Intersection Capacity Utilization 71.0%

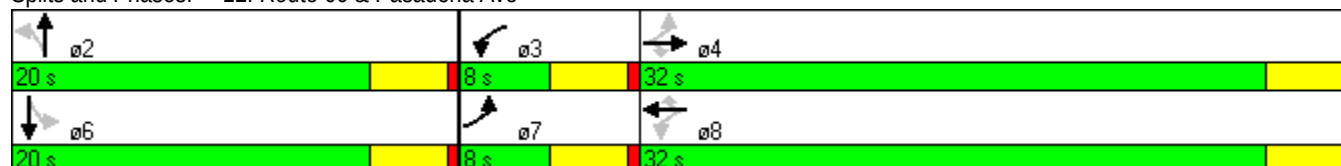
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair
13: Lemon Ave & Glenwood Ave

Build Alternative
AM Peak Hour

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Volume (veh/h)	2	13	17	4	6	5	9	73	3	9	121	6								
Sign Control		Stop			Stop			Free			Free									
Grade		0%			0%			0%			0%									
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92								
Hourly flow rate (vph)	2	14	18	4	7	5	10	79	3	10	132	7								
Pedestrians																				
Lane Width (ft)																				
Walking Speed (ft/s)																				
Percent Blockage																				
Right turn flare (veh)						2														
Median type								None			None									
Median storage veh																				
Upstream signal (ft)																				
pX, platoon unblocked																				
vC, conflicting volume	261	257	135	280	258	81	138			83										
vC1, stage 1 conf vol																				
vC2, stage 2 conf vol																				
vCu, unblocked vol	261	257	135	280	258	81	138			83										
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1										
tC, 2 stage (s)																				
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2										
p0 queue free %	100	98	98	99	99	99	99			99										
cM capacity (veh/h)	676	639	914	641	638	979	1446			1515										
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total	35	16	92	148																
Volume Left	2	4	10	10																
Volume Right	18	5	3	7																
cSH	764	958	1446	1515																
Volume to Capacity	0.05	0.02	0.01	0.01																
Queue Length 95th (ft)	4	1	1	0																
Control Delay (s)	9.9	10.1	0.8	0.5																
Lane LOS	A	B	A	A																
Approach Delay (s)	9.9	10.1	0.8	0.5																
Approach LOS	A	B																		
Intersection Summary																				
Average Delay			2.3																	
Intersection Capacity Utilization			21.2%	ICU Level of Service						A										
Analysis Period (min)			15																	

Gold Line Foothill Extension - Azusa to Montclair
14: Route 66 & Glenwood Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	46	860	7	18	1657	40	11	3	6	86	1	66
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	50	935	8	20	1801	43	12	3	7	93	1	72
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					651							
pX, platoon unblocked	0.54						0.54	0.54		0.54	0.54	0.54
vC, conflicting volume	1845			942			2051	2922	471	2438	2904	922
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	857			942			1239	2856	471	1957	2823	0
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	88			97			76	58	99	0	87	88
cM capacity (veh/h)	420			723			50	8	539	12	8	585
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1				
Volume Total	50	623	319	20	1201	644	22	166				
Volume Left	50	0	0	20	0	0	12	93				
Volume Right	0	0	8	0	0	43	7	72				
cSH	420	1700	1700	723	1700	1700	32	21				
Volume to Capacity	0.12	0.37	0.19	0.03	0.71	0.38	0.68	7.92				
Queue Length 95th (ft)	10	0	0	2	0	0	57	Err				
Control Delay (s)	14.7	0.0	0.0	10.1	0.0	0.0	242.5	Err				
Lane LOS	B			B			F	F				
Approach Delay (s)	0.7			0.1			242.5	Err				
Approach LOS							F	F				
Intersection Summary												
Average Delay			548.2									
Intersection Capacity Utilization			64.7%			ICU Level of Service				C		
Analysis Period (min)			15									

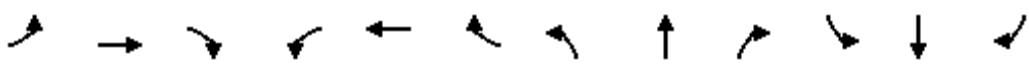
Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	23	9	8	11	0	1	99	2	7	117	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	25	10	9	12	0	1	108	2	8	127	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	259	254	127	276	253	109	127			110		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	259	254	127	276	253	109	127			110		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	98	100	100			99		
cM capacity (veh/h)	681	645	923	647	646	945	1459			1480		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	36	21	111	135								
Volume Left	1	9	1	8								
Volume Right	10	0	2	0								
cSH	704	647	1459	1480								
Volume to Capacity	0.05	0.03	0.00	0.01								
Queue Length 95th (ft)	4	2	0	0								
Control Delay (s)	10.4	10.8	0.1	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.4	10.8	0.1	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			22.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	824	24	23	1619	36	24	5	13	62	7	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1788	1583	0	1783	1583
Flt Permitted	0.950			0.950				0.797			0.750	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1485	1583	0	1397	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17			13			14			70
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	896	26	25	1760	39	0	31	14	0	75	70
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	10.0	60.0	60.0	9.0	59.0	59.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	6.0	54.2	54.2	5.1	50.0	50.0		17.5	17.5		17.5	17.5
Actuated g/C Ratio	0.07	0.65	0.65	0.06	0.60	0.60		0.21	0.21		0.21	0.21
v/c Ratio	0.45	0.39	0.03	0.23	0.83	0.04		0.10	0.04		0.26	0.18
Control Delay	51.8	7.6	3.7	46.0	17.5	5.4		31.3	15.1		34.0	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	51.8	7.6	3.7	46.0	17.5	5.4		31.3	15.1		34.0	9.5
LOS	D	A	A	D	B	A		C	B		C	A
Approach Delay		10.0			17.7			26.2			22.2	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	32	83	1	14	371	5		15	0		37	0
Queue Length 95th (ft)	#75	160	11	39	474	17		39	16		78	35
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	131	2570	1154	109	2406	1080		312	343		294	388
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.44	0.35	0.02	0.23	0.73	0.04		0.10	0.04		0.26	0.18

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 83.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 15.5

Intersection LOS: B

Intersection Capacity Utilization 62.0%

ICU Level of Service B

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



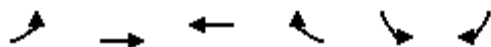
Gold Line Foothill Extension - Azusa to Montclair
17: Lemon Ave & Loraine Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	5	28	12	25	10	9	324	3	7	565	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	5	30	13	27	11	10	352	3	8	614	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	851	1005	308	729	1005	178	616			355		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	851	1005	308	729	1005	178	616			355		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	98	96	95	88	99	99			99		
cM capacity (veh/h)	225	236	688	288	236	835	960			1200		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	50	51	186	179	315	309						
Volume Left	14	13	10	0	8	0						
Volume Right	30	11	0	3	0	2						
cSH	385	295	960	1700	1200	1700						
Volume to Capacity	0.13	0.17	0.01	0.11	0.01	0.18						
Queue Length 95th (ft)	11	15	1	0	0	0						
Control Delay (s)	15.7	19.8	0.6	0.0	0.3	0.0						
Lane LOS	C	C	A		A							
Approach Delay (s)	15.7	19.8	0.3		0.1							
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			31.0%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

Build Alternative
AM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	124	824	1388	186	386	187
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				81		184
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	135	896	1509	202	420	203
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	9.0	39.0	30.0	30.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	5.0	35.1	26.1	26.1	12.2	12.2
Actuated g/C Ratio	0.09	0.63	0.47	0.47	0.22	0.22
v/c Ratio	0.84	0.40	0.90	0.26	0.55	0.41
Control Delay	71.2	6.0	24.7	7.0	21.9	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.2	6.0	24.7	7.0	21.9	7.0
LOS	E	A	C	A	C	A
Approach Delay		14.6	22.6		17.1	
Approach LOS		B	C		B	
Queue Length 50th (ft)	44	60	220	21	63	5
Queue Length 95th (ft)	#141	116	#420	61	98	47
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	160	2245	1668	789	1058	615
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.40	0.90	0.26	0.40	0.33

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 19.1

Intersection LOS: B

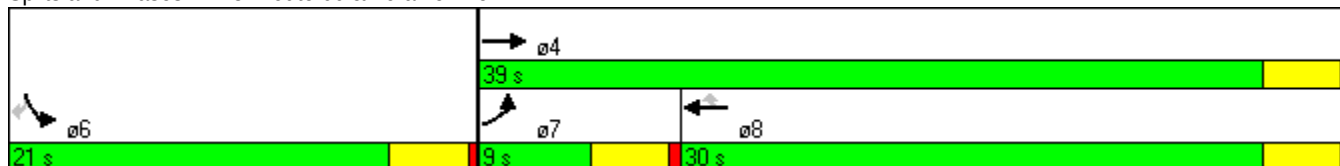
Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

Build Alternative
AM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 		 		 	 
Volume (vph)	354	404	553	214	723	978
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		439		233		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	385	439	601	233	786	1063
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	12.0	12.0	14.2	14.2	15.3	33.6
Actuated g/C Ratio	0.22	0.22	0.26	0.26	0.28	0.63
v/c Ratio	0.50	0.63	0.64	0.39	0.80	0.48
Control Delay	21.1	7.0	21.6	5.3	27.2	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	7.0	21.6	5.3	27.2	6.6
LOS	C	A	C	A	C	A
Approach Delay	13.6		17.1			15.4
Approach LOS	B		B			B
Queue Length 50th (ft)	59	0	91	0	125	80
Queue Length 95th (ft)	93	59	148	44	#229	140
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	1041	786	1073	642	1041	2414
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.56	0.56	0.36	0.76	0.44
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 53.7						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.80						
Intersection Signal Delay: 15.4				Intersection LOS: B		
Intersection Capacity Utilization 56.0%				ICU Level of Service B		

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

Build Alternative
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	207	93	203	466	36	111
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	225	101	221	507	39	121
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			326		1223	276
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			326		1223	276
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			82		76	84
cM capacity (veh/h)			1234		163	763
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	326	221	507	160		
Volume Left	0	221	0	39		
Volume Right	101	0	0	121		
cSH	1700	1234	1700	401		
Volume to Capacity	0.19	0.18	0.30	0.40		
Queue Length 95th (ft)	0	16	0	47		
Control Delay (s)	0.0	8.6	0.0	19.8		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.6		19.8		
Approach LOS				C		
Intersection Summary						
Average Delay			4.2			
Intersection Capacity Utilization			46.6%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
21: Sierra Madre Ave & Glendora Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	285	41	86	494	1	129	8	36	7	11	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	310	45	93	537	1	140	9	39	8	12	10
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	364	630	1	149	39	20	10					
Volume Left (vph)	10	93	0	140	0	8	0					
Volume Right (vph)	45	0	1	0	39	0	10					
Hadj (s)	-0.03	0.11	-0.67	0.50	-0.67	0.23	-0.67					
Departure Headway (s)	6.2	5.9	5.1	7.7	6.5	7.9	7.0					
Degree Utilization, x	0.62	1.03	0.00	0.32	0.07	0.04	0.02					
Capacity (veh/h)	570	605	685	456	532	423	474					
Control Delay (s)	18.9	68.4	6.9	13.0	8.8	10.1	9.0					
Approach Delay (s)	18.9	68.3		12.1		9.7						
Approach LOS	C	F		B		A						
Intersection Summary												
Delay			43.3									
HCM Level of Service			E									
Intersection Capacity Utilization			73.0%	ICU Level of Service				C				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	226	2	82	6	0	2	47	503	6	38	802	397
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1740	0	3433	3532	0	1770	3539	1583
Flt Permitted	0.950	0.883					0.950			0.950		
Satd. Flow (perm)	1681	1563	2787	0	1807	0	3433	3532	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			89		2			2				432
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	123	125	89	0	9	0	51	554	0	41	872	432
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	10.0	30.0	30.0	20.0	20.0	0.0	8.0	21.0	0.0	9.0	22.0	22.0
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
Act Effect Green (s)	18.6	14.5	27.6		9.4		5.5	23.1		6.8	22.1	22.1
Actuated g/C Ratio	0.38	0.29	0.56		0.19		0.11	0.47		0.14	0.45	0.45
v/c Ratio	0.19	0.25	0.06		0.03		0.13	0.33		0.17	0.55	0.46
Control Delay	20.7	21.4	3.0		18.1		27.2	15.2		27.6	19.1	4.0
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	20.7	21.4	3.0		18.1		27.2	15.2		27.6	19.1	4.0
LOS	C	C	A		B		C	B		C	B	A
Approach Delay		16.3			18.1			16.2			14.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	27	27	0		2		9	66		14	152	0
Queue Length 95th (ft)	#126	#127	11		11		23	132		40	#242	56
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	633	495	1600		763		381	1658		246	1590	949
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.19	0.25	0.06		0.01		0.13	0.33		0.17	0.55	0.46

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 15.2

Intersection LOS: B

Intersection Capacity Utilization 43.2%

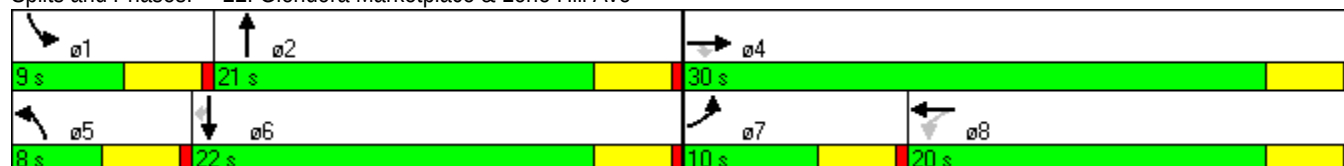
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

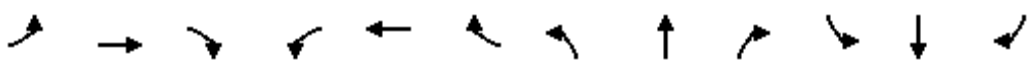
Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
23: Gladstone St & Lone Hill Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↔		↔	↕↔		↔↔	↕↔	↔	↔↔	↕↔	↔
Volume (vph)	169	180	148	144	440	69	144	299	104	121	490	316
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3299	0	1770	3468	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		161			29				113			343
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	184	357	0	157	553	0	157	325	113	132	533	343
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	20.0	0.0	12.0	21.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	7.4	13.5		8.3	14.2		4.4	12.0	12.0	6.9	14.5	14.5
Actuated g/C Ratio	0.14	0.26		0.16	0.28		0.09	0.23	0.23	0.14	0.28	0.28
v/c Ratio	0.37	0.36		0.55	0.56		0.53	0.39	0.25	0.28	0.53	0.49
Control Delay	26.1	11.0		33.6	19.1		35.5	20.6	6.2	25.7	19.6	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.1	11.0		33.6	19.1		35.5	20.6	6.2	25.7	19.6	5.4
LOS	C	B		C	B		D	C	A	C	B	A
Approach Delay		16.1			22.3			21.8			15.6	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	30	28		52	83		27	53	0	20	81	0
Queue Length 95th (ft)	59	58		#130	127		#68	82	32	47	131	53
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	521	1248		307	1295		297	1226	622	464	1226	773
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.29		0.51	0.43		0.53	0.27	0.18	0.28	0.43	0.44

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 18.6

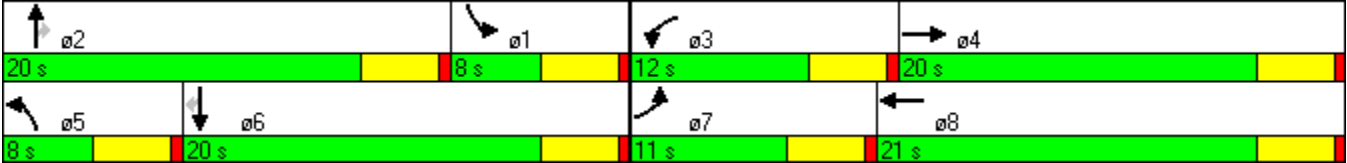
Intersection LOS: B

Intersection Capacity Utilization 50.2%

ICU Level of Service A

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

24: Arrow Hwy & SR-57 SB

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↖	↑↑↑		↖↖		↖	↖	↖	↖
Volume (vph)	0	871	41	173	838	369	17	0	19	174	62	211
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	5050	0	1770	4851	0	3433	0	1583	1681	1729	1583
Flt Permitted				0.271			0.670			0.950	0.977	
Satd. Flow (perm)	0	5050	0	505	4851	0	2421	0	1583	1681	1729	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			330				21			148
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										33%		
Lane Group Flow (vph)	0	992	0	188	1312	0	18	0	21	127	129	229
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		27.3		27.3	27.3		10.2		10.2	10.2	10.2	10.2
Actuated g/C Ratio		0.59		0.59	0.59		0.22		0.22	0.22	0.22	0.22
v/c Ratio		0.33		0.63	0.44		0.03		0.06	0.34	0.34	0.49
Control Delay		5.0		18.9	4.2		16.8		8.8	20.3	20.2	11.6
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		5.0		18.9	4.2		16.8		8.8	20.3	20.2	11.6
LOS		A		B	A		B		A	C	C	B
Approach Delay		5.0			6.1						16.1	
Approach LOS		A			A						B	
Queue Length 50th (ft)		37		25	38		2		0	34	34	20
Queue Length 95th (ft)		74		#137	79		9		14	78	80	73
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3970		397	3880		915		611	635	653	690
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.25		0.47	0.34		0.02		0.03	0.20	0.20	0.33

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 7.4

Intersection LOS: A

Intersection Capacity Utilization 50.8%

ICU Level of Service A

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

Build Alternative
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	647	196	181	122	122	294	160	320	453	199	678	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3337	0	1770	3539	1583	3433	4638	0	1770	5040	0
Flt Permitted		0.719		0.165			0.950			0.950		
Satd. Flow (perm)	0	2476	0	307	3539	1583	3433	4638	0	1770	5040	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44				320		347			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1113	0	133	133	320	174	840	0	216	782	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	53.0	53.0	0.0	53.0	53.0	53.0	12.0	20.0	0.0	17.0	25.0	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
Act Effect Green (s)		41.5		41.5	41.5	41.5	7.9	14.4		12.6	19.1	
Actuated g/C Ratio		0.51		0.51	0.51	0.51	0.10	0.18		0.16	0.24	
v/c Ratio		1.07dl		0.84	0.07	0.33	0.52	0.87dr		0.78	0.65	
Control Delay		24.5		62.0	10.0	2.3	43.5	23.9		56.8	31.3	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		24.5		62.0	10.0	2.3	43.5	23.9		56.8	31.3	
LOS		C		E	B	A	D	C		E	C	
Approach Delay		24.5			17.6			27.3			36.8	
Approach LOS		C			B			C			D	
Queue Length 50th (ft)		246		57	17	0	47	93		116	139	
Queue Length 95th (ft)		344		#173	31	36	82	144		#244	189	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1557		191	2201	1106	348	1219		292	1351	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.71		0.70	0.06	0.29	0.50	0.69		0.74	0.58	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 27.5

Intersection LOS: C

Intersection Capacity Utilization 83.3%

ICU Level of Service E

Gold Line Foothill Extension - Azusa to Montclair

25: SR-57 NB & Arrow Hwy

Build Alternative
AM Peak Hour

Analysis Period (min) 15

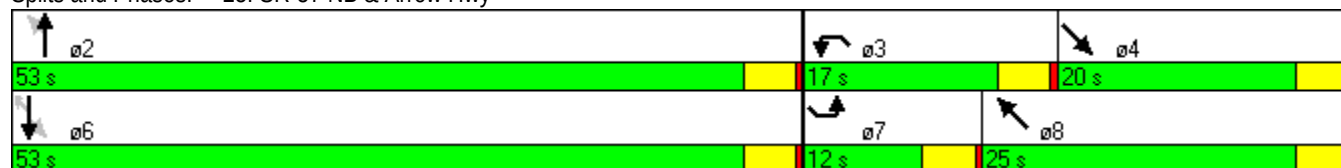
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

26: Fifth St & Eucla Ave

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	0	45	64	22	57	1	42	42	12	0	4	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	49	70	24	62	1	46	46	13	0	4	2
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	49	70	86	1	104	7						
Volume Left (vph)	0	0	24	0	46	0						
Volume Right (vph)	0	70	0	1	13	2						
Hadj (s)	0.03	-0.67	0.17	-0.67	0.05	-0.17						
Departure Headway (s)	4.9	4.2	5.0	4.2	4.4	4.3						
Degree Utilization, x	0.07	0.08	0.12	0.00	0.13	0.01						
Capacity (veh/h)	719	832	689	826	776	777						
Control Delay (s)	7.0	6.3	7.5	6.0	8.1	7.4						
Approach Delay (s)	6.6		7.5		8.1	7.4						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.4									
HCM Level of Service			A									
Intersection Capacity Utilization			29.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

Build Alternative
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	11	1	63	8	8	138
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	1	68	9	9	150
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	236	68			77	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	236	68			77	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	100			99	
cM capacity (veh/h)	748	995			1521	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	68	9	9	150	
Volume Left	12	0	0	9	0	
Volume Right	1	0	9	0	0	
cSH	764	1700	1700	1521	1700	
Volume to Capacity	0.02	0.04	0.01	0.01	0.09	
Queue Length 95th (ft)	1	0	0	0	0	
Control Delay (s)	9.8	0.0	0.0	7.4	0.0	
Lane LOS	A			A		
Approach Delay (s)	9.8	0.0		0.4		
Approach LOS	A					
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization			17.3%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	340	16	76	412	11	14	18	23	16	59	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3525	0	0	1737	0	0	1724	0
Flt Permitted	0.519			0.532				0.862			0.955	
Satd. Flow (perm)	967	3539	1583	991	3525	0	0	1516	0	0	1654	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17		6			25			86	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	370	17	83	460	0	0	60	0	0	167	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	11.6	11.6	11.6	13.3	13.3			7.9			8.0	
Actuated g/C Ratio	0.56	0.56	0.56	0.65	0.65			0.38			0.39	
v/c Ratio	0.07	0.19	0.02	0.13	0.20			0.10			0.24	
Control Delay	5.3	4.6	2.9	5.6	4.5			5.7			5.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	5.3	4.6	2.9	5.6	4.5			5.7			5.3	
LOS	A	A	A	A	A			A			A	
Approach Delay		4.6			4.6			5.7			5.3	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	3	13	0	5	16			3			7	
Queue Length 95th (ft)	11	31	5	21	37			16			31	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	930	3404	1523	953	3391			1459			1594	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.04	0.11	0.01	0.09	0.14			0.04			0.10	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 20.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.24

Intersection Signal Delay: 4.8

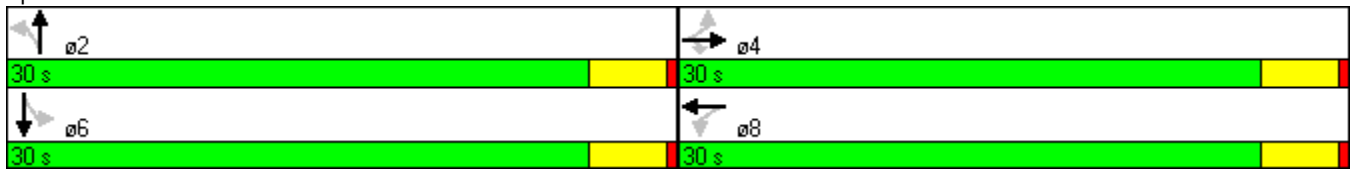
Intersection LOS: A

Intersection Capacity Utilization 34.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
29: Arrow Hwy & Eucla Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	469	92	342	766	12	16	43	185	24	118	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	5075	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.322			0.323			0.675			0.726		
Satd. Flow (perm)	600	4958	0	602	5075	0	1257	1863	1583	1352	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		67			5				201			5
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	610	0	372	846	0	17	47	201	26	128	5
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	20.0	0.0	19.0	31.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	15.9	11.4		26.1	26.4		8.7	8.7	8.7	8.7	8.7	8.7
Actuated g/C Ratio	0.40	0.28		0.65	0.66		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.00	0.42		0.54	0.25		0.06	0.12	0.40	0.09	0.31	0.01
Control Delay	5.0	12.5		7.3	5.1		16.4	16.5	6.2	16.6	18.5	11.2
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	12.5		7.3	5.1		16.4	16.5	6.2	16.6	18.5	11.2
LOS	A	B		A	A		B	B	A	B	B	B
Approach Delay		12.5			5.7			8.7			17.9	
Approach LOS		B			A			A			B	
Queue Length 50th (ft)	0	37		34	26		3	9	0	5	25	0
Queue Length 95th (ft)	1	78		82	79		18	34	42	23	74	7
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	368	2242		879	3557		594	880	854	639	880	751
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.00	0.27		0.42	0.24		0.03	0.05	0.24	0.04	0.15	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.8

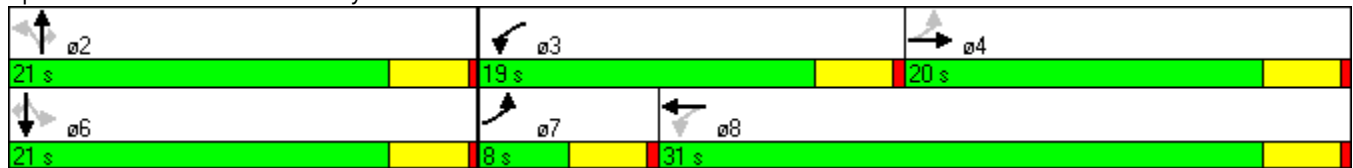
Intersection LOS: A

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

Build Alternative
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	51	6	9	66	12	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	7	10	72	13	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			62		150	59
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			62		150	59
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	100
cM capacity (veh/h)			1541		837	1007
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	62	82	17			
Volume Left	0	10	13			
Volume Right	7	0	4			
cSH	1700	1541	874			
Volume to Capacity	0.04	0.01	0.02			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.9	9.2			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.9	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay		1.5				
Intersection Capacity Utilization		20.6%		ICU Level of Service		A
Analysis Period (min)		15				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	15	5	4	14	2	2	2	0	5	1	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	16	5	4	15	2	2	2	0	5	1	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	31	21	4	35	24	2	7			2		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	31	21	4	35	24	2	7			2		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	99	100	98	100	100			100		
cM capacity (veh/h)	959	868	1080	949	865	1082	1614			1620		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	22	22	4	12								
Volume Left	0	4	2	5								
Volume Right	5	2	0	5								
cSH	913	899	1614	1620								
Volume to Capacity	0.02	0.02	0.00	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.0	9.1	3.6	3.3								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.0	9.1	3.6	3.3								
Approach LOS	A	A										
Intersection Summary												
Average Delay			7.5									
Intersection Capacity Utilization			14.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	296	11	33	538	0	7	0	34	0	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	322	12	36	585	0	8	0	37	0	0	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727			662							
pX, platoon unblocked												
vC, conflicting volume	585			334			693	984	167	854	990	292
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	585			334			693	984	167	854	990	292
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			98	100	96	100	100	100
cM capacity (veh/h)	986			1222			322	240	848	236	238	704
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	0	214	119	36	390	195	8	37	1			
Volume Left	0	0	0	36	0	0	8	0	0			
Volume Right	0	0	12	0	0	0	0	37	1			
cSH	1700	1700	1700	1222	1700	1700	322	848	704			
Volume to Capacity	0.00	0.13	0.07	0.03	0.23	0.11	0.02	0.04	0.00			
Queue Length 95th (ft)	0	0	0	2	0	0	2	3	0			
Control Delay (s)	0.0	0.0	0.0	8.0	0.0	0.0	16.5	9.4	10.1			
Lane LOS				A			C	A	B			
Approach Delay (s)	0.0			0.5			10.6		10.1			
Approach LOS							B		B			
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			34.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	16	5	17	10	1	10	54	14	7	67	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	17	5	18	11	1	11	59	15	8	73	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	12			23			114	78	20	122	80	11
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	12			23			114	78	20	122	80	11
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	93	99	99	91	100
cM capacity (veh/h)	1607			1592			795	801	1058	785	799	1069
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	27	30	85	80								
Volume Left	4	18	11	8								
Volume Right	5	1	15	0								
cSH	1607	1592	837	797								
Volume to Capacity	0.00	0.01	0.10	0.10								
Queue Length 95th (ft)	0	1	8	8								
Control Delay (s)	1.2	4.5	9.8	10.0								
Lane LOS	A	A	A	B								
Approach Delay (s)	1.2	4.5	9.8	10.0								
Approach LOS			A	B								
Intersection Summary												
Average Delay			8.1									
Intersection Capacity Utilization			17.2%	ICU Level of Service				A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
34: Bonita Ave & Cataract Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	277	10	98	518	10	13	49	34	11	48	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	100		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3522	0	1770	3529	0	0	1844	1583	0	1846	1583
Flt Permitted	0.436			0.562				0.933			0.940	
Satd. Flow (perm)	812	3522	0	1047	3529	0	0	1738	1583	0	1751	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			1				37			36
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		662			654			342			749	
Travel Time (s)		15.0			14.9			7.8			17.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	312	0	107	574	0	0	67	37	0	64	36
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	42.0	42.0	0.0	42.0	42.0	0.0	28.0	28.0	28.0	28.0	28.0	28.0
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
Act Effect Green (s)	11.3	11.3		11.3	11.3			7.1	7.1		7.1	7.1
Actuated g/C Ratio	0.42	0.42		0.42	0.42			0.27	0.27		0.27	0.27
v/c Ratio	0.04	0.21		0.24	0.38			0.14	0.08		0.14	0.08
Control Delay	4.8	5.1		6.5	6.0			9.1	4.4		9.1	4.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	4.8	5.1		6.5	6.0			9.1	4.4		9.1	4.5
LOS	A	A		A	A			A	A		A	A
Approach Delay		5.1			6.1			7.5			7.4	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	1	11		7	22			7	0		6	0
Queue Length 95th (ft)	5	24		24	44			24	11		23	11
Internal Link Dist (ft)		582			574			262			669	
Turn Bay Length (ft)	200			100								
Base Capacity (vph)	812	3522		1047	3529			1560	1424		1572	1424
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.02	0.09		0.10	0.16			0.04	0.03		0.04	0.03

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 26.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.38

Intersection Signal Delay: 6.1

Intersection LOS: A

Intersection Capacity Utilization 37.9%

ICU Level of Service A

Lane Group	ø9
Lane Configurations	
Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Total Split (s)	80.0
Total Lost Time (s)	
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	
Intersection Summary	

Analysis Period (min) 15

Splits and Phases: 34: Bonita Ave & Cataract Ave

 ø2	 ø4	 ø9
28 s	42 s	80 s
 ø6	 ø8	
28 s	42 s	

Gold Line Foothill Extension - Azusa to Montclair
35: Second St & Monte Vista Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	33	2	6	16	8	0	21	10	0	20	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	36	2	7	17	9	0	23	11	0	22	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	71	59	25	73	57	28	28			34		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	71	59	25	73	57	28	28			34		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	96	100	99	98	99	100			100		
cM capacity (veh/h)	899	832	1051	885	835	1047	1585			1578		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	45	33	34	28								
Volume Left	7	7	0	0								
Volume Right	2	9	11	7								
cSH	850	893	1585	1578								
Volume to Capacity	0.05	0.04	0.00	0.00								
Queue Length 95th (ft)	4	3	0	0								
Control Delay (s)	9.5	9.2	0.0	0.0								
Lane LOS	A	A										
Approach Delay (s)	9.5	9.2	0.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay			5.2									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
36: Bonita Ave & Monte Vista Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	18	321	11	11	645	12	5	2	13	7	2	36
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	349	12	12	701	13	5	2	14	8	2	39
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		654			666							
pX, platoon unblocked	0.82						0.82	0.82		0.82	0.82	0.82
vC, conflicting volume	714			361			1159	1132	355	1135	1132	708
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	541			361			1084	1051	355	1054	1050	533
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			96	99	98	95	99	91
cM capacity (veh/h)	842			1198			140	180	689	158	180	448
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	20	361	12	714	22	49						
Volume Left	20	0	12	0	5	8						
Volume Right	0	12	0	13	14	39						
cSH	842	1700	1198	1700	305	331						
Volume to Capacity	0.02	0.21	0.01	0.42	0.07	0.15						
Queue Length 95th (ft)	2	0	1	0	6	13						
Control Delay (s)	9.4	0.0	8.0	0.0	17.7	17.7						
Lane LOS	A		A		C	C						
Approach Delay (s)	0.5		0.1		17.7	17.7						
Approach LOS					C	C						
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			44.7%		ICU Level of Service		A					
Analysis Period (min)			15									

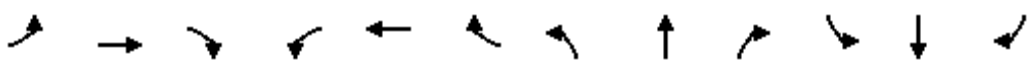
Gold Line Foothill Extension - Azusa to Montclair
37: Second St & San Dimas Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	10	7	1	8	14	7	390	4	8	524	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	11	8	1	9	15	8	424	4	9	570	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked												
vC, conflicting volume	1046	1030	570	1039	1039	424	583			428		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1046	1030	570	1039	1039	424	583			428		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	95	99	99	96	98	99			99		
cM capacity (veh/h)	193	230	521	196	227	630	992			1131		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	26	25	8	424	4	9	570	13				
Volume Left	8	1	8	0	0	9	0	0				
Volume Right	8	15	0	0	4	0	0	13				
cSH	258	368	992	1700	1700	1131	1700	1700				
Volume to Capacity	0.10	0.07	0.01	0.25	0.00	0.01	0.34	0.01				
Queue Length 95th (ft)	8	5	1	0	0	1	0	0				
Control Delay (s)	20.5	15.5	8.7	0.0	0.0	8.2	0.0	0.0				
Lane LOS	C	C	A			A						
Approach Delay (s)	20.5	15.5	0.2			0.1						
Approach LOS	C	C										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			38.4%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	228	57	94	455	80	61	234	60	129	299	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3429	0	1770	1790	0
Flt Permitted	0.344			0.605			0.370			0.558		
Satd. Flow (perm)	641	1863	1583	1127	1863	1583	689	3429	0	1039	1790	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			62			58		65			37	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	248	62	102	495	87	66	319	0	140	441	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	31.0	31.0	31.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	17.6	17.6	17.6	17.6	17.6	17.6	15.9	15.9		15.9	15.9	
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.42	0.42	0.38	0.38		0.38	0.38	
v/c Ratio	0.18	0.32	0.09	0.22	0.64	0.13	0.26	0.24		0.36	0.64	
Control Delay	11.0	10.4	3.4	10.3	14.9	5.0	13.5	8.2		13.9	15.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.0	10.4	3.4	10.3	14.9	5.0	13.5	8.2		13.9	15.4	
LOS	B	B	A	B	B	A	B	A		B	B	
Approach Delay		9.2			12.9			9.1			15.1	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	6	35	0	14	83	4	10	20		22	71	
Queue Length 95th (ft)	28	97	17	48	210	26	40	51		71	186	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	442	1284	1110	777	1284	1109	449	2256		677	1179	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.11	0.19	0.06	0.13	0.39	0.08	0.15	0.14		0.21	0.37	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.64

Intersection Signal Delay: 12.2

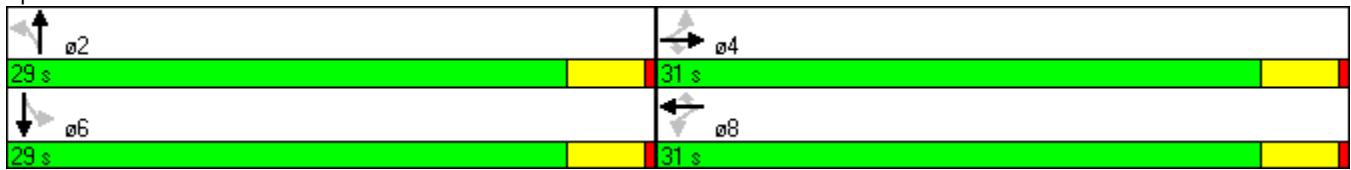
Intersection LOS: B

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

39: Arrow Hwy & San Dimas Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (vph)	81	810	64	187	1332	68	143	216	260	181	152	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5029	0	1770	5050	0	1770	1863	1583	1770	3348	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5029	0	1770	5050	0	1770	1863	1583	1770	3348	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			13				193		93	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	950	0	203	1522	0	155	235	283	197	258	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	8.0	20.0	0.0	10.0	22.0	0.0	10.0	20.0	20.0	10.0	20.0	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
Act Effect Green (s)	4.0	15.4		6.0	19.3		6.0	12.4	12.4	6.0	12.4	
Actuated g/C Ratio	0.07	0.28		0.11	0.34		0.11	0.22	0.22	0.11	0.22	
v/c Ratio	0.69	0.68		1.06	0.87		0.81	0.57	0.56	1.03	0.32	
Control Delay	58.8	21.0		115.4	27.0		61.5	25.2	11.7	106.8	12.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	58.8	21.0		115.4	27.0		61.5	25.2	11.7	106.8	12.5	
LOS	E	C		F	C		E	C	B	F	B	
Approach Delay		24.2			37.4			27.9			53.3	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	30	102		~81	182		53	71	25	~77	24	
Queue Length 95th (ft)	#100	150		#201	#302		#151	129	82	#194	50	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	127	1462		191	1746		191	536	593	191	1030	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	0.69	0.65		1.06	0.87		0.81	0.44	0.48	1.03	0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 34.1

Intersection LOS: C

Intersection Capacity Utilization 66.5%

ICU Level of Service C

Analysis Period (min) 15

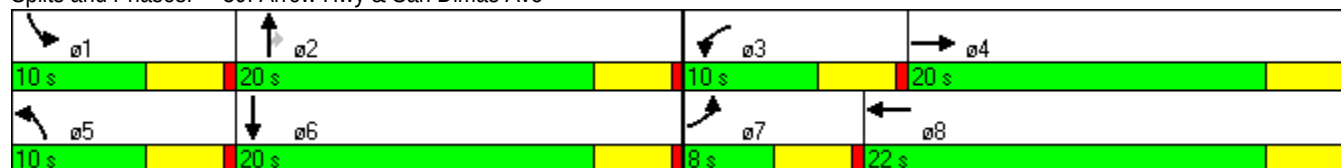
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair
40: Bonita Ave & Walnut Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	240	55	103	642	57	44	112	63	67	115	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3440	0	1770	3539	1583	1770	1762	0	1770	1729	0
Flt Permitted	0.386			0.557			0.609			0.638		
Satd. Flow (perm)	719	3440	0	1038	3539	1583	1134	1762	0	1188	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		60				55		57			95	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	321	0	112	698	62	48	190	0	73	241	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	17.1	17.1		17.1	17.1	17.1	9.6	9.6		9.6	9.6	
Actuated g/C Ratio	0.57	0.57		0.57	0.57	0.57	0.32	0.32		0.32	0.32	
v/c Ratio	0.13	0.16		0.19	0.34	0.07	0.13	0.31		0.19	0.39	
Control Delay	6.5	4.5		6.7	6.1	2.6	11.1	9.2		11.6	8.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.5	4.5		6.7	6.1	2.6	11.1	9.2		11.6	8.8	
LOS	A	A		A	A	A	B	A		B	A	
Approach Delay		4.8			5.9			9.6			9.5	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	4	10		9	32	1	5	15		8	17	
Queue Length 95th (ft)	21	33		36	82	13	27	63		37	72	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	613	2944		886	3019	1359	922	1443		966	1423	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.08	0.11		0.13	0.23	0.05	0.05	0.13		0.08	0.17	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 29.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 6.8

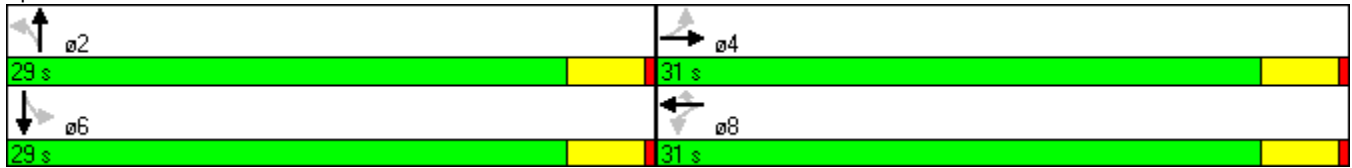
Intersection LOS: A

Intersection Capacity Utilization 50.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
41: Arrow Hwy & Walnut Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	165	743	44	20	1349	35	93	30	26	33	18	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5065	0	0	1796	1583	0	1805	1583
Flt Permitted	0.950			0.950				0.743			0.773	
Satd. Flow (perm)	1770	5045	0	1770	5065	0	0	1384	1583	0	1440	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			7				28			210
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	179	856	0	22	1504	0	0	134	28	0	56	210
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	14.0	31.0	0.0	8.0	25.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	9.2	30.2		4.2	21.4			10.2	10.2		10.2	10.2
Actuated g/C Ratio	0.18	0.60		0.08	0.43			0.20	0.20		0.20	0.20
v/c Ratio	0.55	0.28		0.15	0.69			0.48	0.08		0.19	0.43
Control Delay	28.3	5.8		27.2	15.8			24.9	8.1		19.2	6.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	28.3	5.8		27.2	15.8			24.9	8.1		19.2	6.3
LOS	C	A		C	B			C	A		B	A
Approach Delay		9.7			15.9			22.0			9.0	
Approach LOS		A			B			C			A	
Queue Length 50th (ft)	51	31		7	142			38	0		15	0
Queue Length 95th (ft)	#124	89		26	221			81	15		39	42
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	367	3268		147	2210			488	576		508	694
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.49	0.26		0.15	0.68			0.27	0.05		0.11	0.30

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 50.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 13.5

Intersection LOS: B

Intersection Capacity Utilization 59.4%

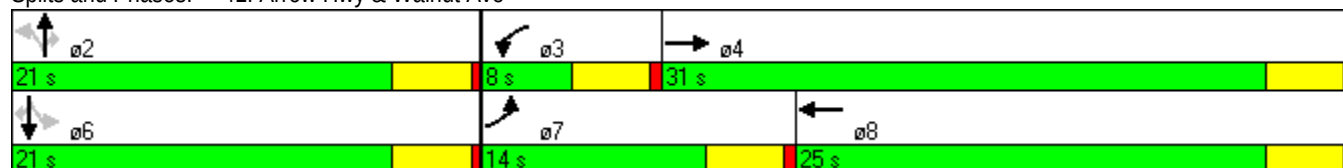
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	72	243	58	60	396	107	87	245	200	173	185	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.502			0.589			0.626			0.588		
Satd. Flow (perm)	935	3539	1583	1097	3539	1583	1166	3539	1583	1095	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			63			116			217			142
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	264	63	65	430	116	95	266	217	188	201	142
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	34.0	34.0	34.0	34.0	34.0	34.0
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
Act Effect Green (s)	10.6	10.6	10.6	10.6	10.6	10.6	11.9	11.9	11.9	11.9	11.9	11.9
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
v/c Ratio	0.25	0.22	0.11	0.17	0.36	0.19	0.21	0.20	0.29	0.45	0.15	0.20
Control Delay	11.1	8.7	3.8	9.9	9.4	3.5	8.2	7.0	2.6	11.5	6.8	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	8.7	3.8	9.9	9.4	3.5	8.2	7.0	2.6	11.5	6.8	2.6
LOS	B	A	A	A	A	A	A	A	A	B	A	A
Approach Delay		8.4			8.3			5.5			7.3	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	8	13	0	6	23	0	8	12	0	18	8	0
Queue Length 95th (ft)	38	44	17	32	70	23	35	37	26	70	29	21
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	707	2675	1212	829	2675	1225	1048	3180	1444	984	3180	1437
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.10	0.05	0.08	0.16	0.09	0.09	0.08	0.15	0.19	0.06	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 7.3

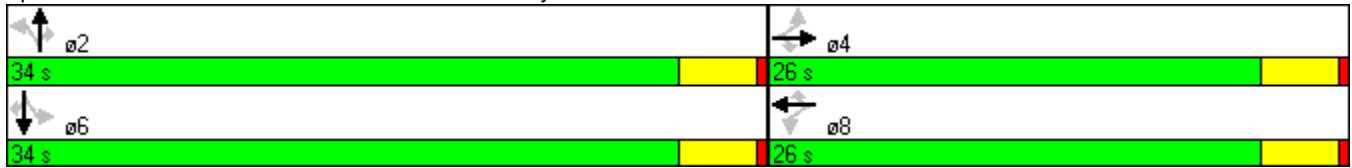
Intersection LOS: A

Intersection Capacity Utilization 44.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	234	501	18	25	1077	125	41	51	68	131	33	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.734			0.721		
Satd. Flow (perm)	1770	5060	0	1770	5085	1583	1367	1863	1583	1343	1863	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7							74			291
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	254	565	0	27	1171	136	45	55	74	142	36	291
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	17.0	80.0	0.0	17.0	80.0	12.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	13.1	41.7		6.8	28.8	8.1	14.5	14.5	14.5	14.5	14.5	14.5
Actuated g/C Ratio	0.16	0.52		0.08	0.36	0.10	0.18	0.18	0.18	0.18	0.18	0.18
v/c Ratio	0.88	0.22		0.18	0.64	0.86	0.18	0.16	0.21	0.59	0.11	0.56
Control Delay	67.3	12.0		40.0	23.4	83.1	31.6	30.8	9.7	42.5	30.1	8.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.3	12.0		40.0	23.4	83.1	31.6	30.8	9.7	42.5	30.1	8.7
LOS	E	B		D	C	F	C	C	A	D	C	A
Approach Delay		29.1			29.9			22.0			20.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	131	48		13	182	71	20	24	0	67	15	0
Queue Length 95th (ft)	#303	93		40	229	#195	53	60	36	137	44	67
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	288	4693		288	4716	158	291	396	395	286	396	566
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.12		0.09	0.25	0.86	0.15	0.14	0.19	0.50	0.09	0.51

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 80.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 27.6

Intersection LOS: C

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Gold Line Foothill Extension - Azusa to Montclair
 43: Arrow Hwy & San Dimas Canyon Rd

Build Alternative
 AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd

 ø2	 ø3	 ø4	 ø10
21 s	17 s	80 s	12 s
 ø6	 ø7	 ø8	
21 s	17 s	80 s	

Gold Line Foothill Extension - Azusa to Montclair
44: Third St & Wheeler Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	16	10	49	17	8	39	30	299	9	52	537	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	17	11	53	18	9	42	33	325	10	57	584	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	977	1102	297	859	1103	167	595			335		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	977	1102	297	859	1103	167	595			335		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	94	92	91	96	95	97			95		
cM capacity (veh/h)	177	194	699	208	194	847	978			1221		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	28	53	27	42	195	172	348	303				
Volume Left	17	0	18	0	33	0	57	0				
Volume Right	0	53	0	42	0	10	0	11				
cSH	183	699	203	847	978	1700	1221	1700				
Volume to Capacity	0.15	0.08	0.13	0.05	0.03	0.10	0.05	0.18				
Queue Length 95th (ft)	13	6	11	4	3	0	4	0				
Control Delay (s)	28.2	10.6	25.4	9.5	1.7	0.0	1.7	0.0				
Lane LOS	D	B	D	A	A		A					
Approach Delay (s)	16.7		15.7		0.9		0.9					
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.9									
Intersection Capacity Utilization			44.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
45: Arrow Hwy & Wheeler Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	101	500	34	35	974	341	30	32	15	341	98	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		1	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5034	0	1770	5085	1583	1770	1863	1583	0	3296	0
Flt Permitted	0.950			0.950			0.184				0.785	
Satd. Flow (perm)	1770	5034	0	1770	5085	1583	343	1863	1583	0	2659	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		10							16		35	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	580	0	38	1059	371	33	35	16	0	669	0
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		
Total Split (s)	11.0	80.0	0.0	11.0	80.0	27.0	32.0	32.0	32.0	32.0	32.0	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
Act Effect Green (s)	7.0	35.3		6.6	30.7	23.1	28.1	28.1	28.1		28.1	
Actuated g/C Ratio	0.07	0.34		0.06	0.29	0.22	0.27	0.27	0.27		0.27	
v/c Ratio	0.93	0.34		0.34	0.71	1.07	0.36	0.07	0.04		0.95dl	
Control Delay	116.6	26.8		57.3	35.9	107.8	46.6	31.2	14.3		53.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay	116.6	26.8		57.3	35.9	107.8	46.6	31.2	14.3		53.6	
LOS	F	C		E	D	F	D	C	B		D	
Approach Delay		41.2			54.6			34.0			53.6	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	75	111		25	231	~275	18	18	0		217	
Queue Length 95th (ft)	#199	143		63	279	#504	54	46	18		#368	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	118	3659		118	3693	348	92	499	435		737	
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	
Reduced v/c Ratio	0.93	0.16		0.32	0.29	1.07	0.36	0.07	0.04		0.91	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 104.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 50.6

Intersection LOS: D

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Gold Line Foothill Extension - Azusa to Montclair

45: Arrow Hwy & Wheeler Ave

Build Alternative
AM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 45: Arrow Hwy & Wheeler Ave

 ø2	 ø3	 ø4	 ø10
32 s	11 s	80 s	27 s
 ø6	 ø7	 ø8	
32 s	11 s	80 s	

Gold Line Foothill Extension - Azusa to Montclair
46: Third St & A St

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	76	8	3	61	2	15	52	11	0	48	10
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	83	9	3	66	2	16	57	12	0	52	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	68			91			199	164	83	202	171	66
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	68			91			199	164	83	202	171	66
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	92	99	100	93	99
cM capacity (veh/h)	1533			1504			708	725	977	700	719	997
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	86	9	70	2	85	63						
Volume Left	3	0	3	0	16	0						
Volume Right	0	9	0	2	12	11						
cSH	1533	1700	1504	1700	749	756						
Volume to Capacity	0.00	0.01	0.00	0.00	0.11	0.08						
Queue Length 95th (ft)	0	0	0	0	10	7						
Control Delay (s)	0.3	0.0	0.4	0.0	10.4	10.2						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.3		0.4		10.4	10.2						
Approach LOS					B	B						
Intersection Summary												
Average Delay			5.0									
Intersection Capacity Utilization			24.0%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

47: First St & A St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	2	21	7	1	2	1	65	2	3	52	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	2	23	8	1	2	1	71	2	3	57	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								179				
pX, platoon unblocked												
vC, conflicting volume	139	138	57	160	141	71	62			73		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	139	138	57	160	141	71	62			73		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	98	99	100	100	100			100		
cM capacity (veh/h)	827	751	1010	784	748	992	1541			1527		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	5	23	11	72	2	60	5					
Volume Left	3	0	8	1	0	3	0					
Volume Right	0	23	2	0	2	0	5					
cSH	795	1010	814	1541	1700	1527	1700					
Volume to Capacity	0.01	0.02	0.01	0.00	0.00	0.00	0.00					
Queue Length 95th (ft)	1	2	1	0	0	0	0					
Control Delay (s)	9.6	8.6	9.5	0.1	0.0	0.4	0.0					
Lane LOS	A	A	A	A		A						
Approach Delay (s)	8.8		9.5	0.1		0.4						
Approach LOS	A		A									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			20.1%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
48: Arrow Hwy & A St

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	790	5	8	1327	26	7	6	11	50	2	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	0		0	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5080	0	1770	5085	1583	0	1814	1583	0	1777	1583
Flt Permitted	0.950			0.950				0.868			0.723	
Satd. Flow (perm)	1770	5080	0	1770	5085	1583	0	1617	1583	0	1347	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		1							12			27
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1239			1875			197			179	
Travel Time (s)		28.2			42.6			4.5			4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	864	0	9	1442	28	0	15	12	0	56	27
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	10.0	80.0	0.0	10.0	80.0	10.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.8	32.9		6.6	31.4	6.8		8.8	8.8		8.8	8.8
Actuated g/C Ratio	0.12	0.60		0.12	0.57	0.12		0.16	0.16		0.16	0.16
v/c Ratio	0.16	0.29		0.04	0.50	0.14		0.06	0.05		0.26	0.10
Control Delay	33.8	6.6		33.5	9.3	34.2		29.1	17.0		31.1	14.2
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	33.8	6.6		33.5	9.3	34.2		29.1	17.0		31.1	14.2
LOS	C	A		C	A	C		C	B		C	B
Approach Delay		7.6			9.9			23.7			25.6	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)	9	27		2	52	7		4	0		14	0
Queue Length 95th (ft)	47	116		19	214	41		24	15		63	23
Internal Link Dist (ft)		1159			1795			117			99	
Turn Bay Length (ft)	130			130								
Base Capacity (vph)	225	4968		225	4973	202		549	546		458	556
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.16	0.17		0.04	0.29	0.14		0.03	0.02		0.12	0.05

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 55.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 9.8

Intersection LOS: A

Intersection Capacity Utilization 42.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 48: Arrow Hwy & A St

 ø2 20 s	 ø3 10 s	 ø4 80 s	 ø10 10 s
 ø6 20 s	 ø7 10 s	 ø8 80 s	

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	50	19	9	106	30	67	102	11	19	210	48
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	54	21	10	115	33	73	111	12	21	228	52
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	90	158	196	301								
Volume Left (vph)	15	10	73	21								
Volume Right (vph)	21	33	12	52								
Hadj (s)	-0.07	-0.08	0.07	-0.06								
Departure Headway (s)	5.3	5.2	5.0	4.8								
Degree Utilization, x	0.13	0.23	0.27	0.40								
Capacity (veh/h)	599	626	669	712								
Control Delay (s)	9.1	9.7	9.9	10.9								
Approach Delay (s)	9.1	9.7	9.9	10.9								
Approach LOS	A	A	A	B								
Intersection Summary												
Delay			10.2									
HCM Level of Service			B									
Intersection Capacity Utilization			43.5%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
50: First St & D St

Build Alternative
AM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	3	57	28	168	202	9
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	62	30	183	220	10
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	468	224	229			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	468	224	229			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	92	98			
cM capacity (veh/h)	541	815	1339			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	65	213	229			
Volume Left	3	30	0			
Volume Right	62	0	10			
cSH	795	1339	1700			
Volume to Capacity	0.08	0.02	0.13			
Queue Length 95th (ft)	7	2	0			
Control Delay (s)	9.9	1.3	0.0			
Lane LOS	A	A				
Approach Delay (s)	9.9	1.3	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			35.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

51: Arrow Hwy & D St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	55	741	28	14	1261	94	57	27	15	158	39	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	5085	1583	0	1801	1583	0	1790	1583
Flt Permitted	0.950			0.950				0.636			0.707	
Satd. Flow (perm)	1770	5060	0	1770	5085	1583	0	1185	1583	0	1317	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		9							16			51
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	835	0	15	1371	102	0	91	16	0	214	51
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	8.0	80.0	0.0	8.0	80.0	10.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effect Green (s)	4.0	39.3		4.0	32.6	6.0		18.1	18.1		18.1	18.1
Actuated g/C Ratio	0.05	0.51		0.05	0.42	0.08		0.24	0.24		0.24	0.24
v/c Ratio	0.65	0.32		0.16	0.64	0.82		0.33	0.04		0.69	0.12
Control Delay	71.1	11.4		42.0	18.6	84.2		30.6	13.3		42.4	9.3
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	71.1	11.4		42.0	18.6	84.2		30.6	13.3		42.4	9.3
LOS	E	B		D	B	F		C	B		D	A
Approach Delay		15.4			23.4			28.0			36.0	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	29	75		7	181	49		36	0		93	0
Queue Length 95th (ft)	#100	123		27	223	#152		88	16		#223	28
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	93	4874		93	4898	124		279	385		310	412
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.65	0.17		0.16	0.28	0.82		0.33	0.04		0.69	0.12

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 76.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 22.2

Intersection LOS: C

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 51: Arrow Hwy & D St

 ø2	 ø3	 ø4	 ø10
22 s	8 s	80 s	10 s
 ø6	 ø7	 ø8	
22 s	8 s	80 s	

Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

52: Third St & E St

AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	11	19	39	27	74	24	66	174	7	9	263	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	12	21	42	29	80	26	72	189	8	10	286	9
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	33	42	110	26	261	8	296	9				
Volume Left (vph)	12	0	29	0	72	0	10	0				
Volume Right (vph)	0	42	0	26	0	8	0	9				
Hadj (s)	0.22	-0.67	0.17	-0.67	0.17	-0.67	0.05	-0.67				
Departure Headway (s)	6.4	5.5	6.3	5.4	5.6	4.8	5.5	4.7				
Degree Utilization, x	0.06	0.07	0.19	0.04	0.41	0.01	0.45	0.01				
Capacity (veh/h)	512	588	532	606	623	718	638	724				
Control Delay (s)	8.6	7.7	9.5	7.4	11.2	6.6	11.6	6.6				
Approach Delay (s)	8.1		9.1		11.1		11.5					
Approach LOS	A		A		B		B					
Intersection Summary												
Delay			10.6									
HCM Level of Service			B									
Intersection Capacity Utilization			49.2%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

53: Second St & E St

AM Peak Hour

																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR						
Lane Configurations																		
Volume (veh/h)	7	10	49	9	34	13	47	220	5	1	322	17						
Sign Control		Stop			Stop			Free			Free							
Grade		0%			0%			0%			0%							
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92						
Hourly flow rate (vph)	8	11	53	10	37	14	51	239	5	1	350	18						
Pedestrians																		
Lane Width (ft)																		
Walking Speed (ft/s)																		
Percent Blockage																		
Right turn flare (veh)			2			2												
Median type								None			None							
Median storage (veh)																		
Upstream signal (ft)								551										
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92								
vC, conflicting volume	712	699	350	699	712	239	368			245								
vC1, stage 1 conf vol																		
vC2, stage 2 conf vol																		
vCu, unblocked vol	644	630	350	630	644	131	368			137								
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1								
tC, 2 stage (s)																		
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2								
p0 queue free %	98	97	92	97	89	98	96			100								
cM capacity (veh/h)	310	351	693	316	344	846	1190			1333								
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2												
Volume Total	72	61	290	5	351	18												
Volume Left	8	10	51	0	1	0												
Volume Right	53	14	0	5	0	18												
cSH	934	441	1190	1700	1333	1700												
Volume to Capacity	0.08	0.14	0.04	0.00	0.00	0.01												
Queue Length 95th (ft)	6	12	3	0	0	0												
Control Delay (s)	12.1	15.5	1.8	0.0	0.0	0.0												
Lane LOS	B	C	A		A													
Approach Delay (s)	12.1	15.5	1.7		0.0													
Approach LOS	B	C																
Intersection Summary																		
Average Delay			2.9															
Intersection Capacity Utilization			50.1%	ICU Level of Service					A									
Analysis Period (min)			15															

Gold Line Foothill Extension - Azusa to Montclair
54: First St & E St

Build Alternative
AM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	37	14	253	16	26	350
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	40	15	275	17	28	380
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.90	0.90			0.90	
vC, conflicting volume	712	275			292	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	621	133			152	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	90	98			98	
cM capacity (veh/h)	395	821			1280	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	40	15	275	17	28	380
Volume Left	40	0	0	0	28	0
Volume Right	0	15	0	17	0	0
cSH	395	821	1700	1700	1280	1700
Volume to Capacity	0.10	0.02	0.16	0.01	0.02	0.22
Queue Length 95th (ft)	8	1	0	0	2	0
Control Delay (s)	15.1	9.5	0.0	0.0	7.9	0.0
Lane LOS	C	A			A	
Approach Delay (s)	13.6		0.0		0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			30.0%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

55: Arrow Hwy & E St

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (vph)	15	662	233	144	1128	55	214	220	41	149	169	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4887	0	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4887	0	1770	5085	1583	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		117							45			49
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	973	0	157	1226	60	233	239	45	162	184	49
Turn Type	Prot			Prot		Over	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8	1	5	2		1	6	
Permitted Phases									2			6
Total Split (s)	13.0	80.0	0.0	13.0	80.0	16.0	16.0	21.0	21.0	16.0	21.0	21.0
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
Act Effect Green (s)	6.3	23.4		9.1	34.6	12.1	12.1	16.9	16.9	12.1	16.9	16.9
Actuated g/C Ratio	0.08	0.30		0.12	0.45	0.16	0.16	0.22	0.22	0.16	0.22	0.22
v/c Ratio	0.11	0.63		0.76	0.54	0.24	0.84	0.59	0.12	0.59	0.45	0.13
Control Delay	37.9	21.8		60.1	17.2	34.5	61.9	35.9	10.4	42.6	32.4	10.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.9	21.8		60.1	17.2	34.5	61.9	35.9	10.4	42.6	32.4	10.2
LOS	D	C		E	B	C	E	D	B	D	C	B
Approach Delay		22.1			22.5			45.4			33.8	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	7	128		73	143	25	108	101	0	72	75	0
Queue Length 95th (ft)	28	166		#207	235	70	#286	#225	29	#180	165	30
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	207	4695		207	4881	247	276	411	384	276	411	388
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.21		0.76	0.25	0.24	0.84	0.58	0.12	0.59	0.45	0.13

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 77.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 27.3

Intersection LOS: C

Intersection Capacity Utilization 60.1%

ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St

 ø1	 ø2	 ø3	 ø4
16 s	21 s	13 s	80 s
 ø5	 ø6	 ø7	 ø8
16 s	21 s	13 s	80 s

Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1	41	7	5	19	59	531	3	2	749	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	45	8	5	21	64	577	3	2	814	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											296	
pX, platoon unblocked	0.73	0.73	0.73	0.73	0.73		0.73					
vC, conflicting volume	1547	1527	814	1569	1560	577	850			580		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1564	1537	565	1594	1581	577	614			580		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	88	85	92	96	91			100		
cM capacity (veh/h)	56	77	385	51	72	516	708			994		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	1	45	13	21	641	3	816	36				
Volume Left	0	0	8	0	64	0	2	0				
Volume Right	0	45	0	21	0	3	0	36				
cSH	77	385	59	516	708	1700	994	1700				
Volume to Capacity	0.01	0.12	0.22	0.04	0.09	0.00	0.00	0.02				
Queue Length 95th (ft)	1	10	19	3	7	0	0	0				
Control Delay (s)	52.3	15.6	83.3	12.3	2.4	0.0	0.1	0.0				
Lane LOS	F	C	F	B	A		A					
Approach Delay (s)	16.5		39.8		2.4		0.1					
Approach LOS	C		E									
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			87.2%		ICU Level of Service			E				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	15	7	0	18	27	545	2	11	777	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	16	8	0	20	29	592	2	12	845	15
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											756	
pX, platoon unblocked	0.76	0.76	0.76	0.76	0.76		0.76					
vC, conflicting volume	1539	1522	845	1536	1535	592	860			595		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1551	1528	642	1548	1546	592	662			595		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	99	95	88	100	96	96			99		
cM capacity (veh/h)	65	85	362	64	83	506	708			982		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	3	16	8	20	622	2	857	15				
Volume Left	2	0	8	0	29	0	12	0				
Volume Right	0	16	0	20	0	2	0	15				
cSH	71	362	64	506	708	1700	982	1700				
Volume to Capacity	0.05	0.05	0.12	0.04	0.04	0.00	0.01	0.01				
Queue Length 95th (ft)	4	4	10	3	3	0	1	0				
Control Delay (s)	58.5	15.4	68.2	12.4	1.1	0.0	0.3	0.0				
Lane LOS	F	C	F	B	A		A					
Approach Delay (s)	22.6		28.0		1.1		0.3					
Approach LOS	C		D									
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			63.2%		ICU Level of Service			B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
58: First St & White Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	2	10	13	3	38	34	552	26	39	751	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	2	11	14	3	41	37	600	28	42	816	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											1008	
pX, platoon unblocked	0.82	0.82	0.82	0.82	0.82		0.82					
vC, conflicting volume	1618	1603	816	1587	1586	600	827			628		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1644	1626	666	1606	1605	600	680			628		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	97	97	77	96	92	95			96		
cM capacity (veh/h)	54	76	377	61	78	501	748			954		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	2	11	17	41	37	600	28	859	11			
Volume Left	0	0	14	0	37	0	0	42	0			
Volume Right	0	11	0	41	0	0	28	0	11			
cSH	76	377	64	501	748	1700	1700	954	1700			
Volume to Capacity	0.03	0.03	0.27	0.08	0.05	0.35	0.02	0.04	0.01			
Queue Length 95th (ft)	2	2	24	7	4	0	0	3	0			
Control Delay (s)	53.7	14.8	81.1	12.8	10.1	0.0	0.0	1.2	0.0			
Lane LOS	F	B	F	B	B			A				
Approach Delay (s)	21.3		33.1		0.6			1.2				
Approach LOS	C		D									
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			85.5%		ICU Level of Service				E			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

Build Alternative
AM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	18	25	558	9	25	745	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	20	27	607	10	27	810	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.93	0.93			0.93		
vC, conflicting volume	1066	303			616		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	931	115			450		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	92	97			97		
cM capacity (veh/h)	242	856			1035		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	47	303	303	10	27	405	405
Volume Left	20	0	0	0	27	0	0
Volume Right	27	0	0	10	0	0	0
cSH	415	1700	1700	1700	1035	1700	1700
Volume to Capacity	0.11	0.18	0.18	0.01	0.03	0.24	0.24
Queue Length 95th (ft)	9	0	0	0	2	0	0
Control Delay (s)	14.8	0.0	0.0	0.0	8.6	0.0	0.0
Lane LOS	B				A		
Approach Delay (s)	14.8	0.0			0.3		
Approach LOS	B						
Intersection Summary							
Average Delay			0.6				
Intersection Capacity Utilization			30.8%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

Build Alternative
AM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	282	334	85	106	439	217	52	413	174	90	1052	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4968	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4862	0	1770	4968	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			92			172		174			57	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	307	363	92	115	477	236	57	638	0	98	1345	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	12.0	20.0	20.0	12.0	20.0	20.0	8.0	20.0	0.0	8.0	20.0	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
Act Effect Green (s)	8.1	16.3	16.3	7.4	13.2	13.2	4.1	14.9		4.1	16.7	
Actuated g/C Ratio	0.15	0.30	0.30	0.14	0.24	0.24	0.08	0.27		0.08	0.31	
v/c Ratio	1.17	0.34	0.17	0.48	0.56	0.46	0.43	0.44		0.74	0.86	
Control Delay	137.4	18.1	5.7	30.8	21.2	9.5	38.5	13.6		64.7	27.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	137.4	18.1	5.7	30.8	21.2	9.5	38.5	13.6		64.7	27.2	
LOS	F	B	A	C	C	A	D	B		E	C	
Approach Delay		64.6			19.2			15.6			29.7	
Approach LOS		E			B			B			C	
Queue Length 50th (ft)	~142	56	0	38	76	18	20	47		35	163	
Queue Length 95th (ft)	#280	89	28	83	116	66	#62	77		#111	#266	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	263	1125	566	263	1054	592	132	1570		132	1559	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.17	0.32	0.16	0.44	0.45	0.40	0.43	0.41		0.74	0.86	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.17

Intersection Signal Delay: 31.9

Intersection LOS: C

Intersection Capacity Utilization 68.9%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

60: White Ave & Arrow Hwy

Build Alternative
AM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
12 s	20 s	8 s	20 s
 ø5	 ø6	 ø7	 ø8
12 s	20 s	8 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
61: Bonita Ave & D St

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	84	276	41	41	451	85	36	95	18	106	181	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1809	0	1770	1863	1583
Flt Permitted	0.428			0.577				0.876		0.812		
Satd. Flow (perm)	797	1863	1583	1075	1863	1583	0	1604	0	1513	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			45			70		13				161
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	91	300	45	45	490	92	0	162	0	115	197	161
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	35.0	35.0	35.0	35.0	35.0	35.0	25.0	25.0	0.0	25.0	25.0	25.0
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
Act Effect Green (s)	18.9	18.9	18.9	18.9	18.9	18.9		11.0		11.1	11.1	11.1
Actuated g/C Ratio	0.58	0.58	0.58	0.58	0.58	0.58		0.34		0.34	0.34	0.34
v/c Ratio	0.20	0.28	0.05	0.07	0.45	0.10		0.30		0.22	0.31	0.25
Control Delay	7.6	6.9	2.6	6.1	8.4	2.9		12.0		12.2	12.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	7.6	6.9	2.6	6.1	8.4	2.9		12.0		12.2	12.5	4.0
LOS	A	A	A	A	A	A		B		B	B	A
Approach Delay		6.6			7.4			12.0			9.5	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	8	30	0	4	55	2		19		14	25	0
Queue Length 95th (ft)	35	87	11	18	155	19		73		57	89	32
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	693	1620	1383	935	1620	1386		1083		1018	1253	1117
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.13	0.19	0.03	0.05	0.30	0.07		0.15		0.11	0.16	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.45

Intersection Signal Delay: 8.2

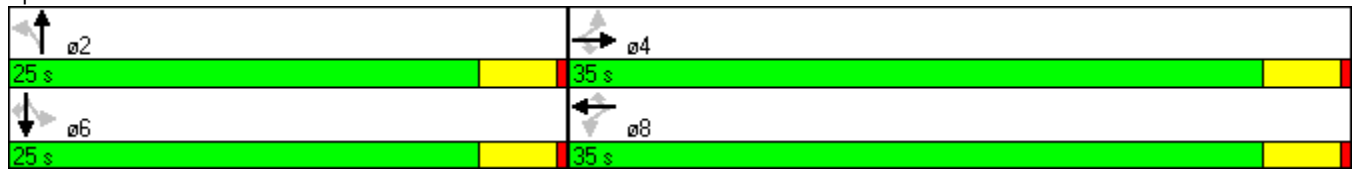
Intersection LOS: A

Intersection Capacity Utilization 59.3%

ICU Level of Service B

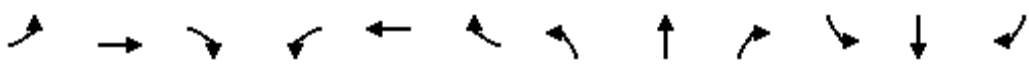
Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair
62: Foothill Blvd & Fruit St

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	144	331	70	80	619	206	122	336	24	213	540	226
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4953	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74				224		12				246
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	157	436	0	87	673	224	133	391	0	232	587	246
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	20.0	9.0	20.0	0.0	11.0	22.0	22.0
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
Act Effect Green (s)	5.0	17.2		5.0	15.0	15.0	5.0	13.4		7.1	17.5	17.5
Actuated g/C Ratio	0.09	0.30		0.09	0.27	0.27	0.09	0.24		0.13	0.31	0.31
v/c Ratio	0.99	0.28		0.55	0.72	0.38	0.43	0.47		1.05	0.54	0.37
Control Delay	105.7	14.3		42.3	24.2	5.3	30.7	19.9		106.9	19.3	4.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	105.7	14.3		42.3	24.2	5.3	30.7	19.9		106.9	19.3	4.6
LOS	F	B		D	C	A	C	B		F	B	A
Approach Delay		38.5			21.5			22.7			35.0	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	~63	36		31	113	0	23	58		~98	92	0
Queue Length 95th (ft)	#165	60		#87	168	44	47	94		#218	137	43
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	158	1559		158	1009	611	306	1007		221	1147	679
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.99	0.28		0.55	0.67	0.37	0.43	0.39		1.05	0.51	0.36

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 29.4

Intersection LOS: C

Intersection Capacity Utilization 60.3%

ICU Level of Service B

Analysis Period (min) 15

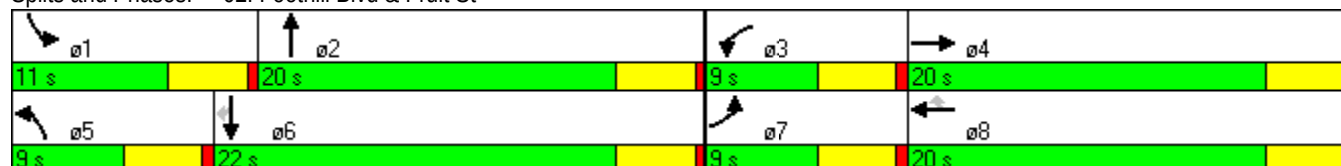
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	250	75	108	458	85	80	376	56	75	543	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.288			0.552			0.262			0.433		
Satd. Flow (perm)	536	1863	1583	1028	1863	1583	488	1863	1583	807	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			92			61			109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	39	272	82	117	498	92	87	409	61	82	590	109
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	27.0	27.0	27.0	27.0	27.0	27.0	33.0	33.0	33.0	33.0	33.0	33.0
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
Act Effect Green (s)	17.9	17.9	17.9	17.9	17.9	17.9	21.2	21.2	21.2	21.2	21.2	21.2
Actuated g/C Ratio	0.37	0.37	0.37	0.37	0.37	0.37	0.44	0.44	0.44	0.44	0.44	0.44
v/c Ratio	0.20	0.39	0.13	0.30	0.72	0.14	0.40	0.49	0.08	0.23	0.71	0.14
Control Delay	14.9	14.1	4.1	14.8	20.7	4.0	16.4	12.2	3.1	10.8	16.8	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	14.1	4.1	14.8	20.7	4.0	16.4	12.2	3.1	10.8	16.8	2.7
LOS	B	B	A	B	C	A	B	B	A	B	B	A
Approach Delay		12.1			17.6			11.8			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	7	56	0	23	120	0	16	81	0	14	133	0
Queue Length 95th (ft)	29	122	22	64	244	23	52	154	15	39	249	20
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	280	974	866	537	974	872	319	1218	1057	528	1218	1073
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.28	0.09	0.22	0.51	0.11	0.27	0.34	0.06	0.16	0.48	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 14.3

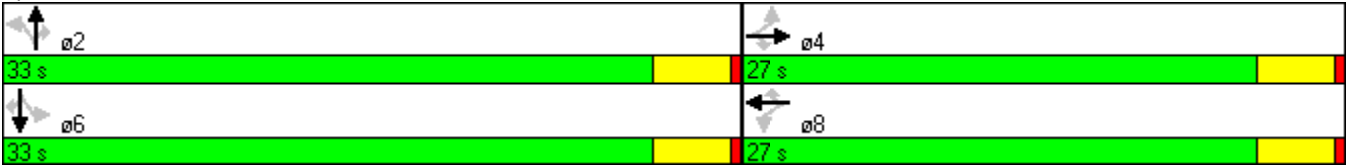
Intersection LOS: B

Intersection Capacity Utilization 73.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
64: McKinley Ave & White Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	50	75	59	67	159	63	86	423	100	7	513	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1764	1583	0	1835	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.529	0.976			0.872		0.950			0.950		
Satd. Flow (perm)	936	1727	1583	0	1624	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			68			109			143
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	49	87	64	0	246	68	93	460	109	8	558	143
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	12.0	29.0	29.0	8.0	25.0	25.0
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
Act Effect Green (s)	13.3	13.3	13.3		14.1	14.1	9.3	23.2	23.2	5.7	18.8	18.8
Actuated g/C Ratio	0.34	0.34	0.34		0.36	0.36	0.23	0.59	0.59	0.14	0.47	0.47
v/c Ratio	0.16	0.15	0.11		0.42	0.11	0.22	0.22	0.11	0.03	0.33	0.17
Control Delay	15.6	14.4	5.4		17.1	5.3	21.7	7.5	2.8	24.6	12.4	3.8
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	14.4	5.4		17.1	5.3	21.7	7.5	2.8	24.6	12.4	3.8
LOS	B	B	A		B	A	C	A	A	C	B	A
Approach Delay		11.8			14.5			8.7			10.8	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	10	18	0		56	0	22	26	0	2	62	0
Queue Length 95th (ft)	36	52	22		130	23	70	85	24	14	119	31
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	515	950	900		894	902	512	2507	1153	256	2078	989
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.09	0.07		0.28	0.08	0.18	0.18	0.09	0.03	0.27	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 10.8

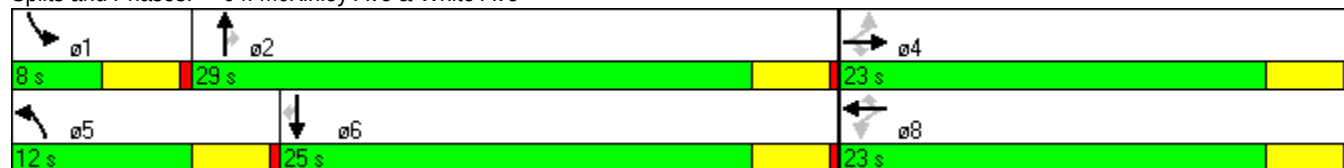
Intersection LOS: B

Intersection Capacity Utilization 48.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
65: Arrow Hwy & La Verne Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (veh/h)	3	434	0	1	635	7	275	0	6	6	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	472	0	1	690	8	299	0	7	7	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	698			472			826	1178	157	856	1171	345
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	698			472			826	1178	157	856	1171	345
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			0	100	99	97	99	100
cM capacity (veh/h)	894			1086			262	188	860	248	190	651
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	3	157	157	157	1	345	345	8	305	8		
Volume Left	3	0	0	0	1	0	0	0	299	7		
Volume Right	0	0	0	0	0	0	0	8	7	0		
cSH	894	1700	1700	1700	1086	1700	1700	1700	266	238		
Volume to Capacity	0.00	0.09	0.09	0.09	0.00	0.20	0.20	0.00	1.15	0.03		
Queue Length 95th (ft)	0	0	0	0	0	0	0	0	335	2		
Control Delay (s)	9.0	0.0	0.0	0.0	8.3	0.0	0.0	0.0	141.3	20.6		
Lane LOS	A				A				F	C		
Approach Delay (s)	0.1				0.0				141.3	20.6		
Approach LOS									F	C		
Intersection Summary												
Average Delay			29.2									
Intersection Capacity Utilization			40.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	549	41	13	364	8	47	3	51	25	12	81
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	597	45	14	396	9	51	3	55	27	13	88
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	404			641			1166	1080	619	1110	1098	400
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	404			641			1166	1080	619	1110	1098	400
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			63	98	89	83	94	86
cM capacity (veh/h)	1154			943			138	212	489	160	207	650
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	14	641	14	404	54	55	40	88				
Volume Left	14	0	14	0	51	0	27	0				
Volume Right	0	45	0	9	0	55	0	88				
cSH	1154	1700	943	1700	141	489	173	650				
Volume to Capacity	0.01	0.38	0.01	0.24	0.39	0.11	0.23	0.14				
Queue Length 95th (ft)	1	0	1	0	41	10	22	12				
Control Delay (s)	8.2	0.0	8.9	0.0	45.8	13.3	32.0	11.4				
Lane LOS	A		A		E	B	D	B				
Approach Delay (s)	0.2		0.3		29.4		17.9					
Approach LOS					D		C					
Intersection Summary												
Average Delay			4.4									
Intersection Capacity Utilization			48.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	23	478	0	9	663	30	20	23	12	25	13	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	520	0	10	721	33	22	25	13	27	14	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	753			520			983	1342	173	989	1310	360
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	753			520			983	1342	173	989	1310	360
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			88	83	98	84	91	96
cM capacity (veh/h)	853			1043			176	145	840	167	152	636
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	25	208	208	104	10	360	360	33	22	38	41	26
Volume Left	25	0	0	0	10	0	0	0	22	0	27	0
Volume Right	0	0	0	0	0	0	0	33	0	13	0	26
cSH	853	1700	1700	1700	1043	1700	1700	1700	176	202	161	636
Volume to Capacity	0.03	0.12	0.12	0.06	0.01	0.21	0.21	0.02	0.12	0.19	0.26	0.04
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	10	17	24	3
Control Delay (s)	9.4	0.0	0.0	0.0	8.5	0.0	0.0	0.0	28.3	26.8	34.8	10.9
Lane LOS	A				A				D	D	D	B
Approach Delay (s)	0.4				0.1				27.4		25.6	
Approach LOS									D		D	
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			35.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	217	122	109	507	39	365	463	137	57	767	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.222			0.524			0.950			0.950		
Satd. Flow (perm)	414	1863	1583	976	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			133			33			149			102
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	236	133	118	551	42	397	503	149	62	834	226
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	18.0	28.0	28.0	10.0	20.0	20.0
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
Act Effect Green (s)	18.0	18.0	18.0	18.0	18.0	18.0	14.0	28.0	28.0	5.9	16.0	16.0
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.23	0.47	0.47	0.10	0.27	0.27
v/c Ratio	0.47	0.42	0.23	0.40	0.99	0.08	0.96	0.30	0.18	0.36	0.88	0.45
Control Delay	32.5	19.7	4.8	21.8	59.5	8.0	62.6	11.7	3.2	31.4	34.6	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	19.7	4.8	21.8	59.5	8.0	62.6	11.7	3.2	31.4	34.6	13.6
LOS	C	B	A	C	E	A	E	B	A	C	C	B
Approach Delay		16.8			50.2			29.7			30.2	
Approach LOS		B			D			C			C	
Queue Length 50th (ft)	17	68	0	34	196	2	142	64	0	21	151	36
Queue Length 95th (ft)	#61	123	32	75	#378	21	#295	97	29	53	#250	89
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	124	559	568	293	559	498	413	1652	819	177	944	497
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.42	0.23	0.40	0.99	0.08	0.96	0.30	0.18	0.35	0.88	0.45

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 32.6

Intersection LOS: C

Intersection Capacity Utilization 84.8%

ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

Build Alternative
AM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	17	24	934	964	29
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	18	26	1015	1048	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.86	0.83	0.83			
vC, conflicting volume	1623	540	1079			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1159	48	696			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	97			
cM capacity (veh/h)	156	842	747			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	18	26	508	508	699	381
Volume Left	0	26	0	0	0	0
Volume Right	18	0	0	0	0	32
cSH	842	747	1700	1700	1700	1700
Volume to Capacity	0.02	0.03	0.30	0.30	0.41	0.22
Queue Length 95th (ft)	2	3	0	0	0	0
Control Delay (s)	9.4	10.0	0.0	0.0	0.0	0.0
Lane LOS	A	A				
Approach Delay (s)	9.4	0.3			0.0	
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			37.6%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
70: Arrow Hwy & Garey Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	130	598	109	138	763	210	131	697	132	118	753	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4968	0	1770	4923	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4968	0	1770	4923	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		59			113				90			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	141	768	0	150	1057	0	142	758	143	128	818	73
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	21.0	21.0	9.0	21.0	21.0
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
Act Effect Green (s)	6.0	15.6		6.0	15.6		5.0	16.5	16.5	5.0	16.5	16.5
Actuated g/C Ratio	0.10	0.26		0.10	0.26		0.08	0.28	0.28	0.08	0.28	0.28
v/c Ratio	0.78	0.57		0.83	0.77		0.95	0.77	0.28	0.85	0.83	0.15
Control Delay	59.2	19.3		66.3	22.2		94.5	25.9	9.2	75.5	29.0	9.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.2	19.3		66.3	22.2		94.5	25.9	9.2	75.5	29.0	9.8
LOS	E	B		E	C		F	C	A	E	C	A
Approach Delay		25.5			27.7			32.9			33.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	51	80		55	114		53	130	14	47	144	8
Queue Length 95th (ft)	#136	114		#145	157		#149	187	51	#133	#230	34
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	180	1388		180	1416		150	1018	520	150	1018	486
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.55		0.83	0.75		0.95	0.74	0.28	0.85	0.80	0.15

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 29.9

Intersection LOS: C

Intersection Capacity Utilization 68.0%

ICU Level of Service C

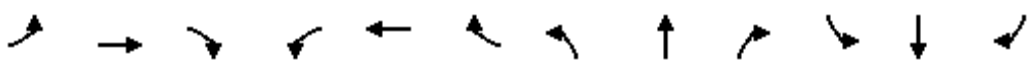
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave

 ø1	 ø2	 ø3	 ø4
9 s	21 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	21 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
71: Bonita Ave & Towne Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	119	79	126	240	74	326	861	95	104	978	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3415	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.385			0.575			0.245			0.285		
Satd. Flow (perm)	717	3327	0	1071	3415	0	456	3539	1583	531	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			39				94			158
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	55	215	0	137	341	0	354	936	103	113	1063	214
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	70.0	70.0	70.0	70.0	70.0	70.0
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
Act Effect Green (s)	14.2	14.2		14.2	14.2		66.1	66.1	66.1	66.1	66.1	66.1
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.75	0.75	0.75	0.75	0.75	0.75
v/c Ratio	0.48	0.35		0.80	0.58		1.04	0.35	0.09	0.28	0.40	0.17
Control Delay	48.1	21.0		67.8	34.5		76.1	4.4	1.1	6.1	4.7	1.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.1	21.0		67.8	34.5		76.1	4.4	1.1	6.1	4.7	1.4
LOS	D	C		E	C		E	A	A	A	A	A
Approach Delay		26.5			44.0			22.4			4.3	
Approach LOS		C			D			C			A	
Queue Length 50th (ft)	28	33		74	82		~223	84	1	18	100	7
Queue Length 95th (ft)	67	65		#165	126		#200	108	13	41	129	24
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	130	674		194	651		341	2648	1208	397	2648	1224
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.32		0.71	0.52		1.04	0.35	0.09	0.28	0.40	0.17

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 18.5

Intersection LOS: B

Intersection Capacity Utilization 71.2%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

Build Alternative
AM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	3	12	1334	35	41	1197		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	3	13	1450	38	45	1301		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None				None			
Median storage veh								
Upstream signal (ft)	932							
pX, platoon unblocked	0.78	0.78			0.78			
vC, conflicting volume	2190	725			1488			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1957	72			1054			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	92	98			91			
cM capacity (veh/h)	40	758			510			
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	3	13	725	725	38	45	651	651
Volume Left	3	0	0	0	0	45	0	0
Volume Right	0	13	0	0	38	0	0	0
cSH	40	758	1700	1700	1700	510	1700	1700
Volume to Capacity	0.08	0.02	0.43	0.43	0.02	0.09	0.38	0.38
Queue Length 95th (ft)	6	1	0	0	0	7	0	0
Control Delay (s)	104.1	9.8	0.0	0.0	0.0	12.7	0.0	0.0
Lane LOS	F	A				B		
Approach Delay (s)	28.7		0.0			0.4		
Approach LOS	D							
Intersection Summary								
Average Delay			0.4					
Intersection Capacity Utilization			46.9%	ICU Level of Service			A	
Analysis Period (min)			15					

Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

73: Arrow Hwy & Towne Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	208	352	70	115	759	240	169	802	101	227	986	283
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	4902	0	1770	3479	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	4902	0	1770	3479	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			80			16				167
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	226	459	0	125	1086	0	184	982	0	247	1072	308
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	17.0	24.0	0.0	16.0	23.0	0.0	15.0	32.0	0.0	18.0	35.0	35.0
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
Act Effect Green (s)	12.9	21.4		10.5	19.0		10.9	27.5		13.9	30.5	30.5
Actuated g/C Ratio	0.14	0.24		0.12	0.21		0.12	0.31		0.16	0.34	0.34
v/c Ratio	0.88	0.38		0.60	0.98		0.85	0.91		0.90	0.89	0.47
Control Delay	72.4	27.2		49.9	56.7		73.1	42.6		72.5	38.3	12.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	72.4	27.2		49.9	56.7		73.1	42.6		72.5	38.3	12.9
LOS	E	C		D	E		E	D		E	D	B
Approach Delay		42.1			56.0			47.4			38.7	
Approach LOS		D			E			D			D	
Queue Length 50th (ft)	128	73		68	212		104	275		140	297	57
Queue Length 95th (ft)	#258	105		124	#310		#221	#394		#278	#416	131
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	258	1222		238	1106		218	1102		277	1229	659
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.88	0.38		0.53	0.98		0.84	0.89		0.89	0.87	0.47

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 89.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 45.8

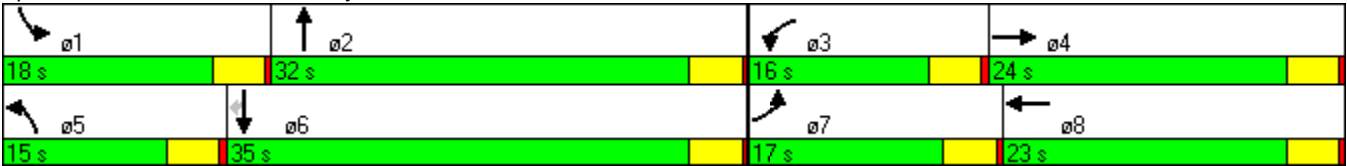
Intersection LOS: D

Intersection Capacity Utilization 82.8%

ICU Level of Service E

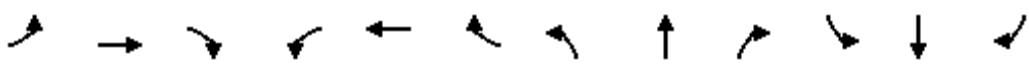
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
74: Harrison Ave & Garey Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↗	↕	↗	↗	↕	↗
Volume (vph)	27	15	67	159	19	57	34	453	86	56	963	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1805	1583	0	1783	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.763			0.717		0.229			0.472		
Satd. Flow (perm)	0	1421	1583	0	1336	1583	427	3539	1583	879	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			62			93			15
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	45	73	0	194	62	37	492	93	61	1047	21
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	36.0	36.0	36.0	36.0	36.0
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
Act Effect Green (s)		12.5	12.5		12.9	12.9	24.5	24.5	24.5	24.5	24.5	24.5
Actuated g/C Ratio		0.32	0.32		0.33	0.33	0.62	0.62	0.62	0.62	0.62	0.62
v/c Ratio		0.10	0.13		0.45	0.11	0.14	0.22	0.09	0.11	0.48	0.02
Control Delay		13.6	5.0		17.8	5.2	8.1	6.0	2.1	6.8	7.7	4.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.6	5.0		17.8	5.2	8.1	6.0	2.1	6.8	7.7	4.1
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		8.3			14.7			5.6			7.6	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		8	0		37	0	4	27	0	6	73	1
Queue Length 95th (ft)		30	23		105	21	21	70	17	27	168	9
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		802	925		754	920	334	2770	1259	688	2770	1242
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.06	0.08		0.26	0.07	0.11	0.18	0.07	0.09	0.38	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 7.9

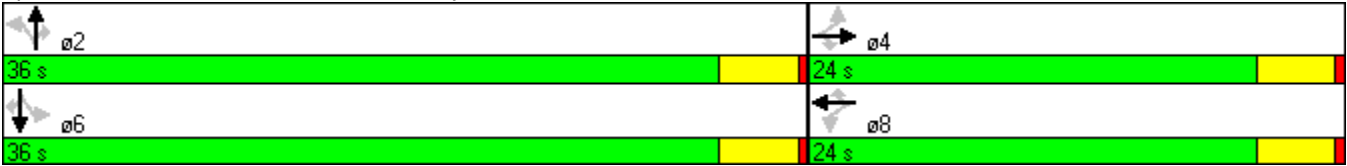
Intersection LOS: A

Intersection Capacity Utilization 56.4%

ICU Level of Service B

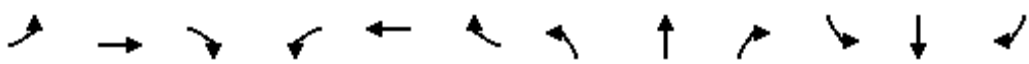
Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	65	109	150	17	78	29	111	470	27	43	526	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.702			0.681			0.358			0.415		
Satd. Flow (perm)	1308	1863	1583	1269	1863	1583	667	1863	1583	773	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			163			32			25			42
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	118	163	18	85	32	121	511	29	47	572	42
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	39.0	39.0	39.0	39.0	39.0	39.0
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
Act Effect Green (s)	9.7	9.7	9.7	9.7	9.7	9.7	17.3	17.3	17.3	17.5	17.5	17.5
Actuated g/C Ratio	0.31	0.31	0.31	0.31	0.31	0.31	0.55	0.55	0.55	0.56	0.56	0.56
v/c Ratio	0.18	0.20	0.27	0.05	0.15	0.06	0.33	0.50	0.03	0.11	0.55	0.05
Control Delay	13.6	13.2	4.6	12.7	12.8	6.4	8.2	7.4	2.6	5.3	8.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	13.2	4.6	12.7	12.8	6.4	8.2	7.4	2.6	5.3	8.1	2.1
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		9.3			11.3			7.3			7.5	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	9	16	0	2	11	0	10	47	0	3	55	0
Queue Length 95th (ft)	42	60	34	16	46	15	42	132	8	16	154	9
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	773	1101	1002	750	1101	949	616	1719	1463	713	1719	1464
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.11	0.16	0.02	0.08	0.03	0.20	0.30	0.02	0.07	0.33	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 54.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
76: First St & Indian Hill Blvd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	15	53	86	18	48	41	528	167	52	591	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1855	0
Flt Permitted	0.744			0.747			0.950			0.950		
Satd. Flow (perm)	1386	1863	1583	1391	1863	1583	1770	1863	1583	1770	1855	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			58			52			182			3
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	2	16	58	93	20	52	45	574	182	57	660	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	8.0	32.0	32.0	8.0	32.0	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
Act Effect Green (s)	10.3	10.3	10.3	10.3	10.3	10.3	5.5	23.2	23.2	5.5	24.7	
Actuated g/C Ratio	0.26	0.26	0.26	0.26	0.26	0.26	0.14	0.59	0.59	0.14	0.63	
v/c Ratio	0.01	0.03	0.13	0.26	0.04	0.12	0.18	0.52	0.18	0.23	0.57	
Control Delay	17.5	17.4	7.1	19.5	17.4	7.3	25.1	10.8	2.1	26.6	10.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.5	17.4	7.1	19.5	17.4	7.3	25.1	10.8	2.1	26.6	10.6	
LOS	B	B	A	B	B	A	C	B	A	C	B	
Approach Delay		9.6			15.4			9.6			11.9	
Approach LOS		A			B			A			B	
Queue Length 50th (ft)	0	3	0	20	4	0	11	108	0	14	76	
Queue Length 95th (ft)	5	17	23	61	20	22	42	222	25	#57	274	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	688	925	815	690	925	812	249	1339	1189	249	1334	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.00	0.02	0.07	0.13	0.02	0.06	0.18	0.43	0.15	0.23	0.49	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 56.9%

ICU Level of Service B

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
77: Santa Fe St & Indian Hill Blvd

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	16	0	0	11	44	728	7	0	696	39
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	17	0	0	12	48	791	8	0	757	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	1.00	1.00		1.00	1.00	1.00				1.00		
vC, conflicting volume	1281	1672	399	1283	1686	396	799			799		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1274	1667	399	1275	1680	385	799			790		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	97	100	100	98	94			100		
cM capacity (veh/h)	116	90	600	114	88	611	819			823		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	17	12	48	396	396	8	378	421				
Volume Left	0	0	48	0	0	0	0	0				
Volume Right	17	12	0	0	0	8	0	42				
cSH	600	611	819	1700	1700	1700	823	1700				
Volume to Capacity	0.03	0.02	0.06	0.23	0.23	0.00	0.00	0.25				
Queue Length 95th (ft)	2	1	5	0	0	0	0	0				
Control Delay (s)	11.2	11.0	9.7	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	B	A									
Approach Delay (s)	11.2	11.0	0.5	0.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.5									
Intersection Capacity Utilization			46.6%	ICU Level of Service				A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
78: Arrow Hwy & Indian Hill Blvd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	383	133	90	432	47	169	644	130	75	565	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			145			51			141			57
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	416	145	98	470	51	184	700	141	82	614	57
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	11.0	23.0	23.0	9.0	21.0	21.0
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
Act Effect Green (s)	4.2	12.6	12.6	4.2	14.2	14.2	7.3	21.0	21.0	5.2	14.4	14.4
Actuated g/C Ratio	0.08	0.24	0.24	0.08	0.27	0.27	0.14	0.40	0.40	0.10	0.27	0.27
v/c Ratio	0.36	0.49	0.30	0.70	0.49	0.11	0.75	0.50	0.20	0.47	0.63	0.12
Control Delay	34.6	20.3	5.8	58.9	19.3	6.6	49.5	16.0	4.3	36.9	20.9	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.6	20.3	5.8	58.9	19.3	6.6	49.5	16.0	4.3	36.9	20.9	6.2
LOS	C	C	A	E	B	A	D	B	A	D	C	A
Approach Delay		18.0			24.5			20.4			21.5	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	17	64	0	34	74	0	63	104	0	28	94	0
Queue Length 95th (ft)	#54	102	35	#111	114	21	#170	162	32	#80	148	22
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	140	1116	598	140	1144	546	244	1418	719	175	1185	568
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.37	0.24	0.70	0.41	0.09	0.75	0.49	0.20	0.47	0.52	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 21.1

Intersection LOS: C

Intersection Capacity Utilization 53.9%

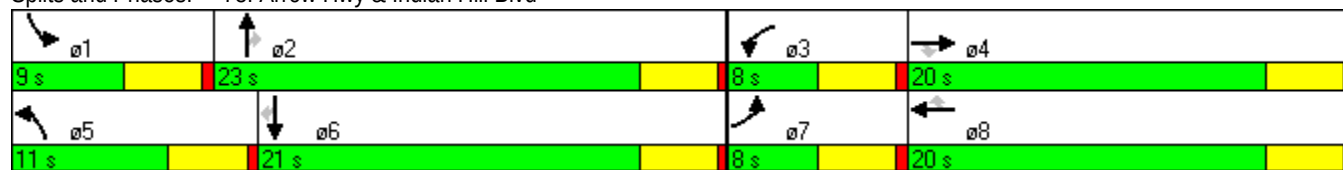
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
79: Bonita Ave & College Ave

Build Alternative
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	33	18	51	8	7	16	50	226	33	17	216	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	36	20	55	9	8	17	54	246	36	18	235	39
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	111	34	300	36	292							
Volume Left (vph)	36	9	54	0	18							
Volume Right (vph)	55	17	0	36	39							
Hadj (s)	-0.20	-0.22	0.12	-0.67	-0.03							
Departure Headway (s)	5.3	5.4	5.3	4.5	4.8							
Degree Utilization, x	0.16	0.05	0.44	0.04	0.39							
Capacity (veh/h)	612	576	661	769	723							
Control Delay (s)	9.3	8.7	11.2	6.5	10.8							
Approach Delay (s)	9.3	8.7	10.7		10.8							
Approach LOS	A	A	B		B							
Intersection Summary												
Delay			10.4									
HCM Level of Service			B									
Intersection Capacity Utilization			43.7%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
80: First St & College Ave

Build Alternative
AM Peak Hour

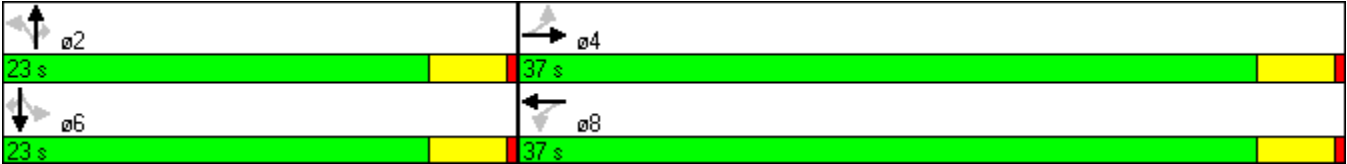
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	267	33	58	94	77	20	243	125	142	139	16
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	290	36	63	102	84	22	264	136	154	151	17
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	169	181	165	84	286	136	305	17				
Volume Left (vph)	24	0	63	0	22	0	154	0				
Volume Right (vph)	0	36	0	84	0	136	0	17				
Hadj (s)	0.10	-0.10	0.22	-0.67	0.07	-0.67	0.29	-0.67				
Departure Headway (s)	7.3	7.1	7.6	6.7	7.1	6.3	7.4	6.4				
Degree Utilization, x	0.34	0.36	0.35	0.16	0.56	0.24	0.62	0.03				
Capacity (veh/h)	465	480	444	496	487	543	474	530				
Control Delay (s)	12.9	12.9	13.5	9.8	17.5	10.1	20.6	8.4				
Approach Delay (s)	12.9		12.3		15.1		19.9					
Approach LOS	B		B		C		C					
Intersection Summary												
Delay			15.2									
HCM Level of Service			C									
Intersection Capacity Utilization			59.6%	ICU Level of Service					B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
81: Arrow Hwy & College Ave

Build Alternative
AM Peak Hour

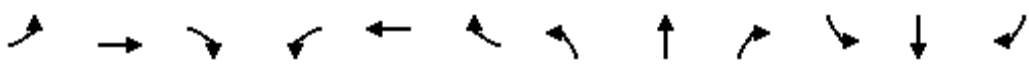
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	384	29	31	566	146	28	170	11	52	96	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3500	0	1770	3429	0	0	1850	1583	1770	1863	1583
Flt Permitted	0.346			0.492				0.941		0.624		
Satd. Flow (perm)	645	3500	0	916	3429	0	0	1753	1583	1162	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			85				12			85
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	133	449	0	34	774	0	0	215	12	57	104	85
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	37.0	37.0	0.0	37.0	37.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	18.8	18.8		18.8	18.8			10.7	10.7	10.3	10.3	10.3
Actuated g/C Ratio	0.58	0.58		0.58	0.58			0.33	0.33	0.32	0.32	0.32
v/c Ratio	0.35	0.22		0.06	0.38			0.37	0.02	0.15	0.17	0.15
Control Delay	9.9	5.4		5.8	5.8			13.5	7.3	12.4	11.9	4.6
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	5.4		5.8	5.8			13.5	7.3	12.4	11.9	4.6
LOS	A	A		A	A			B	A	B	B	A
Approach Delay		6.4			5.8			13.1			9.5	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	13	20		3	35			27	0	7	12	0
Queue Length 95th (ft)	55	51		14	86			102	9	35	53	24
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	582	3160		826	3102			1113	1010	738	1183	1036
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.23	0.14		0.04	0.25			0.19	0.01	0.08	0.09	0.08
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 32.3												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.38												
Intersection Signal Delay: 7.4	Intersection LOS: A											
Intersection Capacity Utilization 55.9%	ICU Level of Service B											
Analysis Period (min) 15												

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	1	52	1	9	0	291	233	3	2	292	384
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted							0.560			0.595		
Satd. Flow (perm)	1863	1863	1583	1863	1863	0	1043	3539	1583	1108	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			57						3			417
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	1	57	1	10	0	316	253	3	2	317	417
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	8.9	8.9	8.9	8.8	8.8		19.2	19.2	19.2	19.2	19.2	19.2
Actuated g/C Ratio	0.34	0.34	0.34	0.33	0.33		0.73	0.73	0.73	0.73	0.73	0.73
v/c Ratio	0.09	0.00	0.10	0.00	0.02		0.42	0.10	0.00	0.00	0.12	0.33
Control Delay	12.3	13.0	5.7	13.0	12.6		6.6	3.3	2.7	3.5	3.3	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.3	13.0	5.7	13.0	12.6		6.6	3.3	2.7	3.5	3.3	1.4
LOS	B	B	A	B	B		A	A	A	A	A	A
Approach Delay		9.0			12.6			5.1			2.2	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)	7	0	0	0	1		27	8	0	0	11	0
Queue Length 95th (ft)	34	3	21	3	11		86	22	2	2	26	22
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1254	1254	1084	1254	1254		997	3384	1514	1059	3384	1532
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.00	0.05	0.00	0.01		0.32	0.07	0.00	0.00	0.09	0.27

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 26.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 4.0

Intersection LOS: A

Intersection Capacity Utilization 53.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair
83: Arrow Hwy & Claremont Blvd

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	119	312	27	33	464	117	87	264	19	36	177	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3497	0	1770	3433	0	1770	3504	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3497	0	1770	3433	0	1770	3504	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			51			12				164
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	129	368	0	36	631	0	95	308	0	39	192	164
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.0	22.0	0.0	9.0	20.0	0.0	9.0	20.0	0.0	9.0	20.0	20.0
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
Act Effect Green (s)	7.6	18.6		5.8	13.8		5.8	14.6		5.8	11.2	11.2
Actuated g/C Ratio	0.16	0.38		0.12	0.29		0.12	0.30		0.12	0.23	0.23
v/c Ratio	0.47	0.27		0.17	0.62		0.45	0.29		0.18	0.45	0.33
Control Delay	31.4	12.4		26.7	18.6		35.2	15.5		26.9	22.3	5.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	31.4	12.4		26.7	18.6		35.2	15.5		26.9	22.3	5.9
LOS	C	B		C	B		D	B		C	C	A
Approach Delay		17.3			19.1			20.1			15.9	
Approach LOS		B			B			C			B	
Queue Length 50th (ft)	39	31		11	84		30	33		12	55	0
Queue Length 95th (ft)	#112	83		36	147		#96	74		39	107	37
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	296	1697		211	1341		211	1421		211	711	705
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.44	0.22		0.17	0.47		0.45	0.22		0.18	0.27	0.23

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 18.2

Intersection LOS: B

Intersection Capacity Utilization 50.6%

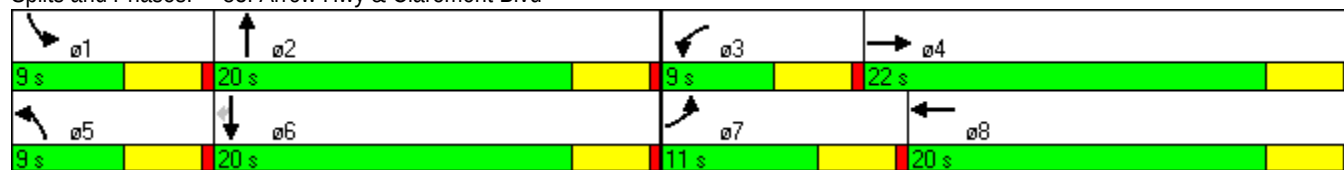
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 83: Arrow Hwy & Claremont Blvd

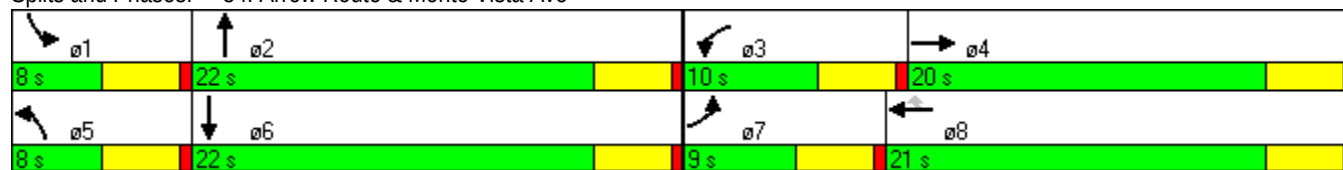


Gold Line Foothill Extension - Azusa to Montclair
84: Arrow Route & Monte Vista Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	77	23	65	180	40	70	519	58	23	935	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3419	0	1770	1863	1583	3433	5009	0	1770	5050	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3419	0	1770	1863	1583	3433	5009	0	1770	5050	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25				43		32			12	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	109	0	71	196	43	76	627	0	25	1064	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	10.0	21.0	21.0	8.0	22.0	0.0	8.0	22.0	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
Act Effct Green (s)	6.6	10.2		7.6	12.7	12.7	5.3	23.0		5.3	20.5	
Actuated g/C Ratio	0.16	0.24		0.18	0.30	0.30	0.13	0.55		0.13	0.49	
v/c Ratio	0.16	0.13		0.22	0.35	0.08	0.18	0.23		0.11	0.43	
Control Delay	25.0	14.4		24.3	17.7	7.0	24.7	9.0		26.0	12.9	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.0	14.4		24.3	17.7	7.0	24.7	9.0		26.0	12.9	
LOS	C	B		C	B	A	C	A		C	B	
Approach Delay		17.6			17.7			10.7			13.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	12		20	43	0	11	31		7	90	
Queue Length 95th (ft)	43	28		57	107	19	30	86		29	157	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	280	1668		336	935	816	434	2918		224	2630	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.16	0.07		0.21	0.21	0.05	0.18	0.21		0.11	0.40	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 41.7												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.43												
Intersection Signal Delay: 13.3						Intersection LOS: B						
Intersection Capacity Utilization 48.5%						ICU Level of Service A						
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	77	0	39	0	610	343	148	828	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1863	1863	1863	1770	3008	0	1863	4811	0	3433	5085	0
Flt Permitted				0.950						0.950		
Satd. Flow (perm)	1863	1863	1863	1770	3008	0	1863	4811	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					381			237				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	84	42	0	0	1036	0	161	900	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	10.0	22.0	0.0	8.0	21.0	0.0	9.0	22.0	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
Act Effect Green (s)				7.1	7.0			17.5		6.1	24.9	
Actuated g/C Ratio				0.22	0.22			0.55		0.19	0.79	
v/c Ratio				0.21	0.04			0.37		0.24	0.22	
Control Delay				16.2	0.1			5.7		16.2	2.4	
Queue Delay				0.0	0.0			0.0		0.0	0.0	
Total Delay				16.2	0.1			5.7		16.2	2.4	
LOS				B	A			A		B	A	
Approach Delay					10.8			5.7			4.5	
Approach LOS					B			A			A	
Queue Length 50th (ft)				16	0			41		17	22	
Queue Length 95th (ft)				45	0			65		37	32	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)				413	1976			2910		667	4006	
Starvation Cap Reductn				0	0			0		0	0	
Spillback Cap Reductn				0	0			0		0	0	
Storage Cap Reductn				0	0			0		0	0	
Reduced v/c Ratio				0.20	0.02			0.36		0.24	0.22	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 5.4

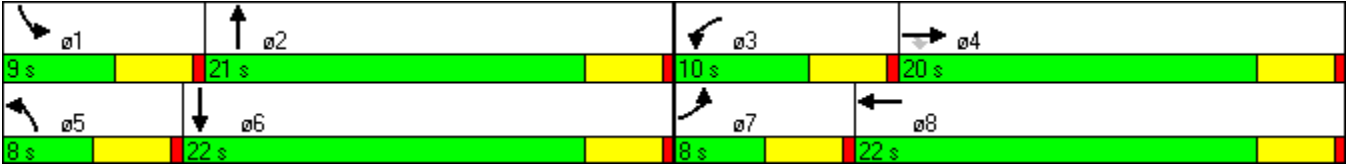
Intersection LOS: A

Intersection Capacity Utilization 38.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair
86: Arrow Hwy & Monte Vista Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔↔	↕↕↕		↔	↕↕		↔	↕↕	↔
Volume (vph)	86	259	70	29	459	97	137	753	42	65	715	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	80		0	250		200
Storage Lanes	2		0	2		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3426	0	3433	4953	0	1770	3511	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3426	0	3433	4953	0	1770	3511	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		56			74			10				128
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	93	358	0	32	604	0	149	864	0	71	777	128
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	8.0	20.0	0.0	8.0	20.0	0.0	11.0	24.0	0.0	8.0	21.0	21.0
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
Act Effect Green (s)	4.4	15.4		4.4	12.4		7.5	20.2		4.4	16.5	16.5
Actuated g/C Ratio	0.09	0.30		0.09	0.24		0.15	0.39		0.09	0.32	0.32
v/c Ratio	0.32	0.34		0.11	0.48		0.57	0.62		0.47	0.68	0.21
Control Delay	29.1	14.3		26.7	17.2		36.7	16.6		40.2	21.2	5.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	29.1	14.3		26.7	17.2		36.7	16.6		40.2	21.2	5.0
LOS	C	B		C	B		D	B		D	C	A
Approach Delay		17.4			17.7			19.5			20.5	
Approach LOS		B			B			B			C	
Queue Length 50th (ft)	15	36		5	57		49	124		24	120	0
Queue Length 95th (ft)	36	78		17	85		#134	201		#79	#197	32
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)	150			200			80			250		200
Base Capacity (vph)	293	1289		293	1737		264	1603		151	1281	655
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.32	0.28		0.11	0.35		0.56	0.54		0.47	0.61	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 19.1

Intersection LOS: B

Intersection Capacity Utilization 55.1%

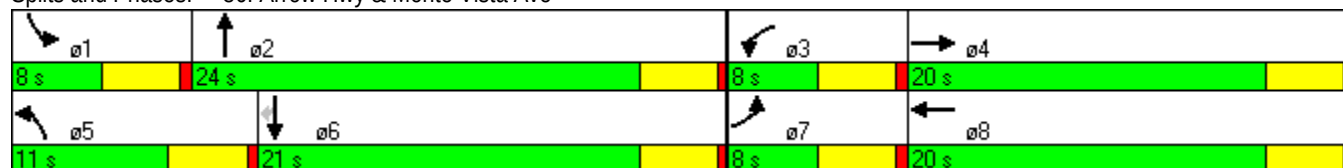
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

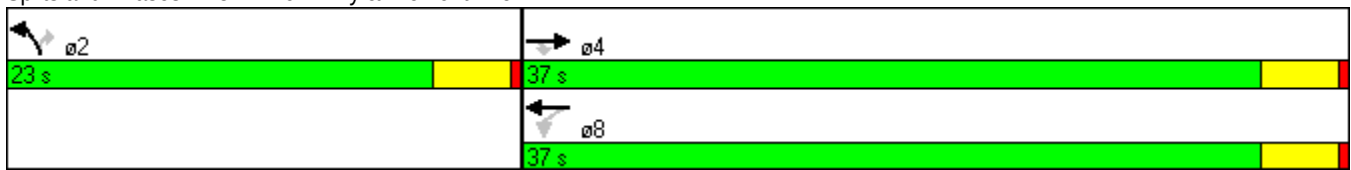


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

Build Alternative
AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (vph)	406	16	14	531	17	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.513		0.950	
Satd. Flow (perm)	3539	1583	956	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		17				16
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	441	17	15	577	18	16
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	13.8	13.8	12.7	12.7	6.5	6.5
Actuated g/C Ratio	0.90	0.90	0.82	0.82	0.42	0.42
v/c Ratio	0.14	0.01	0.02	0.20	0.02	0.02
Control Delay	1.5	1.6	2.2	1.7	6.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	1.6	2.2	1.7	6.0	4.2
LOS	A	A	A	A	A	A
Approach Delay	1.5			1.7	5.2	
Approach LOS	A			A	A	
Queue Length 50th (ft)	0	0	0	0	1	0
Queue Length 95th (ft)	26	3	4	34	9	6
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3539	1583	956	3539	1655	1482
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.01	0.02	0.16	0.01	0.01
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 15.4						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.20						
Intersection Signal Delay: 1.7				Intersection LOS: A		
Intersection Capacity Utilization 24.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave



Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	110	46	90	248	33	67	415	91	22	573	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4948	0	1770	4989	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4948	0	1770	4989	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			50		36			81			43	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	120	50	98	306	0	73	550	0	24	711	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	11.0	21.0	0.0	8.0	21.0	0.0	8.0	21.0	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
Act Effect Green (s)	6.8	8.1	8.1	7.5	10.3		4.6	15.7		4.6	13.1	
Actuated g/C Ratio	0.17	0.21	0.21	0.19	0.26		0.12	0.40		0.12	0.33	
v/c Ratio	0.17	0.16	0.14	0.29	0.23		0.35	0.27		0.12	0.42	
Control Delay	21.7	17.9	8.0	21.8	13.2		29.8	8.3		23.8	12.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	21.7	17.9	8.0	21.8	13.2		29.8	8.3		23.8	12.1	
LOS	C	B	A	C	B		C	A		C	B	
Approach Delay		16.6			15.3			10.8			12.5	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	15	0	25	16		20	26		6	54	
Queue Length 95th (ft)	41	35	23	67	46		#72	63		26	89	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	312	1663	771	364	2533		208	2722		208	2513	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.16	0.07	0.06	0.27	0.12		0.35	0.20		0.12	0.28	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 13.0

Intersection LOS: B

Intersection Capacity Utilization 38.8%

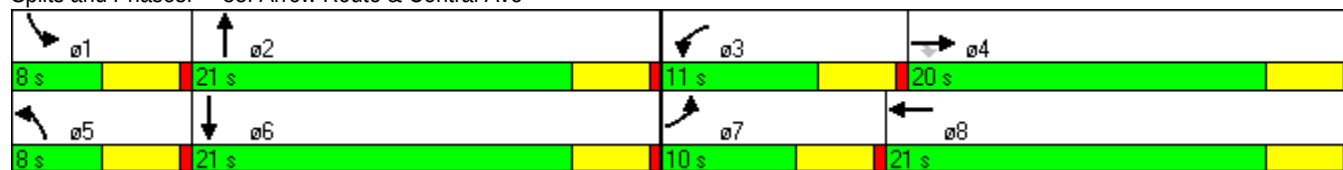
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair
89: Richton St & Central Ave

Build Alternative
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	12	18	19	62	229	22	267	544	47	52	514	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1839	0	1770	3539	1583	1770	4994	0
Flt Permitted	0.462			0.744			0.288			0.429		
Satd. Flow (perm)	861	1863	1583	1386	1839	0	536	3539	1583	799	4994	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			21		8				51		44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	13	20	21	67	273	0	290	591	51	57	637	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	21.0	21.0	21.0	21.0	21.0	0.0	16.0	31.0	31.0	8.0	23.0	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
Act Effect Green (s)	11.8	11.8	11.8	11.8	11.8		26.9	22.6	22.6	16.4	12.2	
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25		0.57	0.48	0.48	0.35	0.26	
v/c Ratio	0.06	0.04	0.05	0.19	0.58		0.50	0.35	0.06	0.16	0.48	
Control Delay	15.4	14.7	7.8	16.4	21.4		8.8	9.8	3.8	7.5	15.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	15.4	14.7	7.8	16.4	21.4		8.8	9.8	3.8	7.5	15.4	
LOS	B	B	A	B	C		A	A	A	A	B	
Approach Delay		12.2			20.4			9.2			14.7	
Approach LOS		B			C			A			B	
Queue Length 50th (ft)	3	4	0	14	63		34	56	0	6	49	
Queue Length 95th (ft)	14	18	13	43	138		82	104	15	20	87	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	322	697	606	519	693		633	2104	961	364	2114	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.04	0.03	0.03	0.13	0.39		0.46	0.28	0.05	0.16	0.30	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 13.1

Intersection LOS: B

Intersection Capacity Utilization 49.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

Build Alternative

90: Arrow Hwy & Central Ave

AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	246	80	90	380	29	140	766	72	21	504	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	5029	0	1770	5019	0	1770	5024	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	5029	0	1770	5019	0	1770	5024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87		20			27			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	267	87	98	445	0	152	911	0	23	594	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	9.0	20.0	20.0	9.0	20.0	0.0	11.0	23.0	0.0	8.0	20.0	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
Act Effect Green (s)	5.5	10.2	10.2	5.5	13.7		7.6	19.3		4.4	12.7	
Actuated g/C Ratio	0.12	0.22	0.22	0.12	0.30		0.16	0.42		0.10	0.28	
v/c Ratio	0.23	0.34	0.21	0.46	0.30		0.52	0.43		0.14	0.43	
Control Delay	26.0	18.6	6.5	34.0	14.5		31.9	11.0		26.0	16.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	26.0	18.6	6.5	34.0	14.5		31.9	11.0		26.0	16.0	
LOS	C	B	A	C	B		C	B		C	B	
Approach Delay		16.9			18.0			13.9			16.4	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	13	35	0	27	29		41	54		6	50	
Queue Length 95th (ft)	44	67	28	#96	68		#132	125		27	87	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	213	1362	663	213	2010		298	2549		170	1947	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.23	0.20	0.13	0.46	0.22		0.51	0.36		0.14	0.31	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 15.8

Intersection LOS: B

Intersection Capacity Utilization 44.9%

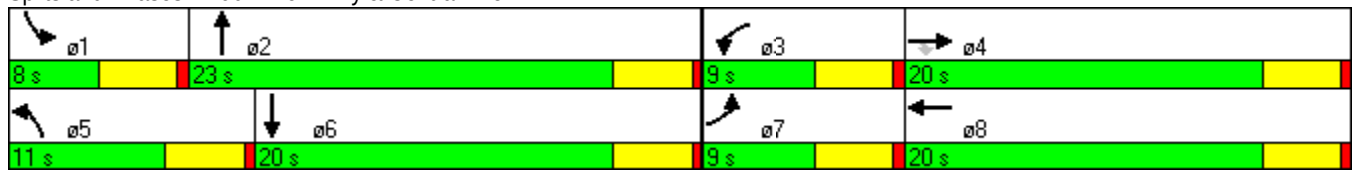
ICU Level of Service A

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave

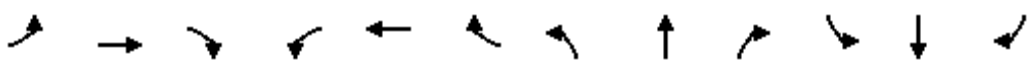


PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	57	22	283	97	31	207	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	62	24	308	105	34	225	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked							
vC, conflicting volume	540	207			413		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	540	207			413		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	86	97			97		
cM capacity (veh/h)	458	800			1142		
Direction, Lane #	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1	SB 2
Volume Total	31	31	24	205	208	109	150
Volume Left	31	31	0	0	0	34	0
Volume Right	0	0	24	0	105	0	0
cSH	458	458	800	1700	1700	1142	1700
Volume to Capacity	0.07	0.07	0.03	0.12	0.12	0.03	0.09
Queue Length 95th (ft)	5	5	2	0	0	2	0
Control Delay (s)	13.4	13.4	9.6	0.0	0.0	2.7	0.0
Lane LOS	B	B	A			A	
Approach Delay (s)	12.4			0.0		1.1	
Approach LOS	B						
Intersection Summary							
Average Delay			1.8				
Intersection Capacity Utilization			30.9%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
2: Foothill Blvd & Barranca Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	558	186	143	477	28	119	219	186	19	174	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	200		0	150		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3408	0	1770	3511	0	1770	3295	0	1770	3394	0
Flt Permitted	0.447			0.312			0.592			0.497		
Satd. Flow (perm)	833	3408	0	581	3511	0	1103	3295	0	926	3394	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		130			17			202			70	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1911			2529			791			1448	
Travel Time (s)		43.4			57.5			18.0			32.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	809	0	155	548	0	129	440	0	21	259	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	21.0	21.0	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
Act Effect Green (s)	17.9	17.9		17.9	17.9		10.7	10.7		10.7	10.7	
Actuated g/C Ratio	0.47	0.47		0.47	0.47		0.28	0.28		0.28	0.28	
v/c Ratio	0.32	0.48		0.56	0.33		0.41	0.41		0.08	0.25	
Control Delay	8.6	6.3		16.2	6.3		18.2	8.2		14.2	9.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	8.6	6.3		16.2	6.3		18.2	8.2		14.2	9.8	
LOS	A	A		B	A		B	A		B	A	
Approach Delay		6.6			8.5			10.5			10.1	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	13	37		18	27		18	16		3	13	
Queue Length 95th (ft)	45	88		73	65		82	67		20	52	
Internal Link Dist (ft)		1831			2449			711			1368	
Turn Bay Length (ft)	150			200			150			200		
Base Capacity (vph)	726	2988		507	3063		562	1777		472	1763	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.17	0.27		0.31	0.18		0.23	0.25		0.04	0.15	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 8.4

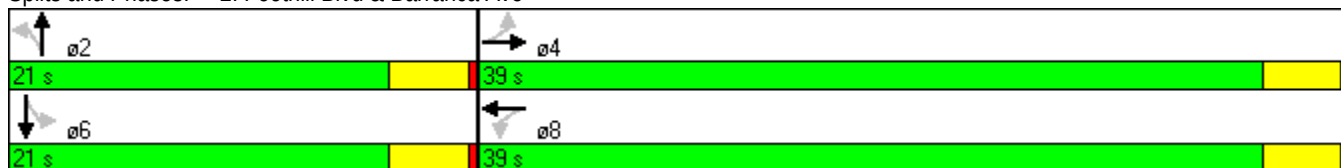
Intersection LOS: A

Intersection Capacity Utilization 58.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Foothill Blvd & Barranca Ave



Gold Line Foothill Extension - Azusa to Montclair
3: Foothill Blvd & Grand Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	499	100	276	321	85	93	528	288	77	337	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	200		0	200		200	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3451	0	1770	3429	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			54				313			63
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2529			1724			1796			964	
Travel Time (s)		57.5			39.2			40.8			21.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	651	0	300	441	0	101	574	313	84	366	63
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	12.0	20.0	0.0	12.0	20.0	0.0	8.0	20.0	20.0	8.0	20.0	20.0
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
Act Effect Green (s)	7.3	14.4		8.1	17.5		4.0	15.8	15.8	4.0	13.8	13.8
Actuated g/C Ratio	0.13	0.25		0.14	0.31		0.07	0.28	0.28	0.07	0.24	0.24
v/c Ratio	0.44	0.72		1.18	0.40		0.80	0.58	0.47	0.66	0.42	0.15
Control Delay	30.6	23.5		144.8	16.5		73.6	21.3	5.3	56.3	19.7	6.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.6	23.5		144.8	16.5		73.6	21.3	5.3	56.3	19.7	6.4
LOS	C	C		F	B		E	C	A	E	B	A
Approach Delay		24.4			68.5			21.6			24.1	
Approach LOS		C			E			C			C	
Queue Length 50th (ft)	35	104		~142	60		37	95	0	31	56	0
Queue Length 95th (ft)	75	155		#273	98		#114	141	51	#95	90	24
Internal Link Dist (ft)		2449			1644			1716			884	
Turn Bay Length (ft)	100			200			200		200	200		100
Base Capacity (vph)	254	1016		254	1109		127	1014	677	127	1014	498
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.64		1.18	0.40		0.80	0.57	0.46	0.66	0.36	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 34.3

Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

3: Foothill Blvd & Grand Ave

TSM Alternative
PM Peak Hour

Analysis Period (min) 15

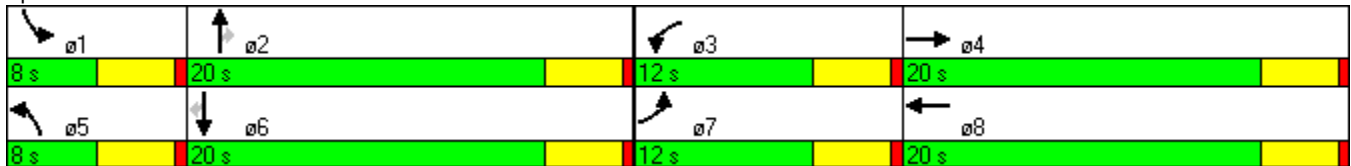
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Foothill Blvd & Grand Ave



Gold Line Foothill Extension - Azusa to Montclair
4: Ada Ave & Vermont Ave

TSM Alternative
PM Peak Hour

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	104	98	150	73	57	148			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92			
Hourly flow rate (vph)	113	107	163	79	62	161			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage veh									
Upstream signal (ft)						1174			
pX, platoon unblocked									
vC, conflicting volume	488	203			242				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	488	203			242				
tC, single (s)	6.4	6.2			4.1				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.2				
p0 queue free %	78	87			95				
cM capacity (veh/h)	514	838			1324				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	220	242	223						
Volume Left	113	0	62						
Volume Right	107	79	0						
cSH	633	1700	1324						
Volume to Capacity	0.35	0.14	0.05						
Queue Length 95th (ft)	39	0	4						
Control Delay (s)	13.7	0.0	2.5						
Lane LOS	B		A						
Approach Delay (s)	13.7	0.0	2.5						
Approach LOS	B								
Intersection Summary									
Average Delay		5.2							
Intersection Capacity Utilization		45.1%	ICU Level of Service	A					
Analysis Period (min)		15							

Gold Line Foothill Extension - Azusa to Montclair
5: Route 66 & Vermont Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	45	1155	16	24	819	78	3	24	10	56	41	121
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1853	1583	0	1811	1583
Flt Permitted	0.950			0.950				0.963			0.806	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1794	1583	0	1501	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			9			59			11			132
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1041			953			673			1341	
Travel Time (s)		23.7			21.7			15.3			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	1255	17	26	890	85	0	29	11	0	106	132
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	9.0	32.0	32.0	8.0	31.0	31.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.1	26.2	26.2	4.9	24.6	24.6		9.4	9.4		9.4	9.4
Actuated g/C Ratio	0.15	0.66	0.66	0.12	0.62	0.62		0.24	0.24		0.24	0.24
v/c Ratio	0.18	0.54	0.02	0.12	0.41	0.08		0.07	0.03		0.30	0.28
Control Delay	23.2	7.5	4.4	24.0	7.8	3.9		16.9	10.3		19.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	23.2	7.5	4.4	24.0	7.8	3.9		16.9	10.3		19.3	6.2
LOS	C	A	A	C	A	A		B	B		B	A
Approach Delay		8.0			7.9			15.1			12.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	10	74	1	6	45	2		5	0		21	0
Queue Length 95th (ft)	43	227	9	29	147	22		25	11		67	35
Internal Link Dist (ft)		961			873			593			1261	
Turn Bay Length (ft)	100		50	150		50						
Base Capacity (vph)	272	2571	1152	217	2445	1112		881	783		737	844
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.18	0.49	0.01	0.12	0.36	0.08		0.03	0.01		0.14	0.16

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 8.4

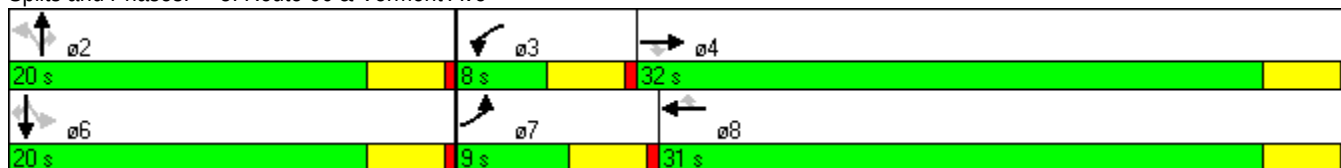
Intersection LOS: A

Intersection Capacity Utilization 56.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Route 66 & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
6: Foothill Blvd & Vermont Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	644	59	35	515	76	84	72	37	47	76	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	1		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3493	0	1770	3472	0	1770	1768	0	0	1737	0
Flt Permitted	0.408			0.353			0.697				0.896	
Satd. Flow (perm)	760	3493	0	658	3472	0	1298	1768	0	0	1574	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		22			38			40			72	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1724			517			1174			504	
Travel Time (s)		39.2			11.8			26.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	764	0	38	643	0	91	118	0	0	233	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	33.0	33.0	0.0	33.0	33.0	0.0	27.0	27.0	0.0	27.0	27.0	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
Act Effect Green (s)	17.6	17.6		17.6	17.6		9.7	9.7			9.8	
Actuated g/C Ratio	0.58	0.58		0.58	0.58		0.32	0.32			0.32	
v/c Ratio	0.21	0.38		0.10	0.32		0.22	0.20			0.42	
Control Delay	7.5	6.2		6.5	5.7		11.8	8.4			10.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	7.5	6.2		6.5	5.7		11.8	8.4			10.3	
LOS	A	A		A	A		B	A			B	
Approach Delay		6.4			5.8			9.9			10.3	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	8	36		3	28		11	9			20	
Queue Length 95th (ft)	34	89		16	71		43	41			76	
Internal Link Dist (ft)		1644			437			1094			424	
Turn Bay Length (ft)	50			200								
Base Capacity (vph)	664	3054		575	3038		970	1331			1194	
Starvation Cap Reductn	0	0		0	0		0	0			0	
Spillback Cap Reductn	0	0		0	0		0	0			0	
Storage Cap Reductn	0	0		0	0		0	0			0	
Reduced v/c Ratio	0.14	0.25		0.07	0.21		0.09	0.09			0.20	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 30.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 7.0

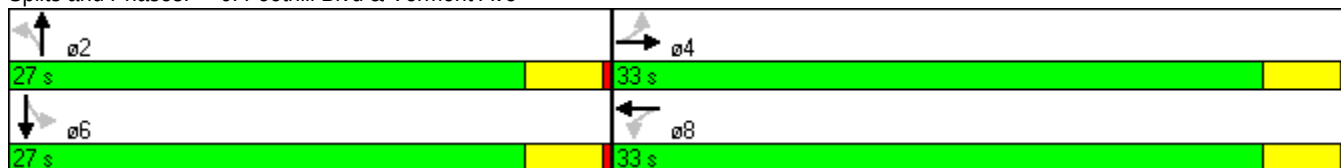
Intersection LOS: A

Intersection Capacity Utilization 51.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 6: Foothill Blvd & Vermont Ave



Gold Line Foothill Extension - Azusa to Montclair
7: Ada Ave & Vermont Ave

TSM Alternative
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	76	0	19	141	188	63
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	0	21	153	204	68
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					1313	
pX, platoon unblocked						
vC, conflicting volume	399	204	273			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	399	204	273			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	86	100	98			
cM capacity (veh/h)	597	836	1290			
Direction, Lane #	EB 1	NB 1	SB 1	SB 2		
Volume Total	83	174	204	68		
Volume Left	83	21	0	0		
Volume Right	0	0	0	68		
cSH	597	1290	1700	1700		
Volume to Capacity	0.14	0.02	0.12	0.04		
Queue Length 95th (ft)	12	1	0	0		
Control Delay (s)	12.0	1.1	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	12.0	1.1	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			2.2			
Intersection Capacity Utilization			32.6%	ICU Level of Service		A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
8: Foothill Blvd & Glendora Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	70	521	158	177	437	69	147	188	88	66	195	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	100		0	100		0	100		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3415	0	1770	3468	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			29				96			80
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		517			3468			1207			4106	
Travel Time (s)		11.8			78.8			27.4			93.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	738	0	192	550	0	160	204	96	72	212	80
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	10.0	20.0	0.0	10.0	20.0	0.0	9.0	22.0	22.0	8.0	21.0	21.0
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
Act Effect Green (s)	5.9	14.6		6.1	19.1		5.1	16.0	16.0	4.0	11.4	11.4
Actuated g/C Ratio	0.11	0.27		0.11	0.36		0.10	0.30	0.30	0.08	0.21	0.21
v/c Ratio	0.38	0.75		0.95	0.44		0.95	0.36	0.18	0.54	0.53	0.20
Control Delay	30.0	22.4		84.5	15.8		91.9	18.7	5.3	43.9	23.9	6.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.0	22.4		84.5	15.8		91.9	18.7	5.3	43.9	23.9	6.3
LOS	C	C		F	B		F	B	A	D	C	A
Approach Delay		23.2			33.5			41.3			24.0	
Approach LOS		C			C			D			C	
Queue Length 50th (ft)	23	100		63	72		53	57	0	23	61	0
Queue Length 95th (ft)	62	#181		#190	130		#168	107	28	#80	114	26
Internal Link Dist (ft)		437			3388			1127			4026	
Turn Bay Length (ft)	50			100			100			100		
Base Capacity (vph)	202	1081		202	1261		168	640	606	134	601	565
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.68		0.95	0.44		0.95	0.32	0.16	0.54	0.35	0.14

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 53.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 30.0

Intersection LOS: C

Intersection Capacity Utilization 61.0%

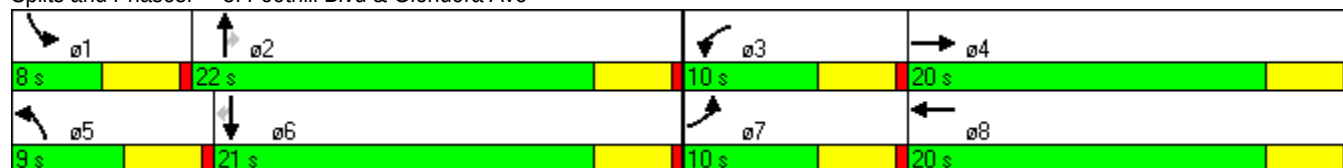
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 8: Foothill Blvd & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair
9: Ada Ave & Glendora Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	56	52	157	29	31	35	49	426	3	20	407	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	61	57	171	32	34	38	53	463	3	22	442	41
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total (vph)	288	103	285	235	243	263						
Volume Left (vph)	61	32	53	0	22	0						
Volume Right (vph)	171	38	0	3	0	41						
Hadj (s)	-0.28	-0.13	0.13	0.02	0.08	-0.08						
Departure Headway (s)	6.4	7.1	6.9	6.8	6.8	6.7						
Degree Utilization, x	0.51	0.20	0.54	0.44	0.46	0.49						
Capacity (veh/h)	523	443	502	515	507	520						
Control Delay (s)	15.8	12.0	16.5	13.8	14.4	14.7						
Approach Delay (s)	15.8	12.0	15.3		14.5							
Approach LOS	C	B	C		B							
Intersection Summary												
Delay			14.9									
HCM Level of Service			B									
Intersection Capacity Utilization			54.7%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
10: Route 66 & Glendora Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	985	0	219	641	111	105	468	369	229	466	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	100		100	200		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1863	1770	3539	1583	1770	3539	1583	1770	3483	0
Flt Permitted	0.373			0.116			0.353			0.236		
Satd. Flow (perm)	695	3539	1863	216	3539	1583	658	3539	1583	440	3483	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						68			208			14
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		953			332			572			1484	
Travel Time (s)		21.7			7.5			13.0			33.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	1071	0	238	697	121	114	509	401	249	568	0
Turn Type	pm+pt		Perm	pm+pt		Perm	pm+pt		Perm	pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2		2	6		
Total Split (s)	8.0	35.0	35.0	15.0	42.0	42.0	11.0	26.0	26.0	14.0	29.0	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
Act Effect Green (s)	33.7	29.7		44.3	38.1	38.1	25.8	19.0	19.0	32.2	24.5	
Actuated g/C Ratio	0.40	0.35		0.52	0.45	0.45	0.30	0.22	0.22	0.38	0.29	
v/c Ratio	0.19	0.87		0.78	0.44	0.16	0.39	0.65	0.78	0.77	0.56	
Control Delay	13.1	35.7		36.6	18.3	8.5	22.1	34.6	26.6	37.9	28.9	
Queue Delay	0.0	0.0		0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	13.1	35.7		36.6	19.1	8.5	22.1	34.6	26.6	37.9	28.9	
LOS	B	D		D	B	A	C	C	C	D	C	
Approach Delay		34.5			21.8			30.1			31.7	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	16	293		77	143	17	41	134	100	97	142	
Queue Length 95th (ft)	36	#415		#199	195	51	76	187	#215	#178	196	
Internal Link Dist (ft)		873			252			492			1404	
Turn Bay Length (ft)	100			100		50	100		100	200		
Base Capacity (vph)	326	1296		314	1588	748	293	920	565	323	1054	
Starvation Cap Reductn	0	0		0	547	0	0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.19	0.83		0.76	0.67	0.16	0.39	0.55	0.71	0.77	0.54	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 85.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 78.3%

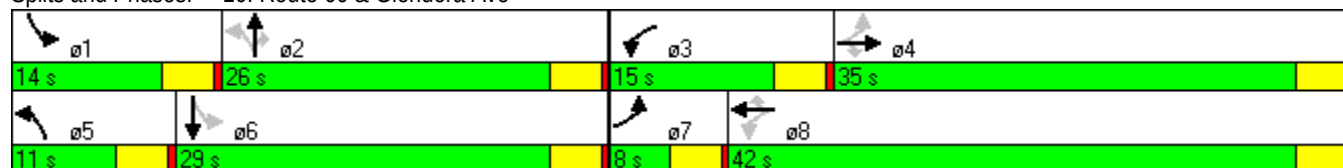
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 10: Route 66 & Glendora Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

11: Lemon Ave & Pasadena Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	9	8	15	21	1	9	13	81	30	22	69	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	9	16	23	1	10	14	88	33	24	75	0
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	35	34	135	99								
Volume Left (vph)	10	23	14	24								
Volume Right (vph)	16	10	33	0								
Hadj (s)	-0.19	0.00	-0.09	0.08								
Departure Headway (s)	4.3	4.4	4.1	4.3								
Degree Utilization, x	0.04	0.04	0.15	0.12								
Capacity (veh/h)	796	755	859	822								
Control Delay (s)	7.4	7.6	7.8	7.8								
Approach Delay (s)	7.4	7.6	7.8	7.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			7.8									
HCM Level of Service			A									
Intersection Capacity Utilization			19.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
12: Route 66 & Pasadena Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	94	1402	42	34	885	51	21	24	50	57	26	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	150		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1711	0	0	1718	0
Flt Permitted	0.231			0.152				0.909			0.889	
Satd. Flow (perm)	430	3539	1583	283	3539	1583	0	1573	0	0	1555	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			19			35		54			68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		332			3195			333			658	
Travel Time (s)		7.5			72.6			7.6			15.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	1524	46	37	962	55	0	103	0	0	165	0
Turn Type	pm+pt		Perm	pm+pt		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	10.0	32.0	32.0	8.0	30.0	30.0	20.0	20.0	0.0	20.0	20.0	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
Act Effect Green (s)	29.9	29.7	29.7	27.5	27.2	27.2		9.3			9.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.61	0.60	0.60		0.21			0.21	
v/c Ratio	0.21	0.65	0.04	0.11	0.45	0.06		0.28			0.44	
Control Delay	4.9	11.1	5.1	4.9	9.6	5.1		12.4			15.9	
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	4.9	11.7	5.1	4.9	9.6	5.1		12.4			15.9	
LOS	A	B	A	A	A	A		B			B	
Approach Delay		11.1			9.2			12.4			15.9	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	8	105	2	3	100	3		12			24	
Queue Length 95th (ft)	27	#385	18	12	179	20		46			72	
Internal Link Dist (ft)		252			3115			253			578	
Turn Bay Length (ft)	150		50	150		50						
Base Capacity (vph)	489	2336	1051	323	2206	1000		668			669	
Starvation Cap Reductn	0	381	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.21	0.78	0.04	0.11	0.44	0.06		0.15			0.25	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 10.7

Intersection LOS: B

Intersection Capacity Utilization 66.9%

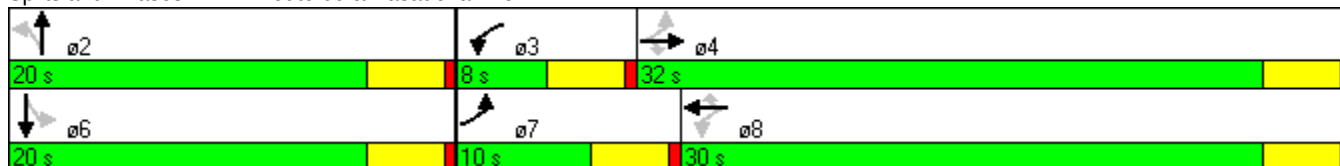
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 12: Route 66 & Pasadena Ave



Gold Line Foothill Extension - Azusa to Montclair
13: Lemon Ave & Glenwood Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	15	15	9	5	6	3	19	117	8	17	123	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	16	10	5	7	3	21	127	9	18	134	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						2						
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	351	351	136	364	349	132	139			136		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	351	351	136	364	349	132	139			136		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	97	99	99	99	100	99			99		
cM capacity (veh/h)	584	558	912	561	560	918	1444			1448		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	15	157	158								
Volume Left	16	5	21	18								
Volume Right	10	3	9	5								
cSH	625	713	1444	1448								
Volume to Capacity	0.07	0.02	0.01	0.01								
Queue Length 95th (ft)	5	2	1	1								
Control Delay (s)	11.2	11.0	1.1	1.0								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.2	11.0	1.1	1.0								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			26.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
14: Route 66 & Glenwood Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	76	1461	10	36	857	63	3	3	8	65	6	48
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	1588	11	39	932	68	3	3	9	71	7	52
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)					651							
pX, platoon unblocked	0.85						0.85	0.85		0.85	0.85	0.85
vC, conflicting volume	1000			1599			2353	2832	794	1979	2774	466
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	657			1599			2242	2803	794	1804	2735	31
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	90			90			68	74	97	0	53	94
cM capacity (veh/h)	791			406			10	12	331	28	14	884
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	83	794	794	11	39	466	466	68	15	129		
Volume Left	83	0	0	0	39	0	0	0	3	71		
Volume Right	0	0	0	11	0	0	0	68	9	52		
cSH	791	1700	1700	1700	406	1700	1700	1700	25	43		
Volume to Capacity	0.10	0.47	0.47	0.01	0.10	0.27	0.27	0.04	0.61	3.02		
Queue Length 95th (ft)	9	0	0	0	8	0	0	0	46	Err		
Control Delay (s)	10.1	0.0	0.0	0.0	14.8	0.0	0.0	0.0	280.1	Err		
Lane LOS	B				B				F	F		
Approach Delay (s)	0.5				0.6				280.1	Err		
Approach LOS									F	F		
Intersection Summary												
Average Delay			453.4									
Intersection Capacity Utilization			67.2%		ICU Level of Service				C			
Analysis Period (min)			15									

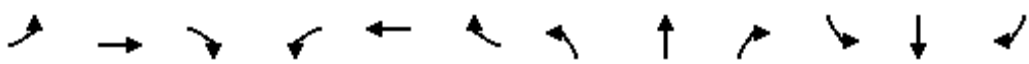
Gold Line Foothill Extension - Azusa to Montclair
15: Lemon Ave & Elwood Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	24	13	8	2	2	7	148	6	8	98	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	26	14	9	2	2	8	161	7	9	107	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)								623				
pX, platoon unblocked												
vC, conflicting volume	309	309	109	333	309	164	112			167		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	309	309	109	333	309	164	112			167		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	96	99	99	100	100	99			99		
cM capacity (veh/h)	634	598	944	586	599	880	1478			1410		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	42	13	175	121								
Volume Left	2	9	8	9								
Volume Right	14	2	7	5								
cSH	684	623	1478	1410								
Volume to Capacity	0.06	0.02	0.01	0.01								
Queue Length 95th (ft)	5	2	0	0								
Control Delay (s)	10.6	10.9	0.4	0.6								
Lane LOS	B	B	A	A								
Approach Delay (s)	10.6	10.9	0.4	0.6								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			20.7%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
16: Route 66 & Elwood Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1369	34	33	841	67	43	17	22	50	15	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1798	1583	0	1794	1583
Flt Permitted	0.950			0.950				0.803			0.787	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	0	1496	1583	0	1466	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			47			24			55
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		651			1293			449			623	
Travel Time (s)		14.8			29.4			10.2			14.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1488	37	36	914	73	0	65	24	0	70	55
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Total Split (s)	11.0	32.0	32.0	8.0	29.0	29.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	6.6	28.6	28.6	4.0	25.3	25.3		16.1	16.1		16.1	16.1
Actuated g/C Ratio	0.12	0.51	0.51	0.07	0.45	0.45		0.29	0.29		0.29	0.29
v/c Ratio	0.39	0.82	0.05	0.28	0.57	0.10		0.15	0.05		0.17	0.11
Control Delay	30.0	17.7	6.1	32.2	13.9	6.0		17.5	8.1		17.7	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	30.0	17.7	6.1	32.2	13.9	6.0		17.5	8.1		17.7	6.4
LOS	C	B	A	C	B	A		B	A		B	A
Approach Delay		18.0			14.0			15.0			12.8	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	27	169	3	12	130	5		17	0		18	0
Queue Length 95th (ft)	65	#391	17	37	185	26		44	14		47	22
Internal Link Dist (ft)		571			1213			369			543	
Turn Bay Length (ft)	150		50	100		50						
Base Capacity (vph)	224	1857	838	128	1642	759		432	475		424	496
Starvation Cap Reductn	0	0	0	0	0	0		0	0		0	0
Spillback Cap Reductn	0	0	0	0	0	0		0	0		0	0
Storage Cap Reductn	0	0	0	0	0	0		0	0		0	0
Reduced v/c Ratio	0.37	0.80	0.04	0.28	0.56	0.10		0.15	0.05		0.17	0.11

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 55.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 16.3

Intersection LOS: B

Intersection Capacity Utilization 61.4%

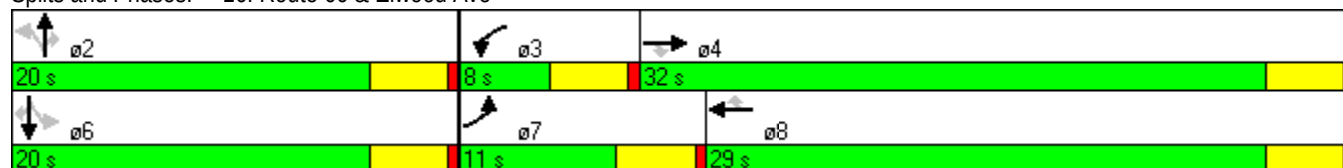
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 16: Route 66 & Elwood Ave



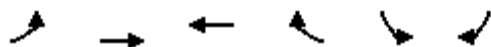
Gold Line Foothill Extension - Azusa to Montclair
17: Lemon Ave & Loraine Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	6	27	8	5	10	15	329	14	8	359	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	7	29	9	5	11	16	358	15	9	390	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								611				
pX, platoon unblocked												
vC, conflicting volume	634	815	197	643	809	186	393			373		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	634	815	197	643	809	186	393			373		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	98	96	97	98	99	99			99		
cM capacity (veh/h)	348	304	811	334	306	824	1162			1182		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	39	25	195	194	204	198						
Volume Left	3	9	16	0	9	0						
Volume Right	29	11	0	15	0	3						
cSH	584	439	1162	1700	1182	1700						
Volume to Capacity	0.07	0.06	0.01	0.11	0.01	0.12						
Queue Length 95th (ft)	5	5	1	0	1	0						
Control Delay (s)	11.6	13.7	0.8	0.0	0.4	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	11.6	13.7	0.4		0.2							
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.2									
Intersection Capacity Utilization			30.8%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
18: Route 66 & Loraine Ave

TSM Alternative
PM Peak Hour



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	156	1168	775	208	294	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100			50	0	0
Storage Lanes	1			1	2	1
Taper Length (ft)	25			25	25	25
Satd. Flow (prot)	1770	3539	3539	1583	3433	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	3539	3539	1583	3433	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				138		111
Link Speed (mph)		30	30		30	
Link Distance (ft)		1293	760		611	
Travel Time (s)		29.4	17.3		13.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	170	1270	842	226	320	111
Turn Type	Prot			Perm		Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Total Split (s)	15.0	39.0	24.0	24.0	21.0	21.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	9.4	29.5	19.1	19.1	10.2	10.2
Actuated g/C Ratio	0.20	0.61	0.40	0.40	0.21	0.21
v/c Ratio	0.49	0.59	0.60	0.32	0.44	0.26
Control Delay	24.9	6.9	15.4	7.1	19.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	6.9	15.4	7.1	19.9	6.4
LOS	C	A	B	A	B	A
Approach Delay		9.1	13.6		16.4	
Approach LOS		A	B		B	
Queue Length 50th (ft)	47	87	106	17	45	0
Queue Length 95th (ft)	103	165	181	62	77	31
Internal Link Dist (ft)		1213	680		531	
Turn Bay Length (ft)	100			50		
Base Capacity (vph)	427	2608	1551	772	1279	659
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.49	0.54	0.29	0.25	0.17

Intersection Summary

Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 48.1	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.8	Intersection LOS: B
Intersection Capacity Utilization 48.5%	ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Route 66 & Loraine Ave



Gold Line Foothill Extension - Azusa to Montclair
19: Auto Centre Dr & Lone Hill Ave

TSM Alternative
PM Peak Hour

						
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	447	516	1052	456	643	1165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		200	250	
Storage Lanes	2	1		1	2	
Taper Length (ft)	25	25		25	25	
Satd. Flow (prot)	3433	1583	3539	1583	3433	3539
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3433	1583	3539	1583	3433	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		415		496		
Link Speed (mph)	30		30			30
Link Distance (ft)	2400		680			421
Travel Time (s)	54.5		15.5			9.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	486	561	1143	496	699	1266
Turn Type		Perm		Perm	Prot	
Protected Phases	8		2		1	6
Permitted Phases		8		2		
Total Split (s)	20.0	20.0	24.0	24.0	16.0	40.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effect Green (s)	13.7	13.7	20.0	20.0	12.0	36.1
Actuated g/C Ratio	0.24	0.24	0.35	0.35	0.21	0.62
v/c Ratio	0.60	0.81	0.93	0.57	0.98	0.57
Control Delay	22.8	17.0	34.8	4.7	55.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	17.0	34.8	4.7	55.7	8.0
LOS	C	B	C	A	E	A
Approach Delay	19.7		25.7			25.0
Approach LOS	B		C			C
Queue Length 50th (ft)	76	42	204	0	~129	123
Queue Length 95th (ft)	117	#197	#338	56	#236	181
Internal Link Dist (ft)	2320		600			341
Turn Bay Length (ft)				200	250	
Base Capacity (vph)	952	739	1227	873	714	2209
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.76	0.93	0.57	0.98	0.57
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 57.8						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.98						
Intersection Signal Delay: 24.1				Intersection LOS: C		
Intersection Capacity Utilization 70.2%				ICU Level of Service C		

19: Auto Centre Dr & Lone Hill Ave

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 19: Auto Centre Dr & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
20: Sierra Madre Ave & Barranca Ave

TSM Alternative
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	350	95	49	158	64	64
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	380	103	53	172	70	70
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			484		710	432
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			484		710	432
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		82	89
cM capacity (veh/h)			1079		380	623
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	484	53	172	139		
Volume Left	0	53	0	70		
Volume Right	103	0	0	70		
cSH	1700	1079	1700	472		
Volume to Capacity	0.28	0.05	0.10	0.29		
Queue Length 95th (ft)	0	4	0	30		
Control Delay (s)	0.0	8.5	0.0	15.8		
Lane LOS		A		C		
Approach Delay (s)	0.0	2.0		15.8		
Approach LOS				C		
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization			45.0%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
21: Sierra Madre Ave & Glendora Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	372	63	36	165	8	29	16	47	3	12	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	404	68	39	179	9	32	17	51	3	13	8
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2					
Volume Total (vph)	478	218	9	49	51	16	8					
Volume Left (vph)	5	39	0	32	0	3	0					
Volume Right (vph)	68	0	9	0	51	0	8					
Hadj (s)	-0.05	0.12	-0.67	0.36	-0.67	0.13	-0.67					
Departure Headway (s)	5.1	5.5	4.7	6.7	5.7	6.6	5.8					
Degree Utilization, x	0.68	0.33	0.01	0.09	0.08	0.03	0.01					
Capacity (veh/h)	687	638	739	491	572	479	540					
Control Delay (s)	18.3	9.9	6.5	9.2	8.0	8.6	7.7					
Approach Delay (s)	18.3	9.8		8.6		8.3						
Approach LOS	C	A		A		A						
Intersection Summary												
Delay			14.5									
HCM Level of Service			B									
Intersection Capacity Utilization			48.5%	ICU Level of Service		A						
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	622	1	181	7	0	22	113	839	0	3	718	719
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	0		0	200		50	100		200
Storage Lanes	1		2	0		0	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1686	2787	0	1655	0	3433	3539	0	1770	3539	1583
Flt Permitted	0.950	0.667			0.868		0.950			0.950		
Satd. Flow (perm)	1681	1180	2787	0	1454	0	3433	3539	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197		24							782
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1260			179			729			680	
Travel Time (s)		28.6			4.1			16.6			15.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	50%											
Lane Group Flow (vph)	338	339	197	0	32	0	123	912	0	3	780	782
Turn Type	Prot		Perm	Perm			Prot			Prot		Perm
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases			4	8								6
Total Split (s)	27.0	47.0	47.0	20.0	20.0	0.0	9.0	35.0	0.0	8.0	34.0	34.0
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
Act Effect Green (s)	30.4	30.4	43.0		12.5		5.0	36.0		4.0	28.5	28.5
Actuated g/C Ratio	0.34	0.34	0.49		0.14		0.06	0.41		0.05	0.32	0.32
v/c Ratio	0.59	0.59	0.14		0.14		0.63	0.63		0.04	0.68	0.75
Control Delay	33.3	33.2	2.3		17.2		57.1	24.0		42.3	29.6	7.2
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	33.3	33.2	2.3		17.2		57.1	24.0		42.3	29.6	7.2
LOS	C	C	A		B		E	C		D	C	A
Approach Delay		26.3			17.2			27.9			18.4	
Approach LOS		C			B			C			B	
Queue Length 50th (ft)	201	202	0		4		36	202		2	197	0
Queue Length 95th (ft)	#328	#330	18		29		#73	310		11	261	94
Internal Link Dist (ft)		1180			99			649			600	
Turn Bay Length (ft)	100						200			100		200
Base Capacity (vph)	593	579	1455		295		194	1437		80	1200	1054
Starvation Cap Reductn	0	0	0		0		0	0		0	0	0
Spillback Cap Reductn	0	0	0		0		0	0		0	0	0
Storage Cap Reductn	0	0	0		0		0	0		0	0	0
Reduced v/c Ratio	0.57	0.59	0.14		0.11		0.63	0.63		0.04	0.65	0.74

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.75

Intersection Signal Delay: 23.2

Intersection LOS: C

Intersection Capacity Utilization 61.2%

ICU Level of Service B

Gold Line Foothill Extension - Azusa to Montclair
22: Glendora Marketplace & Lone Hill Ave

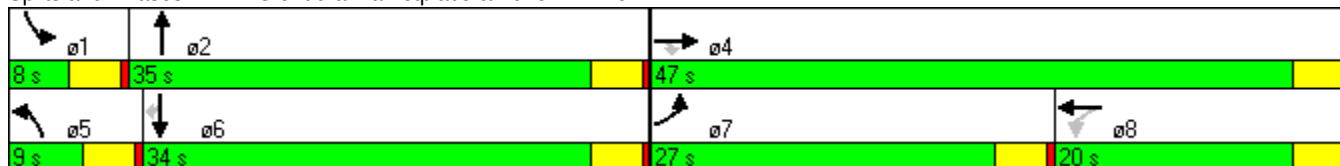
TSM Alternative
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 22: Glendora Marketplace & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair
23: Gladstone St & Lone Hill Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↕↕		↔	↕↕		↔↔	↕↕	↔	↔↔	↕↕	↔
Volume (vph)	210	574	149	89	312	120	289	654	226	268	432	221
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	200		150	250		250
Storage Lanes	2		0	1		0	2		1	2		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	1770	3391	0	3433	3539	1583	3433	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		53			91				235			240
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1321			1139			631			729	
Travel Time (s)		30.0			25.9			14.3			16.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	228	786	0	97	469	0	314	711	246	291	470	240
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	11.0	21.0	21.0	10.0	20.0	20.0
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
Act Effect Green (s)	5.1	16.3		5.1	14.1		7.1	15.9	15.9	6.1	14.9	14.9
Actuated g/C Ratio	0.09	0.28		0.09	0.25		0.12	0.28	0.28	0.11	0.26	0.26
v/c Ratio	0.75	0.77		0.62	0.52		0.74	0.72	0.40	0.80	0.51	0.41
Control Delay	45.4	25.4		47.3	17.1		38.4	24.0	5.6	46.1	20.7	5.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	25.4		47.3	17.1		38.4	24.0	5.6	46.1	20.7	5.4
LOS	D	C		D	B		D	C	A	D	C	A
Approach Delay		29.9			22.3			24.0			24.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	42	130		35	58		58	120	3	54	75	0
Queue Length 95th (ft)	#94	#218		#98	97		#114	174	48	#114	114	45
Internal Link Dist (ft)		1241			1059			551			649	
Turn Bay Length (ft)	150			250			200		150	250		250
Base Capacity (vph)	303	1015		156	1022		424	1061	639	363	999	619
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.77		0.62	0.46		0.74	0.67	0.38	0.80	0.47	0.39

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.4

Intersection LOS: C

Intersection Capacity Utilization 64.6%

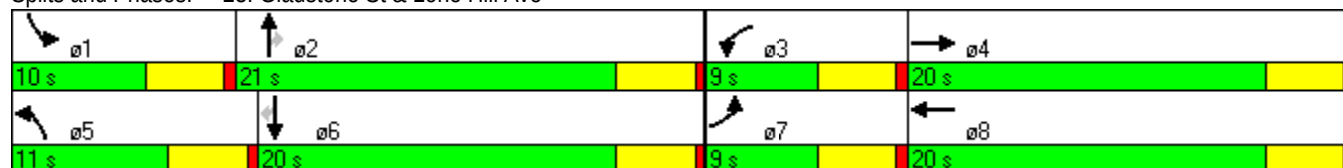
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: Gladstone St & Lone Hill Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

24: Arrow Hwy & SR-57 SB

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↖	↑↑↑		↖↖		↖	↖	↖	↖
Volume (vph)	0	1288	206	177	901	369	163	0	117	302	125	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	330		0	0		0	0		0
Storage Lanes	0		0	1		0	2		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	4979	0	1770	4862	0	3433	0	1583	1681	1732	1583
Flt Permitted				0.117			0.468			0.950	0.979	
Satd. Flow (perm)	0	4979	0	218	4862	0	1691	0	1583	1681	1732	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		91			308				48			127
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2590			1398			262			300	
Travel Time (s)		58.9			31.8			6.0			6.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)										30%		
Lane Group Flow (vph)	0	1624	0	192	1380	0	177	0	127	230	234	208
Turn Type				Perm			custom		custom	Perm		Perm
Protected Phases		4			8						6	
Permitted Phases				8			2		2	6		6
Total Split (s)	0.0	40.0	0.0	40.0	40.0	0.0	20.0	0.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)		36.1		36.1	36.1		13.1		13.1	13.1	13.1	13.1
Actuated g/C Ratio		0.63		0.63	0.63		0.23		0.23	0.23	0.23	0.23
v/c Ratio		0.51		1.39	0.43		0.46		0.32	0.60	0.59	0.45
Control Delay		6.5		237.5	4.8		22.9		14.3	26.5	26.1	11.5
Queue Delay		0.0		0.0	0.0		0.0		0.0	0.0	0.0	0.0
Total Delay		6.5		237.5	4.8		22.9		14.3	26.5	26.1	11.5
LOS		A		F	A		C		B	C	C	B
Approach Delay		6.5			33.2						21.7	
Approach LOS		A			C						C	
Queue Length 50th (ft)		95		~95	58		26		22	73	74	23
Queue Length 95th (ft)		134		#165	87		52		59	136	137	70
Internal Link Dist (ft)		2510			1318			182			220	
Turn Bay Length (ft)				330								
Base Capacity (vph)		3175		138	3181		474		478	471	486	535
Starvation Cap Reductn		0		0	0		0		0	0	0	0
Spillback Cap Reductn		0		0	0		0		0	0	0	0
Storage Cap Reductn		0		0	0		0		0	0	0	0
Reduced v/c Ratio		0.51		1.39	0.43		0.37		0.27	0.49	0.48	0.39

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.39

Intersection Signal Delay: 20.0

Intersection LOS: B

Intersection Capacity Utilization 68.9%

ICU Level of Service C

Analysis Period (min) 15

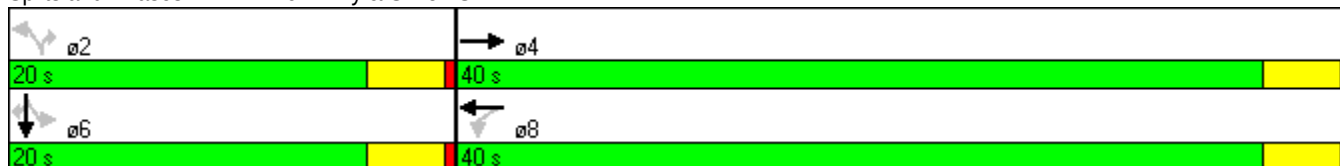
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 24: Arrow Hwy & SR-57 SB



Gold Line Foothill Extension - Azusa to Montclair
25: SR-57 NB & Arrow Hwy

TSM Alternative
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	393	361	159	86	119	398	448	756	335	191	663	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	200		150	200		0	200		0
Storage Lanes	0		0	1		1	2		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	3375	0	1770	3539	1583	3433	4851	0	1770	5034	0
Flt Permitted		0.775		0.174			0.950			0.950		
Satd. Flow (perm)	0	2672	0	324	3539	1583	3433	4851	0	1770	5034	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		48				411		182			19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		303			1135			1398			1361	
Travel Time (s)		6.9			25.8			31.8			30.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	992	0	93	129	433	487	1186	0	208	774	0
Turn Type	Perm			Perm		Perm	Prot			Prot		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6		6						
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	13.0	20.0	0.0	13.0	20.0	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
Act Effect Green (s)		23.0		23.0	23.0	23.0	9.0	16.0		8.9	15.9	
Actuated g/C Ratio		0.38		0.38	0.38	0.38	0.15	0.27		0.15	0.27	
v/c Ratio		0.94		0.75	0.09	0.50	0.94	0.83		0.79	0.57	
Control Delay		35.8		57.3	12.1	4.3	56.6	23.9		48.7	20.5	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		35.8		57.3	12.1	4.3	56.6	23.9		48.7	20.5	
LOS		D		E	B	A	E	C		D	C	
Approach Delay		35.8			13.4			33.4			26.5	
Approach LOS		D			B			C			C	
Queue Length 50th (ft)		168		28	15	5	91	124		74	85	
Queue Length 95th (ft)		#294		#103	30	54	#174	#181		#172	120	
Internal Link Dist (ft)		223			1055			1318			1281	
Turn Bay Length (ft)				200		150	200			200		
Base Capacity (vph)		1056		124	1359	861	516	1429		266	1358	
Starvation Cap Reductn		0		0	0	0	0	0		0	0	
Spillback Cap Reductn		0		0	0	0	0	0		0	0	
Storage Cap Reductn		0		0	0	0	0	0		0	0	
Reduced v/c Ratio		0.94		0.75	0.09	0.50	0.94	0.83		0.78	0.57	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 29.3

Intersection LOS: C

Intersection Capacity Utilization 77.3%

ICU Level of Service D

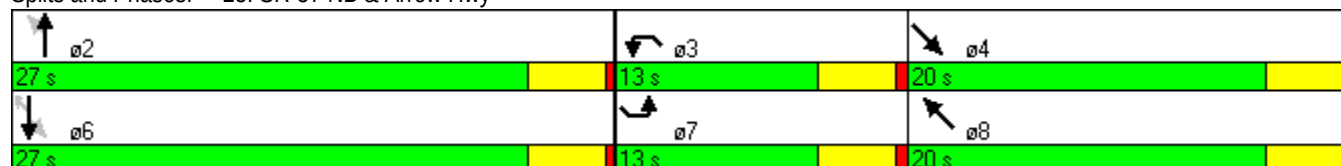
Gold Line Foothill Extension - Azusa to Montclair
 25: SR-57 NB & Arrow Hwy

TSM Alternative
 PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 25: SR-57 NB & Arrow Hwy



Gold Line Foothill Extension - Azusa to Montclair
26: Fifth St & Eucla Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	7	62	92	8	72	1	76	1	18	0	6	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	67	100	9	78	1	83	1	20	0	7	4
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	75	100	87	1	103	11						
Volume Left (vph)	8	0	9	0	83	0						
Volume Right (vph)	0	100	0	1	20	4						
Hadj (s)	0.08	-0.67	0.08	-0.67	0.08	-0.21						
Departure Headway (s)	4.9	4.2	5.0	4.3	4.6	4.4						
Degree Utilization, x	0.10	0.12	0.12	0.00	0.13	0.01						
Capacity (veh/h)	710	830	691	811	745	756						
Control Delay (s)	7.3	6.5	7.5	6.1	8.3	7.5						
Approach Delay (s)	6.9		7.5		8.3	7.5						
Approach LOS	A		A		A	A						
Intersection Summary												
Delay			7.4									
HCM Level of Service			A									
Intersection Capacity Utilization			29.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
27: Second St & Eucla Ave

TSM Alternative
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	23	4	151	19	6	137
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	4	164	21	7	149
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)			722			
pX, platoon unblocked						
vC, conflicting volume	326	164			185	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	164			185	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	96	100			100	
cM capacity (veh/h)	665	880			1390	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	29	164	21	7	149	
Volume Left	25	0	0	7	0	
Volume Right	4	0	21	0	0	
cSH	690	1700	1700	1390	1700	
Volume to Capacity	0.04	0.10	0.01	0.00	0.09	
Queue Length 95th (ft)	3	0	0	0	0	
Control Delay (s)	10.4	0.0	0.0	7.6	0.0	
Lane LOS	B			A		
Approach Delay (s)	10.4	0.0		0.3		
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			17.9%		ICU Level of Service	A
Analysis Period (min)			15			

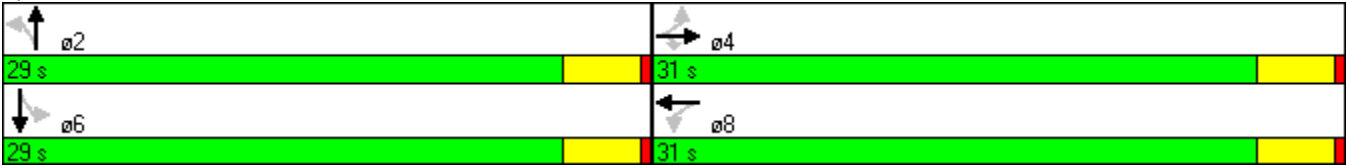
Gold Line Foothill Extension - Azusa to Montclair
28: Bonita Ave & Eucla Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	90	551	13	61	535	23	25	47	222	87	39	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		50	100		0	0		50	0		50
Storage Lanes	1		1	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3518	0	0	1666	0	0	1714	0
Flt Permitted	0.422			0.426				0.956			0.807	
Satd. Flow (perm)	786	3539	1583	794	3518	0	0	1599	0	0	1410	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			14		9			191			86	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		125			727			1279			722	
Travel Time (s)		2.8			16.5			29.1			16.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	98	599	14	66	607	0	0	319	0	0	252	0
Turn Type	Perm		Perm	Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	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
Act Effect Green (s)	12.7	12.7	12.7	12.7	12.7			9.8			9.8	
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41			0.31			0.31	
v/c Ratio	0.31	0.41	0.02	0.20	0.42			0.50			0.50	
Control Delay	9.8	7.7	3.8	8.3	7.7			7.4			10.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0			0.0			0.0	
Total Delay	9.8	7.7	3.8	8.3	7.7			7.4			10.5	
LOS	A	A	A	A	A			A			B	
Approach Delay		7.9			7.7			7.4			10.5	
Approach LOS		A			A			A			B	
Queue Length 50th (ft)	9	29	0	6	29			13			18	
Queue Length 95th (ft)	40	78	6	28	78			71			80	
Internal Link Dist (ft)		45			647			1199			642	
Turn Bay Length (ft)	150		50	100								
Base Capacity (vph)	676	3044	1363	683	3027			1354			1179	
Starvation Cap Reductn	0	0	0	0	0			0			0	
Spillback Cap Reductn	0	0	0	0	0			0			0	
Storage Cap Reductn	0	0	0	0	0			0			0	
Reduced v/c Ratio	0.14	0.20	0.01	0.10	0.20			0.24			0.21	
Intersection Summary												
Area Type:	Other											
Cycle Length:	60											
Actuated Cycle Length:	31.2											
Control Type:	Actuated-Uncoordinated											
Maximum v/c Ratio:	0.50											
Intersection Signal Delay:	8.1					Intersection LOS: A						
Intersection Capacity Utilization	64.7%					ICU Level of Service C						

Analysis Period (min) 15

Splits and Phases: 28: Bonita Ave & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
29: Arrow Hwy & Eucla Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	55	775	125	259	671	19	91	93	328	24	62	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	100		0	200		100
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4979	0	1770	5065	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.355			0.187			0.713			0.692		
Satd. Flow (perm)	661	4979	0	348	5065	0	1328	1863	1583	1289	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		51			9				357			12
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1361			2861			274			1279	
Travel Time (s)		30.9			65.0			6.2			29.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	978	0	282	750	0	99	101	357	26	67	12
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	8.0	21.0	0.0	16.0	29.0	0.0	23.0	23.0	23.0	23.0	23.0	23.0
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
Act Effect Green (s)	19.5	15.4		28.5	24.2		10.1	10.1	10.1	10.1	10.1	10.1
Actuated g/C Ratio	0.42	0.33		0.61	0.52		0.22	0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.16	0.59		0.58	0.29		0.35	0.25	0.57	0.09	0.17	0.03
Control Delay	6.9	14.9		11.5	8.2		19.8	17.4	6.5	16.0	16.5	8.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.9	14.9		11.5	8.2		19.8	17.4	6.5	16.0	16.5	8.8
LOS	A	B		B	A		B	B	A	B	B	A
Approach Delay		14.5			9.1			10.8			15.5	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	5	71		27	43		24	24	0	6	15	0
Queue Length 95th (ft)	21	141		101	84		59	57	51	22	41	10
Internal Link Dist (ft)		1281			2781			194			1199	
Turn Bay Length (ft)	200			200			100			200		100
Base Capacity (vph)	373	1898		588	2816		556	780	871	540	780	670
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.52		0.48	0.27		0.18	0.13	0.41	0.05	0.09	0.02

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 46.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 11.8

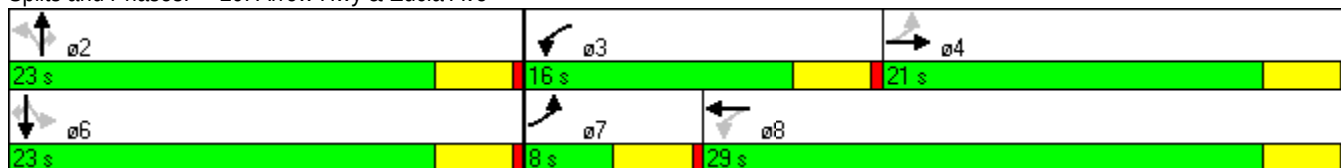
Intersection LOS: B

Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 29: Arrow Hwy & Eucla Ave



Gold Line Foothill Extension - Azusa to Montclair
30: Fifth St & Acacia St

TSM Alternative
PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	75	11	2	69	12	5
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	82	12	2	75	13	5
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			93		167	88
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			93		167	88
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		98	99
cM capacity (veh/h)			1501		822	971
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	93	77	18			
Volume Left	0	2	13			
Volume Right	12	0	5			
cSH	1700	1501	861			
Volume to Capacity	0.05	0.00	0.02			
Queue Length 95th (ft)	0	0	2			
Control Delay (s)	0.0	0.2	9.3			
Lane LOS		A	A			
Approach Delay (s)	0.0	0.2	9.3			
Approach LOS			A			
Intersection Summary						
Average Delay		1.0				
Intersection Capacity Utilization		15.2%		ICU Level of Service		A
Analysis Period (min)		15				

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	4	13	4	2	12	2	8	5	4	4	4	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	14	4	2	13	2	9	5	4	4	4	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	49	43	7	52	43	8	10			10		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	49	43	7	52	43	8	10			10		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	98	100	100	98	100	99			100		
cM capacity (veh/h)	932	842	1075	925	842	1075	1610			1610		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	23	17	18	14								
Volume Left	4	2	9	4								
Volume Right	4	2	4	5								
cSH	895	875	1610	1610								
Volume to Capacity	0.03	0.02	0.01	0.00								
Queue Length 95th (ft)	2	2	0	0								
Control Delay (s)	9.1	9.2	3.4	2.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.1	9.2	3.4	2.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			6.4									
Intersection Capacity Utilization			13.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
32: Bonita Ave & Acacia St

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	17	815	23	23	577	15	15	2	35	2	6	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	886	25	25	627	16	16	2	38	2	7	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		727										
pX, platoon unblocked												
vC, conflicting volume	643			911			1315	1629	455	1204	1633	322
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	643			911			1315	1629	455	1204	1633	322
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			97			84	98	93	98	93	98
cM capacity (veh/h)	937			744			103	96	552	123	95	674
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	NB 2	SB 1			
Volume Total	18	591	320	25	418	225	18	38	22			
Volume Left	18	0	0	25	0	0	16	0	2			
Volume Right	0	0	25	0	0	16	0	38	13			
cSH	937	1700	1700	744	1700	1700	102	552	206			
Volume to Capacity	0.02	0.35	0.19	0.03	0.25	0.13	0.18	0.07	0.11			
Queue Length 95th (ft)	2	0	0	3	0	0	16	6	9			
Control Delay (s)	8.9	0.0	0.0	10.0	0.0	0.0	47.8	12.0	24.6			
Lane LOS	A			B			E	B	C			
Approach Delay (s)	0.2			0.4			23.7		24.6			
Approach LOS							C		C			
Intersection Summary												
Average Delay			1.4									
Intersection Capacity Utilization			39.9%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
33: Second St & Cataract Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	17	4	10	12	9	8	93	16	5	53	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	18	4	11	13	10	9	101	17	5	58	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	23			23			93	67	21	130	65	18
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	23			23			93	67	21	130	65	18
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	88	98	99	93	100
cM capacity (veh/h)	1592			1592			836	817	1057	745	820	1061
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	24	34	127	65								
Volume Left	1	11	9	5								
Volume Right	4	10	17	2								
cSH	1592	1592	845	819								
Volume to Capacity	0.00	0.01	0.15	0.08								
Queue Length 95th (ft)	0	1	13	6								
Control Delay (s)	0.3	2.4	10.0	9.8								
Lane LOS	A	A	B	A								
Approach Delay (s)	0.3	2.4	10.0	9.8								
Approach LOS			B	A								
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			20.3%	ICU Level of Service						A		
Analysis Period (min)			15									

34: Bonita Ave & Cataract Ave

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	51	767	24	44	534	58	19	58	81	12	18	57
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	834	26	48	580	63	21	63	88	13	20	62
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	472	443	338	353	84	88	33	62				
Volume Left (vph)	55	0	48	0	21	0	13	0				
Volume Right (vph)	0	26	0	63	0	88	0	62				
Hadj (s)	0.09	-0.01	0.10	-0.09	0.16	-0.67	0.23	-0.67				
Departure Headway (s)	6.6	6.5	6.9	6.7	8.2	7.4	8.5	7.6				
Degree Utilization, x	0.86	0.80	0.64	0.65	0.19	0.18	0.08	0.13				
Capacity (veh/h)	540	546	506	523	412	453	395	440				
Control Delay (s)	36.7	29.0	20.3	20.2	12.0	10.9	11.0	10.6				
Approach Delay (s)	32.9		20.2		11.4		10.7					
Approach LOS	D		C		B		B					
Intersection Summary												
Delay			25.1									
HCM Level of Service			D									
Intersection Capacity Utilization			62.1%	ICU Level of Service					B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
35: Second St & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	25	6	1	28	2	1	67	5	1	36	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	27	7	1	30	2	1	73	5	1	39	7
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	140	125	42	142	126	76	46			78		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	140	125	42	142	126	76	46			78		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	96	99	100	96	100	100			100		
cM capacity (veh/h)	803	764	1028	799	764	986	1562			1520		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	41	34	79	47								
Volume Left	8	1	1	1								
Volume Right	7	2	5	7								
cSH	804	776	1562	1520								
Volume to Capacity	0.05	0.04	0.00	0.00								
Queue Length 95th (ft)	4	3	0	0								
Control Delay (s)	9.7	9.8	0.1	0.2								
Lane LOS	A	A	A	A								
Approach Delay (s)	9.7	9.8	0.1	0.2								
Approach LOS	A	A										
Intersection Summary												
Average Delay			3.7									
Intersection Capacity Utilization			16.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
36: Bonita Ave & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	73	794	16	17	583	70	12	12	16	21	4	63
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	79	863	17	18	634	76	13	13	17	23	4	68
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)					666							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	710			880			1772	1777	872	1754	1748	672
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	555			880			1825	1831	872	1804	1796	510
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			98			64	77	95	38	93	85
cM capacity (veh/h)	849			768			37	56	350	37	59	471
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	79	880	18	710	43	96						
Volume Left	79	0	18	0	13	23						
Volume Right	0	17	0	76	17	68						
cSH	849	1700	768	1700	68	114						
Volume to Capacity	0.09	0.52	0.02	0.42	0.64	0.84						
Queue Length 95th (ft)	8	0	2	0	69	124						
Control Delay (s)	9.7	0.0	9.8	0.0	123.7	115.6						
Lane LOS	A		A		F	F						
Approach Delay (s)	0.8		0.2		123.7	115.6						
Approach LOS					F	F						
Intersection Summary												
Average Delay			9.5									
Intersection Capacity Utilization			62.6%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
37: Second St & San Dimas Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	22	17	6	13	16	18	654	2	15	538	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	24	18	7	14	17	20	711	2	16	585	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								780				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	1392	1370	585	1398	1372	711	589			713		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1376	1351	585	1383	1353	598	589			600		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	81	96	92	89	96	98			98		
cM capacity (veh/h)	91	126	511	85	126	439	986			854		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3				
Volume Total	49	38	20	711	2	16	585	4				
Volume Left	7	7	20	0	0	16	0	0				
Volume Right	18	17	0	0	2	0	0	4				
cSH	165	166	986	1700	1700	854	1700	1700				
Volume to Capacity	0.30	0.23	0.02	0.42	0.00	0.02	0.34	0.00				
Queue Length 95th (ft)	29	21	2	0	0	1	0	0				
Control Delay (s)	35.8	33.0	8.7	0.0	0.0	9.3	0.0	0.0				
Lane LOS	E	D	A			A						
Approach Delay (s)	35.8	33.0	0.2			0.3						
Approach LOS	E	D										
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			44.4%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
38: Bonita Ave & San Dimas Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	658	47	80	424	137	97	382	147	222	227	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		50	100		50	250		100	100		50
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3391	0	1770	1770	0
Flt Permitted	0.367			0.167			0.437			0.387		
Satd. Flow (perm)	684	1863	1583	311	1863	1583	814	3391	0	721	1770	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23			103		118			52	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		666			1300			1343			780	
Travel Time (s)		15.1			29.5			30.5			17.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	105	715	51	87	461	149	105	575	0	241	369	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	0.0	30.0	30.0	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
Act Effect Green (s)	23.8	23.8	23.8	23.8	23.8	23.8	21.8	21.8		21.8	21.8	
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.44	0.44	0.40	0.40		0.40	0.40	
v/c Ratio	0.35	0.87	0.07	0.64	0.56	0.20	0.32	0.40		0.83	0.49	
Control Delay	15.4	29.1	7.0	39.7	15.3	5.1	14.5	9.9		41.5	13.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	15.4	29.1	7.0	39.7	15.3	5.1	14.5	9.9		41.5	13.0	
LOS	B	C	A	D	B	A	B	A		D	B	
Approach Delay		26.1			16.2			10.6			24.2	
Approach LOS		C			B			B			C	
Queue Length 50th (ft)	24	226	6	24	119	9	24	54		70	75	
Queue Length 95th (ft)	60	#425	22	#92	200	38	56	86		#186	138	
Internal Link Dist (ft)		586			1220			1263			700	
Turn Bay Length (ft)	50		50	100		50	250			100		
Base Capacity (vph)	343	935	806	156	935	845	409	1760		362	914	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.31	0.76	0.06	0.56	0.49	0.18	0.26	0.33		0.67	0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.6

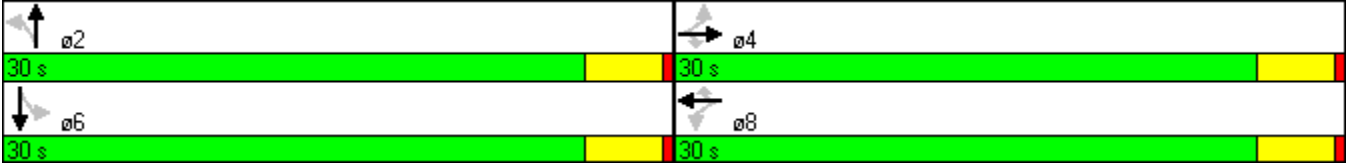
Intersection LOS: B

Intersection Capacity Utilization 80.0%

ICU Level of Service D

Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 38: Bonita Ave & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

39: Arrow Hwy & San Dimas Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	243	1116	142	197	878	85	165	270	200	90	228	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	230		230	200		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3369	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	5019	0	1770	1863	1583	1770	3369	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			26				217		115	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2861			1311			286			1343	
Travel Time (s)		65.0			29.8			6.5			30.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	264	1367	0	214	1046	0	179	293	217	98	363	0
Turn Type	Prot			Prot			Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			
Total Split (s)	11.0	20.0	0.0	11.0	20.0	0.0	8.0	21.0	21.0	8.0	21.0	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
Act Effect Green (s)	7.0	16.1		7.0	16.1		4.0	15.0	15.0	4.0	13.1	
Actuated g/C Ratio	0.12	0.29		0.12	0.29		0.07	0.27	0.27	0.07	0.23	
v/c Ratio	1.19	0.94		0.97	0.72		1.42	0.59	0.37	0.78	0.42	
Control Delay	152.4	35.5		84.9	21.7		255.8	24.3	5.1	69.9	13.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	152.4	35.5		84.9	21.7		255.8	24.3	5.1	69.9	13.4	
LOS	F	D		F	C		F	C	A	E	B	
Approach Delay		54.4			32.5			78.4			25.4	
Approach LOS		D			C			E			C	
Queue Length 50th (ft)	~118	166		~76	117		~88	89	0	35	36	
Queue Length 95th (ft)	#250	#276		#200	167		#199	157	42	#111	66	
Internal Link Dist (ft)		2781			1231			206			1263	
Turn Bay Length (ft)	200			200			230		230	200		
Base Capacity (vph)	221	1452		221	1451		126	565	631	126	1102	
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	
Reduced v/c Ratio	1.19	0.94		0.97	0.72		1.42	0.52	0.34	0.78	0.33	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 56.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.42

Intersection Signal Delay: 48.4

Intersection LOS: D

Intersection Capacity Utilization 68.2%

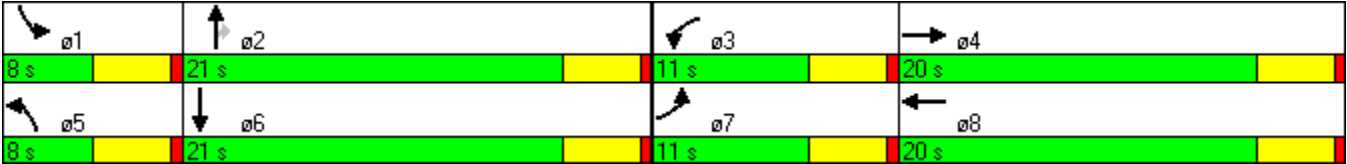
ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 39: Arrow Hwy & San Dimas Ave



Gold Line Foothill Extension - Azusa to Montclair
40: Bonita Ave & Walnut Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	118	766	32	59	460	74	114	194	310	110	97	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		50	100		0	100		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3518	0	1770	3539	1583	1770	1691	0	1770	1725	0
Flt Permitted	0.450			0.232			0.629			0.280		
Satd. Flow (perm)	838	3518	0	432	3539	1583	1172	1691	0	522	1725	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8				80		68			101	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1300			2678			1376			358	
Travel Time (s)		29.5			60.9			31.3			8.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	128	868	0	64	500	80	124	548	0	120	206	0
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Total Split (s)	28.0	28.0	0.0	28.0	28.0	28.0	32.0	32.0	0.0	32.0	32.0	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
Act Effect Green (s)	18.8	18.8		18.8	18.8	18.8	19.8	19.8		19.8	19.8	
Actuated g/C Ratio	0.40	0.40		0.40	0.40	0.40	0.42	0.42		0.42	0.42	
v/c Ratio	0.38	0.62		0.37	0.36	0.12	0.25	0.73		0.55	0.26	
Control Delay	16.0	14.3		19.6	11.7	3.9	11.0	17.0		22.2	6.1	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	16.0	14.3		19.6	11.7	3.9	11.0	17.0		22.2	6.1	
LOS	B	B		B	B	A	B	B		C	A	
Approach Delay		14.6			11.5			15.9			12.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	24	96		12	48	0	21	105		24	17	
Queue Length 95th (ft)	72	178		48	96	21	54	223		77	53	
Internal Link Dist (ft)		1220			2598			1296			278	
Turn Bay Length (ft)	150			150		50	100			100		
Base Capacity (vph)	459	1932		237	1940	904	749	1106		334	1140	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.28	0.45		0.27	0.26	0.09	0.17	0.50		0.36	0.18	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 13.8

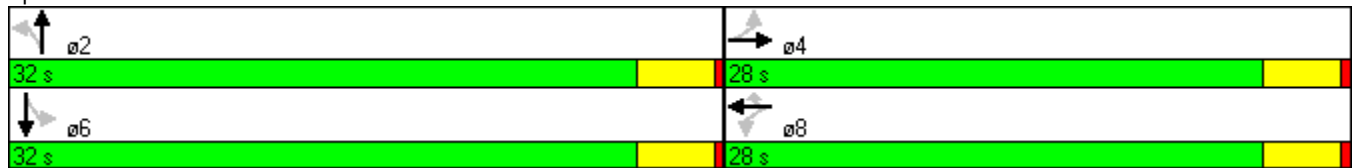
Intersection LOS: B

Intersection Capacity Utilization 74.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 40: Bonita Ave & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

41: Arrow Hwy & Walnut Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	221	1137	68	18	858	44	84	57	21	22	62	153
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5045	0	1770	5050	0	0	1809	1583	0	1839	1583
Flt Permitted	0.950			0.950				0.765			0.883	
Satd. Flow (perm)	1770	5045	0	1770	5050	0	0	1425	1583	0	1645	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			13				23			166
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1311			2693			289			1376	
Travel Time (s)		29.8			61.2			6.6			31.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	240	1310	0	20	981	0	0	153	23	0	91	166
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Total Split (s)	19.0	31.0	0.0	8.0	20.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effect Green (s)	12.7	30.2		5.1	20.0			11.7	11.7		11.4	11.4
Actuated g/C Ratio	0.28	0.67		0.11	0.44			0.26	0.26		0.25	0.25
v/c Ratio	0.48	0.39		0.10	0.44			0.41	0.05		0.22	0.32
Control Delay	21.2	6.4		26.0	15.2			21.9	8.2		18.5	5.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	21.2	6.4		26.0	15.2			21.9	8.2		18.5	5.5
LOS	C	A		C	B			C	A		B	A
Approach Delay		8.7			15.4			20.1			10.1	
Approach LOS		A			B			C			B	
Queue Length 50th (ft)	63	55		6	86			40	0		23	0
Queue Length 95th (ft)	134	152		24	153			90	14		56	37
Internal Link Dist (ft)		1231			2613			209			1296	
Turn Bay Length (ft)	150			150								
Base Capacity (vph)	757	3388		202	2258			657	742		759	819
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.32	0.39		0.10	0.43			0.23	0.03		0.12	0.20

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 11.8

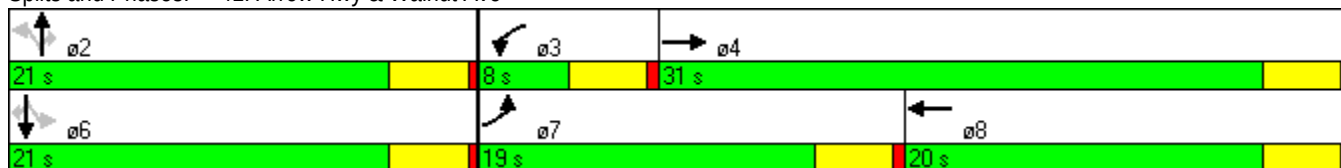
Intersection LOS: B

Intersection Capacity Utilization 54.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 41: Arrow Hwy & Walnut Ave



Gold Line Foothill Extension - Azusa to Montclair
42: Bonita Ave & San Dimas Canyon Rd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	189	769	129	33	331	97	58	273	86	130	226	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	150		50	100		50	250		50
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.537			0.295			0.599			0.570		
Satd. Flow (perm)	1000	3539	1583	550	3539	1583	1116	3539	1583	1062	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			111			105			93			93
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2678			1166			1654			501	
Travel Time (s)		60.9			26.5			37.6			11.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	205	836	140	36	360	105	63	297	93	141	246	93
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	33.0	33.0	33.0	33.0	33.0	33.0	27.0	27.0	27.0	27.0	27.0	27.0
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
Act Effect Green (s)	19.4	19.4	19.4	19.4	19.4	19.4	11.9	11.9	11.9	11.9	11.9	11.9
Actuated g/C Ratio	0.48	0.48	0.48	0.48	0.48	0.48	0.30	0.30	0.30	0.30	0.30	0.30
v/c Ratio	0.42	0.49	0.17	0.14	0.21	0.13	0.19	0.28	0.17	0.45	0.23	0.17
Control Delay	10.8	8.4	3.1	8.2	6.7	2.4	13.5	12.3	4.4	17.9	12.0	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	8.4	3.1	8.2	6.7	2.4	13.5	12.3	4.4	17.9	12.0	4.4
LOS	B	A	A	A	A	A	B	B	A	B	B	A
Approach Delay		8.2			5.9			10.9			12.3	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	24	54	3	4	20	0	10	25	0	24	21	0
Queue Length 95th (ft)	87	133	27	20	54	19	37	61	24	76	51	24
Internal Link Dist (ft)		2598			1086			1574			421	
Turn Bay Length (ft)	100		50	150		50	100		50	250		50
Base Capacity (vph)	759	2685	1228	417	2685	1226	701	2222	1028	667	2222	1028
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.31	0.11	0.09	0.13	0.09	0.09	0.13	0.09	0.21	0.11	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 9.0

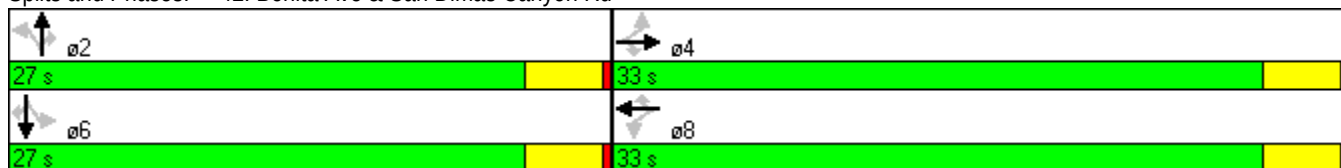
Intersection LOS: A

Intersection Capacity Utilization 52.7%

ICU Level of Service A

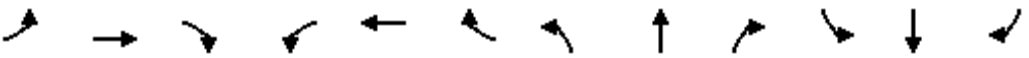
Analysis Period (min) 15

Splits and Phases: 42: Bonita Ave & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
43: Arrow Hwy & San Dimas Canyon Rd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	288	868	70	41	693	171	27	41	30	146	49	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5029	0	1770	4933	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.187			0.269			0.722			0.728		
Satd. Flow (perm)	348	5029	0	501	4933	0	1345	1863	1583	1356	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			96				33			241
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	313	1019	0	45	939	0	29	45	33	159	53	241
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	18.0	30.0	0.0	8.0	20.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effect Green (s)	30.2	27.4		18.8	14.7		11.3	11.3	11.3	11.3	11.3	11.3
Actuated g/C Ratio	0.61	0.55		0.38	0.30		0.23	0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.58	0.37		0.15	0.62		0.10	0.11	0.09	0.52	0.13	0.44
Control Delay	11.9	8.0		7.9	16.4		16.3	16.2	7.1	23.9	16.4	5.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	8.0		7.9	16.4		16.3	16.2	7.1	23.9	16.4	5.7
LOS	B	A		A	B		B	B	A	C	B	A
Approach Delay		9.0			16.0			13.4			13.3	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	34	40		4	75		7	11	0	43	13	0
Queue Length 95th (ft)	119	119		17	138		24	31	16	92	35	43
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	624	2899		294	1699		501	695	611	506	695	741
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.35		0.15	0.55		0.06	0.06	0.05	0.31	0.08	0.33

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 12.2

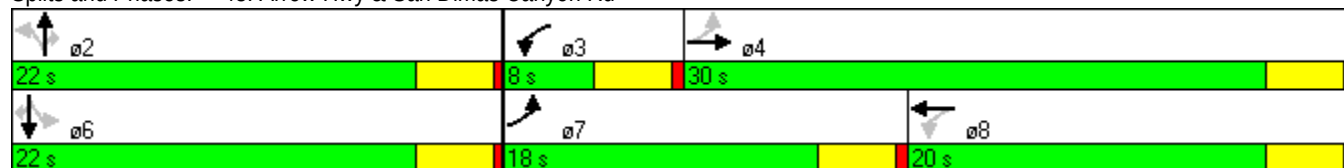
Intersection LOS: B

Intersection Capacity Utilization 57.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd



Gold Line Foothill Extension - Azusa to Montclair
44: Third St & Wheeler Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	22	3	43	18	6	62	18	561	17	39	338	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	3	47	20	7	67	20	610	18	42	367	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								1014				
pX, platoon unblocked												
vC, conflicting volume	874	1127	191	975	1124	314	382			628		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	874	1127	191	975	1124	314	382			628		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	98	94	89	97	90	98			96		
cM capacity (veh/h)	204	191	819	183	192	682	1174			950		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	27	47	26	67	324	323	226	198				
Volume Left	24	0	20	0	20	0	42	0				
Volume Right	0	47	0	67	0	18	0	14				
cSH	203	819	185	682	1174	1700	950	1700				
Volume to Capacity	0.13	0.06	0.14	0.10	0.02	0.19	0.04	0.12				
Queue Length 95th (ft)	11	5	12	8	1	0	3	0				
Control Delay (s)	25.5	9.7	27.6	10.9	0.6	0.0	2.0	0.0				
Lane LOS	D	A	D	B	A		A					
Approach Delay (s)	15.5		15.5		0.3		1.1					
Approach LOS	C		C									
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utilization			45.5%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
45: Arrow Hwy & Wheeler Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	734	10	6	745	267	63	117	72	286	40	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		0	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5075	0	1770	4882	0	1770	1863	1583	0	3309	0
Flt Permitted	0.172			0.334			0.425				0.731	
Satd. Flow (perm)	320	5075	0	622	4882	0	792	1863	1583	0	2502	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			153				78		64	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	190	809	0	7	1100	0	68	127	78	0	453	0
Turn Type	pm+pt			pm+pt			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases	4			8			2		2	6		
Total Split (s)	14.0	28.0	0.0	8.0	22.0	0.0	24.0	24.0	24.0	24.0	24.0	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
Act Effect Green (s)	26.8	25.5		19.8	16.9		13.8	13.8	13.8		13.8	
Actuated g/C Ratio	0.54	0.52		0.40	0.34		0.28	0.28	0.28		0.28	
v/c Ratio	0.43	0.31		0.02	0.62		0.31	0.24	0.16		0.61	
Control Delay	9.3	8.0		7.0	14.7		19.7	16.6	5.1		17.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0		0.0	
Total Delay	9.3	8.0		7.0	14.7		19.7	16.6	5.1		17.9	
LOS	A	A		A	B		B	B	A		B	
Approach Delay		8.2			14.7			14.1			17.9	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)	23	36		1	87		18	32	0		57	
Queue Length 95th (ft)	63	101		6	152		46	66	24		96	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	492	3067		351	2018		347	816	737		1132	
Starvation Cap Reductn	0	0		0	0		0	0	0		0	
Spillback Cap Reductn	0	0		0	0		0	0	0		0	
Storage Cap Reductn	0	0		0	0		0	0	0		0	
Reduced v/c Ratio	0.39	0.26		0.02	0.55		0.20	0.16	0.11		0.40	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.62

Intersection Signal Delay: 12.9

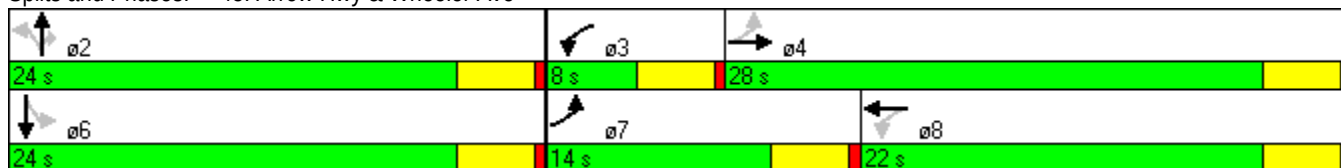
Intersection LOS: B

Intersection Capacity Utilization 65.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 45: Arrow Hwy & Wheeler Ave



Gold Line Foothill Extension - Azusa to Montclair
46: Third St & A St

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	5	63	8	10	78	7	10	67	23	5	17	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	68	9	11	85	8	11	73	25	5	18	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	92			77			198	193	68	247	195	85
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	92			77			198	193	68	247	195	85
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	90	97	99	97	100
cM capacity (veh/h)	1502			1521			736	694	995	628	693	974
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total	74	9	96	8	109	27						
Volume Left	5	0	11	0	11	5						
Volume Right	0	9	0	8	25	3						
cSH	1502	1700	1521	1700	751	703						
Volume to Capacity	0.00	0.01	0.01	0.00	0.14	0.04						
Queue Length 95th (ft)	0	0	1	0	13	3						
Control Delay (s)	0.6	0.0	0.9	0.0	10.6	10.3						
Lane LOS	A		A		B	B						
Approach Delay (s)	0.5			0.8			10.6	10.3				
Approach LOS							B	B				
Intersection Summary												
Average Delay			4.9									
Intersection Capacity Utilization			24.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

47: First St & A St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	8	6	8	10	1	10	109	6	2	22	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	9	7	9	11	1	11	118	7	2	24	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	175	175	24	179	176	118	32			125		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	175	175	24	179	176	118	32			125		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	99	99	98	100	99			100		
cM capacity (veh/h)	773	712	1053	765	711	933	1581			1462		
Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	SB 1	SB 2					
Volume Total	12	7	21	129	7	26	8					
Volume Left	3	0	9	11	0	2	0					
Volume Right	0	7	1	0	7	0	8					
cSH	728	1053	743	1581	1700	1462	1700					
Volume to Capacity	0.02	0.01	0.03	0.01	0.00	0.00	0.00					
Queue Length 95th (ft)	1	0	2	1	0	0	0					
Control Delay (s)	10.0	8.4	10.0	0.7	0.0	0.6	0.0					
Lane LOS	B	A	A	A		A						
Approach Delay (s)	9.5		10.0	0.6		0.5						
Approach LOS	A		A									
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			27.3%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
48: Arrow Hwy & A St

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	81	1147	10	2	861	56	7	2	10	14	0	19
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	88	1247	11	2	936	61	8	2	11	15	0	21
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)		1239										
pX, platoon unblocked												
vC, conflicting volume	997			1258			1765	2429	421	1574	2404	342
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	997			1258			1765	2429	421	1574	2404	342
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	87			100			84	92	98	75	100	97
cM capacity (veh/h)	690			549			46	27	581	62	28	654
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	88	499	499	260	2	374	374	248	10	11	15	21
Volume Left	88	0	0	0	2	0	0	0	8	0	15	0
Volume Right	0	0	0	11	0	0	0	61	0	11	0	21
cSH	690	1700	1700	1700	549	1700	1700	1700	40	581	62	654
Volume to Capacity	0.13	0.29	0.29	0.15	0.00	0.22	0.22	0.15	0.24	0.02	0.25	0.03
Queue Length 95th (ft)	11	0	0	0	0	0	0	0	20	1	21	2
Control Delay (s)	11.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0	121.3	11.3	81.7	10.7
Lane LOS	B				B				F	B	F	B
Approach Delay (s)	0.7				0.0				63.4		40.8	
Approach LOS									F		E	
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilization			43.2%		ICU Level of Service				A			
Analysis Period (min)			15									

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	27	52	58	17	86	44	136	219	26	17	159	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	57	63	18	93	48	148	238	28	18	173	74
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	149	160	414	265								
Volume Left (vph)	29	18	148	18								
Volume Right (vph)	63	48	28	74								
Hadj (s)	-0.18	-0.12	0.06	-0.12								
Departure Headway (s)	5.9	5.9	5.3	5.4								
Degree Utilization, x	0.24	0.26	0.61	0.40								
Capacity (veh/h)	520	532	643	621								
Control Delay (s)	10.8	11.0	16.4	11.9								
Approach Delay (s)	10.8	11.0	16.4	11.9								
Approach LOS	B	B	C	B								
Intersection Summary												
Delay			13.5									
HCM Level of Service			B									
Intersection Capacity Utilization			56.7%	ICU Level of Service				B				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
50: First St & D St

TSM Alternative
PM Peak Hour

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	38	32	29	266	133	35
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	41	35	32	289	145	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				231		
pX, platoon unblocked						
vC, conflicting volume	516	164	183			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	516	164	183			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	96	98			
cM capacity (veh/h)	508	881	1392			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	76	321	183			
Volume Left	41	32	0			
Volume Right	35	0	38			
cSH	630	1392	1700			
Volume to Capacity	0.12	0.02	0.11			
Queue Length 95th (ft)	10	2	0			
Control Delay (s)	11.5	0.9	0.0			
Lane LOS	B	A				
Approach Delay (s)	11.5	0.9	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay		2.0				
Intersection Capacity Utilization		38.8%		ICU Level of Service		A
Analysis Period (min)		15				

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

51: Arrow Hwy & D St

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	1083	32	16	875	170	31	25	25	107	23	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5065	0	1770	4963	0	0	1812	1583	0	1788	1583
Flt Permitted	0.231			0.209				0.779			0.722	
Satd. Flow (perm)	430	5065	0	389	4963	0	0	1451	1583	0	1345	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			120				27			48
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	1212	0	17	1136	0	0	61	27	0	141	48
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effect Green (s)	26.3	26.3		26.3	26.3			11.0	11.0		11.1	11.1
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.28	0.28		0.28	0.28
v/c Ratio	0.40	0.36		0.07	0.34			0.15	0.06		0.38	0.10
Control Delay	11.5	5.2		5.5	4.6			16.6	8.0		19.6	6.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	11.5	5.2		5.5	4.6			16.6	8.0		19.6	6.8
LOS	B	A		A	A			B	A		B	A
Approach Delay		5.7			4.6			13.9			16.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	13	46		1	37			11	0		27	0
Queue Length 95th (ft)	59	95		9	80			43	16		86	21
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	359	4225		324	4158			714	793		662	804
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.32	0.29		0.05	0.27			0.09	0.03		0.21	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 6.2

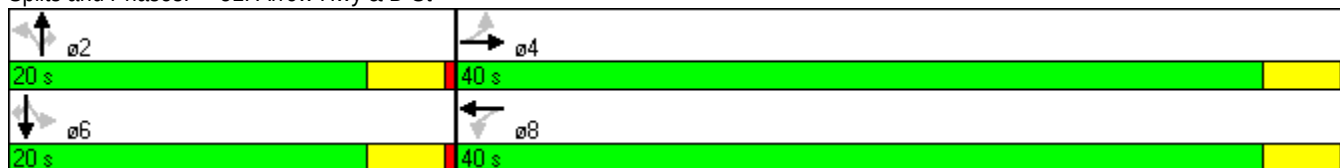
Intersection LOS: A

Intersection Capacity Utilization 50.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 51: Arrow Hwy & D St



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

52: Third St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	21	48	22	9	47	11	66	342	33	10	132	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	23	52	24	10	51	12	72	372	36	11	143	15
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	75	24	61	12	443	36	154	15				
Volume Left (vph)	23	0	10	0	72	0	11	0				
Volume Right (vph)	0	24	0	12	0	36	0	15				
Hadj (s)	0.19	-0.67	0.11	-0.67	0.11	-0.67	0.07	-0.67				
Departure Headway (s)	6.4	5.5	6.4	5.6	5.3	4.5	5.5	4.8				
Degree Utilization, x	0.13	0.04	0.11	0.02	0.65	0.05	0.24	0.02				
Capacity (veh/h)	515	586	513	579	659	766	620	708				
Control Delay (s)	9.2	7.6	8.9	7.5	16.5	6.5	9.1	6.7				
Approach Delay (s)	8.8		8.7		15.8		8.9					
Approach LOS	A		A		C		A					
Intersection Summary												
Delay			12.9									
HCM Level of Service			B									
Intersection Capacity Utilization			49.5%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

53: Second St & E St

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	41	23	32	7	19	8	30	406	10	5	145	22
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	45	25	35	8	21	9	33	441	11	5	158	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			2			2						
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								551				
pX, platoon unblocked	0.87	0.87		0.87	0.87	0.87				0.87		
vC, conflicting volume	685	686	158	688	699	441	182			452		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	566	566	158	568	581	286	182			298		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	93	96	98	94	99	98			100		
cM capacity (veh/h)	350	367	888	337	360	657	1394			1101		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2						
Volume Total	104	37	474	11	163	24						
Volume Left	45	8	33	0	5	0						
Volume Right	35	9	0	11	0	24						
cSH	535	463	1394	1700	1101	1700						
Volume to Capacity	0.20	0.08	0.02	0.01	0.00	0.01						
Queue Length 95th (ft)	18	6	2	0	0	0						
Control Delay (s)	14.8	14.8	0.8	0.0	0.3	0.0						
Lane LOS	B	B	A		A							
Approach Delay (s)	14.8	14.8	0.7		0.3							
Approach LOS	B	B										
Intersection Summary												
Average Delay			3.1									
Intersection Capacity Utilization			51.1%		ICU Level of Service		A					
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
54: First St & E St

TSM Alternative
PM Peak Hour

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	25	19	432	16	10	162
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	27	21	470	17	11	176
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)			254			
pX, platoon unblocked	0.86	0.86			0.86	
vC, conflicting volume	667	470			487	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	529	299			319	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	97			99	
cM capacity (veh/h)	433	635			1065	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	27	21	470	17	11	176
Volume Left	27	0	0	0	11	0
Volume Right	0	21	0	17	0	0
cSH	433	635	1700	1700	1065	1700
Volume to Capacity	0.06	0.03	0.28	0.01	0.01	0.10
Queue Length 95th (ft)	5	3	0	0	1	0
Control Delay (s)	13.9	10.9	0.0	0.0	8.4	0.0
Lane LOS	B	B			A	
Approach Delay (s)	12.6		0.0		0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			32.7%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
55: Arrow Hwy & E St

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	969	192	73	664	36	322	335	140	27	152	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	200		0	70		0
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4958	0	1770	5045	0	1770	1863	1583	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		46			9				152			45
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		640			737			454			254	
Travel Time (s)		14.5			16.8			10.3			5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	1262	0	79	761	0	350	364	152	29	165	45
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	11.0	29.0	0.0	10.0	28.0	0.0	28.0	42.0	42.0	9.0	23.0	23.0
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
Act Effect Green (s)	6.8	24.2		6.3	25.7		19.5	32.9	32.9	5.2	12.3	12.3
Actuated g/C Ratio	0.09	0.32		0.08	0.34		0.26	0.43	0.43	0.07	0.16	0.16
v/c Ratio	0.36	0.78		0.54	0.44		0.77	0.45	0.20	0.24	0.55	0.15
Control Delay	43.9	28.8		54.0	22.8		40.3	19.1	3.8	43.7	38.7	10.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	28.8		54.0	22.8		40.3	19.1	3.8	43.7	38.7	10.9
LOS	D	C		D	C		D	B	A	D	D	B
Approach Delay		29.5			25.7			25.0			34.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	28	205		39	114		162	116	0	14	78	0
Queue Length 95th (ft)	69	#320		#112	172		#297	223	34	44	142	28
Internal Link Dist (ft)		560			657			374			174	
Turn Bay Length (ft)	130			130			200			70		
Base Capacity (vph)	170	1732		146	1817		583	972	899	122	486	446
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.73		0.54	0.42		0.60	0.37	0.17	0.24	0.34	0.10

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 76

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 27.7

Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

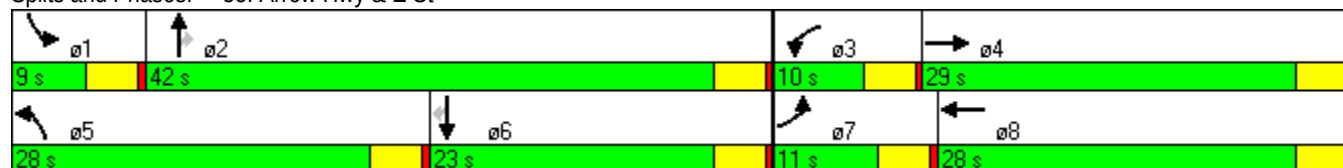
55: Arrow Hwy & E St

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 55: Arrow Hwy & E St



Gold Line Foothill Extension - Azusa to Montclair
56: Third St & White Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	11	11	6	7	15	30	918	18	11	622	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	12	12	7	8	16	33	998	20	12	676	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											296	
pX, platoon unblocked	0.81	0.81	0.81	0.81	0.81		0.81					
vC, conflicting volume	1783	1783	676	1781	1782	998	695			1017		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1851	1850	479	1848	1849	998	502			1017		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	83	79	97	82	87	94	96			98		
cM capacity (veh/h)	37	57	473	36	57	296	857			682		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	18	12	14	16	1030	20	688	18				
Volume Left	7	0	7	0	33	0	12	0				
Volume Right	0	12	0	16	0	20	0	18				
cSH	48	473	45	296	857	1700	682	1700				
Volume to Capacity	0.39	0.03	0.31	0.06	0.04	0.01	0.02	0.01				
Queue Length 95th (ft)	34	2	27	4	3	0	1	0				
Control Delay (s)	121.1	12.8	118.2	17.9	1.1	0.0	0.5	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	78.6		64.5		1.1		0.5					
Approach LOS	F		F									
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			85.1%		ICU Level of Service			E				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
57: Second St & White Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	2	16	0	3	10	19	906	10	9	616	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	2	17	0	3	11	21	985	11	10	670	11
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)											756	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1728	1726	670	1734	1726	985	680			996		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1765	1763	532	1772	1763	985	545			996		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	72	97	96	100	95	96	98			99		
cM capacity (veh/h)	51	69	470	51	69	301	879			695		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	16	17	3	11	1005	11	679	11				
Volume Left	14	0	0	0	21	0	10	0				
Volume Right	0	17	0	11	0	11	0	11				
cSH	53	470	69	301	879	1700	695	1700				
Volume to Capacity	0.31	0.04	0.05	0.04	0.02	0.01	0.01	0.01				
Queue Length 95th (ft)	27	3	4	3	2	0	1	0				
Control Delay (s)	101.7	13.0	59.4	17.4	0.7	0.0	0.4	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	55.9		27.1		0.7		0.4					
Approach LOS	F		D									
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			77.1%		ICU Level of Service				D			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
58: First St & White Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	14	2	22	15	0	30	24	879	31	22	595	11
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	2	24	16	0	33	26	955	34	24	647	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)											1008	
pX, platoon unblocked	0.93	0.93	0.93	0.93	0.93		0.93					
vC, conflicting volume	1735	1736	647	1727	1714	955	659			989		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1753	1754	581	1745	1731	955	594			989		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	71	97	95	71	100	90	97			97		
cM capacity (veh/h)	53	74	477	56	77	313	912			699		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2			
Volume Total	17	24	16	33	26	955	34	671	12			
Volume Left	15	0	16	0	26	0	0	24	0			
Volume Right	0	24	0	33	0	0	34	0	12			
cSH	55	477	56	313	912	1700	1700	699	1700			
Volume to Capacity	0.32	0.05	0.29	0.10	0.03	0.56	0.02	0.03	0.01			
Queue Length 95th (ft)	28	4	26	9	2	0	0	3	0			
Control Delay (s)	98.4	12.9	94.6	17.8	9.1	0.0	0.0	0.9	0.0			
Lane LOS	F	B	F	C	A			A				
Approach Delay (s)	48.9		43.4		0.2			0.9				
Approach LOS	E		E									
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			63.3%		ICU Level of Service				B			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
59: Sierra Way & White Ave

TSM Alternative
PM Peak Hour

							
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations							
Volume (veh/h)	13	17	919	11	30	611	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	14	18	999	12	33	664	
Pedestrians							
Lane Width (ft)							
Walking Speed (ft/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage (veh)							
Upstream signal (ft)			249				
pX, platoon unblocked	0.84	0.84			0.84		
vC, conflicting volume	1396	499			1011		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1091	24			633		
tC, single (s)	6.8	6.9			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	92	98			96		
cM capacity (veh/h)	169	879			795		
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	33	499	499	12	33	332	332
Volume Left	14	0	0	0	33	0	0
Volume Right	18	0	0	12	0	0	0
cSH	311	1700	1700	1700	795	1700	1700
Volume to Capacity	0.10	0.29	0.29	0.01	0.04	0.20	0.20
Queue Length 95th (ft)	9	0	0	0	3	0	0
Control Delay (s)	17.9	0.0	0.0	0.0	9.7	0.0	0.0
Lane LOS	C				A		
Approach Delay (s)	17.9	0.0			0.5		
Approach LOS	C						
Intersection Summary							
Average Delay			0.5				
Intersection Capacity Utilization			35.4%		ICU Level of Service		A
Analysis Period (min)			15				

Gold Line Foothill Extension - Azusa to Montclair
60: White Ave & Arrow Hwy

TSM Alternative
PM Peak Hour

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	177	589	173	140	372	59	170	855	196	112	519	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	150		0	230		0	220		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	4943	0	1770	4907	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			188			64			85			126
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		6359			249			1192			2545	
Travel Time (s)		144.5			5.7			27.1			57.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	192	640	188	152	404	64	185	1142	0	122	737	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			2			6						
Total Split (s)	10.0	20.0	20.0	10.0	20.0	20.0	10.0	20.0	0.0	10.0	20.0	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
Act Effect Green (s)	6.1	14.7	14.7	6.1	14.7	14.7	6.1	16.8		6.1	14.4	
Actuated g/C Ratio	0.11	0.26	0.26	0.11	0.26	0.26	0.11	0.29		0.11	0.25	
v/c Ratio	1.03	0.70	0.34	0.81	0.44	0.14	0.99	0.76		0.65	0.56	
Control Delay	107.0	24.4	5.4	62.6	19.9	6.3	97.4	22.4		45.9	17.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	107.0	24.4	5.4	62.6	19.9	6.3	97.4	22.4		45.9	17.2	
LOS	F	C	A	E	B	A	F	C		D	B	
Approach Delay		36.4			29.0			32.9			21.2	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)	~81	108	0	55	63	0	~75	131		44	67	
Queue Length 95th (ft)	#190	159	40	#148	98	24	#182	#186		#116	100	
Internal Link Dist (ft)		6279			169			1112			2465	
Turn Bay Length (ft)	150			150			230			220		
Base Capacity (vph)	187	997	581	187	997	492	187	1509		187	1472	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	1.03	0.64	0.32	0.81	0.41	0.13	0.99	0.76		0.65	0.50	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 57.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 30.6

Intersection LOS: C

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Gold Line Foothill Extension - Azusa to Montclair

60: White Ave & Arrow Hwy

TSM Alternative
PM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 60: White Ave & Arrow Hwy

 ø1	 ø2	 ø3	 ø4
10 s	20 s	10 s	20 s
 ø5	 ø6	 ø7	 ø8
10 s	20 s	10 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
61: Bonita Ave & D St

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	81	356	40	39	381	116	60	180	36	116	179	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		0	70		70
Storage Lanes	1		1	1		1	0		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	0	1809	0	1770	1863	1583
Flt Permitted	0.447			0.477				0.896		0.611		
Satd. Flow (perm)	833	1863	1583	889	1863	1583	0	1639	0	1138	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			37			103		15				155
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		346			2265			314			462	
Travel Time (s)		7.9			51.5			7.1			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	387	43	42	414	126	0	300	0	126	195	155
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Total Split (s)	32.0	32.0	32.0	32.0	32.0	32.0	28.0	28.0	0.0	28.0	28.0	28.0
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
Act Effect Green (s)	14.3	14.3	14.3	14.3	14.3	14.3		12.1		12.1	12.1	12.1
Actuated g/C Ratio	0.41	0.41	0.41	0.41	0.41	0.41		0.34		0.34	0.34	0.34
v/c Ratio	0.26	0.51	0.06	0.12	0.55	0.18		0.52		0.32	0.30	0.24
Control Delay	9.9	10.9	3.9	8.1	11.4	3.5		13.4		12.4	10.9	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0		0.0	0.0	0.0
Total Delay	9.9	10.9	3.9	8.1	11.4	3.5		13.4		12.4	10.9	3.5
LOS	A	B	A	A	B	A		B		B	B	A
Approach Delay		10.1			9.5			13.4			8.9	
Approach LOS		B			A			B			A	
Queue Length 50th (ft)	9	44	1	4	48	2		37		15	23	0
Queue Length 95th (ft)	40	136	14	21	147	26		123		60	80	28
Internal Link Dist (ft)		266			2185			234			382	
Turn Bay Length (ft)			50			50				70		70
Base Capacity (vph)	683	1528	1305	729	1528	1317		1211		838	1372	1207
Starvation Cap Reductn	0	0	0	0	0	0		0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0		0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0		0		0	0	0
Reduced v/c Ratio	0.13	0.25	0.03	0.06	0.27	0.10		0.25		0.15	0.14	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.55

Intersection Signal Delay: 10.1

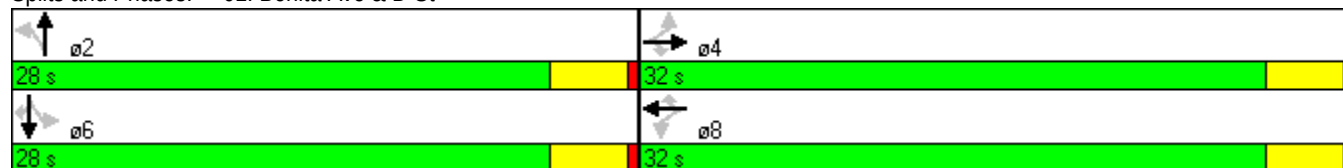
Intersection LOS: B

Intersection Capacity Utilization 62.3%

ICU Level of Service B

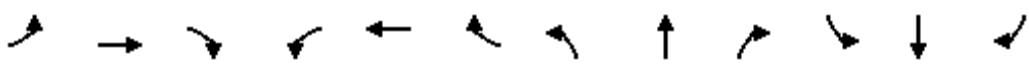
Analysis Period (min) 15

Splits and Phases: 61: Bonita Ave & D St



Gold Line Foothill Extension - Azusa to Montclair
62: Foothill Blvd & Fruit St

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	257	845	157	129	647	212	265	667	50	232	368	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	130		100	150		0	370		130
Storage Lanes	1		0	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4963	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4963	0	1770	3539	1583	3433	3504	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		43				160		8				195
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1580			1768			4952			547	
Travel Time (s)		35.9			40.2			112.5			12.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	279	1089	0	140	703	230	288	779	0	252	400	195
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Total Split (s)	21.0	31.0	0.0	14.0	24.0	24.0	16.0	26.0	0.0	19.0	29.0	29.0
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
Act Effect Green (s)	16.2	26.3		9.6	19.7	19.7	11.2	21.6		14.5	24.9	24.9
Actuated g/C Ratio	0.18	0.30		0.11	0.22	0.22	0.13	0.25		0.16	0.28	0.28
v/c Ratio	0.86	0.72		0.73	0.89	0.48	0.66	0.90		0.86	0.40	0.33
Control Delay	60.5	29.8		61.3	48.5	14.1	44.7	47.3		65.2	27.4	5.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	60.5	29.8		61.3	48.5	14.1	44.7	47.3		65.2	27.4	5.6
LOS	E	C		E	D	B	D	D		E	C	A
Approach Delay		36.0			42.8			46.6			33.6	
Approach LOS		D			D			D			C	
Queue Length 50th (ft)	154	193		78	205	33	80	224		141	97	0
Queue Length 95th (ft)	#288	243		#166	#306	99	123	#333		#272	139	49
Internal Link Dist (ft)		1500			1688			4872			467	
Turn Bay Length (ft)	200			130		100	150			370		130
Base Capacity (vph)	342	1555		202	805	484	469	884		302	1013	592
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.82	0.70		0.69	0.87	0.48	0.61	0.88		0.83	0.39	0.33

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 39.8

Intersection LOS: D

Intersection Capacity Utilization 78.3%

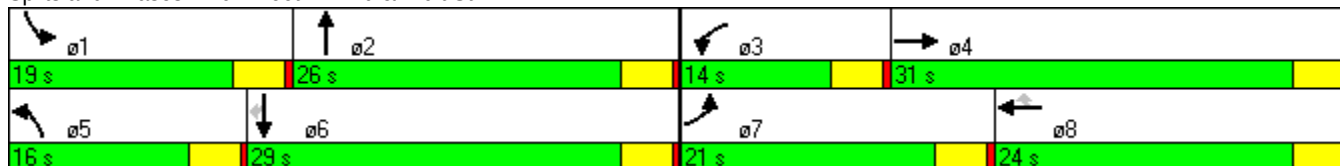
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 62: Foothill Blvd & Fruit St



Gold Line Foothill Extension - Azusa to Montclair
63: Bonita Ave & White Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	379	72	49	325	129	72	722	117	71	478	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	100		0	100		0	100		0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.402			0.324			0.365			0.161		
Satd. Flow (perm)	749	1863	1583	604	1863	1583	680	1863	1583	300	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			78			140			127			107
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2265			1774			296			4952	
Travel Time (s)		51.5			40.3			6.7			112.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	177	412	78	53	353	140	78	785	127	77	520	107
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	36.0	36.0	36.0	36.0	36.0	36.0
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
Act Effect Green (s)	16.8	16.8	16.8	16.8	16.8	16.8	26.9	26.9	26.9	26.9	26.9	26.9
Actuated g/C Ratio	0.32	0.32	0.32	0.32	0.32	0.32	0.52	0.52	0.52	0.52	0.52	0.52
v/c Ratio	0.73	0.69	0.14	0.27	0.59	0.23	0.22	0.82	0.14	0.50	0.54	0.12
Control Delay	38.8	23.3	4.9	19.0	20.5	4.4	9.4	19.8	2.1	22.7	11.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	23.3	4.9	19.0	20.5	4.4	9.4	19.8	2.1	22.7	11.3	2.2
LOS	D	C	A	B	C	A	A	B	A	C	B	A
Approach Delay		25.3			16.2			16.7			11.2	
Approach LOS		C			B			B			B	
Queue Length 50th (ft)	55	125	0	14	103	0	14	207	0	16	110	0
Queue Length 95th (ft)	#146	211	24	40	176	31	35	#379	19	#70	184	18
Internal Link Dist (ft)		2185			1694			216			4872	
Turn Bay Length (ft)	100			100			100			100		
Base Capacity (vph)	305	757	690	245	757	726	442	1211	1074	195	1211	1066
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.54	0.11	0.22	0.47	0.19	0.18	0.65	0.12	0.39	0.43	0.10

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 17.2

Intersection LOS: B

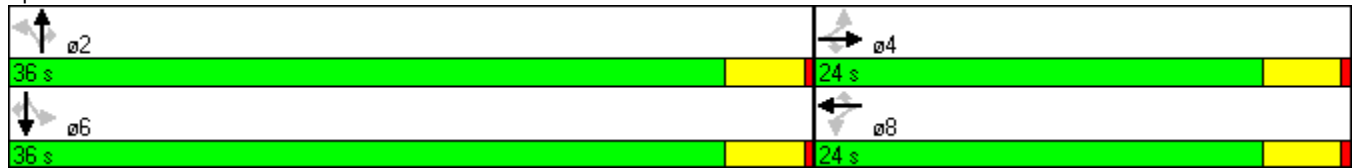
Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 63: Bonita Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
64: McKinley Ave & White Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	218	130	131	48	80	65	57	492	56	100	610	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	0		100	100		0	100		0
Storage Lanes	1		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1681	1745	1583	0	1829	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.668	0.883			0.836		0.950			0.950		
Satd. Flow (perm)	1182	1563	1583	0	1557	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			142			71			61			88
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		542			484			563			6359	
Travel Time (s)		12.3			11.0			12.8			144.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)	24%											
Lane Group Flow (vph)	180	198	142	0	139	71	62	535	61	109	663	88
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	10.0	24.0	24.0	13.0	27.0	27.0
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
Act Effect Green (s)	13.1	13.1	13.1		13.1	13.1	6.8	14.2	14.2	8.3	15.5	15.5
Actuated g/C Ratio	0.31	0.31	0.31		0.31	0.31	0.16	0.33	0.33	0.19	0.36	0.36
v/c Ratio	0.50	0.41	0.24		0.29	0.13	0.22	0.45	0.11	0.31	0.52	0.14
Control Delay	20.2	17.2	4.6		15.8	5.3	24.5	14.6	5.3	22.8	13.5	4.1
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.2	17.2	4.6		15.8	5.3	24.5	14.6	5.3	22.8	13.5	4.1
LOS	C	B	A		B	A	C	B	A	C	B	A
Approach Delay		14.8			12.2			14.6			13.7	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	43	45	0		29	0	15	63	0	26	75	0
Queue Length 95th (ft)	110	110	32		76	23	53	117	21	78	135	23
Internal Link Dist (ft)		462			404			483			6279	
Turn Bay Length (ft)	150					100	100			100		
Base Capacity (vph)	612	809	888		806	854	289	1928	890	434	2189	1012
Starvation Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.24	0.16		0.17	0.08	0.21	0.28	0.07	0.25	0.30	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 14.1

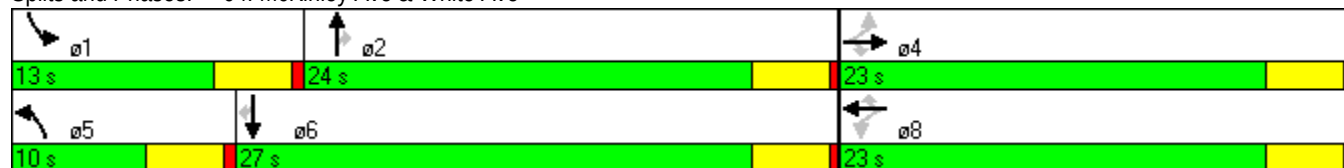
Intersection LOS: B

Intersection Capacity Utilization 49.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 64: McKinley Ave & White Ave



Gold Line Foothill Extension - Azusa to Montclair
65: Arrow Hwy & La Verne Ave

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	944	0	6	524	3	187	0	5	2	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	1026	0	7	570	3	203	0	5	2	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)									2			
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	573			1026			1337	1625	342	938	1622	285
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	573			1026			1337	1625	342	938	1622	285
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			0	100	99	99	100	100
cM capacity (veh/h)	996			672			110	100	654	215	100	712
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	SB 1		
Volume Total	7	342	342	342	7	285	285	3	209	2		
Volume Left	7	0	0	0	7	0	0	0	203	2		
Volume Right	0	0	0	0	0	0	0	3	5	0		
cSH	996	1700	1700	1700	672	1700	1700	1700	113	215		
Volume to Capacity	0.01	0.20	0.20	0.20	0.01	0.17	0.17	0.00	1.85	0.01		
Queue Length 95th (ft)	0	0	0	0	1	0	0	0	418	1		
Control Delay (s)	8.6	0.0	0.0	0.0	10.4	0.0	0.0	0.0	481.6	21.9		
Lane LOS	A				B				F	C		
Approach Delay (s)	0.1				0.1				481.6	21.9		
Approach LOS									F	C		
Intersection Summary												
Average Delay			55.2									
Intersection Capacity Utilization			34.9%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
66: Bonita Ave & Futon Rd

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	83	459	41	28	440	27	54	14	32	18	11	43
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	90	499	45	30	478	29	59	15	35	20	12	47
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	508			543			1293	1270	521	1276	1278	493
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	508			543			1293	1270	521	1276	1278	493
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	91			97			47	90	94	83	92	92
cM capacity (veh/h)	1057			1025			110	149	555	114	148	576
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	90	543	30	508	74	35	32	47				
Volume Left	90	0	30	0	59	0	20	0				
Volume Right	0	45	0	29	0	35	0	47				
cSH	1057	1700	1025	1700	116	555	124	576				
Volume to Capacity	0.09	0.32	0.03	0.30	0.64	0.06	0.25	0.08				
Queue Length 95th (ft)	7	0	2	0	81	5	24	7				
Control Delay (s)	8.7	0.0	8.6	0.0	78.7	11.9	43.5	11.8				
Lane LOS	A		A		F	B	E	B				
Approach Delay (s)	1.2		0.5		57.3		24.6					
Approach LOS					F		C					
Intersection Summary												
Average Delay			6.8									
Intersection Capacity Utilization			50.4%		ICU Level of Service			A				
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
67: Arrow Hwy & Fulton Rd

TSM Alternative
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Volume (veh/h)	26	865	1	12	521	13	11	14	18	15	9	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	28	940	1	13	566	14	12	15	20	16	10	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	580			941			1366	1604	314	989	1590	283
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	580			941			1366	1604	314	989	1590	283
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			86	85	97	90	90	92
cM capacity (veh/h)	990			724			88	100	682	166	102	714
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	28	376	376	189	13	283	283	14	12	35	26	54
Volume Left	28	0	0	0	13	0	0	0	12	0	16	0
Volume Right	0	0	0	1	0	0	0	14	0	20	0	54
cSH	990	1700	1700	1700	724	1700	1700	1700	88	192	134	714
Volume to Capacity	0.03	0.22	0.22	0.11	0.02	0.17	0.17	0.01	0.14	0.18	0.19	0.08
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	11	16	17	6
Control Delay (s)	8.7	0.0	0.0	0.0	10.1	0.0	0.0	0.0	52.5	27.9	38.2	10.5
Lane LOS	A				B				F	D	E	B
Approach Delay (s)	0.3				0.2				34.2		19.4	
Approach LOS									D		C	
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			36.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
68: Bonita Ave & Garey Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	107	286	138	124	214	81	119	764	121	47	585	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.562			0.438			0.950			0.950		
Satd. Flow (perm)	1047	1863	1583	816	1863	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			150			88			132			89
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	116	311	150	135	233	88	129	830	132	51	636	89
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	13.0	26.0	26.0	10.0	23.0	23.0
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
Act Effect Green (s)	14.2	14.2	14.2	14.2	14.2	14.2	8.4	19.9	19.9	6.5	15.9	15.9
Actuated g/C Ratio	0.30	0.30	0.30	0.30	0.30	0.30	0.18	0.41	0.41	0.14	0.33	0.33
v/c Ratio	0.38	0.57	0.26	0.56	0.42	0.17	0.42	0.56	0.18	0.21	0.54	0.15
Control Delay	19.4	20.3	4.6	26.6	17.9	4.9	26.4	14.2	3.8	26.2	16.8	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	20.3	4.6	26.6	17.9	4.9	26.4	14.2	3.8	26.2	16.8	4.9
LOS	B	C	A	C	B	A	C	B	A	C	B	A
Approach Delay		16.0			17.9			14.4			16.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	29	84	0	36	60	0	37	106	0	15	84	0
Queue Length 95th (ft)	69	154	32	88	114	25	90	181	28	46	145	26
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150		100	100		100
Base Capacity (vph)	483	859	811	376	859	778	367	1827	881	245	1551	744
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.36	0.18	0.36	0.27	0.11	0.35	0.45	0.15	0.21	0.41	0.12

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 15.7

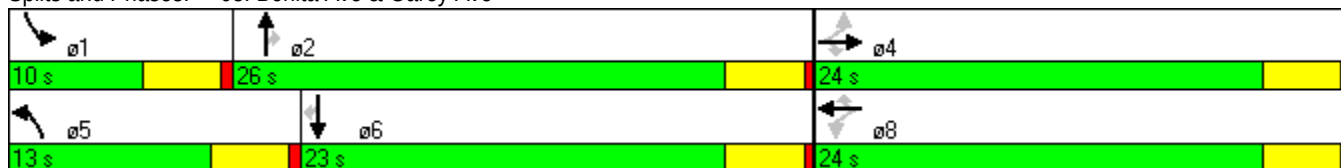
Intersection LOS: B

Intersection Capacity Utilization 59.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 68: Bonita Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
69: Santa Fe St & Garey Ave

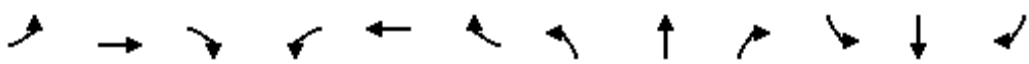
TSM Alternative
PM Peak Hour



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	50	13	981	853	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	54	14	1066	927	7
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)				1295	1128	
pX, platoon unblocked	0.90					
vC, conflicting volume	1492	467	934			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1317	467	934			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	90	98			
cM capacity (veh/h)	131	543	729			
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	54	14	533	533	618	316
Volume Left	0	14	0	0	0	0
Volume Right	54	0	0	0	0	7
cSH	543	729	1700	1700	1700	1700
Volume to Capacity	0.10	0.02	0.31	0.31	0.36	0.19
Queue Length 95th (ft)	8	1	0	0	0	0
Control Delay (s)	12.4	10.0	0.0	0.0	0.0	0.0
Lane LOS	B	B				
Approach Delay (s)	12.4	0.1			0.0	
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			33.8%		ICU Level of Service	A
Analysis Period (min)			15			

Gold Line Foothill Extension - Azusa to Montclair
70: Arrow Hwy & Garey Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	91	662	87	138	410	165	165	703	151	181	658	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		50	250		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	4999	0	1770	4867	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	4999	0	1770	4867	0	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		38			165				100			38
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2116			3816			350			1295	
Travel Time (s)		48.1			86.7			8.0			29.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	99	815	0	150	625	0	179	764	164	197	715	58
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Total Split (s)	9.0	20.0	0.0	9.0	20.0	0.0	11.0	20.0	20.0	11.0	20.0	20.0
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
Act Effect Green (s)	5.0	14.7		5.0	16.7		7.0	15.5	15.5	7.0	15.5	15.5
Actuated g/C Ratio	0.09	0.25		0.09	0.29		0.12	0.27	0.27	0.12	0.27	0.27
v/c Ratio	0.65	0.63		0.99	0.41		0.84	0.81	0.33	0.92	0.76	0.13
Control Delay	49.8	20.9		103.8	13.8		61.9	28.9	10.2	76.7	26.3	9.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.8	20.9		103.8	13.8		61.9	28.9	10.2	76.7	26.3	9.8
LOS	D	C		F	B		E	C	B	E	C	A
Approach Delay		24.0			31.2			31.4			35.5	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	36	89		~57	49		65	135	18	72	124	5
Queue Length 95th (ft)	#101	124		#157	77		#164	#217	58	#183	#182	29
Internal Link Dist (ft)		2036			3736			270			1215	
Turn Bay Length (ft)	200			200			200		50	250		50
Base Capacity (vph)	152	1402		152	1535		213	973	507	213	973	463
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.58		0.99	0.41		0.84	0.79	0.32	0.92	0.73	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 58.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 30.7

Intersection LOS: C

Intersection Capacity Utilization 65.2%

ICU Level of Service C

70: Arrow Hwy & Garey Ave

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 70: Arrow Hwy & Garey Ave

 ø1	 ø2	 ø3	 ø4
11 s	20 s	9 s	20 s
 ø5	 ø6	 ø7	 ø8
11 s	20 s	9 s	20 s

Gold Line Foothill Extension - Azusa to Montclair
71: Bonita Ave & Towne Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	197	272	184	80	135	119	104	991	112	87	764	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	70		0	100		50	100		50
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3327	0	1770	3291	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.582			0.420			0.294			0.197		
Satd. Flow (perm)	1084	3327	0	782	3291	0	548	3539	1583	367	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		150			80				86			60
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3647			5290			1431			949	
Travel Time (s)		82.9			120.2			32.5			21.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	214	496	0	87	276	0	113	1077	122	95	830	66
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	23.0	23.0	0.0	23.0	23.0	0.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)	14.7	14.7		14.7	14.7		24.7	24.7	24.7	24.7	24.7	24.7
Actuated g/C Ratio	0.31	0.31		0.31	0.31		0.51	0.51	0.51	0.51	0.51	0.51
v/c Ratio	0.65	0.44		0.36	0.26		0.40	0.59	0.14	0.50	0.46	0.08
Control Delay	27.2	11.4		20.3	10.6		12.8	9.8	3.3	19.5	8.4	2.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.2	11.4		20.3	10.6		12.8	9.8	3.3	19.5	8.4	2.7
LOS	C	B		C	B		B	A	A	B	A	A
Approach Delay		16.2			13.0			9.5			9.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	54	41		20	22		19	107	5	17	75	1
Queue Length 95th (ft)	#147	85		59	51		55	166	24	62	118	14
Internal Link Dist (ft)		3567			5210			1351			869	
Turn Bay Length (ft)	100			70			100		50	100		50
Base Capacity (vph)	465	1513		336	1457		388	2510	1148	260	2510	1140
Starvation Cap Reductn	0	0		0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.33		0.26	0.19		0.29	0.43	0.11	0.37	0.33	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 64.0%

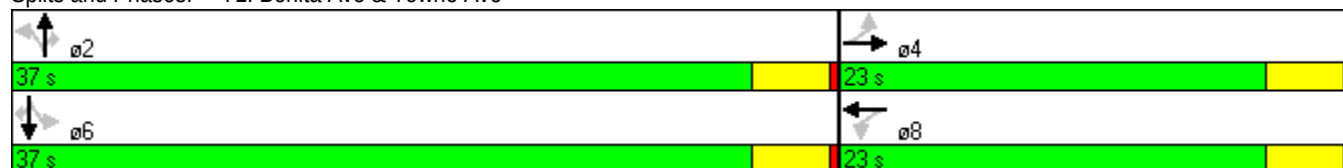
ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 71: Bonita Ave & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
72: Towne Center Dr & Towne Ave

TSM Alternative
PM Peak Hour

								
Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations								
Volume (veh/h)	28	39	1182	15	30	1110		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	30	42	1285	16	33	1207		
Pedestrians								
Lane Width (ft)								
Walking Speed (ft/s)								
Percent Blockage								
Right turn flare (veh)								
Median type	None				None			
Median storage veh								
Upstream signal (ft)	932							
pX, platoon unblocked	0.80	0.80			0.80			
vC, conflicting volume	1953	642			1301			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1692	53			876			
tC, single (s)	6.8	6.9			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	52	95			95			
cM capacity (veh/h)	64	803			613			
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3
Volume Total	30	42	642	642	16	33	603	603
Volume Left	30	0	0	0	0	33	0	0
Volume Right	0	42	0	0	16	0	0	0
cSH	64	803	1700	1700	1700	613	1700	1700
Volume to Capacity	0.48	0.05	0.38	0.38	0.01	0.05	0.35	0.35
Queue Length 95th (ft)	47	4	0	0	0	4	0	0
Control Delay (s)	105.2	9.7	0.0	0.0	0.0	11.2	0.0	0.0
Lane LOS	F	A				B		
Approach Delay (s)	49.6		0.0			0.3		
Approach LOS	E							
Intersection Summary								
Average Delay	1.5							
Intersection Capacity Utilization	42.7%				ICU Level of Service		A	
Analysis Period (min)	15							

Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

73: Arrow Hwy & Towne Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  			 			 	
Volume (vph)	349	773	74	219	473	131	159	751	118	183	865	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	160		0	100		0	100		100
Storage Lanes	1		0	1		0	1		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5019	0	1770	4923	0	1770	3468	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5019	0	1770	4923	0	1770	3468	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			68			20				106
Link Speed (mph)		30			30			30				30
Link Distance (ft)		3816			5291			568				932
Travel Time (s)		86.7			120.3			12.9				21.2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	379	920	0	238	656	0	173	944	0	199	940	178
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	24.0	24.0	0.0	20.0	20.0	0.0	13.0	31.0	0.0	15.0	33.0	33.0
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
Act Effect Green (s)	20.0	20.2		14.8	15.0		9.0	26.4		11.0	28.4	28.4
Actuated g/C Ratio	0.23	0.23		0.17	0.17		0.10	0.30		0.12	0.32	0.32
v/c Ratio	0.95	0.79		0.80	0.74		0.96	0.90		0.90	0.83	0.31
Control Delay	69.3	38.0		56.5	36.7		100.0	42.3		80.9	35.5	11.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	69.3	38.0		56.5	36.7		100.0	42.3		80.9	35.5	11.5
LOS	E	D		E	D		F	D		F	D	B
Approach Delay		47.1			42.0			51.3			39.1	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	214	180		130	116		100	264		114	257	29
Queue Length 95th (ft)	#391	228		#241	157		#228	#381		#242	335	78
Internal Link Dist (ft)		3736			5211			488			852	
Turn Bay Length (ft)	200			160			100			100		100
Base Capacity (vph)	401	1158		321	948		180	1074		220	1162	591
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.95	0.79		0.74	0.69		0.96	0.88		0.90	0.81	0.30

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 44.8

Intersection LOS: D

Intersection Capacity Utilization 79.4%

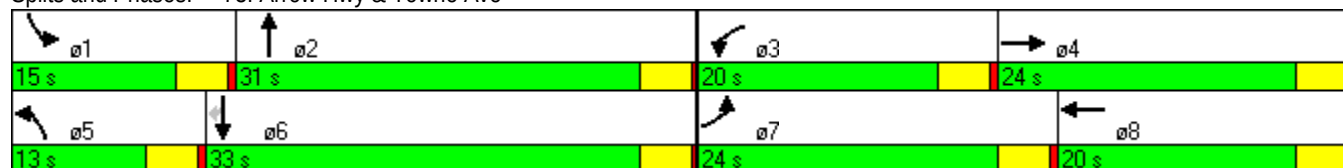
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 73: Arrow Hwy & Towne Ave



Gold Line Foothill Extension - Azusa to Montclair
74: Harrison Ave & Garey Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	6	33	84	21	77	37	862	73	55	609	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	150		50	150		50
Storage Lanes	0		1	0		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1792	1583	0	1792	1583	1770	3539	1583	1770	3539	1583
Flt Permitted		0.723			0.746		0.400			0.281		
Satd. Flow (perm)	0	1347	1583	0	1390	1583	745	3539	1583	523	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			36			84			64			43
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		633			1223			1056			581	
Travel Time (s)		14.4			27.8			24.0			13.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	34	36	0	114	84	40	937	79	60	662	43
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	37.0	37.0	37.0	37.0	37.0	37.0
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
Act Effect Green (s)		9.4	9.4		9.4	9.4	20.9	20.9	20.9	20.9	20.9	20.9
Actuated g/C Ratio		0.28	0.28		0.28	0.28	0.63	0.63	0.63	0.63	0.63	0.63
v/c Ratio		0.09	0.08		0.29	0.17	0.09	0.42	0.08	0.18	0.30	0.04
Control Delay		13.5	6.5		15.4	5.4	5.1	5.7	2.2	6.5	5.0	2.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.5	6.5		15.4	5.4	5.1	5.7	2.2	6.5	5.0	2.0
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		9.9			11.1			5.4			5.0	
Approach LOS		A			B			A			A	
Queue Length 50th (ft)		5	0		17	0	3	47	1	5	30	0
Queue Length 95th (ft)		25	16		63	25	14	104	13	22	68	9
Internal Link Dist (ft)		553			1143			976			501	
Turn Bay Length (ft)							150		50	150		50
Base Capacity (vph)		828	987		855	1006	664	3154	1418	466	3154	1416
Starvation Cap Reductn		0	0		0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0		0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0		0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.04	0.04		0.13	0.08	0.06	0.30	0.06	0.13	0.21	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 5.9

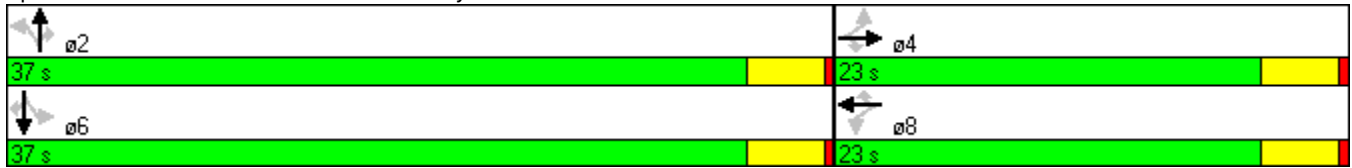
Intersection LOS: A

Intersection Capacity Utilization 49.6%

ICU Level of Service A

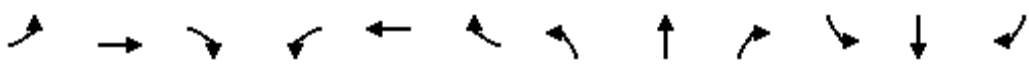
Analysis Period (min) 15

Splits and Phases: 74: Harrison Ave & Garey Ave



Gold Line Foothill Extension - Azusa to Montclair
75: Bonita Ave & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	99	153	129	64	143	82	100	597	47	49	515	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	50		50	50		50	100		100
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.659			0.652			0.391			0.327		
Satd. Flow (perm)	1228	1863	1583	1215	1863	1583	728	1863	1583	609	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			140			89			35			63
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5290			1455			664			521	
Travel Time (s)		120.2			33.1			15.1			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	108	166	140	70	155	89	109	649	51	53	560	63
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)	10.6	10.6	10.6	10.6	10.6	10.6	23.8	23.8	23.8	23.8	23.8	23.8
Actuated g/C Ratio	0.28	0.28	0.28	0.28	0.28	0.28	0.64	0.64	0.64	0.64	0.64	0.64
v/c Ratio	0.31	0.31	0.25	0.20	0.29	0.17	0.23	0.54	0.05	0.14	0.47	0.06
Control Delay	17.4	16.2	5.2	16.1	16.0	5.6	6.8	8.3	2.7	6.0	7.3	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	16.2	5.2	16.1	16.0	5.6	6.8	8.3	2.7	6.0	7.3	1.8
LOS	B	B	A	B	B	A	A	A	A	A	A	A
Approach Delay		12.8			13.1			7.7			6.7	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)	18	27	0	11	25	0	10	74	1	4	60	0
Queue Length 95th (ft)	69	93	35	48	88	28	39	207	12	21	167	11
Internal Link Dist (ft)		5210			1375			584			441	
Turn Bay Length (ft)	100			50		50	50		50	100		100
Base Capacity (vph)	635	964	887	629	964	862	640	1637	1395	535	1637	1399
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.16	0.11	0.16	0.10	0.17	0.40	0.04	0.10	0.34	0.05

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 9.1

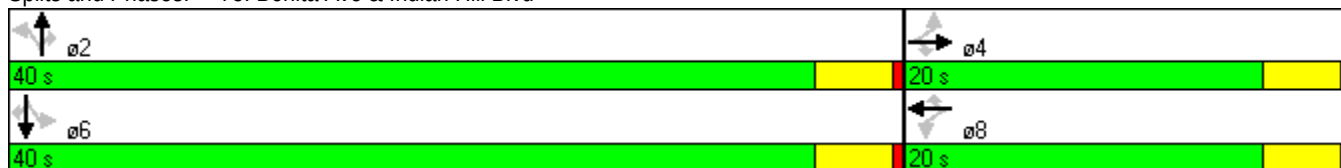
Intersection LOS: A

Intersection Capacity Utilization 61.1%

ICU Level of Service B

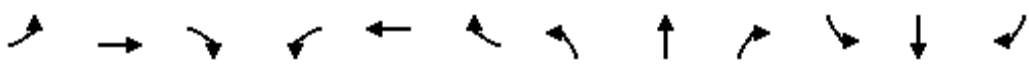
Analysis Period (min) 15

Splits and Phases: 75: Bonita Ave & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair
76: First St & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	30	80	169	48	129	82	598	212	44	616	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	40		50	160		50	100		0	50		50
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1840	0
Flt Permitted	0.723			0.736			0.950			0.950		
Satd. Flow (perm)	1347	1863	1583	1371	1863	1583	1770	1863	1583	1770	1840	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			87			140			230			9
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		608			1452			504			664	
Travel Time (s)		13.8			33.0			11.5			15.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	22	33	87	184	52	140	89	650	230	48	727	0
Turn Type	Perm		Perm	Perm		Perm	Prot		Perm	Prot		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8			2			
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	9.0	32.0	32.0	8.0	31.0	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
Act Effect Green (s)	12.5	12.5	12.5	13.1	13.1	13.1	6.2	30.2	30.2	5.0	27.9	
Actuated g/C Ratio	0.25	0.25	0.25	0.27	0.27	0.27	0.13	0.62	0.62	0.10	0.57	
v/c Ratio	0.06	0.07	0.19	0.50	0.10	0.27	0.39	0.57	0.22	0.27	0.69	
Control Delay	17.3	17.2	6.0	24.4	17.6	5.5	33.9	13.5	2.3	30.4	18.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	17.3	17.2	6.0	24.4	17.6	5.5	33.9	13.5	2.3	30.4	18.6	
LOS	B	B	A	C	B	A	C	B	A	C	B	
Approach Delay		10.3			16.4			12.7			19.3	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	6	9	0	56	14	0	30	157	0	16	195	
Queue Length 95th (ft)	21	26	28	111	37	35	#89	#306	30	#47	#428	
Internal Link Dist (ft)		528			1372			424			584	
Turn Bay Length (ft)	40		50	160		50	100			50		
Base Capacity (vph)	549	759	696	559	759	728	226	1144	1061	180	1072	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	
Reduced v/c Ratio	0.04	0.04	0.13	0.33	0.07	0.19	0.39	0.57	0.22	0.27	0.68	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 15.4

Intersection LOS: B

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 76: First St & Indian Hill Blvd



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

77: Santa Fe St & Indian Hill Blvd

PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	91	0	0	21	12	874	2	0	857	5
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	99	0	0	23	13	950	2	0	932	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								1144			504	
pX, platoon unblocked	0.83	0.83		0.83	0.83	0.83				0.83		
vC, conflicting volume	1458	1912	468	1541	1913	475	937			952		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1140	1688	468	1240	1689	0	937			530		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	82	100	100	97	98			100		
cM capacity (veh/h)	124	75	541	88	75	899	727			857		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2				
Volume Total	99	23	13	475	475	2	466	471				
Volume Left	0	0	13	0	0	0	0	0				
Volume Right	99	23	0	0	0	2	0	5				
cSH	541	899	727	1700	1700	1700	857	1700				
Volume to Capacity	0.18	0.03	0.02	0.28	0.28	0.00	0.00	0.28				
Queue Length 95th (ft)	17	2	1	0	0	0	0	0				
Control Delay (s)	13.1	9.1	10.0	0.0	0.0	0.0	0.0	0.0				
Lane LOS	B	A	B									
Approach Delay (s)	13.1	9.1	0.1	0.0								
Approach LOS	B	A										
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			42.8%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
78: Arrow Hwy & Indian Hill Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	134	1092	156	127	447	62	140	696	136	121	623	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			170			67			148			101
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5291			1470			707			1144	
Travel Time (s)		120.3			33.4			16.1			26.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	146	1187	170	138	486	67	152	757	148	132	677	101
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Total Split (s)	18.0	37.0	37.0	13.0	32.0	32.0	14.0	28.0	28.0	12.0	26.0	26.0
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
Act Effect Green (s)	11.7	32.4	32.4	8.9	29.6	29.6	9.7	22.9	22.9	8.0	21.2	21.2
Actuated g/C Ratio	0.13	0.37	0.37	0.10	0.34	0.34	0.11	0.26	0.26	0.09	0.24	0.24
v/c Ratio	0.62	0.91	0.25	0.78	0.41	0.12	0.78	0.82	0.28	0.82	0.80	0.22
Control Delay	48.2	38.8	4.2	68.7	24.7	6.6	66.0	39.6	6.2	78.3	39.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.2	38.8	4.2	68.7	24.7	6.6	66.0	39.6	6.2	78.3	39.8	7.2
LOS	D	D	A	E	C	A	E	D	A	E	D	A
Approach Delay		35.8			31.7			38.7			41.8	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	79	333	0	78	112	0	85	211	0	75	189	0
Queue Length 95th (ft)	138	#466	40	#174	161	29	#184	280	44	#177	254	38
Internal Link Dist (ft)		5211			1390			627			1064	
Turn Bay Length (ft)												
Base Capacity (vph)	281	1327	700	181	1186	575	201	965	540	161	884	471
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.89	0.24	0.76	0.41	0.12	0.76	0.78	0.27	0.82	0.77	0.21

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 88.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 37.2

Intersection LOS: D

Intersection Capacity Utilization 76.5%

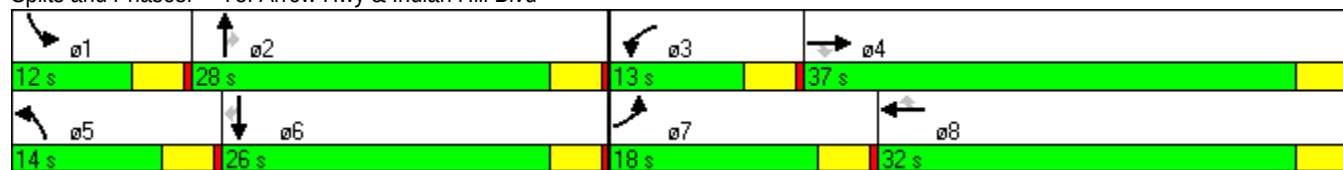
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 78: Arrow Hwy & Indian Hill Blvd



												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	76	14	52	45	42	78	31	234	10	8	242	34
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	83	15	57	49	46	85	34	254	11	9	263	37
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1							
Volume Total (vph)	154	179	288	11	309							
Volume Left (vph)	83	49	34	0	9							
Volume Right (vph)	57	85	0	11	37							
Hadj (s)	-0.08	-0.20	0.09	-0.67	-0.03							
Departure Headway (s)	5.9	5.7	6.0	5.3	5.5							
Degree Utilization, x	0.25	0.29	0.48	0.02	0.47							
Capacity (veh/h)	537	556	560	639	616							
Control Delay (s)	10.9	11.0	13.3	7.1	13.3							
Approach Delay (s)	10.9	11.0	13.1		13.3							
Approach LOS	B	B	B		B							
Intersection Summary												
Delay			12.4									
HCM Level of Service			B									
Intersection Capacity Utilization			48.6%			ICU Level of Service			A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
80: First St & College Ave

TSM Alternative
PM Peak Hour

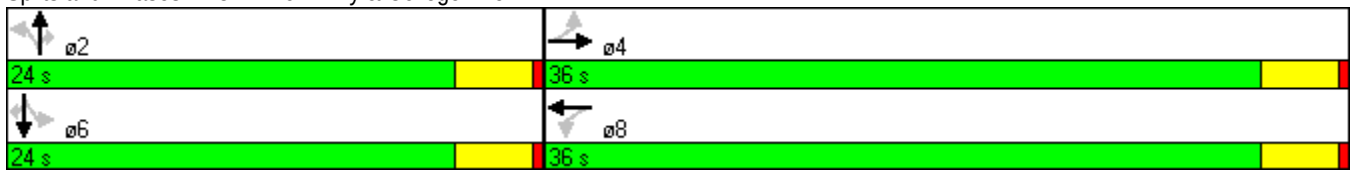
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	49	123	64	28	121	45	23	197	49	48	238	49
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	53	134	70	30	132	49	25	214	53	52	259	53
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total (vph)	120	136	162	49	239	53	311	53				
Volume Left (vph)	53	0	30	0	25	0	52	0				
Volume Right (vph)	0	70	0	49	0	53	0	53				
Hadj (s)	0.26	-0.32	0.13	-0.67	0.09	-0.67	0.12	-0.67				
Departure Headway (s)	7.0	6.4	6.9	6.1	6.5	5.8	6.5	5.7				
Degree Utilization, x	0.23	0.24	0.31	0.08	0.43	0.09	0.56	0.08				
Capacity (veh/h)	481	523	484	539	516	581	535	597				
Control Delay (s)	10.9	10.2	11.8	8.5	13.3	8.1	16.1	8.0				
Approach Delay (s)	10.5		11.1		12.3		14.9					
Approach LOS	B		B		B		B					
Intersection Summary												
Delay			12.5									
HCM Level of Service			B									
Intersection Capacity Utilization			54.9%	ICU Level of Service					A			
Analysis Period (min)			15									

Gold Line Foothill Extension - Azusa to Montclair
81: Arrow Hwy & College Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1050	31	24	586	76	16	49	33	110	104	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3525	0	1770	3479	0	0	1840	1583	1770	1863	1583
Flt Permitted	0.375			0.198				0.908		0.711		
Satd. Flow (perm)	699	3525	0	369	3479	0	0	1691	1583	1324	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7			36				36			125
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1470			2700			663			1651	
Travel Time (s)		33.4			61.4			15.1			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1175	0	26	720	0	0	70	36	120	113	125
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	36.0	36.0	0.0	36.0	36.0	0.0	24.0	24.0	24.0	24.0	24.0	24.0
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
Act Effect Green (s)	25.7	25.7		25.7	25.7			10.7	10.7	10.7	10.7	10.7
Actuated g/C Ratio	0.66	0.66		0.66	0.66			0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.18	0.51		0.11	0.31			0.15	0.08	0.33	0.22	0.24
Control Delay	6.4	6.7		6.5	5.1			15.2	6.8	17.9	15.7	5.2
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	6.4	6.7		6.5	5.1			15.2	6.8	17.9	15.7	5.2
LOS	A	A		A	A			B	A	B	B	A
Approach Delay		6.7			5.1			12.4			12.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	72		2	35			13	0	23	21	0
Queue Length 95th (ft)	32	166		14	84			42	17	69	61	31
Internal Link Dist (ft)		1390			2620			583			1571	
Turn Bay Length (ft)												
Base Capacity (vph)	551	2778		291	2748			960	914	751	1057	952
Starvation Cap Reductn	0	0		0	0			0	0	0	0	0
Spillback Cap Reductn	0	0		0	0			0	0	0	0	0
Storage Cap Reductn	0	0		0	0			0	0	0	0	0
Reduced v/c Ratio	0.15	0.42		0.09	0.26			0.07	0.04	0.16	0.11	0.13
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 39.2												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.51												
Intersection Signal Delay: 7.3	Intersection LOS: A											
Intersection Capacity Utilization 56.1%	ICU Level of Service B											
Analysis Period (min) 15												

Splits and Phases: 81: Arrow Hwy & College Ave



Gold Line Foothill Extension - Azusa to Montclair
82: First St & Claremont Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	2	149	3	2	0	72	261	3	3	278	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1863	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.757			0.757			0.645			0.645		
Satd. Flow (perm)	1410	1863	1583	1410	1863	0	1201	3539	1583	1201	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			162						3			100
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3038			542			1082			972	
Travel Time (s)		69.0			12.3			24.6			22.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	178	2	162	3	2	0	78	284	3	3	302	100
Turn Type	Perm		Perm	Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2		2	6		6
Total Split (s)	31.0	31.0	31.0	31.0	31.0	0.0	29.0	29.0	29.0	29.0	29.0	29.0
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
Act Effect Green (s)	11.3	11.3	11.3	9.3	9.3		10.9	10.9	10.9	9.0	9.0	9.0
Actuated g/C Ratio	0.48	0.48	0.48	0.40	0.40		0.47	0.47	0.47	0.39	0.39	0.39
v/c Ratio	0.26	0.00	0.19	0.01	0.00		0.14	0.17	0.00	0.01	0.22	0.15
Control Delay	7.7	6.0	2.3	6.0	6.0		7.5	6.6	5.0	6.7	6.8	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.7	6.0	2.3	6.0	6.0		7.5	6.6	5.0	6.7	6.8	2.8
LOS	A	A	A	A	A		A	A	A	A	A	A
Approach Delay		5.1			6.0			6.8			5.8	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	13	0	0	0	0		6	11	0	0	12	0
Queue Length 95th (ft)	46	2	18	3	2		25	32	3	3	34	15
Internal Link Dist (ft)		2958			462			1002			892	
Turn Bay Length (ft)												
Base Capacity (vph)	1352	1786	1524	1352	1786		1120	3302	1477	1120	3302	1483
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.00	0.11	0.00	0.00		0.07	0.09	0.00	0.00	0.09	0.07

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 23.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.26

Intersection Signal Delay: 5.9

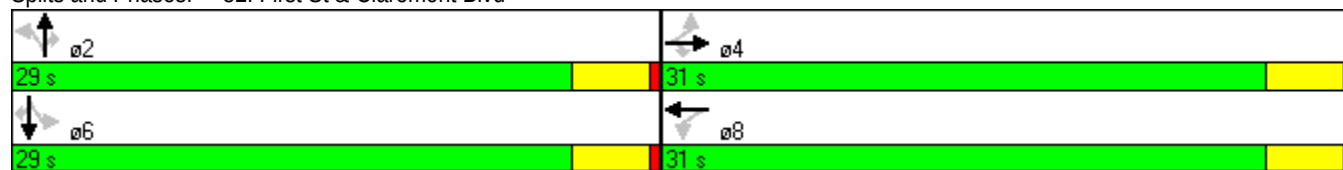
Intersection LOS: A

Intersection Capacity Utilization 37.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 82: First St & Claremont Blvd



Gold Line Foothill Extension - Azusa to Montclair
83: Arrow Hwy & Claremont Blvd

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	1009	50	42	454	85	62	164	27	94	154	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3514	0	1770	3454	0	1770	3465	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			35			29				117
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2700			2592			870			1082	
Travel Time (s)		61.4			58.9			19.8			24.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	125	1151	0	46	585	0	67	207	0	102	167	117
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	11.0	23.0	0.0	8.0	20.0	0.0	8.0	21.0	0.0	8.0	21.0	21.0
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
Act Effect Green (s)	7.0	21.7		4.2	16.3		4.2	9.6		4.8	11.4	11.4
Actuated g/C Ratio	0.14	0.45		0.09	0.34		0.09	0.20		0.10	0.24	0.24
v/c Ratio	0.49	0.73		0.30	0.49		0.44	0.29		0.59	0.38	0.25
Control Delay	30.7	18.8		29.9	16.3		36.5	16.1		44.9	20.2	6.0
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	30.7	18.8		29.9	16.3		36.5	16.1		44.9	20.2	6.0
LOS	C	B		C	B		D	B		D	C	A
Approach Delay		20.0			17.3			21.1			22.4	
Approach LOS		B			B			C			C	
Queue Length 50th (ft)	35	123		13	73		20	24		31	45	0
Queue Length 95th (ft)	#102	#340		43	131		#71	48		#112	92	32
Internal Link Dist (ft)		2620			2512			790			1002	
Turn Bay Length (ft)												
Base Capacity (vph)	265	1580		152	1270		152	1281		174	679	651
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.47	0.73		0.30	0.46		0.44	0.16		0.59	0.25	0.18

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 48.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 19.8

Intersection LOS: B

Intersection Capacity Utilization 57.7%

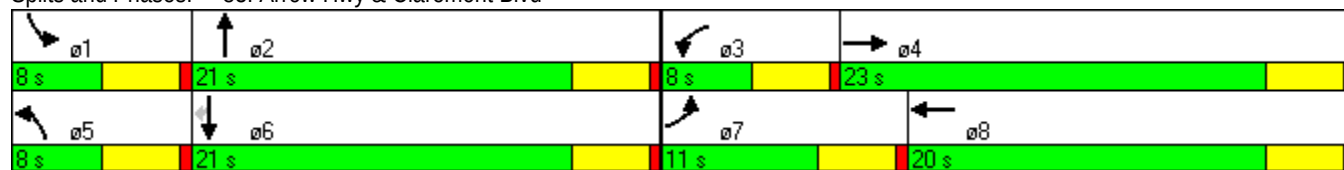
ICU Level of Service B

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 83: Arrow Hwy & Claremont Blvd

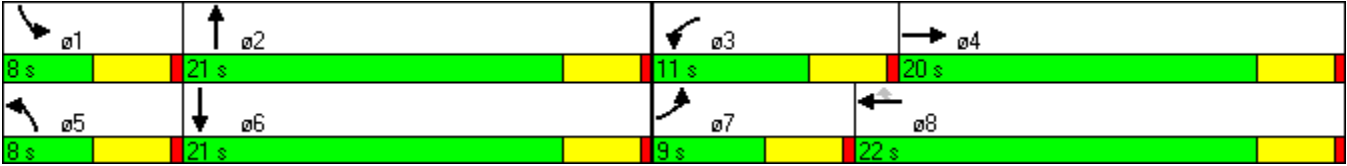


Gold Line Foothill Extension - Azusa to Montclair
84: Arrow Route & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	221	74	90	148	56	55	833	98	40	630	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3405	0	1770	1863	1583	3433	5004	0	1770	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74				61		34			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		847			2633			1673			712	
Travel Time (s)		19.3			59.8			38.0			16.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	320	0	98	161	61	60	1012	0	43	709	0
Turn Type	Prot			Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						
Total Split (s)	9.0	20.0	0.0	11.0	22.0	22.0	8.0	21.0	0.0	8.0	21.0	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
Act Effct Green (s)	5.6	9.5		7.3	12.1	12.1	4.5	16.8		4.5	15.4	
Actuated g/C Ratio	0.13	0.22		0.17	0.28	0.28	0.10	0.39		0.10	0.36	
v/c Ratio	0.19	0.39		0.33	0.31	0.13	0.17	0.51		0.23	0.39	
Control Delay	25.0	14.7		24.3	16.7	6.3	24.4	12.9		27.1	13.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	25.0	14.7		24.3	16.7	6.3	24.4	12.9		27.1	13.4	
LOS	C	B		C	B	A	C	B		C	B	
Approach Delay		16.0			17.1			13.6			14.2	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)	12	33		27	29	0	8	68		12	61	
Queue Length 95th (ft)	41	67		71	87	23	25	145		41	100	
Internal Link Dist (ft)		767			2553			1593			632	
Turn Bay Length (ft)												
Base Capacity (vph)	232	1469		324	893	790	359	2339		185	2257	
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	
Reduced v/c Ratio	0.19	0.22		0.30	0.18	0.08	0.17	0.43		0.23	0.31	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 43.1												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.51												
Intersection Signal Delay: 14.6						Intersection LOS: B						
Intersection Capacity Utilization 48.4%						ICU Level of Service A						
Analysis Period (min) 15												

Splits and Phases: 84: Arrow Route & Monte Vista Ave

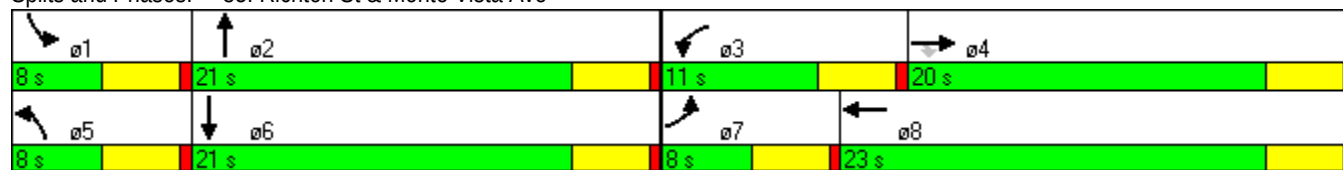


Gold Line Foothill Extension - Azusa to Montclair
85: Richton St & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	0	0	102	0	104	1	877	69	51	751	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	1863	1770	3008	0	1770	5029	0	3433	5085	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					353			21				
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		308			2614			1004			1673	
Travel Time (s)		7.0			59.4			22.8			38.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	0	0	111	113	0	1	1028	0	55	817	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	8.0	20.0	20.0	11.0	23.0	0.0	8.0	21.0	0.0	8.0	21.0	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
Act Effect Green (s)	5.1			9.0	7.5		5.1	19.7		5.1	20.8	
Actuated g/C Ratio	0.17			0.30	0.25		0.17	0.67		0.17	0.70	
v/c Ratio	0.00			0.21	0.11		0.00	0.31		0.09	0.23	
Control Delay	18.0			13.1	0.2		18.0	6.5		17.1	5.2	
Queue Delay	0.0			0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.0			13.1	0.2		18.0	6.5		17.1	5.2	
LOS	B			B	A		B	A		B	A	
Approach Delay					6.6			6.5			5.9	
Approach LOS					A			A			A	
Queue Length 50th (ft)	0			16	0		0	28		4	22	
Queue Length 95th (ft)	4			51	0		4	107		20	84	
Internal Link Dist (ft)		228			2534			924			1593	
Turn Bay Length (ft)												
Base Capacity (vph)	305			583	2200		305	3338		591	3572	
Starvation Cap Reductn	0			0	0		0	0		0	0	
Spillback Cap Reductn	0			0	0		0	0		0	0	
Storage Cap Reductn	0			0	0		0	0		0	0	
Reduced v/c Ratio	0.00			0.19	0.05		0.00	0.31		0.09	0.23	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 29.6												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.31												
Intersection Signal Delay: 6.3	Intersection LOS: A											
Intersection Capacity Utilization 40.8%	ICU Level of Service A											
Analysis Period (min) 15												

Splits and Phases: 85: Richton St & Monte Vista Ave



Gold Line Foothill Extension - Azusa to Montclair
86: Arrow Hwy & Monte Vista Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	837	218	46	337	99	144	681	60	104	659	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	3429	0	3433	4912	0	1770	3497	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		42			89			11				116
Link Speed (mph)		30			30			30				30
Link Distance (ft)		2592			1304			811			1004	
Travel Time (s)		58.9			29.6			18.4			22.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	1147	0	50	474	0	157	805	0	113	716	116
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												6
Total Split (s)	12.0	38.0	0.0	8.0	34.0	0.0	15.0	32.0	0.0	12.0	29.0	29.0
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
Act Effect Green (s)	7.9	31.2		4.1	23.5		10.5	24.5		8.0	22.0	22.0
Actuated g/C Ratio	0.10	0.39		0.05	0.29		0.13	0.30		0.10	0.27	0.27
v/c Ratio	0.51	0.84		0.28	0.32		0.68	0.75		0.65	0.74	0.22
Control Delay	43.2	29.8		45.3	18.2		53.0	30.6		57.4	32.9	6.5
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	43.2	29.8		45.3	18.2		53.0	30.6		57.4	32.9	6.5
LOS	D	C		D	B		D	C		E	C	A
Approach Delay		31.5			20.8			34.3			32.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	48	302		14	57		87	210		64	193	0
Queue Length 95th (ft)	81	#407		32	83		#179	279		#147	258	39
Internal Link Dist (ft)		2512			1224			731			924	
Turn Bay Length (ft)												
Base Capacity (vph)	352	1520		176	1946		250	1264		182	1135	587
Starvation Cap Reductn	0	0		0	0		0	0		0	0	0
Spillback Cap Reductn	0	0		0	0		0	0		0	0	0
Storage Cap Reductn	0	0		0	0		0	0		0	0	0
Reduced v/c Ratio	0.49	0.75		0.28	0.24		0.63	0.64		0.62	0.63	0.20

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 80.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 31.0

Intersection LOS: C

Intersection Capacity Utilization 73.3%

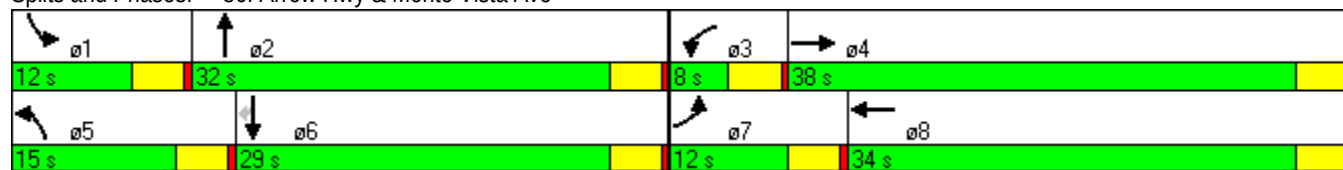
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 86: Arrow Hwy & Monte Vista Ave

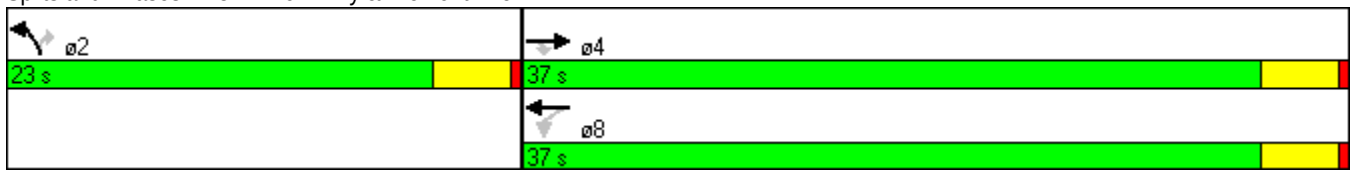


Gold Line Foothill Extension - Azusa to Montclair
87: Arrow Hwy & Fremont Ave

TSM Alternative
PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Volume (vph)	916	74	49	403	62	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	3539	1583	1770	3539	1770	1583
Flt Permitted			0.276		0.950	
Satd. Flow (perm)	3539	1583	514	3539	1770	1583
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		80				85
Link Speed (mph)	30			30	30	
Link Distance (ft)	1304			1304	1147	
Travel Time (s)	29.6			29.6	26.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Lane Group Flow (vph)	996	80	53	438	67	85
Turn Type		Perm	Perm			Perm
Protected Phases	4			8	2	
Permitted Phases		4	8			2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Act Effct Green (s)	22.1	22.1	22.1	22.1	8.0	8.0
Actuated g/C Ratio	0.75	0.75	0.75	0.75	0.27	0.27
v/c Ratio	0.38	0.07	0.14	0.17	0.14	0.17
Control Delay	3.9	1.3	4.7	3.1	13.7	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	1.3	4.7	3.1	13.7	5.7
LOS	A	A	A	A	B	A
Approach Delay	3.7			3.3	9.2	
Approach LOS	A			A	A	
Queue Length 50th (ft)	44	0	4	15	9	0
Queue Length 95th (ft)	86	9	16	34	40	26
Internal Link Dist (ft)	1224			1224	1067	
Turn Bay Length (ft)						
Base Capacity (vph)	3262	1465	474	3262	1245	1139
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.05	0.11	0.13	0.05	0.07
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length: 29.5						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.38						
Intersection Signal Delay: 4.1				Intersection LOS: A		
Intersection Capacity Utilization 42.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 87: Arrow Hwy & Fremont Ave

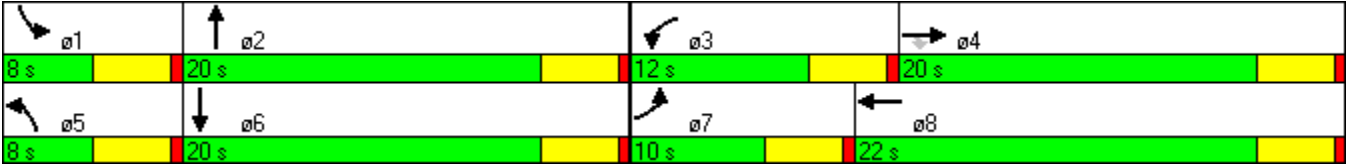


Gold Line Foothill Extension - Azusa to Montclair
88: Arrow Route & Central Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	62	267	101	209	319	44	63	736	208	68	825	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5019	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4994	0	1770	4917	0	1770	5019	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			110		42			116			24	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2633			880			1659			508	
Travel Time (s)		59.8			20.0			37.7			11.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	290	110	227	395	0	68	1026	0	74	979	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	12.0	22.0	0.0	8.0	20.0	0.0	8.0	20.0	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
Act Effct Green (s)	6.0	10.1	10.1	8.2	16.8		4.1	15.2		4.1	16.8	
Actuated g/C Ratio	0.12	0.19	0.19	0.16	0.32		0.08	0.29		0.08	0.32	
v/c Ratio	0.33	0.42	0.28	0.81	0.24		0.49	0.67		0.53	0.60	
Control Delay	28.1	20.9	6.7	50.7	14.1		40.1	17.4		42.8	17.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	28.1	20.9	6.7	50.7	14.1		40.1	17.4		42.8	17.1	
LOS	C	C	A	D	B		D	B		D	B	
Approach Delay		18.6			27.5			18.8			18.9	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	20	43	0	72	34		21	90		23	94	
Queue Length 95th (ft)	55	73	32	#196	56		#74	146		#80	149	
Internal Link Dist (ft)		2553			800			1579			428	
Turn Bay Length (ft)												
Base Capacity (vph)	210	1118	575	279	1869		140	1632		140	1753	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.26	0.19	0.81	0.21		0.49	0.63		0.53	0.56	
Intersection Summary												
Area Type:	Other											
Cycle Length: 60												
Actuated Cycle Length: 51.8												
Control Type: Actuated-Uncoordinated												
Maximum v/c Ratio: 0.81												
Intersection Signal Delay: 20.5					Intersection LOS: C							
Intersection Capacity Utilization 54.9%					ICU Level of Service A							
Analysis Period (min) 15												
# 95th percentile volume exceeds capacity, queue may be longer.												
Queue shown is maximum after two cycles.												

Splits and Phases: 88: Arrow Route & Central Ave



Gold Line Foothill Extension - Azusa to Montclair
89: Richton St & Central Ave

TSM Alternative
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	69	109	98	117	42	101	875	58	45	1037	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1863	1583	1770	1788	0	1770	3539	1583	1770	5060	0
Flt Permitted	0.635			0.708			0.174			0.287		
Satd. Flow (perm)	1183	1863	1583	1319	1788	0	324	3539	1583	535	5060	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			118		30				63		10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2614			974			1060			1659	
Travel Time (s)		59.4			22.1			24.1			37.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	75	118	107	173	0	110	951	63	49	1164	0
Turn Type	Perm		Perm	Perm			pm+pt		Perm	pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		
Total Split (s)	20.0	20.0	20.0	20.0	20.0	0.0	10.0	32.0	32.0	8.0	30.0	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
Act Effect Green (s)	11.1	11.1	11.1	11.2	11.2		27.7	28.4	28.4	24.2	23.9	
Actuated g/C Ratio	0.25	0.25	0.25	0.25	0.25		0.63	0.64	0.64	0.55	0.54	
v/c Ratio	0.35	0.16	0.24	0.32	0.36		0.24	0.42	0.06	0.11	0.42	
Control Delay	21.5	17.8	5.8	20.6	17.3		5.7	8.1	3.1	5.2	10.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	21.5	17.8	5.8	20.6	17.3		5.7	8.1	3.1	5.2	10.3	
LOS	C	B	A	C	B		A	A	A	A	B	
Approach Delay		14.4			18.6			7.6			10.1	
Approach LOS		B			B			A			B	
Queue Length 50th (ft)	26	18	0	26	35		10	55	0	4	82	
Queue Length 95th (ft)	68	48	32	68	87		32	174	16	17	142	
Internal Link Dist (ft)		2534			894			980			1579	
Turn Bay Length (ft)												
Base Capacity (vph)	534	842	780	596	824		465	2304	1053	442	3087	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.19	0.09	0.15	0.18	0.21		0.24	0.41	0.06	0.11	0.38	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 44.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 10.4

Intersection LOS: B

Intersection Capacity Utilization 54.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 89: Richton St & Central Ave



Gold Line Foothill Extension - Azusa to Montclair

TSM Alternative

90: Arrow Hwy & Central Ave

PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	599	202	162	281	55	127	856	114	88	937	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5009	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	3539	1583	1770	4958	0	1770	4994	0	1770	5009	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			220		60			39			29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1304			498			1113			1060	
Travel Time (s)		29.6			11.3			25.3			24.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	171	651	220	176	365	0	138	1054	0	96	1127	0
Turn Type	Prot		Perm	Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4									
Total Split (s)	10.0	20.0	20.0	11.0	21.0	0.0	9.0	20.0	0.0	9.0	20.0	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
Act Effect Green (s)	6.0	15.2	15.2	7.0	16.2		5.0	17.9		5.0	16.0	
Actuated g/C Ratio	0.10	0.26	0.26	0.12	0.27		0.08	0.30		0.08	0.27	
v/c Ratio	0.96	0.72	0.39	0.84	0.26		0.92	0.69		0.64	0.82	
Control Delay	89.2	25.1	5.3	62.1	14.4		89.1	21.3		49.3	26.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	89.2	25.1	5.3	62.1	14.4		89.1	21.3		49.3	26.3	
LOS	F	C	A	E	B		F	C		D	C	
Approach Delay		31.4			29.9			29.2			28.1	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	63	111	0	64	30		51	123		35	136	
Queue Length 95th (ft)	#168	162	43	#162	50		#144	167		#98	#192	
Internal Link Dist (ft)		1224			418			1033			980	
Turn Bay Length (ft)												
Base Capacity (vph)	179	956	588	210	1466		150	1536		150	1374	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.96	0.68	0.37	0.84	0.25		0.92	0.69		0.64	0.82	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 59.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 29.5

Intersection LOS: C

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: Arrow Hwy & Central Ave

 ø1	 ø2	 ø3	 ø4
9 s	20 s	11 s	20 s
 ø5	 ø6	 ø7	 ø8
9 s	20 s	10 s	21 s

Appendix F

Grade Crossing Analysis Report

GRADE CROSSING ANALYSIS FOR THE METRO GOLD LINE FOOTHILL EXTENSION AZUSA TO MONTCLAIR (USING MTA GRADE CROSSING POLICY FOR LIGHT RAIL TRANSIT)



PREPARED FOR:

Metro Gold Line Foothill Extension Construction Authority



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INTRODUCTION

This report presents the operation and safety assessment for light rail crossings along the Metro Gold Line Foothill Extension Azusa to Montclair alignment. This alignment (City of Azusa to City of Montclair) contains 29 LRT crossings, including 26 existing at-grade rail crossings, one existing grade-separated location and two existing at-grade locations that would become grade-separated with the current corridor design. This document includes the Milestone 1 (initial screening) and Milestone 2 (detailed analysis) based on the application of the Metropolitan Transportation Authority's (Metro) Policy for Grade Crossing for Light Rail Transit (December 4, 2003).

METRO GRADE CROSSING POLICY

The Grade Crossing Policy for Light Rail Transit was adopted by Metro in December 2003. In 2004, the Gold Line Authority Board, JPA, and TAC adopted the policy for use on the Foothill Extension project. The Grade Crossing Policy for Light Rail Transit is intended to provide a structured process for the evaluation of potential grade separations versus at-grade operation along light rail lines. The purpose of the policy is to provide a process that addresses all of the principal concerns and clarifies the trade-offs involved in grade separation decisions. The policy includes up to three sequential phases of review and three corresponding milestones that would take place before arriving at a final decision on a crossing treatment. The review process is summarized below:

- Initial Screening (Milestone 1) – The first step is a planning-level assessment to categorize the grade crossings based on the roadway volumes conflicting with the LRT operations and train frequencies. Each grade crossing is assigned to one of three groups: “At-Grade Should be Feasible,” “Possible At-Grade Operation,” and “Grade Separation Usually Required.” When a crossing is identified as “At-Grade Should be Feasible,” detailed engineering-level operational and safety analyses can still be triggered for (1) gated crossings with traffic pre-emption and (2) locations with salient geometry or safety issues.
- Detailed Analysis (Milestone 2) – The second step is to provide a further safety and operational analysis to evaluate the potential impacts of LRT train operations (such as pre-emption or signal priority) on traffic delay and cross-street progression. This evaluation takes into account peak period, movement-by-movement analysis of roadway traffic in conjunction with an assessment of potential impacts to rail operations due to priority control. The result is a preliminary determination of locations that may be operated at-grade versus grade-separated. This analysis may also identify potential operational impacts or safety concerns as a result of LRT train operations and possible mitigation measures for safety enhancements.
- Verification (Milestone 3) – This is the final step before determining the adequacy of an at-grade crossing design and recommending whether a grade separation should be required. This analysis would only be required if an agreement regarding the proposed final design solutions cannot be obtained from Metro and local constituencies (including other involved agencies and the community as appropriate) due to concerns relating to safety, cost, operations, policy, and/or community desires). This step includes consensus-building on the design solution, preliminary engineering studies, cost estimates for alternatives, and simulation modeling to validate traffic volumes and rail operations.

Milestone 1 is usually undertaken during the preliminary planning for the project. Milestones 2 and 3 are typically undertaken during advanced conceptual/preliminary engineering and environmental clearance. The final decision should be secured in conjunction with the final engineering and/or design-build phase of the Project.

Appendix A contains *Grade Crossing Policy for Light Rail Transit* flow charts for the evaluation process and the Nomograph for Initial Screening.

PROPOSED LRT OPERATIONS

The Gold Line Foothill Extension from Azusa to Montclair is 12.6 miles long, connecting six cities (Azusa, Glendora, San Dimas, La Verne, Pomona, Claremont, and Montclair). A total of 29 LRT crossings were analyzed in the transit corridor based on Gold Line Foothill Extension Azusa to Montclair Preliminary Engineering (Parsons Brinckerhoff, January 2011). A portion of the proposed LRT alignment would operate parallel to the existing San Bernardino-Los Angeles Metrolink Commuter trains, providing service to three Metrolink stations at Pomona, Claremont Village, and Montclair. Table 1 provides the list of analyzed crossing locations.

Table 1. List of Analyzed Crossing Locations	
City	Crossing Intersections
Glendora	- Barranca Ave - Grand Ave/Foothill Bl - Vermont Ave/Ada Ave - Glendora Ave - Pasadena Ave - Glenwood Ave - Elwood Ave - Loraine Ave - Lone Hill Ave/Auto Center Dr
San Dimas	- Gladstone St - Eucla St - Cataract Ave/Bonita Ave - Monte Vista Ave - San Dimas Ave - Walnut Ave - San Dimas Canyon Rd
La Verne	- Wheeler Ave - A St - D St - E St - White Ave
Pomona	- Fulton Rd - Garey Ave - Towne Ave
Claremont	- Cambridge Ave - Indian Hill Bl - College Ave - Claremont Bl/South Mill Rd
Montclair	Monte Vista Ave

For the purposes of this analysis, peak hour headways of 10 minutes were assumed for the project, resulting in six trains per hour in each direction. It is understood that the segment of the alignment between La Verne and Montclair would operate parallel to the existing San Bernardino-Los Angeles Metrolink commuter trains. In the PM peak hour, there are four eastbound trains (peak direction) to San Bernardino operating at 20 minutes during the peak (four trains per hour) and one westbound train to the Los Angeles Union Station every hour. In the AM peak hour, there are four westbound trains and one eastbound train. This study has taken into consideration the future proposed design headways for Metrolink trains, with 15-minute headway for the peak commute direction during the peak hour and one train for the non-peak every hour. This translates into a maximum of five Metrolink trains per hour for the peak direction during the peak hour (for example, 5:00 PM, 5:15 PM, 5:30 PM, 5:45 PM, and 6:00 PM). This segment, with the dual track alignment, accounts for a combined total of 11 trains per direction in the peak hour.

According to the 2007 FEIR/FEIS "Railroad Operations" chapter, "There is presently one weekly freight train between Monrovia (Magnolia Avenue) and Irwindale (Miller Brewery) and one train six days a week between Irwindale and Kaiser Yard in Fontana, the originating point." In April 2011, the Metro Gold Line Foothill Extension Construction Authority announced the execution of an agreement between Metro and BNSF Railway that will result in BNSF abandoning their rights to use the corridor between the future Arcadia and Irwindale Stations along the Metro Gold Line Foothill Extension from Pasadena to Azusa. Therefore, both the Milestone 1 and Milestone 2 analysis assumed only one freight train will operate six days a week traveling through the project study corridor and terminating at the Miller Brewery in Irwindale. The 2007 FEIR/FEIS also states the BNSF Operating Rights "Freight service (with no restriction on the number of trains) may be run on this trackage except during the Pasadena Commuter Periods of 5:00 to 8:00 AM and 4:30 to 7:30 PM". Therefore, to be consistent with previous environmental documents, the Milestone 1 and Milestone 2 analysis assumed no freight train service would operate during the morning and afternoon peak periods in the project study corridor.

FUTURE TRAFFIC FORECASTS

This analysis also considered future intersection peak hour volumes for year 2035. This was based on annual growth factors derived from the Southern California Association of Governments' (SCAG) 2035 RTP model. The traffic forecasts obtained from the SCAG 2035 RTP were reviewed at and around the analyzed grade crossings during the peak period under year 2003 and 2035 conditions. A comparison of these forecasts indicates that the overall traffic growth in the vicinity of the project corridor is expected to range from approximately 14.3% to 21.9% from 2010 to 2035.

Table 2 shows the estimated annual traffic growth and the estimated overall growth for each of the local jurisdictions in the project corridor. These traffic growth factors were applied to year 2010 traffic volumes, at the analyzed crossings, to develop estimates for 2035.

Table 2. Annual Traffic Growth Rates		
City	Annual Traffic Growth Factor	Total Traffic Growth from Year 2010 to Year 2035
Glendora	0.7%	16.6%
San Dimas	0.9%	21.9%
La Verne	0.6%	14.3%
Pomona	0.7%	17.5%
Claremont	0.7%	17.0%
Montclair	0.7%	18.0%

MILESTONE 1 INITIAL SCREENING RESULTS

Table 3 presents the conflicting volumes for each of the 29 crossings in the analyzed Foothill Extension between Azusa and Montclair. These conflicting volumes were developed by factoring existing traffic count data from the nearest mid-block 24-hour tube count or peak period intersection count as available using engineering judgment to develop the best representation of roadway mid-block volumes at each crossing. These volumes were adjusted to include the potential park-and-ride traffic that may travel to/from the future LRT stations.

As shown in the far right column in Table 3, the maximum peak hour roadway volumes per lane affected by the conflicting LRT movements were estimated for each location under both existing year 2010 and future 2035 conditions. For typical “mid-block” grade crossings, the conflicting volume is the highest hourly per lane volume, northbound vs. southbound or eastbound vs. westbound, present at the grade crossing. Two of the analyzed crossings are diagonal crossings in which the trackway cuts across the intersection from corner to corner. For these crossing types, the conflict volume is the greater of the northbound vs. southbound plus the greater of the eastbound vs. westbound volume, as travel in all directions through the intersection conflicts with train movements.

Figure 1 presents the screening nomograph with all of the per lane traffic volumes from Table 3 at the 29 LRT crossings plotted vs. the projected train frequencies. As shown in Figure 1, the Milestone 1 screening finds that none of the 29 crossings exceed the “Threshold 3” line. This means that no grade separations are required for the analyzed crossing locations based on proposed train headways and the conflicting traffic volumes per hour per line.

The Lone Hill Avenue/Auto Center Drive (location 22) and the Towne Avenue crossing (location 42) are proposed to be grade-separated under the current corridor design. The analysis indicates that traffic volumes crossing the rail track would not trigger the grade separation at either location. In addition, the Monte Vista Avenue crossing (location 41) is currently grade-separated and would remain grade-separated (even though the analysis indicated that the traffic volumes crossing the rail track would not trigger the grade separation).

At Grade Operation should be Feasible (Volumes below Threshold 1 and 2)

As shown in Figure 1, if 11 trains per hour are assumed for combined LRT and Metrolink train operation in each direction, at-grade operation should be feasible at a crossing when conflicting roadway volumes fall under 580 vehicles if there is no salient geometry or safety issues. Where six trains per hour are assumed for the LRT train operations, at-grade operation should be feasible at a crossing when the conflicting roadway volumes fall under 680 vehicles.

The initial screening process indicates that at-grade operation “Should Be Feasible” at 23 of the 26 proposed at-grade crossing locations.

Based on the policy, when a crossing is identified as “At-Grade Should be Feasible,” detailed operational and safety analysis can still be triggered for the following two reasons:

- (1) Gated crossings with traffic pre-emption, and,
- (2) Locations with salient geometry or safety issues (e.g., diagonal crossing)

To understand the potential issues associated with each analyzed crossing, Fehr & Peers reviewed the summary of the public comments (Source: PB America, February 23, 2011) specific to grade crossing operations received during the recent project interagency coordination meeting, the four project public scoping meetings held in the cities of Pomona, Glendale, Claremont and San Dimas in January 2011, and those received during the public comment period on or before February 2, 2011. In addition, Fehr & Peers reviewed the summary of the comments received from the previous agency coordination meetings with the cities of Claremont, Glendora, La Verne, Montclair, Pomona and San Dimas and public comments included in the 2007 FEIS/FEIR (Chapter 13 – Response to Comments).

Based on consultation with the project team, one additional crossing location was identified by the Authority that need the Milestone 2 procedures applied to confirm the feasibility of operation at grade. This crossing is #25 – Cataract Avenue/Bonita Avenue (City of San Dimas).

The future conflicting volume crossing at this location was estimated to be below the Thresholds 1 and 2 indicating that at-grade crossing would be feasible. However, the diagonal crossing at Cataract Avenue and Bonita Avenue in the City of San Dimas would be reconfigured and signalized as part of the project design with the light rail project. Due to the complex geometry and potential safety issues, a detailed operational analysis was prepared based on the Grade Crossing Policy to assist the design process for this location.

Possible At-Grade Operation (Volumes exceed Threshold 1 and 2)

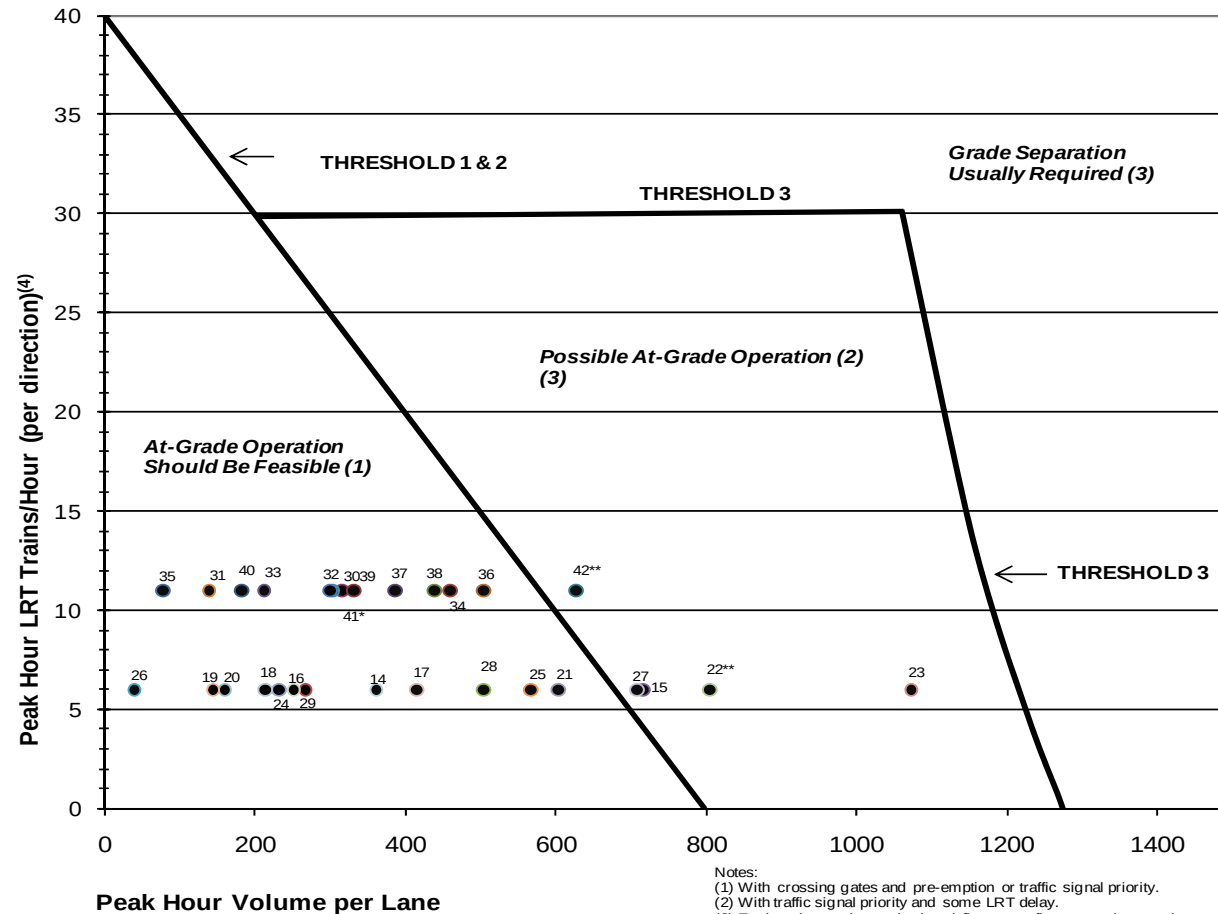
Figure 1 also indicates that at-grade operations are possible at the remaining three crossing locations that are expected to carry volumes crossing the rail track that would exceed the Threshold 2 volume levels, but would not exceed Threshold 3 volume levels required for grade separation. These three locations are:

- #15 – Grand Avenue/Foothill Boulevard (City of Glendora)
- #23 – Gladstone Street (City of San Dimas)
- #27 – San Dimas Avenue (City of San Dimas)

Based on the grade crossing policy, a detailed engineering study would be required at these three at-grade crossings before any determination is made on whether at-grade crossing is adequate or whether grade separation is required.

In summary, the Milestone 2 evaluation was applied for four crossing locations (#15, #23, #27, and #25) as highlighted in Table 4. The project team should continue to coordinate with local jurisdictions and CPUC and identify if there are any safety or traffic operations issues at the remaining 25 of 29 analyzed crossings.

Figure 1
Initial Screening Nomograph for Proposed LRT Crossing Intersections
Gold Line Foothill Extension 2B - Azusa (Citrus) to Montclair



Crossing ID	City	Crossing Intersection
14	Glendora	Barranca Ave
15	Glendora	Grand Ave/Foothill Bl
16	Glendora	Vermont Ave/Ada Ave
17	Glendora	Glendora Ave
18	Glendora	Pasadena Ave
19	Glendora	Glenwood Ave
20	Glendora	Elwood Ave
21	Glendora	Lorraine Ave
22	Glendora	Lone Hill Ave/Auto Center Dr
23	San Dimas	Gladstone St
24	San Dimas	Eucla St
25	San Dimas	Cataract Ave/Bonita Ave
26	San Dimas	Monte Vista Ave
27	San Dimas	San Dimas Ave
28	San Dimas	Walnut Ave
29	San Dimas	San Dimas Canyon Rd
30	La Verne	Wheeler Ave
31	La Verne	A St
32	La Verne	D St
33	La Verne	E St
34	La Verne	White Ave
35	Pomona	Fulton Rd
36	Pomona	Garey Ave
42	Pomona	Towne Ave
37	Claremont	Cambridge Ave
38	Claremont	Indian Hill Bl
39	Claremont	College Ave
40	Claremont	Claremont Bl/South Mill Rd
41	Montclair	Monte Vista Ave

Notes:

(1) With crossing gates and pre-emption or traffic signal priority.

(2) With traffic signal priority and some LRT delay.

(3) Engineering study required to define or confirm at grade operation.

(4) This analysis assumed a 10-minute headway (6 trains per hour) for the proposed project LRT operations, plus an additional five Metrolink commuter trains (4 eastbound and one westbound) per hour in the shared project corridor in the Cities of La Verne, Pomona, Claremont and Montclair.

*Monte Vista Avenue crossing (#41) is currently grade-separated and would remain grade-separated.

**Lone Hill Avenue/Auto Center Drive (#22) and Towne Avenue crossing (#42) are existing at-grade rail crossings. Both locations are proposed to be grade separated under the current corridor design.

Grade Crossing Detailed Analysis for the Metro Gold Line Foothill Extension Azusa to Montclair
Using MTA Grade Crossing Policy for Light Rail Transit
June 2011

TABLE 3. MILSTONE ONE ANALYSIS (INITIAL SCREENING) FOR PROPOSED LIGHT RAIL CROSSINGS

ID	City	Crossing Intersection	Type	# of Lanes by Direction				Total Number of Lanes	Existing 2010 Volumes per hour per Lane Crossing the Proposed LRT Tracks ^[3]				Total Growth Rates from Year 2010 to Year 2035				Future 2035 Volumes per Lane Crossing the Proposed LRT Tracks ^[4]				Trains per hour per direction	Maximum Peak Hour Volume Per Lane
									AM		PM		AM		PM		AM		PM			
				NB	SB	EB	WB		NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB		
14	Glendora	Barranca Ave	Mid-block	2	2			4	163	310	163	114	16.6%	16.6%	16.6%	16.6%	190	362	190	132	6	362
15	Glendora	Grand Ave/Foothill Bl	Diagonal	2	2	2	2	4 & 4	520	607	606	435	16.6%	16.6%	16.6%	16.6%	606	708	707	507	6	708
16	Glendora	Vermont Ave/Ada Ave	Mid-block	1	1			2	132	216	186	216	16.6%	16.6%	16.6%	16.6%	154	252	217	252	6	252
17	Glendora	Glendora Ave	Mid-block	2	2			4	336	250	356	307	16.6%	16.6%	16.6%	16.6%	391	292	415	357	6	415
18	Glendora	Pasadena Ave	Mid-block	1	1			2	184	125	146	130	16.6%	16.6%	16.6%	16.6%	215	146	170	152	6	215
19	Glendora	Glenwood Ave	Mid-block	1	1			2	75	110	124	118	16.6%	16.6%	16.6%	16.6%	87	128	145	138	6	145
20	Glendora	Elwood Ave	Mid-block	1	1			2	89	106	138	102	16.6%	16.6%	16.6%	16.6%	104	124	161	119	6	161
21	Glendora	Loraine Ave	Mid-block	2	2			2	294	517	308	339	16.6%	16.6%	16.6%	16.6%	343	603	359	395	6	603
22	Glendora	Lone Hill Ave/ Auto Center Dr	Existing Mid-block/ Future Grade-Separated	2/3 ^[1]	2			4/5	335	582	646	690	16.6%	16.6%	16.6%	16.6%	391	678	753	805	6	805
23	San Dimas	Gladstone St	Mid-block			1	1	2	313	606	808	527	21.9%	21.9%	21.9%	21.9%	382	739	985	642	6	985
24	San Dimas	Eucla St	Mid-block	1	1			2	60	124	140	191	21.9%	21.9%	21.9%	21.9%	73	151	171	233	6	233
25	San Dimas	Cataract Ave/ Bonita Ave	Diagonal	1	1	2	2	2 & 4	187	333	466	308	21.9%	21.9%	21.9%	21.9%	227	406	568	375	6	568
26	San Dimas	Monte Vista Ave	Mid-block	1	1			2	12	20	33	30	21.9%	21.9%	21.9%	21.9%	15	24	40	37	6	40
27	San Dimas	San Dimas Ave	Mid-block	1	1			2	298	328	587	561	21.9%	21.9%	21.9%	21.9%	363	400	716	684	6	716
28	San Dimas	Walnut Ave	Mid-block	1	1			2	178	180	377	414	21.9%	21.9%	21.9%	21.9%	217	219	460	505	6	505
29	San Dimas	San Dimas Canyon Rd	Mid-block	2	2/3 ^[2]			4	172	220	204	183	21.9%	21.9%	21.9%	21.9%	210	268	248	223	6	268
30	La Verne	Wheeler Ave	Mid-block	2	2			4	209	267	245	183	14.3%	14.3%	14.3%	14.3%	238	305	280	209	11	305
31	La Verne	A St	Mid-block	1	1			2	56	52	122	29	14.3%	14.3%	14.3%	14.3%	64	59	139	33	11	139
32	La Verne	D St	Mid-block	1	1			2	155	133	263	153	14.3%	14.3%	14.3%	14.3%	177	152	301	175	11	301
33	La Verne	E St	Mid-block	2	2			4	128	110	186	97	14.3%	14.3%	14.3%	14.3%	146	125	213	110	11	213
34	La Verne	White Ave	Mid-block	2	2			4	246	309	403	281	14.3%	14.3%	14.3%	14.3%	281	353	461	321	11	461
35	Pomona	Fulton Rd	Mid-block	1	1			2	66	64	45	64	17.5%	17.5%	17.5%	17.5%	78	75	53	75	11	78
36	Pomona	Garey Ave	Mid-block	2	2			4	317	429	419	367	17.5%	17.5%	17.5%	17.5%	372	503	492	431	11	503
42	Pomona	Towne Ave	Existing Mid-block/ Future Grade-Separated	2	2			4	507	534	505	487	17.5%	17.5%	17.5%	17.5%	595	627	593	572	11	627
37	Claremont	Cambridge Ave	Mid-block	1	1			2	330	293	257	274	17.0%	17.0%	17.0%	17.0%	386	343	301	321	11	386
38	Claremont	Indian Hill Bl	Mid-block	2	2			4	309	319	376	370	17.0%	17.0%	17.0%	17.0%	361	373	439	433	11	439
39	Claremont	College Ave	Mid-block	1	1			2	251	200	231	283	17.0%	17.0%	17.0%	17.0%	294	234	270	331	11	331
40	Claremont	Claremont Bl/ South Mill Rd	Mid-block	2	2			4	152	147	157	153	17.0%	17.0%	17.0%	17.0%	177	172	183	179	11	183
41	Montclair	Monte Vista Ave	Grade-Separated	3	4			7	198	171	268	192	18.0%	18.0%	18.0%	18.0%	234	201	317	226	11	317

Source: Fehr & Peers

[1] Existing northbound through has two lanes. Future northbound through will be three lanes. Existing future volume per lane was estimated based on two lanes. Future traffic volume per lane was adjusted to reflect three lanes.

[2] San Dimas provides two through lanes in the area, but it widens to one right-turn lane, one through lane and one left-turn lane at the crossing.

[3] Traffic counts were conducted in May 2010.

[4] Traffic forecasts from the DEIR intersection traffic impact analysis were incorporated in the analysis (source: Intueor Consulting, Inc.).

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TABLE 4. SUMMARY OF MILESTONE 1 INITIAL SCREENING RESULTS

ID	City	Crossing Intersection	Type	Milestone 1 Preliminary Disposition	Previous salient issues/comments received from the agency coordination meetings and 2007 FEIS/FEIR Chapter 13 (Responses to Comments)	New comments received from the agency coordination meeting and 4 public scoping meetings (January and February 2011)	Need for Milestone 2 Study
14	Glendora	Barranca Ave	Mid-block	At-Grade Feasible	1. One public comment suggested grade separation at Lone Hill, Foothill, and Barranca. Per 2007 FEIS/FEIR, these three crossing did not meet the criteria to warrant a grade separation.	n/a	Not required [1]
15	Glendora	Grand Ave/Foothill Bl	Diagonal	At-Grade Possible	1. One public comment suggested grade separation at Lone Hill, Foothill, and Barranca. Per 2007 FEIS/FEIR, these three crossing did not meet the criteria to warrant a grade separation.	1. Bicycle safety	Required per future 2035 crossing volumes
16	Glendora	Vermont Ave/Ada Ave	Mid-block	At-Grade Feasible		n/a	Not required [1]
17	Glendora	Glendora Ave	Mid-block	At-Grade Feasible	1. The City of Glendora was interested in the traffic impacts to the Ada and Glendora intersections near the station.	n/a	Not required [1]
18	Glendora	Pasadena Ave	Mid-block	At-Grade Feasible	1. The City of Glendora was concerned about potential closure of certain streets crossing the rail line.	n/a	Not required [1]
19	Glendora	Glenwood Ave	Mid-block	At-Grade Feasible	1. The City was concerned about potential closure of certain streets crossing the rail line.	n/a	Not required [1]
20	Glendora	Elwood Ave	Mid-block	At-Grade Feasible	1. The City of Glendora was concerned about potential closure of certain streets crossing the rail line.	n/a	Not required [1]
21	Glendora	Loraine Ave	Mid-block	At-Grade Feasible		n/a	Not required [1]
22	Glendora	Lone Hill Ave/Auto Center Dr	Existing Mid-block/ Future Grade-Separated	Grade-Separated as Proposed	1. One public comment suggested grade separation at Lone Hill, Foothill, and Barranca. Per 2007 FEIS/FEIR, these three crossing did not meet the criteria to warrant a grade separation.	1. Clarification of grade-separation (LRT overcrossing or undercrossing)	Not required, assume grade-separated as proposed
23	San Dimas	Gladstone St	Mid-block	At-Grade Possible	n/a	n/a	Required per future 2035 crossing volumes
24	San Dimas	Eucla St	Mid-block	At-Grade Feasible	n/a	n/a	Not required [1]
25	San Dimas	Cataract Ave/Bonita Ave	Diagonal	At-Grade Feasible	1. The City of San Dimas asked consideration for an overcrossing at Bonita and Cataract. 2. The City of San Dimas proposed modification of the intersection to make Cataract Avenue a "Tee" intersection for the north side and south side of Bonita Avenue. The City expected that this intersection modification would potentially eliminate the signal and allow more space for queuing. 3. The City of San Dimas indicated that the street could be reconfigured to lessen the crossing angle. 4. Two public comments supported grade separation at Bonita Avenue and Cataract Avenue. No need for a grade crossing at Bonita/Cataract was shown based on traffic conditions. The City was made aware of opportunities to finance a grade separation at this location but was also informed of the potential impacts that would result from such a structure.	1. Diagonal crossing operations.	Required due to Salient Geometry Issues
26	San Dimas	Monte Vista Ave	Mid-block	At-Grade Feasible	n/a	n/a	Not required [1]
27	San Dimas	San Dimas Ave	Mid-block	At-Grade Possible	n/a	n/a	Required per future 2035 crossing volumes

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(CONTINUED) TABLE 4. SUMMARY OF MILESTONE 1 INITIAL SCREENING RESULTS							
ID	City	Crossing Intersection	Type	Milestone 1 Preliminary Disposition	Previous salient issues/comments received from the agency coordination meetings and 2007 FEIS/FEIR Chapter 13 (Responses to Comments)	New comments received from the agency coordination meeting and 4 public scoping meetings (January and February 2011)	Need for Milestone 2 Study
28	San Dimas	Walnut Ave	Mid-block	At-Grade Feasible	n/a		Not required [1]
29	San Dimas	San Dimas Canyon Rd	Mid-block	At-Grade Feasible	n/a	1. Cumulative traffic effect of Metrolink and Gold line gate operations.	Not required [1]
30	La Verne	Wheeler Ave	Mid-block	At-Grade Feasible	n/a	n/a	Not required [1]
31	La Verne	A St	Mid-block	At-Grade Feasible	1. The City of La Verne indicated that the potential at-grade street closures of A Street, D Street and E Street by the CPUC in the 2004 environmental document seemed unreasonable. A Street was mentioned as one the City of La Verne would like to keep open.	n/a	Not required [1]
32	La Verne	D St	Mid-block	At-Grade Feasible		n/a	Not required [1]
33	La Verne	E St	Mid-block	At-Grade Feasible		1. Pedestrian crossing Arrow Highway between the proposed La Verne Station and the parking lot on the southside of Arrow Highway. 2. Consideration for budge overpass pedestrian crossing.	Not required [1]
34	La Verne	White Ave	Mid-block	At-Grade Feasible	1. The City of La Verne indicated that the number of signals that there would be on White Avenue, (which is a freeway connector between Arrow Highway and Bonita Avenue, including at the Gold Line crossing) is also a concern. 2. Two public comments suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of White Avenue was not found to be warranted based on previous Milestone 2 analysis.	n/a	Not required [1]
35	Pomona	Fulton Rd	Mid-block	At-Grade Feasible	1. One public comment suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of Fulton Road was not found to be warranted based on previous Milestone 1 analysis.	n/a	Not required [1]
36	Pomona	Garey Ave	Mid-block	At-Grade Feasible	1. One public comment suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of Fulton Road was not found to be warranted based on previous Milestone 2 analysis.	1. Traffic congestion on Garey Avenue during the L.A. Fair and cumulative traffic effect of Metrolink and Gold Line trains.	Not required [1]
42	Pomona	Towne Ave	Existing Mid-block/ Future Grade-Separated	Grade-Separated as Proposed	1. One public comment suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of Towne Avenue was part of the project corridor design.	1. Clarification of grade-separation (LRT overcrossing or undercrossing) 2. Availability of the environmental documentation for the grade-separation.	Not required, assume grade-separated as proposed
37	Claremont	Cambridge Ave	Mid-block	At-Grade Feasible	1. Two public comments suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of Cambridge Avenue was not found to be warranted based on previous Milestone 1 analysis.	1. Cumulative traffic effect of Metrolink and Gold Line trains.	Not required [1]

(CONTINUED) TABLE 4. SUMMARY OF MILESTONE 1 INITIAL SCREENING RESULTS							
ID	City	Crossing Intersection	Type	Milestone 1 Preliminary Disposition	Previous salient issues/comments received from the agency coordination meetings and 2007 FEIS/FEIR Chapter 13 (Responses to Comments)	New comments received from the agency coordination meeting and 4 public scoping meetings (January and February 2011)	Need for Milestone 2 Study
38	Claremont	Indian Hill Bl	Mid-block	At-Grade Feasible	1. The City of Claremont advised that Indian Hill Boulevard backs-up to Arrow Highway when the crossing gates are down for the Metrolink and freight train operations. The Authority advised that when a light rail train is in the station with sufficient clearance, the gates will not be down. 2. One public comment suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of Indian Hill was not found to be warranted based on previous Milestone 2 analysis.	1. Cumulative traffic effect of Metrolink and Gold line gate operations.	Not required [1]
39	Claremont	College Ave	Mid-block	At-Grade Feasible	1. One public comment suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of College Avenue was not found to be warranted based on previous Milestone 1 analysis.	1. Cumulative traffic effect of Metrolink and Gold Line trains. 2. High pedestrian and bicycle activities between the proposed Claremont Station and the Claremont Community College.	Not required [1]
40	Claremont	Claremont Bl/South Mill Rd	Mid-block	At-Grade Feasible	1. One public comment suggested grade separation for this location. Per 2007 FEIS/FEIR, grade separation of Claremont Boulevard was not found to be warranted based on previous Milestone 1 analysis.	1. Cumulative traffic effect of Metrolink and Gold Line trains. 2. Consideration for open trench method for the LRT to minimize conflict with traffic. 3. Consideration for underground pedestrian passage or undergrade pedestrian crossings or access to train stations or better pedestrian access across all four tracks. 4. Extension of existing pedestrian crossing to Metrolink station. 5. Consideration for building the LRT below grade on the south side of existing Metrolink tracks.	Not required [1]
41	Montclair	Monte Vista Ave	Grade-Separated	Remain Grade-Separated	n/a	n/a	Not required [1]

Note:

[1] The project team should coordinate with local jurisdictions and CPUC and identify if there are any safety or traffic operations issues at these crossings and determine if a detailed Milestone 2 analysis is needed.

MILESTONE 2 OPERATION ANALYSIS

The above-mentioned Milestone 1 initial screening concludes that no grade separations are required for the 26 proposed at-grade crossing locations. The initial screening indicated a detailed engineering study would be required at four proposed at-grade crossings based on the estimated crossing volumes or potential salient safety or train operations concerns before any determination is made on whether at-grade crossing is adequate or whether grade separation is required. The four locations are:

- #15 – Grand Avenue/Foothill Boulevard (City of Glendora)
- #23 – Gladstone Street (City of San Dimas)
- #25 – Cataract Avenue/Bonita Avenue (City of San Dimas)
- #27 – San Dimas Avenue (City of San Dimas)

According to Metro's policy, the engineering study includes two major components: an Operational Analysis and a Safety Analysis. Milestone 2 analysis may include the following tasks:

1. Evaluation of the existing and future intersection volume and level of service
2. Queuing analysis for the vehicular queue resulting from LRT train operations. The vehicle queue may be built from an adjacent signalized intersection along the cross streets toward the grade crossing or built from a grade crossing toward an adjacent roadway-roadway intersection. Available queuing storage would be compared to the estimated queue, and potential impacts and mitigation measures should be identified.
3. Level of service analysis for the controlling intersection (the most congested intersection during the peak hour in the project corridor) at the grade crossing or along the cross street in the influence zone of the grade crossing.
4. Identification of the impacts of rail pre-emption on progressive traffic movements along the project corridor. This involves identification and adjustment of the green time allocation of a signalized intersection to reflect the LRT train frequency and evaluation of the volume-to-capacity ratio and operating conditions of the controlling intersection in the project corridor.
5. Preliminary safety analyses jointly by the project engineering and design team and jurisdictions to address the potential safety concerns raised by the stakeholders (e.g., Metro, specific city, the communities, California Public Utilities Commission, Metrolink, Union Pacific Railroad Company, etc.). Issues may include traffic queuing, approach and corner sight distance, visual confusion/sign or signal clutter, high truck percentages (keep them off the track), school access route, emergency vehicle route, accident histories, delineation and roadway marking, motorist compliance (prevailing high traffic speed, gate drive-around potential, traffic control observance, etc.). Effective safety measures should be identified to address the issues.

Rail Operations Check

Since the Foothill LRT Extension operates along a railroad right-of-way and crosses roadways in a dedicated right-of-way, the grade crossings would be gated and provided with visual and audible warning devices. The normal operating procedures at such crossings is to activate the gates upon detection of arriving trains. In the event traffic signals are in the vicinity of the grade crossings, pre-emption would need to be provided so that a track clearance phase could be activated to flush any vehicles standing on the crossing at the time of train arrival. As such, the rail operations at most locations would be considered to be "nominal," e.g., there would be no special modification to the operating speed or procedures needed to negotiate the grade crossings.

The proposed rail operations plan of six trains per hour each way would result in 12 activations of gate blockage per hour. The activations would occur randomly with respect to the adjoining street intersection traffic controls except where special provisions would be made (e.g., operator manually starts gates at station stop, etc.). Under ideal conditions (when there is no significant delay to the train dwell time at the platform that requires extensive pre-emption time), the potential gate blockage time could range between 40 seconds to 50 seconds for each train arrival. The gate down time was estimated below based on timings as shown in the Grade Crossing Policy and was modified to reflect the local experience with the existing Metro Gold Line in Pasadena and Metrolink services in San Gabriel Valley.

- 5 to 10 seconds random arrival delay (allowance time) at crossing after activation of gates due to factors such as upstream operational conditions, departure from near-side station at reduced speed, etc.
- 20 seconds warning time railroad warning time before the train arrivals (required by California Public Utilities Commission)
- 8 to 13 seconds (typical) train passage and clearance time (computed using typical 2-car train length (180 feet), street width, and average speed of 25 mph to 65 mph through grade crossing)
- 7 seconds (typical) lag time for gates to start up and cars to enter crossing area

Total effective gate blockage time = 40 to 50 seconds

Based on consultation with the project team, a back-to-back pre-emption is likely to occur such that two trains may travel through any crossing simultaneously after leaving a station or one train arriving immediately after another train in the opposite direction. To be conservative, the Milestone 2 analysis assumed that the pre-emption time will be extended and the gates will remain down to accommodate the back-to-back pre-emption. Based on consultation with the project team, the analysis assumed an average of 80 seconds for the gate down time at the analyzed crossings.

Traffic Operations Check

Based on the detailed evaluation methodology presented in the Grade Crossing Policy, the following steps were conducted as part of the traffic operations check:

- Identify Operational Volumes
- Compute Influence Zone Queue
- Compute Crossing Spillback Queue
- Evaluate Cross Street Queues vs. Available Storage
- Compute Controlling Intersection Level of Service (LOS)
- Evaluate Impact of Pre-emption on Cross Street Operations

The following summarizes the detailed traffic operations analysis for the four identified crossings.

Operational Volumes

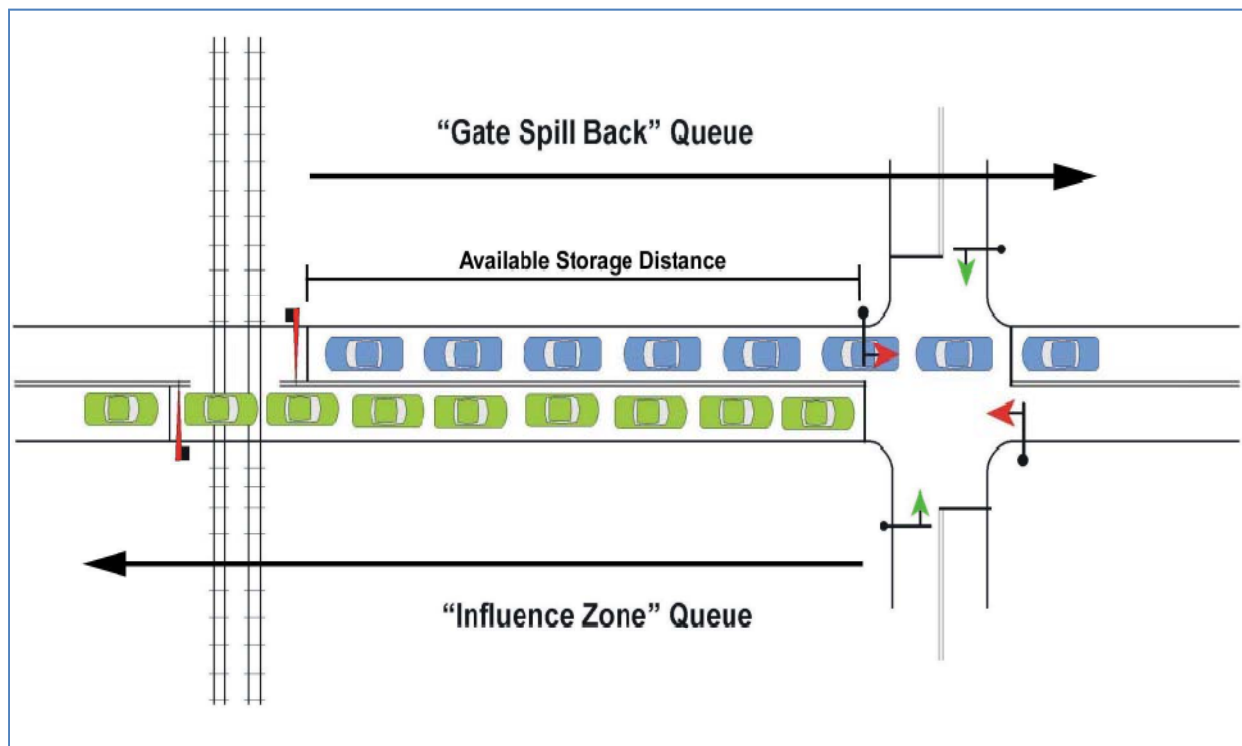
The operational volumes used in the detailed analysis were based upon the previously presented grade crossing conflicting volumes (as shown in Table 3 in the Milestone 1 analysis) for the queuing analysis. The operational volumes used for the analysis if adjacent intersections were based upon the projected “with Project” year 2035 volumes developed for *Metro Gold Line Foothill Extension Azusa to Montclair EIS/EIR*.

These projections reflect the impact of cumulative traffic increases as well as project-induced traffic impacts due to proposed station park-and-ride facilities.

Influence Zone Queue and Crossing Spillback Queue vs. Storage

This detailed analysis includes operational analysis of potential queuing as well as field observation of conditions near the grade crossings. Figure 2 illustrates the two types of queuing that interact with an at-grade crossing. The first queue that was calculated is the “influence zone” queue, which represents the possible blockage of a grade crossing by a queue developing from a downstream traffic signal during the “red” phase. Also analyzed is the “gate spillback” queue formed from the at-grade crossing and could spill back into an adjacent signalized intersection.

Figure 2. Influence Zone Queues and Spillback Queues (Source: Metro Grade Crossing Policy)



For the purpose of this analysis, computation of the influence zones and the gate spillback queues were developed using two methods:

- Maximum design queue - based on the Webster Uniform Delay model Formula indicated in Appendix A of the Grade Crossing Policy, and
- Maximum queue - reported from the SYNCHRO 7.0 report that utilized the *Highway Capacity Manual* (Transportation Research Board, 2000) methodology for the intersection level of service analysis.

To be conservative, the greater queues from the two methods were compared to the existing queuing storage for the determination of the queuing impacts.

Per the policy, the maximum design queue is calculated based on vehicle arrival rates, signal timing parameters, and average calculated delay. The following assumptions were used in estimating the maximum design queues:

- The estimated average queue length was factored by a peaking factor of 1.5 to identify the maximum 90-percentile design queue that could occur during the peak period due to cycle-to-cycle variations in arrival rate.
- The average vehicle is 22 feet long.
- The Red Time was calculated from the anticipated timing plans developed for 2035 conditions.
- The average vehicle delay was derived from the SYNCHRO 7.0 report using the *Highway Capacity Manual* methodology that was performed at each of the crossings.

Based on the MTA Grade Crossing Policy, the queuing check was computed based upon the per-lane volume and the duration of the blockage. The potential gate blockage time could range between 40 seconds to 50 seconds for each train arrival. Based on consultation with the project team, a back-to-back pre-emption is likely to occur such that two trains may travel through any crossing simultaneously or one immediately after another train in the different direction. To be conservative, the Milestone 2 analysis assumed that the pre-emption time will be extended and the gates will remain down to accommodate the back-to-back pre-emption occurs. Based on consultation with the project team, the analysis also assumed an average of 80 seconds for the gate down time at the analyzed crossings.

It should be noted that the volume used for the influence zone queue was based upon the through volume measured at the downstream intersection, whereas the gate spillback queue considers the total roadway volume at the crossing, so the gate spillback volume levels are usually higher.

Tables 5 and 6 present the influence zone queues and the spillback queues from gate from the Webster Formula and the SYNCHRO HCM 2000 queue results, respectively. The greater value of the maximum design queue and the maximum simulated queues was compared to the available queuing storages at each location for 2035 with LRT crossing conditions.

The following summarizes the results of the queuing analysis for each analyzed location:

- Grand Avenue/Foothill Boulevard Crossing – Grand Avenue/Foothill Avenue crossing intersection is a diagonal crossing and the nearest signalized intersections are located far away from the intersection and grade crossing as far as queuing is concerned. As shown in Tables 5 and 6, the operational check of queuing does not predict queuing back across this grade crossing or spilling back into the nearest four signalized intersections. However, Table 5 indicates that the theoretical maximum queue on Grand Avenue northbound could spill back from the gate to the side-street stop-controlled intersection at Grand Avenue & Carrol Avenue in the AM peak hour. Potential anti-queuing controls such as installation of “DO NOT BLOCK INTERSECTION” sign and “KEEP CLEAR” pavement marking can be considered for the unsignalized Grand Avenue & Carrol Avenue intersection.
- Gladstone Street Crossing – No influence zone issues are expected with respect to adjacent signalized intersections. However, the eastbound queue on Gladstone Street could potentially spill back from the crossing gate to the signalized intersection of Lone Hill Avenue & Gladstone Street in the PM peak hour under future 2035 conditions, as the worst-case scenario. Also, the westbound queue on Gladstone Street could potentially spillback from the crossing gate to the signalized intersection of Amelia Avenue & Gladstone Street in the peak hour under future 2035 conditions. Potential anti-queuing controls can be implemented at Long Hill Avenue & Gladstone Street intersection and at Amelia Avenue & Gladstone Street intersection (e.g., “DO NOT BLOCK INTERSECTION” sign and “KEEP CLEAR” pavement marking).

- Cataract Avenue/Bonita Avenue Crossing – As shown in Tables 5 and 6, no issue was identified at this location regarding the gate spillback queue or queue spilling back from the nearest signals.
- San Dimas Avenue Crossing – No influence zone issues are expected with respect to adjacent signalized intersections. However, when there is a back-to-back pre-emption that requires extended gate down time, the theoretical worst-case queue on San Dimas Avenue could spill back from the gate to Bonita Avenue (north of the crossing) in both the AM and PM peak hours. The worst-case northbound queue could spill back and block the unsignalized intersection of San Dimas Avenue & W. Railway. Potential anti-queuing controls can be considered for the adjacent intersections, including (but not limited to) installation of “DO NOT BLOCK INTERSECTION” sign and “KEEP CLEAR” pavement marking.

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Table 5. Projected Gate Spillback Queues - 2035 with LRT Crossings

Grade Crossing ID	Grade Crossing	City	Type of Crossing	Direction queue to next signalized intersection	Peak Hour	Gate Spillback Queuing Analysis to the Nearest Signals								Gate Spillback Queuing Analysis to the Nearest Unsignalized Intersections		
						Vehicle Arrival Rate (veh/min/ lane)	Red Time* (min)	Average Vehicle Delay crossing the tracks** (min)	N (Veh)	Max Design Queue*** (Ft)	95th Percentile Queue per lane from SYNCHRO (Ft)	Available Storage (ft)	Max Design Queue or 95th Queue Exceed Queuing Storage?	Direction of queue to nearest unsignalized intersection	Available Storage (ft)	Max Design Queue or 95th Queue Exceed Queuing Storage?
15	Grand Ave & Foothill Bl	Glendora	Diagonal	NB queue spillback from gate from Ada Ave & Grand Ave intersection (signal)	A.M.	7.0	3.6	0.53	17	561	198	1,200	NO	NB queue spillback from gate to Grand Ave & Carrol Ave intersection	540	YES
					P.M.	6.7	3.6	0.44	15	495	170	1,200	NO		540	NO
				SB queue spillback from gate to Bennet Ave & Grand Ave intersection (signal)	A.M.	4.8	3.6	0.48	11	363	152	1,205	NO	SB queue spillback from gate to Meda Ave & Grand Ave intersection	780	NO
					P.M.	3.2	3.6	0.45	8	264	108	1,205	NO		780	NO
				EB queue spillback from gate to Barranca Ave & Foothill Bl intersection (signal)	A.M.	3.7	3.6	0.47	9	297	141	2,505	NO	EB queue spillback from gate to Valencia St & Foothill Bl intersection	1200	NO
					P.M.	5.0	3.6	0.58	12	396	214	2,505	NO		1200	NO
				WB queue spillback from gate to Vermont Ave & Foothill Bl intersection (signal)	A.M.	5.5	3.6	0.50	13	429	243	1,630	NO	WB queue spillback from gate to S. Washington Ave & Foothill Bl	895	NO
		P.M.	4.6	3.5	0.44	11	363	233	1,630	NO		895	NO			
23	Gladstone St	San Dimas	Midblock	EB queue spillback from gate to Lone Hill Ave & Gladstone St intersection (signal)	A.M.	6.8	1.3	0.59	9	297	424	692	NO	n/a (the signalized intersection is closer)	n/a	n/a
					P.M.	17.9	1.3	0.32	18	594	1,058	692	YES		n/a	n/a
				WB queue spillback from gate to Amelia Ave & Gladstone St intersection (signal)	A.M.	12.3	1.3	3.84	56	1,848	1,800	1,778	YES	WB queue spillback from gate to Groveton Ave & Gladstone St intersection	990	YES
					P.M.	10.7	1.3	0.82	16	528	794	1,778	NO		990	NO
25	Cataract Ave & Bonita Ave	San Dimas	Diagonal	NB queue spillback from gate to Cataract Ave & Arrow Hwy intersection (signal)	A.M.	1.6	3.7	0.1	4	132	24	1,165	NO	NB queue spillback from gate to Cataract Ave & W. Railway St intersection	255	NO
					P.M.	2.7	3.7	0.3	6	198	58	1,165	NO		255	NO
				SB queue spillback from gate to end of Cataract Ave & 2nd St (stop-controlled)	A.M.	1.5	3.7	0.1	4	132	23	605	NO	SB queue spillback from gate to 1st St & Cataract Ave	255	NO
					P.M.	1.5	3.7	0.2	4	132	30	605	NO		255	NO
				EB queue spillback from gate to Eucla Ave & Bonita Ave intersection (signal)	A.M.	2.4	3.6	0.1	5	165	24	1,216	NO	EB queue spillback from gate to Arcadia St & Bonita Ave intersection	570	NO
					P.M.	6.6	3.2	0.1	11	363	68	1,216	NO		570	NO
				WB queue spillback from gate to San Dimas Ave & Bonita Ave intersection (signal)	A.M.	4.5	3.6	0.1	9	297	44	1,232	NO	WB queue spillback from gate to Monte Vista Ave & Bonita Ave intersection	555	NO
	P.M.	5.0	3.2	0.1	9	297	51	1,232	NO		555	NO				
27	San Dimas Ave	San Dimas	Midblock	NB queue spillback from gate to San Dimas Ave & Arrow Hwy intersection (signal)	A.M.	6.1	1.3	0.59	8	264	410	795	NO	NB queue spillback from gate to San Dimas Ave & W. Railway St intersection	70	YES
					P.M.	10.0	1.3	0.89	16	528	770	795	NO		70	YES
				SB queue spillback from gate to San Dimas Ave & Bonita Ave intersection (signal)	A.M.	7.5	1.3	0.65	10	330	528	325	YES	n/a (the signalized intersection is closer)	n/a	n/a
					P.M.	5.8	1.3	0.58	8	264	357	325	YES		n/a	n/a

(Source: Fehr & Peers, Intueor Consulting, Inc.)

NB: northbound; SB: southbound; EB: eastbound; WB: westbound.

*Red time is determined by signal timing; typical values range from 40 to 50 seconds depending upon the total cycle length and amount of green time allocated to the cross street. Total cycle length and amount of green time allocated to the cross street. This analysis assumed 45 second for the effective gate blockage time to be conservative. For midblock crossing, the red time is the same as the gate blockage time. For diagonal crossing, the red time is the sum of the gate blockage time plus total cycle time minus the green time allocated to the analyzed approach. For locations near the station, the gate down time are likely to increase due to reduced train speed entering the stations. Based on consultation with the project team, a back-to-back preemption is likely to occur such that two trains may travel through any crossing simultaneously or one immediately after another train in the different direction. To be conservative, the Milestone 2 analysis assumed that the preemption time will be extended and the gates will remain down to accommodate the back-to-back preemption occurs. Based on consultation with the project team, the analysis assumed an average of 80 seconds for the gate down time at the analyzed crossings.

**Delay is indicated by the level of service – for LOS D the delay ranges from 35 to 55 seconds.

***The average peak hour queue was expanded by a peak factor of 1.5 to reflect the 90th percentile queue (i.e., the maximum design queue) and the queue length was computed assuming 22 feet per vehicle that could occur during the peak period due to cycle-to-cycle variations in arrival rate.

1. Maximum Simulated Queue is within one car length of exceeding available storage.

2. Available queuing storage is insufficient to meet the maximum design queue and/or the maximum simulated queue.

Table 6. Projected Influence Zone Queues - 2035 with LRT Crossings

Grade Crossing ID	Grade Crossing	City	Type of Crossing	Direction	Peak Hour	Influence Zone Queuing Analysis							
						Vehicle Arrival Rate (veh/min/ lane)	Red Time (min)	Average Vehicle Delay ⁱⁱ (min)	Average number of vehicles in queue (Veh)	Max Design Queue (Ft)***	95th Percentile Queue per lane from SYNCHRO (Ft)	Available Storage (ft)	Max Design Queue or 95th Queue Exceed Queuing Storage?
15	Grand Ave & Foothill Bl	Glendora	Diagonal	NB queue spillback from Bennet Ave & Grand Ave intersection (signal)	A.M.	6.5	0.5	0.2	3	99	151	1209	NO
				P.M.	5.8	0.5	0.2	3	99	122	1209	NO	NO
				SB queue spillback from Ada Ave & Grand Ave intersection (signal)	A.M.	7.0	0.6	0.2	4	132	199	1222	NO
				P.M.	5.9	0.5	0.2	3	99	134	1222	NO	NO
				EB queue spillback from Vermont Ave & Foothill Bl intersection (signal)	A.M.	3.6	0.6	0.1	2	66	48	1630	NO
				P.M.	5.8	0.7	0.1	3	99	105	1630	NO	NO
23	Gladstone St	San Dimas	Midblock	WB queue spillback from Barranca Ave & Foothill Bl intersection (signal)	A.M.	5.5	0.7	0.2	4	132	156	2510	NO
				P.M.	4.5	0.7	0.1	3	99	69	2510	NO	NO
				WB queue spillback from Lone Hill Ave & Gladstone St intersection (signal)	A.M.	4.2	0.8	0.3	3	99	127	675	NO
				P.M.	3.6	0.8	0.4	3	99	98	675	NO	NO
				EB queue spillback from Amelia Ave & Gladstone St intersection (signal)	A.M.	6.8	0.6	0.2	4	132	75	1575	NO
				P.M.	17.9	0.5	0.3	10	330	204	1575	NO	NO
25	Cataract Ave Bonita Ave	San Dimas	Diagonal	NB queue spillback from 2nd St & Cataract Ave intersection (stop sign)	A.M.	1.6	0.2	0.2	1	33	8	642	NO
				P.M.	1.9	0.2	0.2	1	33	14	642	NO	NO
				SB queue spillback from Cataract Ave & Arrow Hwy intersection (signal)	A.M.	2.6	0.6	0.3	2	66	89	1200	NO
				P.M.	1.5	0.6	0.2	1	33	51	1200	NO	NO
				EB queue spillback from San Dimas Ave & Bonita Ave intersection (signal)	A.M.	3.9	0.7	0.2	2	66	97	1232	NO
				P.M.	10.9	0.6	0.4	8	264	410	1232	NO	NO
27	San Dimas	San Dimas	Midblock	WB queue spillback from Eucla Ave & Bonita Ave intersection (signal)	A.M.	3.5	0.8	0.1	2	66	37	1163	NO
				P.M.	4.6	0.8	0.1	3	99	75	1163	NO	NO
				NB queue spillback from San Dimas Ave & Bonita Ave intersection (signal)	A.M.	2.5	0.7	0.2	2	66	51	325	NO
				P.M.	4.5	0.6	0.2	3	99	92	325	NO	NO
				SB queue spillback from San Dimas Ave & Arrow Hwy intersection (signal)	A.M.	3.0	0.8	0.9	4	132	50	800	NO
				P.M.	2.7	0.8	0.4	3	99	65	800	NO	NO

(Source: Fehr & Peers, Intueor Consulting, Inc.)

NB: northbound; SB: southbound; EB: eastbound; WB: westbound.

*Red time is determined by signal timing; typical values range from 40 to 50 seconds depending upon the total cycle length and amount of green time allocated to the cross street. Total cycle length and amount of green time allocated to the cross street. This analysis assumed 45 second for the effective gate blockage time to be conservative. For midblock crossing, the red time is the same as the gate blockage time. For diagonal crossing, the red time is the sum of the gate blockage time plus total cycle time minus the green time allocated to the analyzed approach. For locations near the station, the gate down time are likely to increase due to reduced train speed entering the stations. Based on consultation with the project team, a back-to-back preemption is likely to occur such that two trains may travel through any crossing simultaneously or one immediately after another train in the different direction. To be conservative, the Milestone 2 analysis assumed that the preemption time will be extended and the gates will remain down to accommodate the back-to-back preemption occurs. Based on consultation with the project team, the analysis assumed an average of 80 seconds for the gate down time at the analyzed crossings.

**Delay is indicated by the level of service – for LOS D the delay ranges from 35 to 55 seconds.

***The average peak hour queue was expanded by a peak factor of 1.5 to reflect the 90th percentile queue (i.e., the maximum design queue) and the queue length was computed assuming 22 feet per vehicle. that could occur during the peak period due to cycle-to-cycle variations in arrival rate.

1. Maximum Simulated Queue is within one car length of exceeding available storage.

2. Available queuing storage is insufficient to meet the maximum design queue and/or the maximum simulated queue.

Controlling Intersection Level of Service

One of the operational analysis procedures required in the Grade Crossing Policy is evaluation of the impact of traffic signal pre-emption on the operation of cross street traffic signals. As defined in the Grade Crossing Policy, the controlling intersection is the most congested cross-street intersection in the vicinity of the grade crossing. An operational analysis was conducted for the analyzed crossing for both the AM and PM peak hour, using the year 2035 traffic projections developed for the Draft EIS/EIR, for the future with LRT scenario. The operational analysis may provide results that contained more detailed specific analysis for signal phasing/timings assumptions than could be developed using an “intersection land volume” or “planning analysis” typically used in environmental studies. For this reason, the operational analyses were conducted using the commonly-accepted “Synchro” software.

Table 7 summarizes the V/C ratios estimated for the controlling intersections identified for the four analyzed LRT crossings. The following summarizes the estimated traffic operating conditions for each analyzed location.

- Grand Avenue/Foothill Boulevard Crossing – This grade crossing is a diagonal crossing and also the controlling intersection. There are no other principal signalized intersections in the near vicinity. Table 7 indicates this crossing intersection would operate at acceptable LOS C during both peak hours under future 2035 with LRT conditions.
- Gladstone Street Crossing – This is a side-street running crossing. The nearest signalized intersection of Lone Hill Avenue & Gladstone Street is the controlling intersection and is located west of the crossing. Table 7 indicates that this intersection is projected to operate at acceptable LOS C or better in both peak hours under future with project conditions.
- Cataract Avenue/Bonita Avenue Crossing – This intersection is a diagonal crossing and also the controlling intersection. There are no other principal signalized intersections in the near vicinity. This intersection was assumed to be signalized with the project and crossing gate control. Table 7 indicates that this intersection is projected to operate at good LOS A in both peak hours with the project.
- San Dimas Avenue Crossing – This is a side-street running crossing. The signalized intersections on San Dimas Avenue at Bonita Avenue and at Arrow Highway are the controlling intersections. The estimated LOS shown in Table 7 indicates that both intersections would continue to operate at acceptable LOS D or better in both peak hours.

Table 7. Summary of Controlling Intersection Level of Service Analysis

ID	Grade Crossing	City	Controlling Intersections in the vicinity of the crossing		2035 with LRT AM Peak Hour			2035 with LRT PM Peak Hour		
					ICU*	Avg. Delay (Sec / Veh)	Delay- based LOS	ICU*	Avg. Delay (Sec / Veh)	Delay- based LOS
			N/S Street	E/W Street						
15	Grand Ave & Foothill Bl	Glendora	Grand Ave	Foothill Bl	0.635	29.9	C	0.640	28.5	C
23	Gladstone St	San Dimas	Gladstone St	Lone Hill Ave	0.502	18.6	B	0.647	25.5	C
25	Cataract Ave & Bonita Ave	San Dimas	Cataract Ave	Bonita Ave	0.379	6.1	A	0.455	5.2	A
27	San Dimas Ave	San Dimas	San Dimas Ave	Bonita Ave	0.662	12.2	B	0.791	19.2	B
		San Dimas	San Dimas Ave	Arrow Hwy	0.665	34.1	C	0.685	48.3	D
(Source: Fehr & Peers, Intueor Consulting, Inc.) *Intersection Capacity Utilization										

Rail Pre-Emption Impact Check

The MTA Grade Crossing Policy includes provisions to evaluate the operational impact of traffic signal priority or pre-emption. The Foothill Extension grade crossings are proposed to be gated. Under this condition, traffic signals adjacent to or included within the crossings would need to be pre-empted in response to train arrivals. Under a pre-emption traffic control strategy, unless extraordinary provisions are developed, the train arrivals at the grade crossings will be random with respect to the background traffic signal cycle. Therefore, when a light rail vehicle arrives at the grade crossing, the ordinary traffic signal cycle will be interrupted. Depending on the current traffic movements being served, a track clearance phase may be activated after which time the traffic signal will rest in a phase that allows traffic movements that do not cross over or through the grade crossing to move while the gates are down.

The methodology in the MTA policy considers the following factors in developing the impact of the pre-emption, expressed as an adjustment to the intersection V/C ratio:

- Number of trains per hour vs. number of traffic signal cycles per hour, used to determine the likelihood that a train will be present in a given signal cycle
- The green ratio (green time/cycle length) provided for the movements at the traffic signal under nominal conditions when trains are not present.
- The nominal V/C ratio of the affected intersection (based on conditions with no trains present)
- The capacity utilization that occurs during the blockage of the crossing by lowered crossing gates

Using the procedures described in the policy, an adjusted V/C ratio is computed and evaluated for impact. The assessment of impact includes consideration for the presence and importance of maintaining cross-

street traffic signal progressions – the evaluation takes into account that the impact of pre-emption is considered to be lower at isolated intersections versus the crossing environments where well-defined platoons of vehicles must be served to maintain the cross street capacity.

For the purpose of this analysis, the Synchro “operations” methodology was used to compute the V/C impact. The V/C ratio for each of the four through movements were weighted by the corresponding through traffic volumes and used to generate an overall effective operational V/C for the analyzed intersection. The MTA policy considers the operations to be “OK” provided the adjusted V/C ratio is 0.95 or lower and “Marginal” otherwise.

The assessment of the rail pre-emption effect is summarized in Table 8 and is also described below:

- Grand Avenue/Foothill Boulevard Crossing – Grand Avenue/Foothill Avenue crossing intersection is an isolated intersection with no on-street progression present. The operations would be considered “OK” given the estimated V/C ratio less than 0.95 under year 2035 with project volumes.
- Gladstone Street Crossing – This is a side-street running crossing. The nearest signalized intersection of Lone Hill Avenue & Gladstone Street is the controlling intersection and is located west of the crossing. This location is an isolated intersection with no on-street progression present. The operations would be considered “OK”, with the estimated V/C ratio less than 0.95 under year 2035 with project volumes.
- Cataract Avenue/Bonita Avenue Crossing – This location is an isolated intersection with no on-street progression present. The operations would be considered “OK” given the estimated V/C ratio less than 0.95 under year 2035 with project volumes.
- San Dimas Avenue Crossing – This is a side-street running crossing. The nearest controlling signalized intersections are of San Dimas at Bonita Avenue and at Arrow Highway. Both intersections are isolated intersections with no on-street progression present. The operations at San Dimas Avenue & Bonita Avenue would be considered as “OK”, with the estimated V/C ratio less than 0.95 under year 2035 with project volumes. However, the projected V/C ratio for San Dimas Avenue & Arrow Highway would exceed the threshold of 0.95 both without and with the train under 2035 PM peak hour conditions. Therefore, the impact of pre-emption on San Dimas Avenue & Arrow Highway would be considered “Marginal” with the project. Potential treatments to minimize the rail pre-emption effect would be to provide advance detection of incoming trains and to extend the green times for the movements crossing the rail tracks either prior to train arrival or immediately after the train departure (a recovery phase to flush the queue). The potential treatment would improve the adjusted level of service and minimize the rail pre-emption impact.

Table 8. Impact of Pre-emption on Signalized Intersections

Grade Crossing ID	Grade Crossing	Nearby Controlling Intersection*	Base (No LRT) Volume/Capacity Ratio of Controlling Intersection		Adjusted (With LRT) Volume/Capacity Ratio of Controlling Intersection		Quality of Cross Street Progression	Result
			AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour		
15	Grand Ave & Foothill Bl	Grand Ave & Foothill Bl	0.73	1.18	0.82	0.80	Little or No	"OK"
23	Gladstone St	Gladstone St & Lone Hill Ave	0.57	0.80	0.56	0.80	Little or No	"OK"
25	Cataract Ave & Bonita Ave	Cataract Ave & Bonita Ave	0.38	0.34	0.38	0.34	Little or No	"OK"
27	San Dimas Ave	San Dimas Ave & Bonita Ave	0.64	0.87	0.64	0.86	Little or No	"OK"
		San Dimas & Arrow Hwy	0.98	1.43	1.06	1.40	Little or No	"Marginal"

(Source: Fehr & Peer, Intueor Consulting, Inc.)

*Controlling Intersection" is the cross street intersection within ½ mile proximity to the LRT grade crossing which has the highest degree of saturation; the V/C of the controlling intersection should be adjusted for impact to non-compatible phase. The MTA policy considers the operations to be "OK" provided the adjusted V/C ratio is 0.95 or lower and "Marginal" otherwise.

Safety Check

The MTA Grade Crossing Policy identifies a list of 12 criteria to guide the safety review of grade crossings. For purpose of this analysis, a preliminary safety check was accomplished using readily-available data and field observations. The results of the initial screening are identified in Table 9 for the analyzed four crossings. As noted, additional data on accident history is needed to complete the evaluation. It is anticipated that ongoing attention to safety concerns will be accomplished during the advanced conceptual/preliminary engineering phase when specific signing and striping as well as active traffic control devices will be delineated. None of the concerns identified would be considered a "fatal flaw" with respect to at-grade operation, based upon the available data and field reviews to date. It should be noted that the MTA Grade Crossing Policy anticipates preliminary diagnostic reviews would be conducted with California Public Utilities Commission staff, and formal diagnostic reviews are mandatory as part of the review of formal grade crossing improvement applications before the Commission.

Table 9. Summary of Safety Checks

Safety Check	Grand Avenue/ Foothill Boulevard	Gladstone Street	Cataract Avenue/ Bonita Avenue	San Dimas Avenue
Jurisdiction	City of Glendora	City of San Dimas	City of San Dimas	City of San Dimas
Type of Crossing	Diagonal Crossing	Mid-block Crossing	Diagonal Crossing	Mid-block Crossing
Traffic Queuing	No influence zone or gate spillback issues with respect to adjacent signalized intersections. However, when there is a back-to-back pre-emption that requires extended gate down time, the theoretical worst-case queue on Grand Avenue northbound could potentially spill back from the gate to the side-street stop-controlled intersection at Grand Avenue & Carrol Avenue in the AM peak hour. Potential anti-queuing controls include: installation of “DO NOT BLOCK INTERSECTION” sign and “KEEP CLEAR” pavement marking. In addition, a potential treatment should be considered to minimize the rail pre-emption effect, which would be to provide advance detection of incoming trains and extend the green times for the movements crossing the rail tracks either prior to train arrival or immediately after the train departure (a recovery phase to flush the queue).	No influence zone issues with respect to adjacent signalized intersections. However, the eastbound queue on Gladstone Street could potentially spill back from the crossing gate to the signalized Lone Hill Ave & Gladstone St intersection in the PM peak hour, and the west bound queue could spill back from the signalized Amelia Avenue & Gladstone St intersection in the AM peak hour. Potential anti-queuing controls include: installation of “DO NOT BLOCK INTERSECTION” sign and “KEEP CLEAR” pavement marking.	No influence zone or gate spillback issues with respect to adjacent signalized intersections	No influence zone issues with respect to adjacent signalized intersections. However, when there is a back-to-back pre-emption that requires extended gate down time, the theoretical worst-case queue on San Dimas Avenue could spill back from the gate to Bonita Avenue in both AM and PM peak hours. The worst-case northbound queue could spill back and block the unsignalized intersection of San Dimas Avenue & W. Railway. Potential anti-queuing controls include: installation of “DO NOT BLOCK INTERSECTION” sign and “KEEP CLEAR” pavement marking.

Safety Check	Grand Avenue/ Foothill Boulevard	Gladstone Street	Cataract Avenue/ Bonita Avenue	San Dimas Avenue
Approach and Corner Sight Distance	Adequate approach sight distance for compliance with crossing controls. Corner sight distance limited; to be addressed by use of crossing gates.	Adequate approach sight distance for compliance with crossing controls. Corner sight distance limited; to be addressed by use of crossing gates.	Adequate approach sight distance for compliance with crossing controls. Corner sight distance limited; to be addressed by use of crossing gates.	Adequate approach sight distance for compliance with crossing controls. Corner sight distance limited; to be addressed by use of crossing gates.
Visual Confusion / Sign or Signal Clutter	Nominal. Grade crossing controls will need to resolve potential visibility conflicts between railroad cantilever and roadway traffic signal heads.	Low	Nominal	Low
Train Speed	Up to 65 mph	Up to 65 mph	25 mph (due to proximity to the future San Dimas Station)	45 mph (due to proximity to the future San Dimas Station)
Prevailing Traffic Speed	35 to 45 mph	35 to 40 mph	25 -30 mph	25 - 30 mph
Large Truck Percentage	Nominal; Improve signing or traffic signal timing to keep trucks off tracks	Nominal; truck parking area near the crossing	Nominal	Nominal
Heavy Pedestrian Volumes	Pedestrian activity was present; however sidewalks currently are unprotected. Four quadrant gates and consideration of pedestrian gates would be expected to control pedestrian crossings. Relocation of pedestrian crosswalk to behind crossing gates is recommended. Extension of the median on Foothill Boulevard to provide a pedestrian refuge area for pedestrians crossing Foothill can be considered.	Nominal.	Crossing is located near a park and the civic center; pedestrian activity would be expected.	Crossing is located on the west edge of future San Dimas Station and the Downtown San Dimas business district; high level of pedestrian activity would be expected.

Safety Check	Grand Avenue/ Foothill Boulevard	Gladstone Street	Cataract Avenue/ Bonita Avenue	San Dimas Avenue
School Access Routes	Two schools are located on Bennett Avenue within a two- to three-block radius (i.e., within ¼-mile radius) of the crossing including the Glendora Unified School District and Sandburg Middle School. Four quadrant gates and consideration of pedestrian gates and/or barriers will be evaluated to control pedestrian crossings. Education programs to be implemented as appropriate.	The Lone Hill Park and the Gladstone Elementary School are located about 2,000 feet west of the crossing along Gladstone Street. Four quadrant gates and consideration of pedestrian gates and/or barriers will be evaluated to control pedestrian crossing. Education programs to be implemented as appropriate.	A preschool (Rainbow Montessori Academy) is located on Bonita Avenue approximately 1,500 feet west of the crossing (west of Eucla Avenue). Two parks are in the immediate vicinity of the crossing, including the Rhoads Park on Bonita Avenue just east of Cataract Avenue and the Pioneer Park on Cataract Avenue (about 400 feet south of the crossing). Four quadrant gates and consideration of pedestrian gates and/or barriers will be evaluated to control pedestrian crossing. Education programs to be implemented as appropriate. Relocate pedestrian crosswalk to behind crossing gates.	No schools located immediately near the crossing. Rhoads Park on Bonita Avenue just east of Cataract Avenue is located approximately 700 feet west of the crossing. But four quadrant gates and consideration of pedestrian gates and/or barriers will be evaluated to control pedestrian crossing.
Accident History*	12 collisions involving autos were reported in California Highway Patrol I-SWITRS reports in the last 5 years. Four of the 12 collisions involved injuries of driver and/or passengers. Neither pedestrians nor cyclists were involved in the 12 collisions. More detailed accident history data to be acquired and reviewed during the PE Phase.	No collision was reported at the crossing in California Highway Patrol I-SWITRS reports in the last 5 years. However, 12 collisions were reported for the immediately adjacent intersection of Gladstone Street Avenue & Long Hill Avenue. Eight of the 12 collisions involved injuries of driver and/or passengers. More detailed accident history data to be acquired and reviewed during the PE Phase.	No collision was reported in California Highway Patrol I-SWITRS reports in the last 5 years. Accident history data from other sources (if available) to be acquired during the PE Phase.	No collision was reported in California Highway Patrol I-SWITRS reports in the last 5 years. However, one auto-related collision was reported for the immediately adjacent intersection of Bonita Avenue & San Dimas Avenue. No injuries of driver and/or passengers were recorded for this collision. More detailed accident history data to be acquired and reviewed during the PE Phase.

Safety Check	Grand Avenue/ Foothill Boulevard	Gladstone Street	Cataract Avenue/ Bonita Avenue	San Dimas Avenue
Gate Drive Around Potential	Moderate – As this grade crossing will operate in shared mode with freight trackage, drivers may fail to notice a high speed LRT vehicle approaching from the opposite direction when a slow moving freight train is on the approach. Existing medians are present on Grand Avenue. Use of four quadrant gates and possible narrow median along Foothill could address this concern. Pedestrian gates and/or barriers will be provided to minimize potential safety hazards because of driver or pedestrian violation.	Low to moderate – There is an existing median island on both sides of the grade crossing but there are also driveways close to the crossing.	Low (Bonita) to Moderate (Cataract) – Bonita/Cataract is a wide stop-controlled intersection. Motorists often are confused with identifying priority for the right-of-way. Vehicles making left turns from any quadrant could be trapped in the crossing due to traffic from other quadrants. There is an existing long landscaped median on both sides of the grade crossing along Bonita but no median along Cataract. A potential measure is to reconfigure the intersection as a traffic island or re-align Bonita and reduce the median width to reduce the size of the intersection and install traffic signals. Four quadrant gates will be added to prevent drivers going around the gates.	Low. Four quadrant gates will be added to prevent drivers going around the gates.
Delineation and Roadway Marking	Nominal.	Nominal.	Nominal.	Nominal.
Traffic Control Observance	Due to diagonal crossing configuration, right-turning vehicles may creep past crossing gates attempting to make right-turn-on-red; these maneuvers (northbound right turn and southbound right turn) should be banned and device placements and warning signs may need to be adjusted to provide positive control.	Nominal.	In addition, due to diagonal crossing configuration, right-turning vehicles may creep past crossing gates attempting to make right-turn-on-red; this maneuver should be banned and device placements and warning signs may need to be adjusted to provide positive control.	Nominal.

*Source: California Highway Patrol I-SWITRS reports for collisions occurred during the 5-year period between April 2006 and April 2011.

CONCLUSIONS

Milestone 2 analysis is typically undertaken during advanced conceptual/preliminary engineering and final environmental clearance. The Milestone 2 analysis indicates that it should be feasible to have all four analyzed crossings operate at grade if the following roadway or safety treatments are provided for these locations, as summarized in Table 10. The final decision should be secured in conjunction with final engineering of the Project.

Table 10. Summary of Potential Traffic Control And Safety Measures			
ID	Grade Crossing	City	Proposed Measures
15	Grand Ave & Foothill Bl	Glendora	• Provide four quadrant gates • Provide pedestrian gates • Education programs to be implemented as appropriate for the local schools • Revise pedestrian channelization to improve control of movements • Provide pre-emption of the traffic control • Consider use of narrow median along Foothill Boulevard • Incorporate provision to ban right-turn-on-red • Provide potential anti-queuing controls include: installation of "DO NOT BLOCK INTERSECTION" sign and "KEEP CLEAR" pavement marking at the Grand Avenue & Foothill Boulevard intersection and the side-street stop-controlled intersection at Grand Avenue & Carrol Avenue
23	Gladstone St	San Dimas	• Provide four quadrant gates • Provide pedestrian gates • Education programs to be implemented as appropriate for the local schools • Potential anti-queuing controls include: installation of "DO NOT BLOCK INTERSECTION" sign and "KEEP CLEAR" pavement marking at the adjacent signalized intersections of Lone Hill Avenue & Gladstone Street and Amelia Avenue & Gladstone Street
25	Cataract Ave & Bonita Ave	San Dimas	• Potential measure is to reconfigure the intersection as a traffic island or re-align Bonita and reduce the median width to reduce the size of the intersection and install traffic signals. • Provide four quadrant gates • Provide pedestrian gates • Education programs to be implemented as appropriate for the local schools • Provide pre-emption of the traffic control • Adjust device placements and warning signs to provide positive control.
27	San Dimas Ave	San Dimas	• Provide four quadrant gates • Provide pedestrian gates • Provide potential anti-queuing controls include: installation of "DO NOT BLOCK INTERSECTION" sign and "KEEP CLEAR" pavement marking for the nearby intersections, including: San Dimas Avenue & Bonita Avenue and San Dimas Avenue & W. Railway.

APPENDIX A:
METRO GRADE CROSSING POLICY EVALUATION FLOW CHARTS
AND NOMOGRAPH FOR INITIAL SCREENING

Figure 2 – Evaluation Flowchart

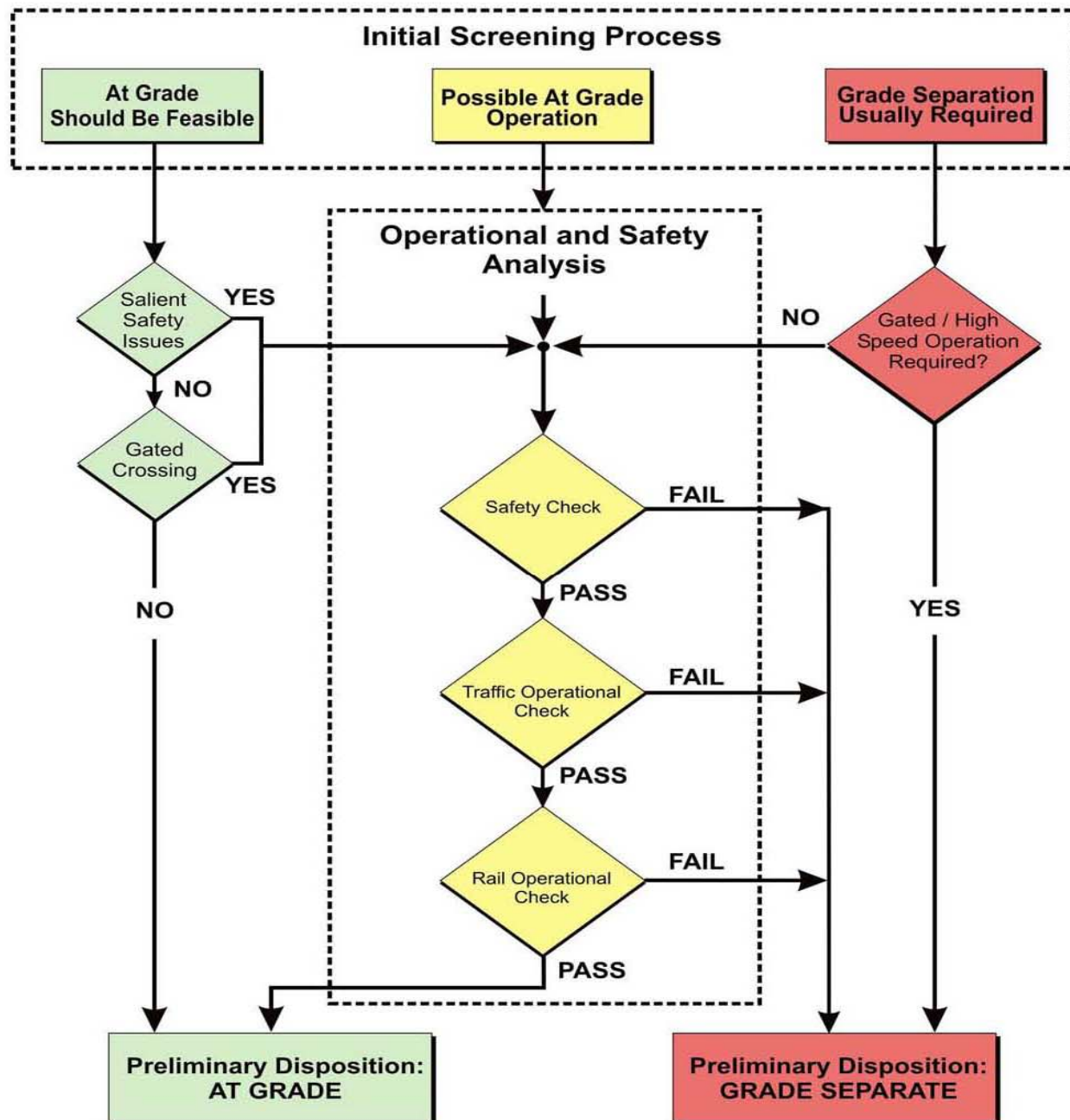
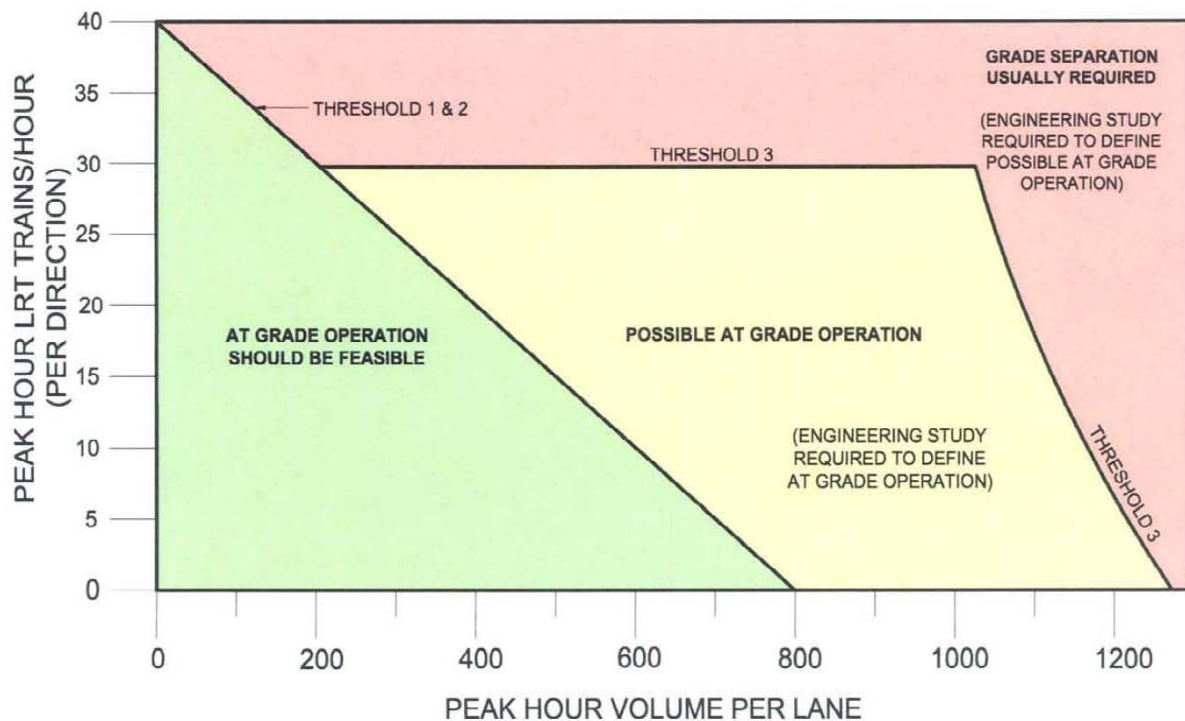


Figure 3 – Nomograph for Initial Screening



NOTES:

- ROADWAY VOLUME IS PEAK HOUR, HIGHEST PER LANE FLOW RATE
- ADAPTED FROM INSTITUTE OF TRANSPORTATION ENGINEERS INFORMATIONAL REPORT, LIGHT RAIL TRANSIT GRADE SEPARATION GUIDELINES, 1992, THRESHOLD 1 AND THRESHOLD 2 COMBINED.

Appendix G

TSM (2035) Mitigated Synchro Analysis Output

AM Peak Hour

Lanes, Volumes, Timings
14: Route 66 & Glenwood Ave

TSM Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	880	7	19	1629	41	12	3	6	87	1	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1738	0	0	1718	0
Flt Permitted	0.120			0.272				0.832			0.795	
Satd. Flow (perm)	224	3539	1583	507	3539	1583	0	1486	0	0	1408	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			7			21		7			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3195			651			285			629	
Travel Time (s)		72.6			14.8			6.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	51	957	8	21	1771	45	0	23	0	0	151	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	39.0	39.0	39.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	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
Act Effect Green (s)	33.2	33.2	33.2	33.2	33.2	33.2		10.2			10.2	
Actuated g/C Ratio	0.64	0.64	0.64	0.64	0.64	0.64		0.20			0.20	
v/c Ratio	0.35	0.42	0.01	0.06	0.78	0.04		0.08			0.52	
Control Delay	14.0	5.6	3.0	4.9	10.5	3.0		14.6			23.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	14.0	5.6	3.0	4.9	10.5	3.0		14.6			23.9	
LOS	B	A	A	A	B	A		B			C	
Approach Delay		6.0			10.2			14.6			23.9	
Approach LOS		A			B			B			C	
Queue Length 50th (ft)	6	58	0	2	158	2		4			38	
Queue Length 95th (ft)	37	118	4	10	323	13		19			83	
Internal Link Dist (ft)		3115			571			205			549	
Turn Bay Length (ft)	100		50	100		50						
Base Capacity (vph)	155	2454	1100	352	2454	1104		505			485	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.33	0.39	0.01	0.06	0.72	0.04		0.05			0.31	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 51.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 9.5

Intersection LOS: A

Intersection Capacity Utilization 61.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 14: Route 66 & Glenwood Ave



Lanes, Volumes, Timings
36: Bonita Ave & Monte Vista Ave

TSM Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	299	11	11	663	12	5	2	7	4	2	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	50		50	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1853	0	1770	1857	0	0	1701	0	0	1638	0
Flt Permitted	0.267			0.558				0.903			0.975	
Satd. Flow (perm)	497	1853	0	1039	1857	0	0	1561	0	0	1604	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			8			39	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		654			666			304			764	
Travel Time (s)		14.9			15.1			6.9			17.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	337	0	12	734	0	0	15	0	0	45	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	22.0	22.0	0.0	22.0	22.0	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
Act Effct Green (s)	18.9	18.9		18.9	18.9			6.3			6.3	
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.19			0.19	
v/c Ratio	0.07	0.32		0.02	0.70			0.05			0.14	
Control Delay	3.5	4.4		2.8	9.1			12.1			8.7	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	3.5	4.4		2.8	9.1			12.1			8.7	
LOS	A	A		A	A			B			A	
Approach Delay		4.4			9.0			12.1			8.7	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	1	21		1	64			1			1	
Queue Length 95th (ft)	6	50		4	148			14			22	
Internal Link Dist (ft)		574			586			224			684	
Turn Bay Length (ft)	100			50								
Base Capacity (vph)	461	1720		964	1723			885			923	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.04	0.20		0.01	0.43			0.02			0.05	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 7.6

Intersection LOS: A

Intersection Capacity Utilization 45.6%

ICU Level of Service A

Lanes, Volumes, Timings
36: Bonita Ave & Monte Vista Ave

TSM Mitigated
AM Peak Hour

Analysis Period (min) 15

Splits and Phases: 36: Bonita Ave & Monte Vista Ave



Lanes, Volumes, Timings
48: Arrow Hwy & A St

TSM Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	776	5	8	1338	26	7	6	7	32	2	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5080	0	1770	5070	0	0	1814	1583	0	1779	1583
Flt Permitted	0.163			0.321				0.857			0.735	
Satd. Flow (perm)	304	5080	0	598	5070	0	0	1596	1583	0	1369	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			8				8			27
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1239			1875			197			179	
Travel Time (s)		28.2			42.6			4.5			4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	848	0	9	1482	0	0	15	8	0	37	27
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effct Green (s)	24.6	24.6		24.6	24.6			6.7	6.7		6.7	6.7
Actuated g/C Ratio	0.62	0.62		0.62	0.62			0.17	0.17		0.17	0.17
v/c Ratio	0.19	0.27		0.02	0.47			0.06	0.03		0.16	0.09
Control Delay	5.7	3.5		2.9	4.4			17.3	11.4		18.6	9.3
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	5.7	3.5		2.9	4.4			17.3	11.4		18.6	9.3
LOS	A	A		A	A			B	B		B	A
Approach Delay		3.6			4.4			15.2			14.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	2	21		1	44			3	0		7	0
Queue Length 95th (ft)	12	38		4	75			16	9		30	16
Internal Link Dist (ft)		1159			1795			117			99	
Turn Bay Length (ft)	130			130								
Base Capacity (vph)	262	4369		514	4361			754	751		646	762
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.13	0.19		0.02	0.34			0.02	0.01		0.06	0.04

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 39.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 4.5

Intersection LOS: A

Intersection Capacity Utilization 43.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 48: Arrow Hwy & A St



Lanes, Volumes, Timings
65: Arrow Hwy & La Verne Ave

TSM Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (vph)	3	352	0	1	573	7	245	0	5	5	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		150	0		50	0		0
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5085	0	1770	3539	1583	0	1770	1583	0	1788	0
Flt Permitted	0.400			0.516				0.754			0.819	
Satd. Flow (perm)	745	5085	0	961	3539	1583	0	1405	1583	0	1526	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						8			5			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2545			329			1165			176	
Travel Time (s)		57.8			7.5			26.5			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	383	0	1	623	8	0	266	5	0	6	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	33.0	33.0	33.0	33.0	33.0	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
Act Effct Green (s)	12.4	12.4		12.4	12.4	12.4		12.1	12.1		12.1	
Actuated g/C Ratio	0.38	0.38		0.38	0.38	0.38		0.37	0.37		0.37	
v/c Ratio	0.01	0.20		0.00	0.47	0.01		0.52	0.01		0.01	
Control Delay	7.7	7.7		8.0	9.5	5.1		12.8	5.4		7.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	7.7	7.7		8.0	9.5	5.1		12.8	5.4		7.5	
LOS	A	A		A	A	A		B	A		A	
Approach Delay		7.7			9.5			12.7			7.5	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	0	13		0	36	0		31	0		1	
Queue Length 95th (ft)	4	37		2	93	6		99	4		6	
Internal Link Dist (ft)		2465			249			1085			96	
Turn Bay Length (ft)	130			130		150			50			
Base Capacity (vph)	551	3762		711	2618	1173		1223	1379		1328	
Starvation Cap Reductn	0	0		0	0	0		0	0		0	
Spillback Cap Reductn	0	0		0	0	0		0	0		0	
Storage Cap Reductn	0	0		0	0	0		0	0		0	
Reduced v/c Ratio	0.01	0.10		0.00	0.24	0.01		0.22	0.00		0.00	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 33

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 9.6

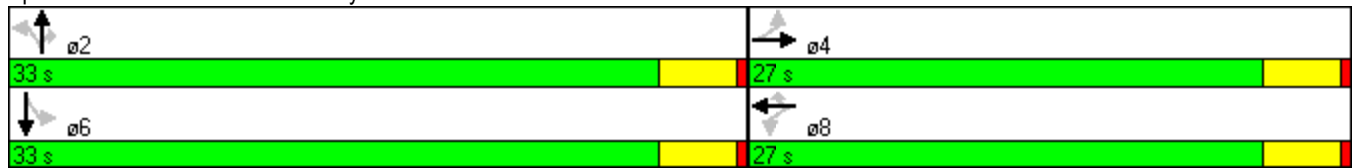
Intersection LOS: A

Intersection Capacity Utilization 37.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 65: Arrow Hwy & La Verne Ave



PM Peak Hour

Lanes, Volumes, Timings
14: Route 66 & Glenwood Ave

TSM Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	76	1461	10	36	857	63	3	3	8	65	6	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	0		0	0		0
Storage Lanes	1		1	1		1	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	0	1695	0	0	1715	0
Flt Permitted	0.286			0.131				0.939			0.822	
Satd. Flow (perm)	533	3539	1583	244	3539	1583	0	1607	0	0	1448	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			6			60		9			52	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3195			651			285			629	
Travel Time (s)		72.6			14.8			6.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	83	1588	11	39	932	68	0	15	0	0	130	0
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		
Total Split (s)	39.0	39.0	39.0	39.0	39.0	39.0	21.0	21.0	0.0	21.0	21.0	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
Act Effct Green (s)	30.5	30.5	30.5	30.5	30.5	30.5		8.3			8.3	
Actuated g/C Ratio	0.65	0.65	0.65	0.65	0.65	0.65		0.18			0.18	
v/c Ratio	0.24	0.69	0.01	0.25	0.41	0.06		0.05			0.44	
Control Delay	5.9	7.5	2.7	8.7	4.7	1.6		13.1			17.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Total Delay	5.9	7.5	2.7	8.7	4.7	1.6		13.1			17.4	
LOS	A	A	A	A	A	A		B			B	
Approach Delay		7.4			4.7			13.1			17.4	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	106	1	3	46	1		2			21	
Queue Length 95th (ft)	28	217	5	20	96	11		13			60	
Internal Link Dist (ft)		3115			571			205			549	
Turn Bay Length (ft)	100		50	100		50						
Base Capacity (vph)	406	2694	1206	186	2694	1219		604			572	
Starvation Cap Reductn	0	0	0	0	0	0		0			0	
Spillback Cap Reductn	0	0	0	0	0	0		0			0	
Storage Cap Reductn	0	0	0	0	0	0		0			0	
Reduced v/c Ratio	0.20	0.59	0.01	0.21	0.35	0.06		0.02			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 6.9

Intersection LOS: A

Intersection Capacity Utilization 67.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 14: Route 66 & Glenwood Ave



Lanes, Volumes, Timings
36: Bonita Ave & Monte Vista Ave

TSM Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	73	794	16	17	583	70	12	12	16	21	4	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	50		50	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1857	0	1770	1833	0	0	1738	0	0	1662	0
Flt Permitted	0.306			0.200				0.891			0.915	
Satd. Flow (perm)	570	1857	0	373	1833	0	0	1572	0	0	1539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			18			17			68	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		654			666			304			764	
Travel Time (s)		14.9			15.1			6.9			17.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	79	880	0	18	710	0	0	43	0	0	95	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	20.0	20.0	0.0	20.0	20.0	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
Act Effct Green (s)	25.5	25.5		25.5	25.5			7.0			7.0	
Actuated g/C Ratio	0.62	0.62		0.62	0.62			0.17			0.17	
v/c Ratio	0.22	0.76		0.08	0.62			0.15			0.30	
Control Delay	5.0	10.5		3.8	7.1			14.7			11.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	5.0	10.5		3.8	7.1			14.7			11.3	
LOS	A	B		A	A			B			B	
Approach Delay		10.0			7.1			14.7			11.3	
Approach LOS		B			A			B			B	
Queue Length 50th (ft)	5	96		1	65			5			5	
Queue Length 95th (ft)	21	244		7	159			29			39	
Internal Link Dist (ft)		574			586			224			684	
Turn Bay Length (ft)	100			50								
Base Capacity (vph)	491	1600		321	1582			661			677	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.16	0.55		0.06	0.45			0.07			0.14	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 40.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 62.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 36: Bonita Ave & Monte Vista Ave



Lanes, Volumes, Timings
48: Arrow Hwy & A St

TSM Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	81	1147	10	2	861	56	7	2	10	14	0	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5080	0	1770	5040	0	0	1792	1583	0	1770	1583
Flt Permitted	0.275			0.201				0.806			0.751	
Satd. Flow (perm)	512	5080	0	374	5040	0	0	1501	1583	0	1399	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			29				11			21
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1239			1875			197			179	
Travel Time (s)		28.2			42.6			4.5			4.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	1258	0	2	997	0	0	10	11	0	15	21
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effct Green (s)	21.1	21.1		21.1	21.1			6.2	6.2		6.2	6.2
Actuated g/C Ratio	0.59	0.59		0.59	0.59			0.17	0.17		0.17	0.17
v/c Ratio	0.29	0.42		0.01	0.33			0.04	0.04		0.06	0.07
Control Delay	6.0	4.1		2.5	3.6			16.7	10.9		17.0	9.8
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	6.0	4.1		2.5	3.6			16.7	10.9		17.0	9.8
LOS	A	A		A	A			B	B		B	A
Approach Delay		4.2			3.6			13.6			12.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	6	33		0	24			2	0		2	0
Queue Length 95th (ft)	21	53		1	39			13	11		17	15
Internal Link Dist (ft)		1159			1795			117			99	
Turn Bay Length (ft)	130			130								
Base Capacity (vph)	470	4664		343	4629			751	797		700	802
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.19	0.27		0.01	0.22			0.01	0.01		0.02	0.03

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 35.8

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.42

Intersection Signal Delay: 4.2

Intersection LOS: A

Intersection Capacity Utilization 43.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 48: Arrow Hwy & A St



Lanes, Volumes, Timings
65: Arrow Hwy & La Verne Ave

TSM Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (vph)	6	944	0	6	524	3	187	0	5	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		150	0		50	0		0
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5085	0	1770	3539	1583	0	1770	1583	0	1770	0
Flt Permitted	0.438			0.251				0.757			0.630	
Satd. Flow (perm)	816	5085	0	468	3539	1583	0	1410	1583	0	1174	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						3			5			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2545			329			1165			176	
Travel Time (s)		57.8			7.5			26.5			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	1026	0	7	570	3	0	203	5	0	2	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	29.0	29.0	29.0	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
Act Effect Green (s)	16.8	16.8		16.8	16.8	16.8		11.0	11.0		11.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46	0.46		0.30	0.30		0.30	
v/c Ratio	0.02	0.44		0.03	0.35	0.00		0.48	0.01		0.01	
Control Delay	6.2	7.4		6.5	7.2	4.7		15.6	7.4		10.5	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	6.2	7.4		6.5	7.2	4.7		15.6	7.4		10.5	
LOS	A	A		A	A	A		B	A		B	
Approach Delay		7.4			7.1			15.4			10.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	1	41		1	31	0		30	0		0	
Queue Length 95th (ft)	6	89		6	75	3		92	5		4	
Internal Link Dist (ft)		2465			249			1085			96	
Turn Bay Length (ft)	130			130		150			50			
Base Capacity (vph)	630	3926		361	2732	1223		1029	1156		856	
Starvation Cap Reductn	0	0		0	0	0		0	0		0	
Spillback Cap Reductn	0	0		0	0	0		0	0		0	
Storage Cap Reductn	0	0		0	0	0		0	0		0	
Reduced v/c Ratio	0.01	0.26		0.02	0.21	0.00		0.20	0.00		0.00	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.2

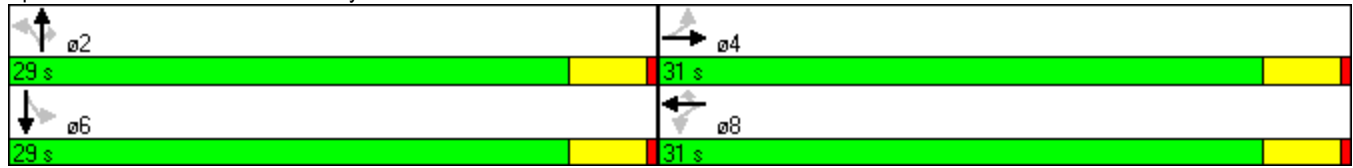
Intersection LOS: A

Intersection Capacity Utilization 34.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 65: Arrow Hwy & La Verne Ave



Appendix H

Build (2035) Mitigated Synchro Analysis Output

AM Peak Hour

Lanes, Volumes, Timings
14: Route 66 & Glenwood Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	860	7	18	1657	40	11	3	6	86	1	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3529	0	0	1735	0	0	1706	0
Flt Permitted	0.118			0.275				0.839			0.814	
Satd. Flow (perm)	220	3536	0	512	3529	0	0	1496	0	0	1427	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			7			7			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3195			651			285			629	
Travel Time (s)		72.6			14.8			6.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	50	943	0	20	1844	0	0	22	0	0	166	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	21.0	21.0	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
Act Effct Green (s)	33.8	33.8		33.8	33.8			10.7			10.7	
Actuated g/C Ratio	0.64	0.64		0.64	0.64			0.20			0.20	
v/c Ratio	0.35	0.42		0.06	0.81			0.07			0.55	
Control Delay	14.6	5.8		5.2	12.2			14.3			24.3	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	14.6	5.8		5.2	12.2			14.3			24.3	
LOS	B	A		A	B			B			C	
Approach Delay		6.2			12.1			14.3			24.3	
Approach LOS		A			B			B			C	
Queue Length 50th (ft)	6	59		2	178			4			43	
Queue Length 95th (ft)	38	122		10	#408			18			91	
Internal Link Dist (ft)		3115			571			205			549	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	148	2383		345	2380			494			478	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.34	0.40		0.06	0.77			0.04			0.35	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 10.9

Intersection LOS: B

Intersection Capacity Utilization 64.7%

ICU Level of Service C

Lanes, Volumes, Timings
14: Route 66 & Glenwood Ave

Build Mitigated
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 14: Route 66 & Glenwood Ave



Lanes, Volumes, Timings
37: Second St & San Dimas Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	7	10	7	1	8	14	7	390	4	8	524	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	50		50	50		50
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1761	0	0	1708	0	1770	1863	1583	1770	1863	1583
Flt Permitted							0.446			0.515		
Satd. Flow (perm)	0	1788	0	0	1712	0	831	1863	1583	959	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			15				4			10
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			2476			780			334	
Travel Time (s)		15.0			56.3			17.7			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	27	0	0	25	0	8	424	4	9	570	13
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effct Green (s)		6.2			6.1		29.4	29.4	29.4	29.4	29.4	29.4
Actuated g/C Ratio		0.20			0.19		0.93	0.93	0.93	0.93	0.93	0.93
v/c Ratio		0.08			0.07		0.01	0.24	0.00	0.01	0.33	0.01
Control Delay		11.7			10.1		1.7	1.6	1.5	1.6	2.0	1.2
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		11.7			10.1		1.7	1.6	1.5	1.6	2.0	1.2
LOS		B			B		A	A	A	A	A	A
Approach Delay		11.7			10.1			1.6			2.0	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		2			1		0	0	0	0	0	0
Queue Length 95th (ft)		19			17		3	67	2	3	100	3
Internal Link Dist (ft)		581			2396			700			254	
Turn Bay Length (ft)							50		50	50		50
Base Capacity (vph)		942			905		799	1792	1523	922	1792	1523
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.03			0.03		0.01	0.24	0.00	0.01	0.32	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 31.6

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 2.3

Intersection LOS: A

Intersection Capacity Utilization 38.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 37: Second St & San Dimas Ave



Lanes, Volumes, Timings
43: Arrow Hwy & San Dimas Canyon Rd

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	234	501	18	25	1077	125	41	51	68	131	33	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.734			0.721		
Satd. Flow (perm)	1770	5060	0	1770	5085	1583	1367	1863	1583	1343	1863	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		7							74			291
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	254	565	0	27	1171	136	45	55	74	142	36	291
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	17.0	80.0	0.0	17.0	80.0	12.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effct Green (s)	13.1	41.7		6.8	28.8	8.1	14.5	14.5	14.5	14.5	14.5	14.5
Actuated g/C Ratio	0.16	0.52		0.08	0.36	0.10	0.18	0.18	0.18	0.18	0.18	0.18
v/c Ratio	0.88	0.22		0.18	0.64	0.86	0.18	0.16	0.21	0.59	0.11	0.56
Control Delay	67.3	12.0		40.0	23.4	83.1	31.6	30.8	9.7	42.5	30.1	8.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.3	12.0		40.0	23.4	83.1	31.6	30.8	9.7	42.5	30.1	8.7
LOS	E	B		D	C	F	C	C	A	D	C	A
Approach Delay		29.1			29.9			22.0			20.5	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	131	48		13	182	71	20	24	0	67	15	0
Queue Length 95th (ft)	#303	93		40	229	#195	53	60	36	137	44	67
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	288	4693		288	4716	158	291	396	395	286	396	566
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.12		0.09	0.25	0.86	0.15	0.14	0.19	0.50	0.09	0.51

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 80.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 27.6

Intersection LOS: C

Intersection Capacity Utilization 57.7%

ICU Level of Service B

Lanes, Volumes, Timings 43: Arrow Hwy & San Dimas Canyon Rd

Build Mitigated
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd

 ø2	 ø3	 ø4	 ø10
21 s	17 s	80 s	12 s
 ø6	 ø7	 ø8	
21 s	17 s	80 s	

Lanes, Volumes, Timings
45: Arrow Hwy & Wheeler Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	101	500	34	35	974	341	30	32	15	341	98	176
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		1	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5034	0	1770	5085	1583	1770	1863	1583	0	3296	0
Flt Permitted	0.950			0.950			0.184				0.785	
Satd. Flow (perm)	1770	5034	0	1770	5085	1583	343	1863	1583	0	2659	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		10							16		35	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	110	580	0	38	1059	371	33	35	16	0	669	0
Turn Type	Prot			Prot	custom		Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		
Total Split (s)	11.0	80.0	0.0	11.0	80.0	27.0	32.0	32.0	32.0	32.0	32.0	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
Act Effct Green (s)	7.0	35.3		6.6	30.7	23.1	28.1	28.1	28.1		28.1	
Actuated g/C Ratio	0.07	0.34		0.06	0.29	0.22	0.27	0.27	0.27		0.27	
v/c Ratio	0.93	0.34		0.34	0.71	1.07	0.36	0.07	0.04		0.95dl	
Control Delay	116.6	26.8		57.3	35.9	107.8	46.6	31.2	14.3		53.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay	116.6	26.8		57.3	35.9	107.8	46.6	31.2	14.3		53.6	
LOS	F	C		E	D	F	D	C	B		D	
Approach Delay		41.2			54.6			34.0			53.6	
Approach LOS		D			D			C			D	
Queue Length 50th (ft)	75	111		25	231	~275	18	18	0		217	
Queue Length 95th (ft)	#199	143		63	279	#504	54	46	18		#368	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	118	3659		118	3693	348	92	499	435		737	
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	
Reduced v/c Ratio	0.93	0.16		0.32	0.29	1.07	0.36	0.07	0.04		0.91	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 104.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 50.6

Intersection LOS: D

Intersection Capacity Utilization 60.0%

ICU Level of Service B

Lanes, Volumes, Timings 45: Arrow Hwy & Wheeler Ave

Build Mitigated
AM Peak Hour

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 45: Arrow Hwy & Wheeler Ave

 ø2	 ø3	 ø4	 ø10
32 s	11 s	80 s	27 s
 ø6	 ø7	 ø8	
32 s	11 s	80 s	

Lanes, Volumes, Timings
51: Arrow Hwy & D St

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	55	741	28	14	1261	94	57	27	15	158	39	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5060	0	1770	5085	1583	0	1801	1583	0	1790	1583
Flt Permitted	0.950			0.950				0.636			0.707	
Satd. Flow (perm)	1770	5060	0	1770	5085	1583	0	1185	1583	0	1317	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		9							16			51
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	835	0	15	1371	102	0	91	16	0	214	51
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	8.0	80.0	0.0	8.0	80.0	10.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effct Green (s)	4.0	39.3		4.0	32.6	6.0		18.1	18.1		18.1	18.1
Actuated g/C Ratio	0.05	0.51		0.05	0.42	0.08		0.24	0.24		0.24	0.24
v/c Ratio	0.65	0.32		0.16	0.64	0.82		0.33	0.04		0.69	0.12
Control Delay	71.1	11.4		42.0	18.6	84.2		30.6	13.3		42.4	9.3
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	71.1	11.4		42.0	18.6	84.2		30.6	13.3		42.4	9.3
LOS	E	B		D	B	F		C	B		D	A
Approach Delay		15.4			23.4			28.0			36.0	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	29	75		7	181	49		36	0		93	0
Queue Length 95th (ft)	#100	123		27	223	#152		88	16		#223	28
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	93	4874		93	4898	124		279	385		310	412
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.65	0.17		0.16	0.28	0.82		0.33	0.04		0.69	0.12

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 76.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 22.2

Intersection LOS: C

Intersection Capacity Utilization 55.2%

ICU Level of Service B

Lanes, Volumes, Timings 51: Arrow Hwy & D St

Build Mitigated
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 51: Arrow Hwy & D St

 ø2 22 s	 ø3 8 s	 ø4 80 s	 ø10 10 s
 ø6 22 s	 ø7 8 s	 ø8 80 s	

HCM Unsignalized Intersection Capacity Analysis

56: Third St & White Ave

Build Mitigated
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	1	41	7	5	19	59	531	3	2	749	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	1	45	8	5	21	64	577	3	2	814	36
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								460			296	
pX, platoon unblocked	0.77	0.77	0.73	0.77	0.77	0.93	0.73			0.93		
vC, conflicting volume	1547	1527	814	1569	1560	577	850			580		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1347	1321	565	1375	1363	504	614			508		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	99	88	90	95	96	91			100		
cM capacity (veh/h)	85	109	385	77	103	526	708			980		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	1	45	13	21	641	3	816	36				
Volume Left	0	0	8	0	64	0	2	0				
Volume Right	0	45	0	21	0	3	0	36				
cSH	109	385	86	526	708	1700	980	1700				
Volume to Capacity	0.01	0.12	0.15	0.04	0.09	0.00	0.00	0.02				
Queue Length 95th (ft)	1	10	13	3	7	0	0	0				
Control Delay (s)	38.2	15.6	54.1	12.1	2.4	0.0	0.1	0.0				
Lane LOS	E	C	F	B	A		A					
Approach Delay (s)	16.1		28.4		2.4		0.1					
Approach LOS	C		D									
Intersection Summary												
Average Delay			2.1									
Intersection Capacity Utilization			87.2%		ICU Level of Service			E				
Analysis Period (min)			15									

Lanes, Volumes, Timings
57: Second St & White Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	2	1	15	7	0	18	27	545	2	11	777	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1803	1583	0	1770	1583	0	1859	1583	0	1861	1583
Flt Permitted								0.954			0.993	
Satd. Flow (perm)	0	1863	1583	0	1863	1583	0	1777	1583	0	1850	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			16			20			2			15
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1744			205			252			460	
Travel Time (s)		39.6			4.7			5.7			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	16	0	8	20	0	621	2	0	857	15
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effect Green (s)		6.3	6.3		6.4	6.4		37.8	37.8		37.8	37.8
Actuated g/C Ratio		0.15	0.15		0.15	0.15		0.90	0.90		0.90	0.90
v/c Ratio		0.01	0.06		0.03	0.08		0.39	0.00		0.52	0.01
Control Delay		21.7	12.7		21.4	12.2		2.5	1.5		3.5	1.1
Queue Delay		0.0	0.0		0.0	0.0		0.1	0.0		0.0	0.0
Total Delay		21.7	12.7		21.4	12.2		2.6	1.5		3.5	1.1
LOS		C	B		C	B		A	A		A	A
Approach Delay		14.1			14.9			2.6			3.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		1	0		1	0		0	0		0	0
Queue Length 95th (ft)		7	14		13	16		102	1		176	3
Internal Link Dist (ft)		1664			125			172			380	
Turn Bay Length (ft)												
Base Capacity (vph)		771	665		771	667		1596	1422		1662	1423
Starvation Cap Reductn		0	0		0	0		154	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.00	0.02		0.01	0.03		0.43	0.00		0.52	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 42.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 3.4

Intersection LOS: A

Intersection Capacity Utilization 63.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 57: Second St & White Ave



Lanes, Volumes, Timings
58: First St & White Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	2	10	13	3	38	34	552	26	39	751	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	0		0
Storage Lanes	0		1	0		1	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1863	1583	0	1788	1583	1770	1863	1583	0	1859	1583
Flt Permitted							0.283				0.961	
Satd. Flow (perm)	0	1863	1583	0	1863	1583	527	1863	1583	0	1790	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			11			41			28			11
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		278			180			141			252	
Travel Time (s)		6.3			4.1			3.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	2	11	0	17	41	37	600	28	0	858	11
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effct Green (s)		6.6	6.6		6.6	6.6	38.0	38.0	38.0		38.0	38.0
Actuated g/C Ratio		0.15	0.15		0.15	0.15	0.84	0.84	0.84		0.84	0.84
v/c Ratio		0.01	0.05		0.06	0.16	0.08	0.38	0.02		0.57	0.01
Control Delay		20.5	12.8		21.6	10.0	2.7	3.2	1.1		5.1	1.3
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0		1.4	0.0
Total Delay		20.5	12.8		21.6	10.0	2.7	3.2	1.1		6.5	1.3
LOS		C	B		C	B	A	A	A		A	A
Approach Delay		14.0			13.4			3.1			6.4	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		1	0		5	0	2	50	0		93	0
Queue Length 95th (ft)		5	11		19	21	9	102	4		205	3
Internal Link Dist (ft)		198			100			61			172	
Turn Bay Length (ft)									100			
Base Capacity (vph)		708	608		708	627	442	1561	1331		1500	1328
Starvation Cap Reductn		0	0		0	0	0	0	0		420	0
Spillback Cap Reductn		0	0		0	0	0	0	0		0	0
Storage Cap Reductn		0	0		0	0	0	0	0		0	0
Reduced v/c Ratio		0.00	0.02		0.02	0.07	0.08	0.38	0.02		0.79	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 45.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.57

Intersection Signal Delay: 5.4

Intersection LOS: A

Intersection Capacity Utilization 85.5%

ICU Level of Service E

Lanes, Volumes, Timings
58: First St & White Ave

Build Mitigated
AM Peak Hour

Analysis Period (min) 15

Splits and Phases: 58: First St & White Ave



Lanes, Volumes, Timings
65: Arrow Hwy & La Verne Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (vph)	3	434	0	1	635	7	275	0	6	6	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		150	0		50	0		0
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5085	0	1770	3539	1583	0	1770	1583	0	1785	0
Flt Permitted	0.264			0.472				0.752			0.859	
Satd. Flow (perm)	492	5085	0	879	3539	1583	0	1401	1583	0	1600	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						8			7			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2545			329			1165			176	
Travel Time (s)		57.8			7.5			26.5			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	3	472	0	1	690	8	0	299	7	0	8	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Total Split (s)	27.0	27.0	0.0	27.0	27.0	27.0	33.0	33.0	33.0	33.0	33.0	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
Act Effct Green (s)	16.8	16.8		16.8	16.8	16.8		29.2	29.2		29.2	
Actuated g/C Ratio	0.31	0.31		0.31	0.31	0.31		0.54	0.54		0.54	
v/c Ratio	0.02	0.30		0.00	0.63	0.02		0.39	0.01		0.01	
Control Delay	12.3	14.3		12.0	18.4	7.4		10.4	5.0		7.6	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	12.3	14.3		12.0	18.4	7.4		10.4	5.0		7.6	
LOS	B	B		B	B	A		B	A		A	
Approach Delay		14.3			18.3			10.3			7.6	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)	1	41		0	97	0		50	0		1	
Queue Length 95th (ft)	5	61		3	141	7		122	5		7	
Internal Link Dist (ft)		2465			249			1085			96	
Turn Bay Length (ft)	130			130		150			50			
Base Capacity (vph)	211	2179		377	1517	683		757	859		864	
Starvation Cap Reductn	0	0		0	0	0		0	0		0	
Spillback Cap Reductn	0	0		0	0	0		0	0		0	
Storage Cap Reductn	0	0		0	0	0		0	0		0	
Reduced v/c Ratio	0.01	0.22		0.00	0.45	0.01		0.39	0.01		0.01	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 15.3

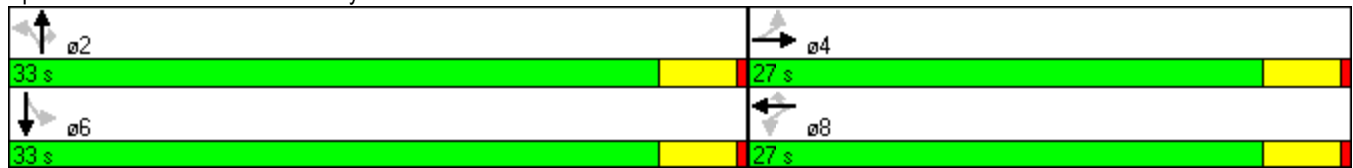
Intersection LOS: B

Intersection Capacity Utilization 40.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 65: Arrow Hwy & La Verne Ave



Lanes, Volumes, Timings
66: Bonita Ave & Futon Rd

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	549	41	13	364	8	47	3	51	25	12	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1842	0	1770	1857	0	0	1779	1583	0	1801	1583
Flt Permitted	0.512			0.313				0.719			0.799	
Satd. Flow (perm)	954	1842	0	583	1857	0	0	1339	1583	0	1488	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			3				55			88
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1774			1944			323			209	
Travel Time (s)		40.3			44.2			7.3			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	14	642	0	14	405	0	0	54	55	0	40	88
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	38.0	38.0	0.0	38.0	38.0	0.0	22.0	22.0	22.0	22.0	22.0	22.0
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
Act Effct Green (s)	17.3	17.3		17.3	17.3			7.2	7.2		7.2	7.2
Actuated g/C Ratio	0.53	0.53		0.53	0.53			0.22	0.22		0.22	0.22
v/c Ratio	0.03	0.66		0.05	0.42			0.18	0.14		0.12	0.21
Control Delay	3.7	9.2		3.9	5.9			14.7	6.4		13.9	5.9
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	3.7	9.2		3.9	5.9			14.7	6.4		13.9	5.9
LOS	A	A		A	A			B	A		B	A
Approach Delay		9.1			5.9			10.5			8.4	
Approach LOS		A			A			B			A	
Queue Length 50th (ft)	1	59		1	31			7	0		5	0
Queue Length 95th (ft)	5	144		6	77			34	21		27	26
Internal Link Dist (ft)		1694			1864			243			129	
Turn Bay Length (ft)												
Base Capacity (vph)	890	1719		544	1732			775	940		861	954
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.02	0.37		0.03	0.23			0.07	0.06		0.05	0.09

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 32.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 48.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 66: Bonita Ave & Futon Rd



HCM Unsignalized Intersection Capacity Analysis

67: Arrow Hwy & Fulton Rd

Build Mitigated
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Volume (veh/h)	23	478	0	9	663	30	20	23	12	25	13	24
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	25	520	0	10	721	33	22	25	13	27	14	26
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		329										
pX, platoon unblocked				0.97			0.97	0.97	0.97	0.97	0.97	
vC, conflicting volume	753			520			983	1342	173	989	1310	360
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	753			407			884	1253	51	890	1220	360
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			99			89	84	99	86	92	96
cM capacity (veh/h)	853			1116			203	160	978	195	167	636
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	25	208	208	104	10	360	360	33	22	38	41	26
Volume Left	25	0	0	0	10	0	0	0	22	0	27	0
Volume Right	0	0	0	0	0	0	0	33	0	13	0	26
cSH	853	1700	1700	1700	1116	1700	1700	1700	203	224	184	636
Volume to Capacity	0.03	0.12	0.12	0.06	0.01	0.21	0.21	0.02	0.11	0.17	0.22	0.04
Queue Length 95th (ft)	2	0	0	0	1	0	0	0	9	15	21	3
Control Delay (s)	9.4	0.0	0.0	0.0	8.3	0.0	0.0	0.0	24.8	24.3	30.1	10.9
Lane LOS	A				A				C	C	D	B
Approach Delay (s)	0.4				0.1				24.5		22.6	
Approach LOS									C		C	
Intersection Summary												
Average Delay			2.3									
Intersection Capacity Utilization			35.0%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
68: Bonita Ave & Garey Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	53	217	122	109	507	39	365	463	137	57	767	208
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	3433	3419	0	1770	3539	1583
Flt Permitted	0.225			0.568			0.950			0.950		
Satd. Flow (perm)	419	1863	1583	1058	1863	1583	3433	3419	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128			38			75			116
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
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
Shared Lane Traffic (%)												
Lane Group Flow (vph)	56	228	128	115	534	41	384	631	0	60	807	219
Turn Type	Perm		Perm	Perm		Perm	Prot			Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						6
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	12.0	22.0	0.0	10.0	20.0	20.0
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
Act Effct Green (s)	17.8	17.8	17.8	17.8	17.8	17.8	8.0	21.6		5.9	15.4	15.4
Actuated g/C Ratio	0.33	0.33	0.33	0.33	0.33	0.33	0.15	0.41		0.11	0.29	0.29
v/c Ratio	0.40	0.37	0.21	0.32	0.86	0.07	0.74	0.44		0.31	0.79	0.41
Control Delay	23.8	15.5	4.1	16.4	32.9	5.7	33.4	12.8		27.2	24.9	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	23.8	15.5	4.1	16.4	32.9	5.7	33.4	12.8		27.2	24.9	10.6
LOS	C	B	A	B	C	A	C	B		C	C	B
Approach Delay		13.1			28.5			20.6			22.1	
Approach LOS		B			C			C			C	
Queue Length 50th (ft)	14	54	0	27	156	1	63	75		19	126	25
Queue Length 95th (ft)	44	101	28	62	#309	16	#121	118		48	#194	71
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150			100		100
Base Capacity (vph)	150	667	649	378	667	591	517	1431		200	1067	558
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.37	0.34	0.20	0.30	0.80	0.07	0.74	0.44		0.30	0.76	0.39

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 53.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 21.9

Intersection LOS: C

Intersection Capacity Utilization 75.0%

ICU Level of Service D

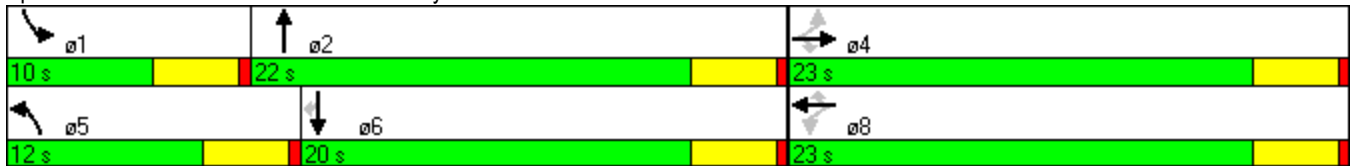
Lanes, Volumes, Timings
68: Bonita Ave & Garey Ave

Build Mitigated
AM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 68: Bonita Ave & Garey Ave



Lanes, Volumes, Timings
80: First St & College Ave

Build Mitigated
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	22	267	33	58	94	77	20	243	125	142	139	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3479	0	1770	1863	1583	0	1855	1583	0	1816	1583
Flt Permitted	0.691			0.555				0.965			0.719	
Satd. Flow (perm)	1287	3479	0	1034	1863	1583	0	1798	1583	0	1339	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23				84			136			17
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1452			3038			1651			641	
Travel Time (s)		33.0			69.0			37.5			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	24	326	0	63	102	84	0	286	136	0	305	17
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Total Split (s)	22.0	22.0	0.0	22.0	22.0	22.0	38.0	38.0	38.0	38.0	38.0	38.0
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
Act Effect Green (s)	8.3	8.3		8.3	8.3	8.3		13.4	13.4		13.4	13.4
Actuated g/C Ratio	0.28	0.28		0.28	0.28	0.28		0.45	0.45		0.45	0.45
v/c Ratio	0.07	0.33		0.22	0.20	0.17		0.36	0.17		0.51	0.02
Control Delay	9.5	9.4		11.3	10.0	4.1		7.1	2.0		9.7	2.9
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	9.5	9.4		11.3	10.0	4.1		7.1	2.0		9.7	2.9
LOS	A	A		B	A	A		A	A		A	A
Approach Delay		9.4			8.3			5.5			9.3	
Approach LOS		A			A			A			A	
Queue Length 50th (ft)	2	16		6	10	0		23	0		27	0
Queue Length 95th (ft)	15	48		30	40	20		66	16		81	6
Internal Link Dist (ft)		1372			2958			1571			561	
Turn Bay Length (ft)												
Base Capacity (vph)	795	2159		639	1151	1011		1748	1543		1302	1539
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.03	0.15		0.10	0.09	0.08		0.16	0.09		0.23	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 29.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 7.9

Intersection LOS: A

Intersection Capacity Utilization 54.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 80: First St & College Ave



PM Peak Hour

Lanes, Volumes, Timings
14: Route 66 & Glenwood Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	89	1487	11	36	838	62	3	3	8	64	6	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	100		50	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	3536	0	1770	3504	0	0	1695	0	0	1715	0
Flt Permitted	0.269			0.129				0.939			0.821	
Satd. Flow (perm)	501	3536	0	240	3504	0	0	1607	0	0	1447	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			22			9			51	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		3195			651			285			629	
Travel Time (s)		72.6			14.8			6.5			14.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	1628	0	39	978	0	0	15	0	0	128	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	0.0	21.0	21.0	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
Act Effct Green (s)	30.9	30.9		30.9	30.9			8.2			8.2	
Actuated g/C Ratio	0.65	0.65		0.65	0.65			0.17			0.17	
v/c Ratio	0.30	0.71		0.25	0.43			0.05			0.44	
Control Delay	6.9	7.6		8.8	4.7			13.1			17.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	6.9	7.6		8.8	4.7			13.1			17.5	
LOS	A	A		A	A			B			B	
Approach Delay		7.6			4.9			13.1			17.5	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	8	111		3	47			2			21	
Queue Length 95th (ft)	35	226		20	100			13			59	
Internal Link Dist (ft)		3115			571			205			549	
Turn Bay Length (ft)	100			100								
Base Capacity (vph)	379	2675		182	2656			599			566	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.26	0.61		0.21	0.37			0.03			0.23	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 47.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 7.1

Intersection LOS: A

Intersection Capacity Utilization 68.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 14: Route 66 & Glenwood Ave



Lanes, Volumes, Timings
37: Second St & San Dimas Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↗	↗	↗	↗	↗
Volume (vph)	6	21	17	6	13	16	38	652	2	14	529	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	50		50	50		50
Storage Lanes	0		0	0		0	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1755	0	0	1735	0	1770	1863	1583	1770	1863	1583
Flt Permitted		0.955			0.987		0.434			0.357		
Satd. Flow (perm)	0	1688	0	0	1728	0	808	1863	1583	665	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			17				1			3
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		661			2476			780			334	
Travel Time (s)		15.0			56.3			17.7			7.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	38	0	41	709	2	15	575	4
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effct Green (s)		6.7			6.6		31.5	31.5	31.5	31.5	31.5	31.5
Actuated g/C Ratio		0.18			0.18		0.87	0.87	0.87	0.87	0.87	0.87
v/c Ratio		0.15			0.12		0.06	0.44	0.00	0.03	0.36	0.00
Control Delay		13.3			12.8		2.5	3.6	2.5	2.5	3.0	2.0
Queue Delay		0.0			0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		13.3			12.8		2.5	3.6	2.5	2.5	3.0	2.0
LOS		B			B		A	A	A	A	A	A
Approach Delay		13.3			12.8			3.6			3.0	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		4			3		0	0	0	0	0	0
Queue Length 95th (ft)		30			25		10	148	1	5	106	2
Internal Link Dist (ft)		581			2396			700			254	
Turn Bay Length (ft)							50		50	50		50
Base Capacity (vph)		800			819		732	1688	1434	602	1688	1434
Starvation Cap Reductn		0			0		0	0	0	0	0	0
Spillback Cap Reductn		0			0		0	0	0	0	0	0
Storage Cap Reductn		0			0		0	0	0	0	0	0
Reduced v/c Ratio		0.06			0.05		0.06	0.42	0.00	0.02	0.34	0.00

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.3

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 3.9

Intersection LOS: A

Intersection Capacity Utilization 44.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 37: Second St & San Dimas Ave



Lanes, Volumes, Timings
43: Arrow Hwy & San Dimas Canyon Rd

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	290	873	71	41	681	162	26	41	30	137	48	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	230		0	200		0	0		50	230		0
Storage Lanes	1		0	1		1	1		1	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5029	0	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.950			0.950			0.723			0.728		
Satd. Flow (perm)	1770	5029	0	1770	5085	1583	1347	1863	1583	1356	1863	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		14							33			242
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2693			4073			407			1654	
Travel Time (s)		61.2			92.6			9.3			37.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	315	1026	0	45	740	176	28	45	33	149	52	242
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	23.0	80.0	0.0	23.0	80.0	16.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effct Green (s)	19.1	35.0		7.5	19.1	12.0	15.7	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.23	0.43		0.09	0.23	0.15	0.19	0.19	0.19	0.19	0.19	0.19
v/c Ratio	0.76	0.48		0.28	0.62	0.76	0.11	0.13	0.10	0.58	0.15	0.48
Control Delay	44.7	18.8		40.3	30.8	57.1	29.6	29.4	11.5	40.5	29.6	8.0
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	18.8		40.3	30.8	57.1	29.6	29.4	11.5	40.5	29.6	8.0
LOS	D	B		D	C	E	C	C	B	D	C	A
Approach Delay		24.9			36.0			23.9			21.5	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)	153	149		22	127	89	12	19	0	70	22	0
Queue Length 95th (ft)	#305	198		55	166	#206	36	50	24	138	55	60
Internal Link Dist (ft)		2613			3993			327			1574	
Turn Bay Length (ft)	230			200					50	230		
Base Capacity (vph)	412	4655		412	4706	233	280	388	356	283	388	521
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.22		0.11	0.16	0.76	0.10	0.12	0.09	0.53	0.13	0.46

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 81.9

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 28.1

Intersection LOS: C

Intersection Capacity Utilization 53.5%

ICU Level of Service A

Lanes, Volumes, Timings 43: Arrow Hwy & San Dimas Canyon Rd

Build Mitigated
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 43: Arrow Hwy & San Dimas Canyon Rd

 ø2	 ø3	 ø4	 ø10
21 s	23 s	80 s	16 s
 ø6	 ø7	 ø8	
21 s	23 s	80 s	

Lanes, Volumes, Timings
45: Arrow Hwy & Wheeler Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Volume (vph)	174	725	10	6	752	272	63	117	72	285	40	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	300		300	0		0
Storage Lanes	1		0	1		1	1		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5075	0	1770	5085	1583	1770	1863	1583	0	3309	0
Flt Permitted	0.950			0.950			0.345				0.699	
Satd. Flow (perm)	1770	5075	0	1770	5085	1583	643	1863	1583	0	2392	0
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		2							78		21	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		4073			1239			566			1014	
Travel Time (s)		92.6			28.2			12.9			23.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	799	0	7	817	296	68	127	78	0	452	0
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		
Total Split (s)	16.0	80.0	0.0	16.0	80.0	25.0	29.0	29.0	29.0	29.0	29.0	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
Act Effct Green (s)	12.0	36.9		6.0	22.9	21.0	25.0	25.0	25.0		25.0	
Actuated g/C Ratio	0.12	0.38		0.06	0.24	0.22	0.26	0.26	0.26		0.26	
v/c Ratio	0.86	0.41		0.06	0.68	0.86	0.41	0.26	0.17		0.97dl	
Control Delay	77.3	23.3		45.5	36.8	62.4	40.1	31.3	8.1		39.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Total Delay	77.3	23.3		45.5	36.8	62.4	40.1	31.3	8.1		39.0	
LOS	E	C		D	D	E	D	C	A		D	
Approach Delay		33.6			43.6			26.9			39.0	
Approach LOS		C			D			C			D	
Queue Length 50th (ft)	116	125		4	168	177	35	63	0		127	
Queue Length 95th (ft)	#255	190		19	211	#348	84	119	36		197	
Internal Link Dist (ft)		3993			1159			486			934	
Turn Bay Length (ft)	150			250			300		300			
Base Capacity (vph)	219	3983		219	3991	343	166	481	466		633	
Starvation Cap Reductn	0	0		0	0	0	0	0	0		0	
Spillback Cap Reductn	0	0		0	0	0	0	0	0		0	
Storage Cap Reductn	0	0		0	0	0	0	0	0		0	
Reduced v/c Ratio	0.86	0.20		0.03	0.20	0.86	0.41	0.26	0.17		0.71	

Intersection Summary

Area Type: Other

Cycle Length: 150

Actuated Cycle Length: 97

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 37.8

Intersection LOS: D

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Lanes, Volumes, Timings 45: Arrow Hwy & Wheeler Ave

Build Mitigated
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 45: Arrow Hwy & Wheeler Ave

 ø2	 ø3	 ø4	 ø10
29 s	16 s	80 s	25 s
 ø6	 ø7	 ø8	
29 s	16 s	80 s	

Lanes, Volumes, Timings
51: Arrow Hwy & D St

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Volume (vph)	105	1073	32	16	909	255	31	25	25	107	23	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	0		0	0		0
Storage Lanes	1		0	1		1	0		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5065	0	1770	5085	1583	0	1812	1583	0	1788	1583
Flt Permitted	0.950			0.950				0.798			0.722	
Satd. Flow (perm)	1770	5065	0	1770	5085	1583	0	1486	1583	0	1345	1583
Right Turn on Red			Yes			No			Yes			Yes
Satd. Flow (RTOR)		5							27			48
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1875			640			132			231	
Travel Time (s)		42.6			14.5			3.0			5.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	114	1201	0	17	988	277	0	61	27	0	141	48
Turn Type	Prot			Prot		custom	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases						10	2		2	6		6
Total Split (s)	13.0	80.0	0.0	13.0	80.0	27.0	20.0	20.0	20.0	20.0	20.0	20.0
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
Act Effct Green (s)	9.1	37.5		6.5	28.6	23.2		15.6	15.6		15.6	15.6
Actuated g/C Ratio	0.10	0.41		0.07	0.31	0.25		0.17	0.17		0.17	0.17
v/c Ratio	0.66	0.58		0.14	0.63	0.70		0.24	0.09		0.62	0.16
Control Delay	61.7	23.3		46.0	29.0	44.3		38.8	14.9		51.1	12.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	61.7	23.3		46.0	29.0	44.3		38.8	14.9		51.1	12.6
LOS	E	C		D	C	D		D	B		D	B
Approach Delay		26.7			32.5			31.5			41.3	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	63	179		9	180	141		30	0		74	0
Queue Length 95th (ft)	#168	274		33	222	#310		77	25		#180	34
Internal Link Dist (ft)		1795			560			52			151	
Turn Bay Length (ft)	200			200								
Base Capacity (vph)	173	4192		173	4208	396		259	298		234	315
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.66	0.29		0.10	0.23	0.70		0.24	0.09		0.60	0.15

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 92.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 30.4

Intersection LOS: C

Intersection Capacity Utilization 48.6%

ICU Level of Service A

Lanes, Volumes, Timings 51: Arrow Hwy & D St

Build Mitigated
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 51: Arrow Hwy & D St

 ø2	 ø3	 ø4	 ø10
20 s	13 s	80 s	27 s
 ø6	 ø7	 ø8	
20 s	13 s	80 s	

HCM Unsignalized Intersection Capacity Analysis

56: Third St & White Ave

Build Mitigated
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	6	11	11	6	7	15	43	956	26	11	619	17
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	12	12	7	8	16	47	1039	28	12	673	18
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)								460			296	
pX, platoon unblocked	0.37	0.37	0.81	0.37	0.37	0.28	0.81			0.28		
vC, conflicting volume	1849	1858	673	1847	1848	1039	691			1067		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1297	1319	480	1292	1293	0	503			0		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	84	78	97	84	86	95	95			97		
cM capacity (veh/h)	41	54	475	40	56	301	861			450		
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2				
Volume Total	18	12	14	16	1086	28	685	18				
Volume Left	7	0	7	0	47	0	12	0				
Volume Right	0	12	0	16	0	28	0	18				
cSH	48	475	47	301	861	1700	450	1700				
Volume to Capacity	0.38	0.03	0.30	0.05	0.05	0.02	0.03	0.01				
Queue Length 95th (ft)	34	2	26	4	4	0	2	0				
Control Delay (s)	119.5	12.8	112.1	17.7	1.7	0.0	0.8	0.0				
Lane LOS	F	B	F	C	A		A					
Approach Delay (s)	77.6		61.5		1.6		0.8					
Approach LOS	F		F									
Intersection Summary												
Average Delay			3.5									
Intersection Capacity Utilization			97.8%		ICU Level of Service			F				
Analysis Period (min)			15									

Lanes, Volumes, Timings
57: Second St & White Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	24	16	0	3	10	19	967	10	9	614	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	1831	1583	0	1863	1583	0	1861	1583	0	1861	1583
Flt Permitted		0.883						0.986			0.986	
Satd. Flow (perm)	0	1645	1583	0	1863	1583	0	1837	1583	0	1837	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			17			11			11			11
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1744			205			252			460	
Travel Time (s)		39.6			4.7			5.7			10.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	17	0	3	11	0	1072	11	0	677	11
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effct Green (s)		6.9	6.9		6.8	6.8		45.9	45.9		45.9	45.9
Actuated g/C Ratio		0.13	0.13		0.12	0.12		0.84	0.84		0.84	0.84
v/c Ratio		0.19	0.08		0.01	0.05		0.69	0.01		0.44	0.01
Control Delay		24.7	11.9		21.3	12.7		8.3	1.4		3.7	1.4
Queue Delay		0.0	0.0		0.0	0.0		3.5	0.0		0.0	0.0
Total Delay		24.7	11.9		21.3	12.7		11.7	1.4		3.7	1.4
LOS		C	B		C	B		B	A		A	A
Approach Delay		20.9			14.5			11.6			3.7	
Approach LOS		C			B			B			A	
Queue Length 50th (ft)		15	0		1	0		160	0		67	0
Queue Length 95th (ft)		33	14		6	11		#503	3		136	3
Internal Link Dist (ft)		1664			125			172			380	
Turn Bay Length (ft)												
Base Capacity (vph)		494	487		560	484		1547	1335		1547	1335
Starvation Cap Reductn		0	0		0	0		370	0		0	0
Spillback Cap Reductn		0	0		0	0		0	0		0	0
Storage Cap Reductn		0	0		0	0		0	0		0	0
Reduced v/c Ratio		0.08	0.03		0.01	0.02		0.91	0.01		0.44	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 54.5

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 81.4%

ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 57: Second St & White Ave



Lanes, Volumes, Timings
58: First St & White Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	21	24	21	15	0	30	24	941	31	22	593	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	0		0
Storage Lanes	0		1	0		1	1		1	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	0	1820	1583	0	1770	1583	1770	1863	1583	0	1859	1583
Flt Permitted		0.842			0.952		0.376				0.958	
Satd. Flow (perm)	0	1568	1583	0	1773	1583	700	1863	1583	0	1785	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			23			33			25			12
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		278			180			141			252	
Travel Time (s)		6.3			4.1			3.2			5.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	49	23	0	16	33	26	1023	34	0	669	12
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	40.0	40.0	40.0	40.0
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
Act Effct Green (s)		7.2	7.2		7.1	7.1	40.7	40.7	40.7		40.7	40.7
Actuated g/C Ratio		0.15	0.15		0.14	0.14	0.83	0.83	0.83		0.83	0.83
v/c Ratio		0.21	0.09		0.06	0.13	0.04	0.66	0.03		0.45	0.01
Control Delay		22.9	10.5		20.6	9.8	2.8	7.8	1.6		4.2	1.5
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0		1.1	0.0
Total Delay		22.9	10.5		20.6	9.8	2.8	7.8	1.6		5.4	1.5
LOS		C	B		C	A	A	A	A		A	A
Approach Delay		19.0			13.3			7.5			5.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		17	0		6	0	2	146	1		69	0
Queue Length 95th (ft)		37	15		17	18	7	#384	6		145	3
Internal Link Dist (ft)		198			100			61			172	
Turn Bay Length (ft)									100			
Base Capacity (vph)		532	553		602	560	580	1544	1316		1479	1314
Starvation Cap Reductn		0	0		0	0	0	0	0		544	0
Spillback Cap Reductn		0	0		0	0	0	0	0		0	0
Storage Cap Reductn		0	0		0	0	0	0	0		0	0
Reduced v/c Ratio		0.09	0.04		0.03	0.06	0.04	0.66	0.03		0.72	0.01

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 49.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 7.3

Intersection LOS: A

Intersection Capacity Utilization 66.2%

ICU Level of Service C

Lanes, Volumes, Timings
58: First St & White Ave

Build Mitigated
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 58: First St & White Ave



Lanes, Volumes, Timings
65: Arrow Hwy & La Verne Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 						 	
Volume (vph)	6	1001	0	6	606	3	186	0	5	2	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	130		0	130		150	0		50	0		0
Storage Lanes	1		0	1		1	0		1	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	5085	0	1770	3539	1583	0	1770	1583	0	1770	0
Flt Permitted	0.389			0.230				0.757			0.631	
Satd. Flow (perm)	725	5085	0	428	3539	1583	0	1410	1583	0	1175	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						3			5			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		2545			329			1165			176	
Travel Time (s)		57.8			7.5			26.5			4.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	7	1088	0	7	659	3	0	202	5	0	2	0
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	29.0	29.0	29.0	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
Act Effct Green (s)	17.6	17.6		17.6	17.6	17.6		11.1	11.1		11.1	
Actuated g/C Ratio	0.47	0.47		0.47	0.47	0.47		0.30	0.30		0.30	
v/c Ratio	0.02	0.45		0.03	0.39	0.00		0.48	0.01		0.01	
Control Delay	6.2	7.4		6.5	7.3	4.3		16.2	7.8		11.0	
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	
Total Delay	6.2	7.4		6.5	7.3	4.3		16.2	7.8		11.0	
LOS	A	A		A	A	A		B	A		B	
Approach Delay		7.4			7.3			16.0			11.0	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	1	44		1	37	0		32	0		0	
Queue Length 95th (ft)	6	94		6	87	3		96	6		4	
Internal Link Dist (ft)		2465			249			1085			96	
Turn Bay Length (ft)	130			130		150			50			
Base Capacity (vph)	550	3856		324	2684	1201		1011	1136		843	
Starvation Cap Reductn	0	0		0	0	0		0	0		0	
Spillback Cap Reductn	0	0		0	0	0		0	0		0	
Storage Cap Reductn	0	0		0	0	0		0	0		0	
Reduced v/c Ratio	0.01	0.28		0.02	0.25	0.00		0.20	0.00		0.00	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.2

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 8.3

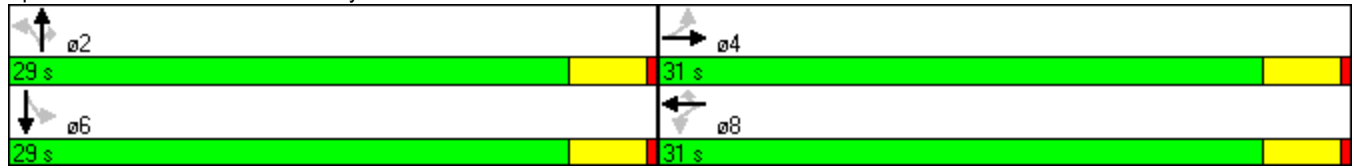
Intersection LOS: A

Intersection Capacity Utilization 36.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 65: Arrow Hwy & La Verne Ave



Lanes, Volumes, Timings
66: Bonita Ave & Futon Rd

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	458	41	41	637	39	53	14	31	17	10	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	1840	0	1770	1846	0	0	1792	1583	0	1807	1583
Flt Permitted	0.259			0.399				0.757			0.822	
Satd. Flow (perm)	482	1840	0	743	1846	0	0	1410	1583	0	1531	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			9				34			47
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1774			1944			323			209	
Travel Time (s)		40.3			44.2			7.3			4.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	543	0	45	734	0	0	73	34	0	29	47
Turn Type	Perm			Perm			Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		6
Total Split (s)	39.0	39.0	0.0	39.0	39.0	0.0	21.0	21.0	21.0	21.0	21.0	21.0
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
Act Effct Green (s)	20.9	20.9		20.9	20.9			7.9	7.9		7.9	7.9
Actuated g/C Ratio	0.56	0.56		0.56	0.56			0.21	0.21		0.21	0.21
v/c Ratio	0.33	0.52		0.11	0.71			0.25	0.09		0.09	0.13
Control Delay	8.1	6.8		4.3	10.0			17.7	8.0		16.1	7.4
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay	8.1	6.8		4.3	10.0			17.7	8.0		16.1	7.4
LOS	A	A		A	B			B	A		B	A
Approach Delay		7.0			9.7			14.6			10.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	7	49		3	78			12	0		5	0
Queue Length 95th (ft)	30	116		13	189			49	18		25	21
Internal Link Dist (ft)		1694			1864			243			129	
Turn Bay Length (ft)												
Base Capacity (vph)	429	1639		661	1644			691	794		751	800
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.21	0.33		0.07	0.45			0.11	0.04		0.04	0.06

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 37.4

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.71

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 60.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 66: Bonita Ave & Futon Rd



HCM Unsignalized Intersection Capacity Analysis

67: Arrow Hwy & Fulton Rd

Build Mitigated
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			 			 				
Volume (veh/h)	27	901	1	15	654	16	10	14	17	15	9	50
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	29	979	1	16	711	17	11	15	18	16	10	54
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)		329										
pX, platoon unblocked				0.92			0.92	0.92	0.92	0.92	0.92	
vC, conflicting volume	728			980			1486	1799	327	1155	1783	355
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	728			673			1223	1564	0	863	1545	355
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			98			89	84	98	91	90	92
cM capacity (veh/h)	871			840			101	96	997	189	99	641
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	WB 4	NB 1	NB 2	SB 1	SB 2
Volume Total	29	392	392	197	16	355	355	17	11	34	26	54
Volume Left	29	0	0	0	16	0	0	0	11	0	16	0
Volume Right	0	0	0	1	0	0	0	17	0	18	0	54
cSH	871	1700	1700	1700	840	1700	1700	1700	101	191	141	641
Volume to Capacity	0.03	0.23	0.23	0.12	0.02	0.21	0.21	0.01	0.11	0.18	0.18	0.08
Queue Length 95th (ft)	3	0	0	0	1	0	0	0	9	16	16	7
Control Delay (s)	9.3	0.0	0.0	0.0	9.4	0.0	0.0	0.0	44.8	27.8	36.2	11.1
Lane LOS	A				A				E	D	E	B
Approach Delay (s)	0.3				0.2				32.0		19.3	
Approach LOS									D		C	
Intersection Summary												
Average Delay				1.8								
Intersection Capacity Utilization			37.1%		ICU Level of Service				A			
Analysis Period (min)			15									

Lanes, Volumes, Timings
68: Bonita Ave & Garey Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	181	509	363	123	212	80	118	757	119	46	579	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		100	100		100	150		100	100		100
Storage Lanes	1		1	1		1	2		0	1		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	3433	3468	0	1770	3539	1583
Flt Permitted	0.591			0.230			0.950			0.950		
Satd. Flow (perm)	1101	1863	1583	428	1863	1583	3433	3468	0	1770	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			254			87			30			88
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			3647			1128			1056	
Travel Time (s)		11.5			82.9			25.6			24.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	197	553	395	134	230	87	128	952	0	50	629	88
Turn Type	Perm		Perm	Perm		Perm	Prot			Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						6
Total Split (s)	29.0	29.0	29.0	29.0	29.0	29.0	8.0	23.0	0.0	8.0	23.0	23.0
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
Act Effct Green (s)	21.3	21.3	21.3	21.3	21.3	21.3	4.2	18.8		4.2	17.1	17.1
Actuated g/C Ratio	0.40	0.40	0.40	0.40	0.40	0.40	0.08	0.36		0.08	0.32	0.32
v/c Ratio	0.44	0.73	0.50	0.77	0.31	0.13	0.47	0.76		0.35	0.55	0.15
Control Delay	16.1	21.0	7.1	49.1	12.7	3.6	33.1	21.7		34.3	18.1	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	16.1	21.0	7.1	49.1	12.7	3.6	33.1	21.7		34.3	18.1	5.0
LOS	B	C	A	D	B	A	C	C		C	B	A
Approach Delay		15.4			21.8			23.1			17.7	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	48	158	31	39	53	0	23	162		18	97	0
Queue Length 95th (ft)	99	263	88	#128	96	21	#52	#263		#52	144	26
Internal Link Dist (ft)		424			3567			1048			976	
Turn Bay Length (ft)	100		100	100		100	150			100		100
Base Capacity (vph)	548	927	916	213	927	831	273	1365		141	1339	653
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.36	0.60	0.43	0.63	0.25	0.10	0.47	0.70		0.35	0.47	0.13

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 52.7

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 19.1

Intersection LOS: B

Intersection Capacity Utilization 75.0%

ICU Level of Service D

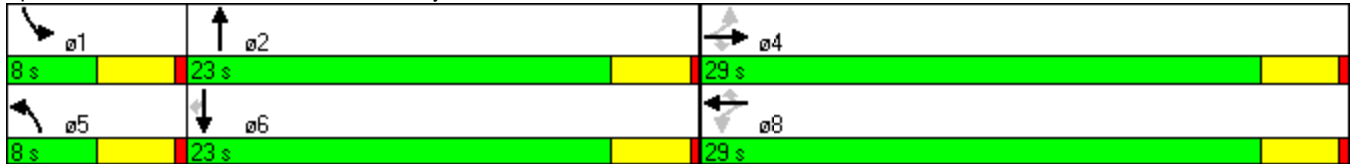
Lanes, Volumes, Timings
68: Bonita Ave & Garey Ave

Build Mitigated
PM Peak Hour

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 68: Bonita Ave & Garey Ave



Lanes, Volumes, Timings
80: First St & College Ave

Build Mitigated
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	122	63	87	376	124	23	195	48	47	235	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	1770	3359	0	1770	1863	1583	0	1853	1583	0	1848	1583
Flt Permitted	0.452			0.626				0.946			0.915	
Satd. Flow (perm)	842	3359	0	1166	1863	1583	0	1762	1583	0	1704	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		68				135			52			52
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1452			3038			1651			641	
Travel Time (s)		33.0			69.0			37.5			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	201	0	95	409	135	0	237	52	0	306	52
Turn Type	Perm			Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2		2	6		6
Total Split (s)	31.0	31.0	0.0	31.0	31.0	31.0	29.0	29.0	29.0	29.0	29.0	29.0
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
Act Effct Green (s)	14.9	14.9		14.9	14.9	14.9		12.4	12.4		12.4	12.4
Actuated g/C Ratio	0.41	0.41		0.41	0.41	0.41		0.34	0.34		0.34	0.34
v/c Ratio	0.15	0.14		0.20	0.53	0.18		0.39	0.09		0.52	0.09
Control Delay	8.5	5.1		8.5	11.2	2.7		12.2	4.3		14.1	4.3
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	8.5	5.1		8.5	11.2	2.7		12.2	4.3		14.1	4.3
LOS	A	A		A	B	A		B	A		B	A
Approach Delay		5.8			9.0			10.8			12.7	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)	5	6		10	49	0		31	0		42	0
Queue Length 95th (ft)	25	25		39	145	22		99	16		131	16
Internal Link Dist (ft)		1372			2958			1571			561	
Turn Bay Length (ft)												
Base Capacity (vph)	659	2645		913	1459	1269		1303	1185		1260	1185
Starvation Cap Reductn	0	0		0	0	0		0	0		0	0
Spillback Cap Reductn	0	0		0	0	0		0	0		0	0
Storage Cap Reductn	0	0		0	0	0		0	0		0	0
Reduced v/c Ratio	0.08	0.08		0.10	0.28	0.11		0.18	0.04		0.24	0.04

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 36.1

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 9.7

Intersection LOS: A

Intersection Capacity Utilization 63.0%

ICU Level of Service B

Analysis Period (min) 15

Lanes, Volumes, Timings
80: First St & College Ave

Build Mitigated
PM Peak Hour

Splits and Phases: 80: First St & College Ave

