

Attachment A:

Traffic Count Data Sheets

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-001 Alvarado-Davis

Site Code : 00000000

Start Date : 4/30/2013

Page No : 1

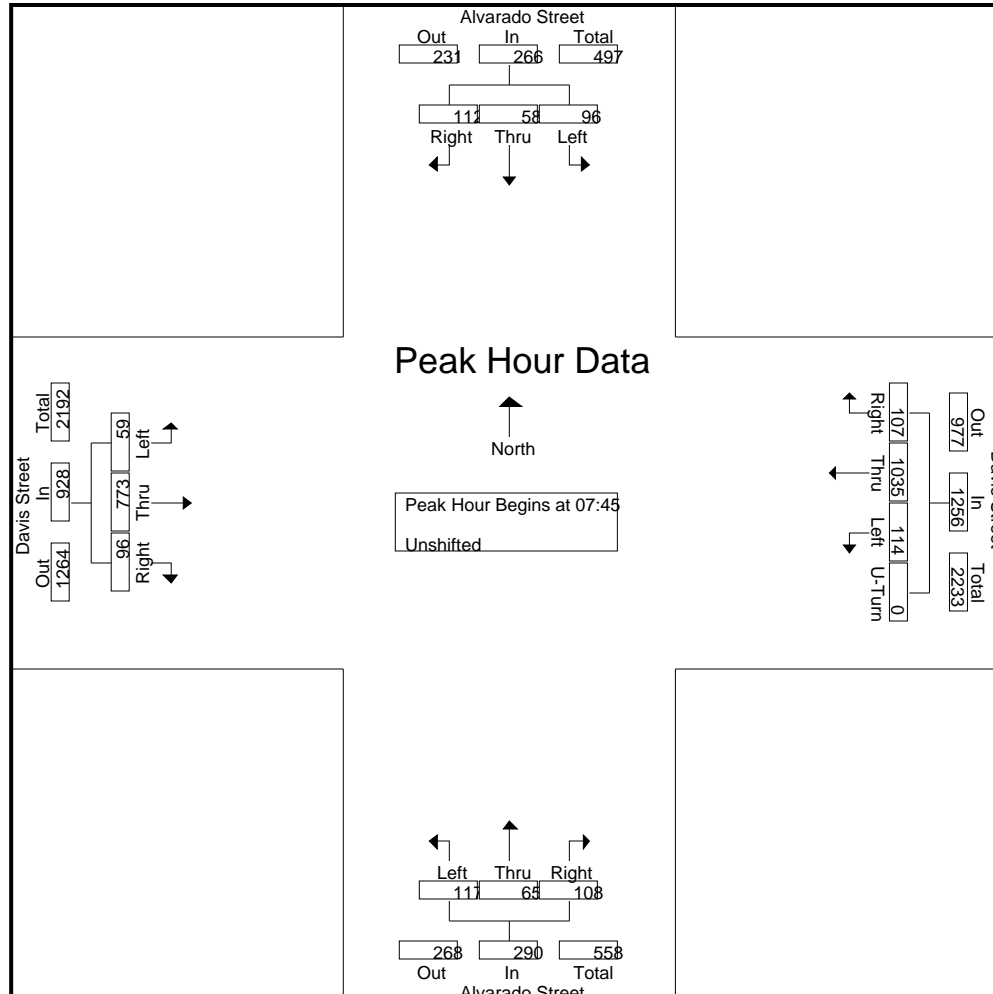
Groups Printed- Unshifted

| Start Time | Alvarado Street Southbound | | | | Davis Street Westbound | | | | | Alvarado Street Northbound | | | | Davis Street Eastbound | | | | Int. Total |
|-------------|----------------------------|------|-------|------------|------------------------|------|-------|--------|------------|----------------------------|------|-------|------------|------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| 07:00 | 15 | 6 | 16 | 37 | 10 | 176 | 11 | 0 | 197 | 12 | 0 | 7 | 19 | 20 | 115 | 15 | 150 | 403 |
| 07:15 | 15 | 8 | 33 | 56 | 19 | 207 | 6 | 0 | 232 | 15 | 8 | 18 | 41 | 10 | 140 | 16 | 166 | 495 |
| 07:30 | 21 | 13 | 19 | 53 | 25 | 250 | 10 | 0 | 285 | 12 | 11 | 20 | 43 | 7 | 176 | 17 | 200 | 581 |
| 07:45 | 37 | 23 | 32 | 92 | 34 | 267 | 27 | 0 | 328 | 22 | 15 | 33 | 70 | 9 | 202 | 28 | 239 | 729 |
| Total | 88 | 50 | 100 | 238 | 88 | 900 | 54 | 0 | 1042 | 61 | 34 | 78 | 173 | 46 | 633 | 76 | 755 | 2208 |
| 08:00 | 27 | 19 | 25 | 71 | 30 | 274 | 30 | 0 | 334 | 30 | 20 | 35 | 85 | 15 | 181 | 26 | 222 | 712 |
| 08:15 | 19 | 14 | 33 | 66 | 34 | 259 | 32 | 0 | 325 | 43 | 19 | 24 | 86 | 13 | 180 | 15 | 208 | 685 |
| 08:30 | 13 | 2 | 22 | 37 | 16 | 235 | 18 | 0 | 269 | 22 | 11 | 16 | 49 | 22 | 210 | 27 | 259 | 614 |
| 08:45 | 12 | 11 | 21 | 44 | 31 | 195 | 24 | 0 | 250 | 11 | 12 | 28 | 51 | 22 | 208 | 16 | 246 | 591 |
| Total | 71 | 46 | 101 | 218 | 111 | 963 | 104 | 0 | 1178 | 106 | 62 | 103 | 271 | 72 | 779 | 84 | 935 | 2602 |
| 15:00 | 15 | 15 | 6 | 36 | 19 | 242 | 20 | 2 | 283 | 23 | 11 | 29 | 63 | 16 | 317 | 24 | 357 | 739 |
| 15:15 | 21 | 9 | 20 | 50 | 20 | 279 | 24 | 2 | 325 | 26 | 9 | 41 | 76 | 12 | 304 | 21 | 337 | 788 |
| 15:30 | 15 | 2 | 21 | 38 | 18 | 265 | 21 | 0 | 304 | 25 | 7 | 37 | 69 | 22 | 292 | 16 | 330 | 741 |
| 15:45 | 19 | 16 | 29 | 64 | 17 | 272 | 20 | 1 | 310 | 24 | 11 | 42 | 77 | 16 | 317 | 14 | 347 | 798 |
| Total | 70 | 42 | 76 | 188 | 74 | 1058 | 85 | 5 | 1222 | 98 | 38 | 149 | 285 | 66 | 1230 | 75 | 1371 | 3066 |
| 16:00 | 12 | 7 | 31 | 50 | 13 | 277 | 25 | 2 | 317 | 28 | 3 | 42 | 73 | 16 | 304 | 15 | 335 | 775 |
| 16:15 | 26 | 8 | 19 | 53 | 16 | 225 | 15 | 0 | 256 | 26 | 7 | 36 | 69 | 17 | 283 | 14 | 314 | 692 |
| 16:30 | 30 | 19 | 23 | 72 | 15 | 251 | 11 | 2 | 279 | 28 | 5 | 38 | 71 | 16 | 285 | 8 | 309 | 731 |
| 16:45 | 30 | 16 | 22 | 68 | 15 | 229 | 13 | 0 | 257 | 22 | 11 | 41 | 74 | 20 | 264 | 15 | 299 | 698 |
| Total | 98 | 50 | 95 | 243 | 59 | 982 | 64 | 4 | 1109 | 104 | 26 | 157 | 287 | 69 | 1136 | 52 | 1257 | 2896 |
| 17:00 | 33 | 10 | 36 | 79 | 22 | 247 | 9 | 1 | 279 | 50 | 8 | 45 | 103 | 9 | 266 | 14 | 289 | 750 |
| 17:15 | 20 | 18 | 45 | 83 | 30 | 282 | 12 | 4 | 328 | 37 | 6 | 47 | 90 | 20 | 352 | 21 | 393 | 894 |
| 17:30 | 24 | 9 | 27 | 60 | 30 | 239 | 23 | 0 | 292 | 38 | 8 | 42 | 88 | 24 | 315 | 15 | 354 | 794 |
| 17:45 | 17 | 12 | 25 | 54 | 19 | 251 | 18 | 0 | 288 | 49 | 21 | 50 | 120 | 23 | 314 | 19 | 356 | 818 |
| Total | 94 | 49 | 133 | 276 | 101 | 1019 | 62 | 5 | 1187 | 174 | 43 | 184 | 401 | 76 | 1247 | 69 | 1392 | 3256 |
| Grand Total | 421 | 237 | 505 | 1163 | 433 | 4922 | 369 | 14 | 5738 | 543 | 203 | 671 | 1417 | 329 | 5025 | 356 | 5710 | 14028 |
| Apprch % | 36.2 | 20.4 | 43.4 | | 7.5 | 85.8 | 6.4 | 0.2 | | 38.3 | 14.3 | 47.4 | | 5.8 | 88 | 6.2 | | |
| Total % | 3 | 1.7 | 3.6 | 8.3 | 3.1 | 35.1 | 2.6 | 0.1 | 40.9 | 3.9 | 1.4 | 4.8 | 10.1 | 2.3 | 35.8 | 2.5 | 40.7 | |

| Start Time | Alvarado Street Southbound | | | | Davis Street Westbound | | | | | Alvarado Street Northbound | | | | Davis Street Eastbound | | | | Int. Total |
|--------------|----------------------------|------|-------|------------|------------------------|------|-------|--------|------------|----------------------------|------|-------|------------|------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| 07:45 | 37 | 23 | 32 | 92 | 34 | 267 | 27 | 0 | 328 | 22 | 15 | 33 | 70 | 9 | 202 | 28 | 239 | 729 |
| 08:00 | 27 | 19 | 25 | 71 | 30 | 274 | 30 | 0 | 334 | 30 | 20 | 35 | 85 | 15 | 181 | 26 | 222 | 712 |
| 08:15 | 19 | 14 | 33 | 66 | 34 | 259 | 32 | 0 | 325 | 43 | 19 | 24 | 86 | 13 | 180 | 15 | 208 | 685 |
| 08:30 | 13 | 2 | 22 | 37 | 16 | 235 | 18 | 0 | 269 | 22 | 11 | 16 | 49 | 22 | 210 | 27 | 259 | 614 |
| Total Volume | 96 | 58 | 112 | 266 | 114 | 1035 | 107 | 0 | 1256 | 117 | 65 | 108 | 290 | 59 | 773 | 96 | 928 | 2740 |
| % App. Total | 36.1 | 21.8 | 42.1 | | 9.1 | 82.4 | 8.5 | 0 | | 40.3 | 22.4 | 37.2 | | 6.4 | 83.3 | 10.3 | | |
| PHF | .649 | .630 | .848 | .723 | .838 | .944 | .836 | .000 | .940 | .680 | .813 | .771 | .843 | .670 | .920 | .857 | .896 | .940 |

Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:45



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-001 Alvarado-Davis

Site Code : 00000000

Start Date : 4/30/2013

Page No : 3

| Start Time | Alvarado Street Southbound | | | | Davis Street Westbound | | | | | Alvarado Street Northbound | | | | Davis Street Eastbound | | | | Int. Total |
|--|----------------------------|-----------|-----------|------------|------------------------|------------|-----------|----------|------------|----------------------------|-----------|-----------|------------|------------------------|------------|-----------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | |
| 17:00 | 33 | 10 | 36 | 79 | 22 | 247 | 9 | 1 | 279 | 50 | 8 | 45 | 103 | 9 | 266 | 14 | 289 | 750 |
| 17:15 | 20 | 18 | 45 | 83 | 30 | 282 | 12 | 4 | 328 | 37 | 6 | 47 | 90 | 20 | 352 | 21 | 393 | 894 |
| 17:30 | 24 | 9 | 27 | 60 | 30 | 239 | 23 | 0 | 292 | 38 | 8 | 42 | 88 | 24 | 315 | 15 | 354 | 794 |
| 17:45 | 17 | 12 | 25 | 54 | 19 | 251 | 18 | 0 | 288 | 49 | 21 | 50 | 120 | 23 | 314 | 19 | 356 | 818 |
| Total Volume | 94 | 49 | 133 | 276 | 101 | 1019 | 62 | 5 | 1187 | 174 | 43 | 184 | 401 | 76 | 1247 | 69 | 1392 | 3256 |
| % App. Total | 34.1 | 17.8 | 48.2 | | 8.5 | 85.8 | 5.2 | 0.4 | | 43.4 | 10.7 | 45.9 | | 5.5 | 89.6 | 5 | | |
| PHF | .712 | .681 | .739 | .831 | .842 | .903 | .674 | .313 | .905 | .870 | .512 | .920 | .835 | .792 | .886 | .821 | .885 | .911 |

All Traffic Data

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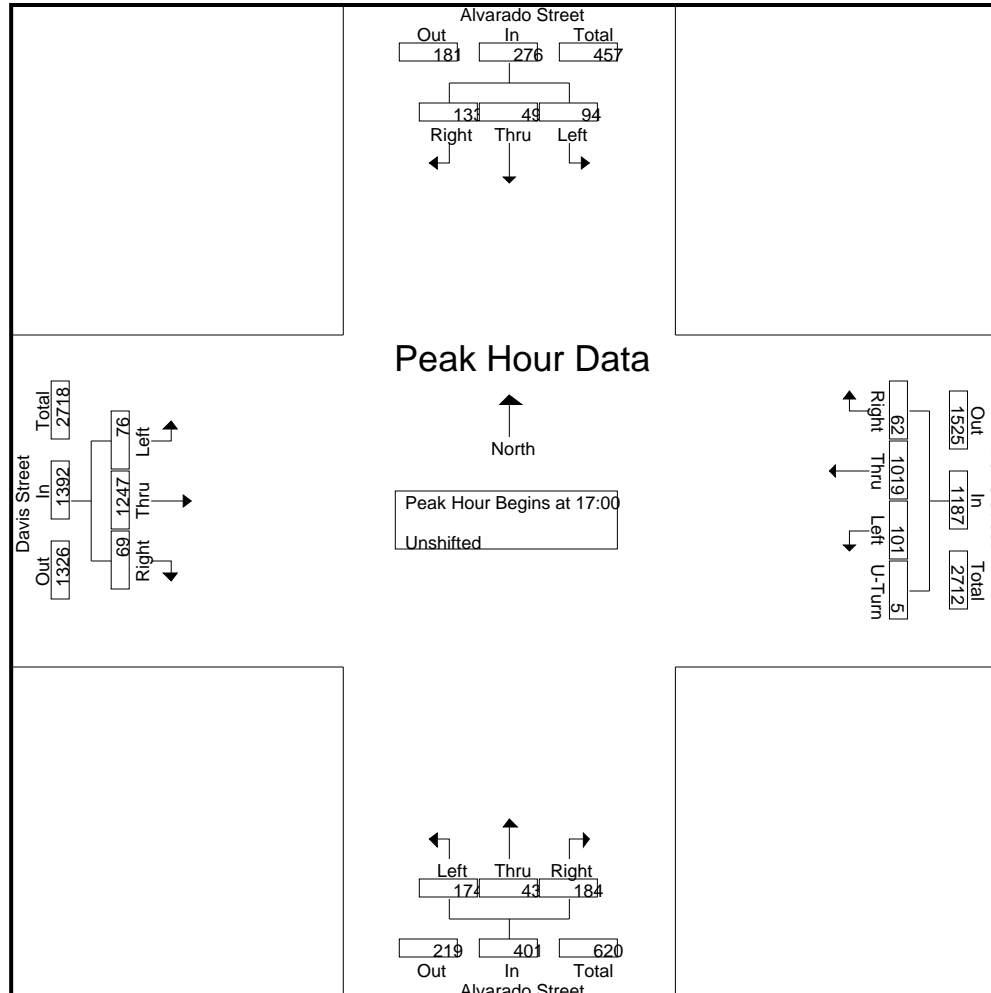
City of San Leandro

File Name : 13-7249-001 Alvarado-Davis

Site Code : 00000000

Start Date : 4/30/2013

Page No : 4



All Traffic Data

(916) 771-8700

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City of San Leandro

File Name : 13-7249-002 San Leandro-Davis

Site Code : 00000000

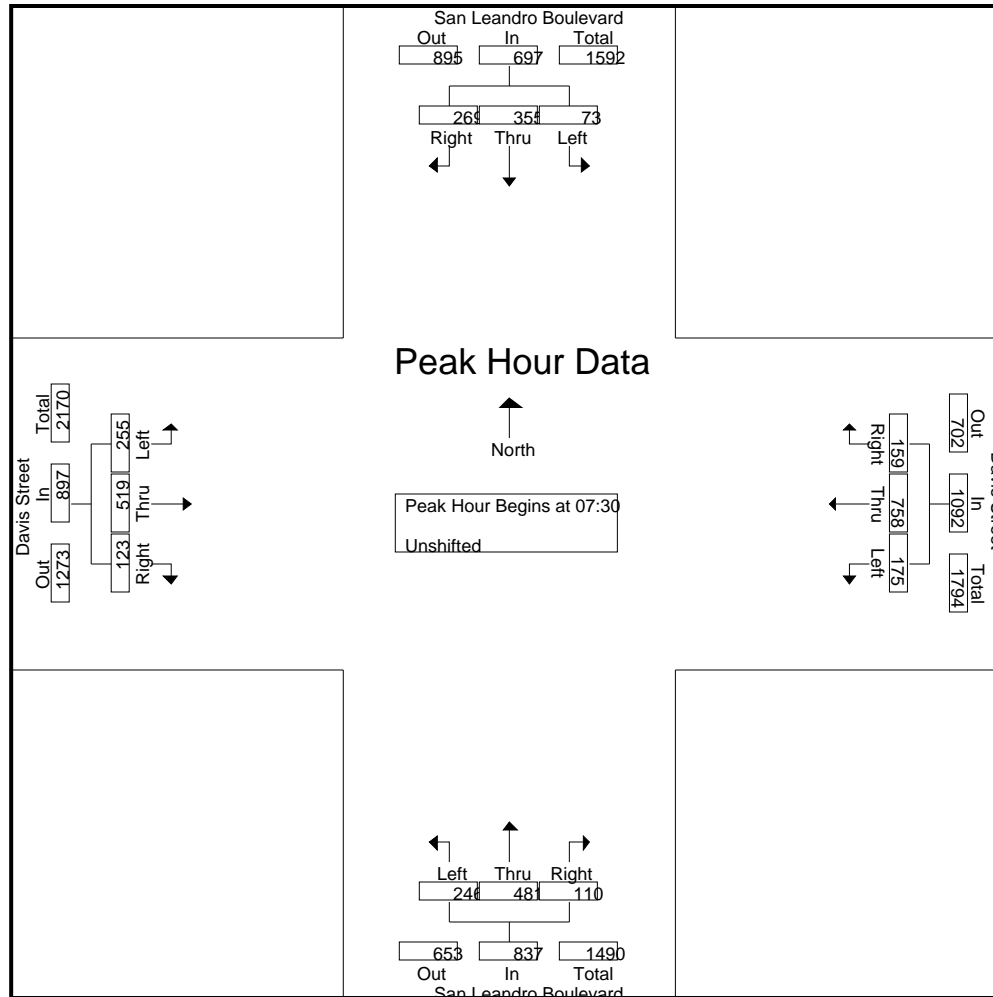
Start Date : 4/30/2013

Page No : 1

Groups Printed- Unshifted

| Start Time | San Leandro Boulevard Southbound | | | | Davis Street Westbound | | | | San Leandro Boulevard Northbound | | | | Davis Street Eastbound | | | | Int. Total |
|-------------|----------------------------------|------|-------|------------|------------------------|------|-------|------------|----------------------------------|------|-------|------------|------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| 07:00 | 15 | 42 | 41 | 98 | 36 | 119 | 17 | 172 | 46 | 45 | 12 | 103 | 39 | 80 | 17 | 136 | 509 |
| 07:15 | 10 | 74 | 59 | 143 | 49 | 126 | 25 | 200 | 34 | 57 | 23 | 114 | 40 | 101 | 13 | 154 | 611 |
| 07:30 | 22 | 83 | 59 | 164 | 45 | 187 | 24 | 256 | 54 | 103 | 28 | 185 | 52 | 96 | 23 | 171 | 776 |
| 07:45 | 21 | 106 | 74 | 201 | 53 | 180 | 48 | 281 | 60 | 125 | 34 | 219 | 47 | 162 | 45 | 254 | 955 |
| Total | 68 | 305 | 233 | 606 | 183 | 612 | 114 | 909 | 194 | 330 | 97 | 621 | 178 | 439 | 98 | 715 | 2851 |
| 08:00 | 9 | 85 | 70 | 164 | 43 | 200 | 46 | 289 | 74 | 118 | 23 | 215 | 79 | 144 | 28 | 251 | 919 |
| 08:15 | 21 | 81 | 66 | 168 | 34 | 191 | 41 | 266 | 58 | 135 | 25 | 218 | 77 | 117 | 27 | 221 | 873 |
| 08:30 | 11 | 74 | 61 | 146 | 34 | 161 | 38 | 233 | 47 | 101 | 21 | 169 | 69 | 117 | 23 | 209 | 757 |
| 08:45 | 15 | 62 | 53 | 130 | 36 | 155 | 21 | 212 | 35 | 78 | 12 | 125 | 77 | 145 | 21 | 243 | 710 |
| Total | 56 | 302 | 250 | 608 | 147 | 707 | 146 | 1000 | 214 | 432 | 81 | 727 | 302 | 523 | 99 | 924 | 3259 |
| 15:00 | 47 | 90 | 93 | 230 | 26 | 144 | 22 | 192 | 52 | 89 | 39 | 180 | 98 | 204 | 56 | 358 | 960 |
| 15:15 | 33 | 96 | 97 | 226 | 16 | 165 | 26 | 207 | 60 | 74 | 27 | 161 | 87 | 149 | 41 | 277 | 871 |
| 15:30 | 31 | 90 | 101 | 222 | 30 | 167 | 31 | 228 | 59 | 90 | 35 | 184 | 56 | 171 | 44 | 271 | 905 |
| 15:45 | 38 | 110 | 69 | 217 | 35 | 152 | 28 | 215 | 47 | 86 | 34 | 167 | 91 | 198 | 49 | 338 | 937 |
| Total | 149 | 386 | 360 | 895 | 107 | 628 | 107 | 842 | 218 | 339 | 135 | 692 | 332 | 722 | 190 | 1244 | 3673 |
| 16:00 | 30 | 109 | 86 | 225 | 29 | 165 | 18 | 212 | 53 | 78 | 30 | 161 | 103 | 214 | 52 | 369 | 967 |
| 16:15 | 45 | 92 | 64 | 201 | 32 | 139 | 21 | 192 | 46 | 99 | 44 | 189 | 112 | 226 | 37 | 375 | 957 |
| 16:30 | 55 | 124 | 83 | 262 | 29 | 164 | 37 | 230 | 51 | 87 | 26 | 164 | 91 | 219 | 53 | 363 | 1019 |
| 16:45 | 47 | 114 | 78 | 239 | 37 | 146 | 27 | 210 | 59 | 104 | 29 | 192 | 88 | 246 | 46 | 380 | 1021 |
| Total | 177 | 439 | 311 | 927 | 127 | 614 | 103 | 844 | 209 | 368 | 129 | 706 | 394 | 905 | 188 | 1487 | 3964 |
| 17:00 | 57 | 125 | 81 | 263 | 42 | 185 | 24 | 251 | 45 | 88 | 34 | 167 | 120 | 210 | 36 | 366 | 1047 |
| 17:15 | 41 | 128 | 79 | 248 | 48 | 191 | 25 | 264 | 54 | 104 | 36 | 194 | 105 | 226 | 51 | 382 | 1088 |
| 17:30 | 68 | 139 | 86 | 293 | 43 | 141 | 34 | 218 | 56 | 90 | 30 | 176 | 113 | 251 | 45 | 409 | 1096 |
| 17:45 | 50 | 125 | 73 | 248 | 34 | 162 | 30 | 226 | 52 | 91 | 44 | 187 | 117 | 246 | 36 | 399 | 1060 |
| Total | 216 | 517 | 319 | 1052 | 167 | 679 | 113 | 959 | 207 | 373 | 144 | 724 | 455 | 933 | 168 | 1556 | 4291 |
| Grand Total | 666 | 1949 | 1473 | 4088 | 731 | 3240 | 583 | 4554 | 1042 | 1842 | 586 | 3470 | 1661 | 3522 | 743 | 5926 | 18038 |
| Apprch % | 16.3 | 47.7 | 36 | | 16.1 | 71.1 | 12.8 | | 30 | 53.1 | 16.9 | | 28 | 59.4 | 12.5 | | |
| Total % | 3.7 | 10.8 | 8.2 | 22.7 | 4.1 | 18 | 3.2 | 25.2 | 5.8 | 10.2 | 3.2 | 19.2 | 9.2 | 19.5 | 4.1 | 32.9 | |

| Start Time | San Leandro Boulevard Southbound | | | | Davis Street Westbound | | | | San Leandro Boulevard Northbound | | | | Davis Street Eastbound | | | | Int. Total |
|--|----------------------------------|------|-------|------------|------------------------|------|-------|------------|----------------------------------|------|-------|------------|------------------------|------|-------|------------|------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | |
| 07:30 | 22 | 83 | 59 | 164 | 45 | 187 | 24 | 256 | 54 | 103 | 28 | 185 | 52 | 96 | 23 | 171 | 776 |
| 07:45 | 21 | 106 | 74 | 201 | 53 | 180 | 48 | 281 | 60 | 125 | 34 | 219 | 47 | 162 | 45 | 254 | 955 |
| 08:00 | 9 | 85 | 70 | 164 | 43 | 200 | 46 | 289 | 74 | 118 | 23 | 215 | 79 | 144 | 28 | 251 | 919 |
| 08:15 | 21 | 81 | 66 | 168 | 34 | 191 | 41 | 266 | 58 | 135 | 25 | 218 | 77 | 117 | 27 | 221 | 873 |
| Total Volume | 73 | 355 | 269 | 697 | 175 | 758 | 159 | 1092 | 246 | 481 | 110 | 837 | 255 | 519 | 123 | 897 | 3523 |
| % App. Total | 10.5 | 50.9 | 38.6 | | 16 | 69.4 | 14.6 | | 29.4 | 57.5 | 13.1 | | 28.4 | 57.9 | 13.7 | | |
| PHF | .830 | .837 | .909 | .867 | .825 | .948 | .828 | .945 | .831 | .891 | .809 | .955 | .807 | .801 | .683 | .883 | .922 |



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-002 San Leandro-Davis

Site Code : 00000000

Start Date : 4/30/2013

Page No : 3

| Start Time | San Leandro Boulevard Southbound | | | | Davis Street Westbound | | | | San Leandro Boulevard Northbound | | | | Davis Street Eastbound | | | | Int. Total |
|--|----------------------------------|------------|-----------|------------|------------------------|------------|-----------|------------|----------------------------------|------------|-----------|------------|------------------------|------------|-----------|------------|-------------|
| | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | |
| 17:00 | 57 | 125 | 81 | 263 | 42 | 185 | 24 | 251 | 45 | 88 | 34 | 167 | 120 | 210 | 36 | 366 | 1047 |
| 17:15 | 41 | 128 | 79 | 248 | 48 | 191 | 25 | 264 | 54 | 104 | 36 | 194 | 105 | 226 | 51 | 382 | 1088 |
| 17:30 | 68 | 139 | 86 | 293 | 43 | 141 | 34 | 218 | 56 | 90 | 30 | 176 | 113 | 251 | 45 | 409 | 1096 |
| 17:45 | 50 | 125 | 73 | 248 | 34 | 162 | 30 | 226 | 52 | 91 | 44 | 187 | 117 | 246 | 36 | 399 | 1060 |
| Total Volume | 216 | 517 | 319 | 1052 | 167 | 679 | 113 | 959 | 207 | 373 | 144 | 724 | 455 | 933 | 168 | 1556 | 4291 |
| % App. Total | 20.5 | 49.1 | 30.3 | | 17.4 | 70.8 | 11.8 | | 28.6 | 51.5 | 19.9 | | 29.2 | 60 | 10.8 | | |
| PHF | .794 | .930 | .927 | .898 | .870 | .889 | .831 | .908 | .924 | .897 | .818 | .933 | .948 | .929 | .824 | .951 | .979 |

All Traffic Data

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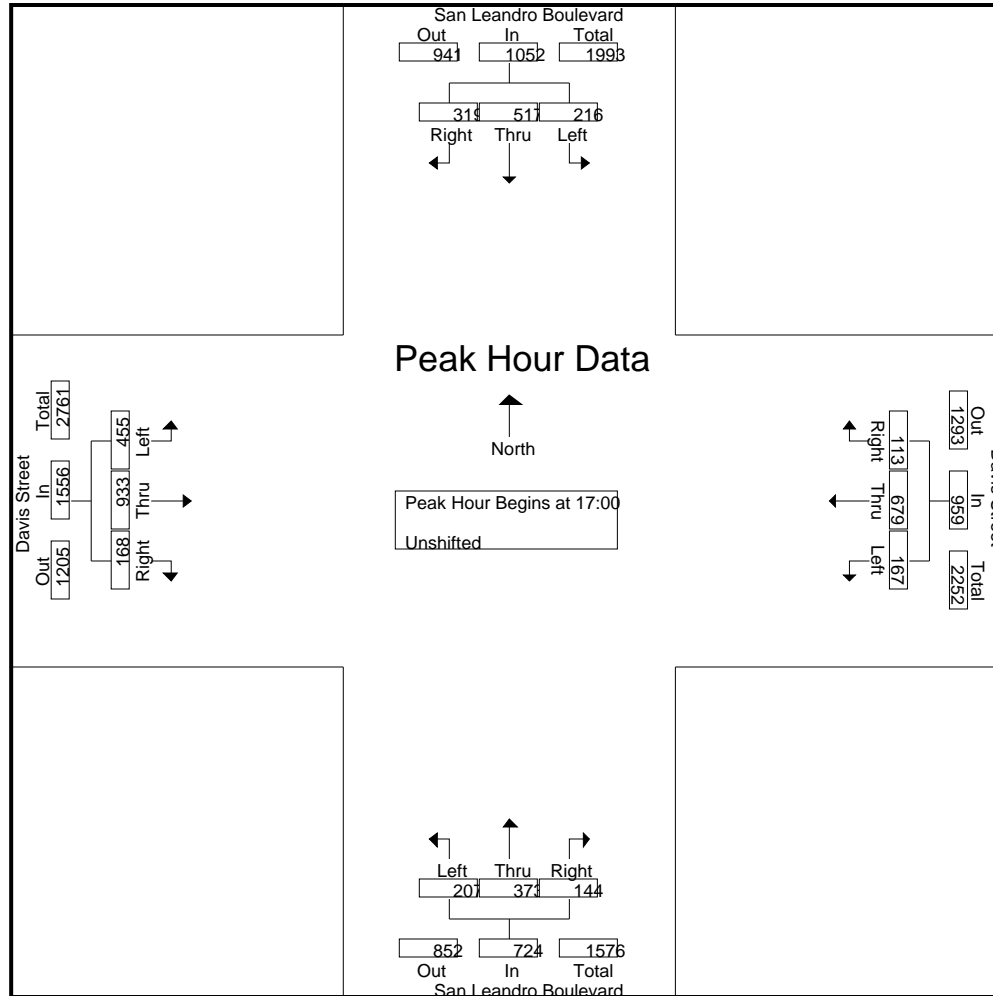
City of San Leandro

File Name : 13-7249-002 San Leandro-Davis

Site Code : 00000000

Start Date : 4/30/2013

Page No : 4



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-003 San Leandro-W Juana

Site Code : 00000000

Start Date : 4/30/2013

Page No : 1

Groups Printed- Unshifted

| Start Time | San Leandro Boulevard Southbound | | | | | West Juana Avenue Westbound | | | | | San Leandro Boulevard Northbound | | | | | BART Station Bus Exit Eastbound | | | | Int. Total |
|------------|----------------------------------|------|-------|--------|------------|-----------------------------|------|-------|--------|------------|----------------------------------|------|-------|--------|------------|---------------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| 07:00 | 3 | 55 | 0 | 0 | 58 | 18 | 0 | 17 | 0 | 35 | 0 | 72 | 11 | 0 | 83 | 3 | 1 | 0 | 4 | 180 |
| 07:15 | 13 | 76 | 0 | 2 | 91 | 20 | 0 | 21 | 0 | 41 | 0 | 86 | 8 | 0 | 94 | 3 | 1 | 1 | 5 | 231 |
| 07:30 | 14 | 105 | 0 | 1 | 120 | 20 | 0 | 12 | 0 | 32 | 0 | 159 | 17 | 0 | 176 | 6 | 1 | 0 | 7 | 335 |
| 07:45 | 13 | 146 | 0 | 6 | 165 | 46 | 0 | 17 | 0 | 63 | 0 | 152 | 20 | 0 | 172 | 2 | 1 | 0 | 3 | 403 |
| Total | 43 | 382 | 0 | 9 | 434 | 104 | 0 | 67 | 0 | 171 | 0 | 469 | 56 | 0 | 525 | 14 | 4 | 1 | 19 | 1149 |
| 08:00 | 13 | 94 | 0 | 1 | 108 | 34 | 0 | 12 | 0 | 46 | 0 | 186 | 21 | 0 | 207 | 3 | 3 | 0 | 6 | 367 |
| 08:15 | 17 | 120 | 0 | 1 | 138 | 26 | 0 | 22 | 0 | 48 | 0 | 196 | 18 | 0 | 214 | 3 | 1 | 1 | 5 | 405 |
| 08:30 | 12 | 109 | 0 | 2 | 123 | 22 | 0 | 15 | 0 | 37 | 0 | 154 | 28 | 1 | 183 | 3 | 0 | 2 | 5 | 348 |
| 08:45 | 10 | 80 | 0 | 0 | 90 | 19 | 0 | 19 | 0 | 38 | 0 | 97 | 23 | 0 | 120 | 3 | 2 | 0 | 5 | 253 |
| Total | 52 | 403 | 0 | 4 | 459 | 101 | 0 | 68 | 0 | 169 | 0 | 633 | 90 | 1 | 724 | 12 | 6 | 3 | 21 | 1373 |
| 09:00 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 15:00 | 19 | 150 | 0 | 0 | 169 | 35 | 0 | 24 | 1 | 60 | 0 | 129 | 19 | 0 | 148 | 4 | 2 | 0 | 6 | 383 |
| 15:15 | 19 | 139 | 0 | 2 | 160 | 26 | 0 | 28 | 0 | 54 | 0 | 154 | 14 | 0 | 168 | 1 | 1 | 2 | 4 | 386 |
| 15:30 | 18 | 163 | 0 | 1 | 182 | 25 | 0 | 28 | 0 | 53 | 0 | 137 | 17 | 0 | 154 | 3 | 1 | 0 | 4 | 393 |
| 15:45 | 19 | 168 | 0 | 2 | 189 | 29 | 0 | 23 | 0 | 52 | 0 | 148 | 21 | 0 | 169 | 3 | 1 | 0 | 4 | 414 |
| Total | 75 | 620 | 0 | 5 | 700 | 115 | 0 | 103 | 1 | 219 | 0 | 568 | 71 | 0 | 639 | 11 | 5 | 2 | 18 | 1576 |
| 16:00 | 23 | 142 | 0 | 2 | 167 | 29 | 0 | 16 | 0 | 45 | 0 | 123 | 24 | 0 | 147 | 4 | 2 | 0 | 6 | 365 |
| 16:15 | 24 | 157 | 0 | 4 | 185 | 28 | 0 | 30 | 0 | 58 | 0 | 123 | 24 | 0 | 147 | 2 | 0 | 1 | 3 | 393 |
| 16:30 | 27 | 178 | 0 | 1 | 206 | 32 | 0 | 26 | 0 | 58 | 0 | 119 | 22 | 0 | 141 | 2 | 1 | 0 | 3 | 408 |
| 16:45 | 26 | 157 | 0 | 6 | 189 | 27 | 0 | 20 | 0 | 47 | 0 | 151 | 26 | 0 | 177 | 5 | 1 | 0 | 6 | 419 |
| Total | 100 | 634 | 0 | 13 | 747 | 116 | 0 | 92 | 0 | 208 | 0 | 516 | 96 | 0 | 612 | 13 | 4 | 1 | 18 | 1585 |
| 17:00 | 22 | 183 | 0 | 5 | 210 | 29 | 0 | 15 | 0 | 44 | 0 | 147 | 22 | 0 | 169 | 4 | 1 | 0 | 5 | 428 |
| 17:15 | 29 | 195 | 0 | 4 | 228 | 32 | 0 | 14 | 0 | 46 | 0 | 143 | 16 | 0 | 159 | 3 | 2 | 1 | 6 | 439 |
| 17:30 | 28 | 204 | 0 | 4 | 236 | 35 | 0 | 20 | 0 | 55 | 0 | 132 | 15 | 0 | 147 | 3 | 1 | 0 | 4 | 442 |
| 17:45 | 22 | 177 | 0 | 5 | 204 | 43 | 0 | 26 | 0 | 69 | 0 | 135 | 18 | 0 | 153 | 3 | 1 | 0 | 4 | 430 |
| Total | 101 | 759 | 0 | 18 | 878 | 139 | 0 | 75 | 0 | 214 | 0 | 557 | 71 | 0 | 628 | 13 | 5 | 1 | 19 | 1739 |

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-003 San Leandro-W Juana

Site Code : 00000000

Start Date : 4/30/2013

Page No : 2

Groups Printed- Unshifted

| | San Leandro Boulevard Southbound | | | | | West Juana Avenue Westbound | | | | | San Leandro Boulevard Northbound | | | | | BART Station Bus Exit Eastbound | | | | Int. Total |
|-------------|-------------------------------------|------|-------|--------|------------|--------------------------------|------|-------|--------|------------|-------------------------------------|------|-------|--------|------------|------------------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| Grand Total | 371 | 2798 | 0 | 50 | 3219 | 575 | 0 | 405 | 1 | 981 | 0 | 2743 | 384 | 1 | 3128 | 63 | 24 | 8 | 95 | 7423 |
| Apprch % | 11.5 | 86.9 | 0 | 1.6 | | 58.6 | 0 | 41.3 | 0.1 | | 0 | 87.7 | 12.3 | 0 | | 66.3 | 25.3 | 8.4 | | |
| Total % | 5 | 37.7 | 0 | 0.7 | 43.4 | 7.7 | 0 | 5.5 | 0 | 13.2 | 0 | 37 | 5.2 | 0 | 42.1 | 0.8 | 0.3 | 0.1 | 1.3 | |

| Start Time | San Leandro Boulevard Southbound | | | | | West Juana Avenue Westbound | | | | | San Leandro Boulevard Northbound | | | | | BART Station Bus Exit Eastbound | | | | Int. Total |
|--|-------------------------------------|------------|-------|----------|------------|--------------------------------|------|-----------|--------|------------|-------------------------------------|------------|-----------|----------|------------|------------------------------------|----------|----------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:45 | | | | | | | | | | | | | | | | | | | | |
| 07:45 | 13 | 146 | 0 | 6 | 165 | 46 | 0 | 17 | 0 | 63 | 0 | 152 | 20 | 0 | 172 | 2 | 1 | 0 | 3 | 403 |
| 08:00 | 13 | 94 | 0 | 1 | 108 | 34 | 0 | 12 | 0 | 46 | 0 | 186 | 21 | 0 | 207 | 3 | 3 | 0 | 6 | 367 |
| 08:15 | 17 | 120 | 0 | 1 | 138 | 26 | 0 | 22 | 0 | 48 | 0 | 196 | 18 | 0 | 214 | 3 | 1 | 1 | 5 | 405 |
| 08:30 | 12 | 109 | 0 | 2 | 123 | 22 | 0 | 15 | 0 | 37 | 0 | 154 | 28 | 1 | 183 | 3 | 0 | 2 | 5 | 348 |
| Total Volume | 55 | 469 | 0 | 10 | 534 | 128 | 0 | 66 | 0 | 194 | 0 | 688 | 87 | 1 | 776 | 11 | 5 | 3 | 19 | 1523 |
| % App. Total | 10.3 | 87.8 | 0 | 1.9 | | 66 | 0 | 34 | 0 | | 0 | 88.7 | 11.2 | 0.1 | | 57.9 | 26.3 | 15.8 | | |
| PHF | .809 | .803 | .000 | .417 | .809 | .696 | .000 | .750 | .000 | .770 | .000 | .878 | .777 | .250 | .907 | .917 | .417 | .375 | .792 | .940 |

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

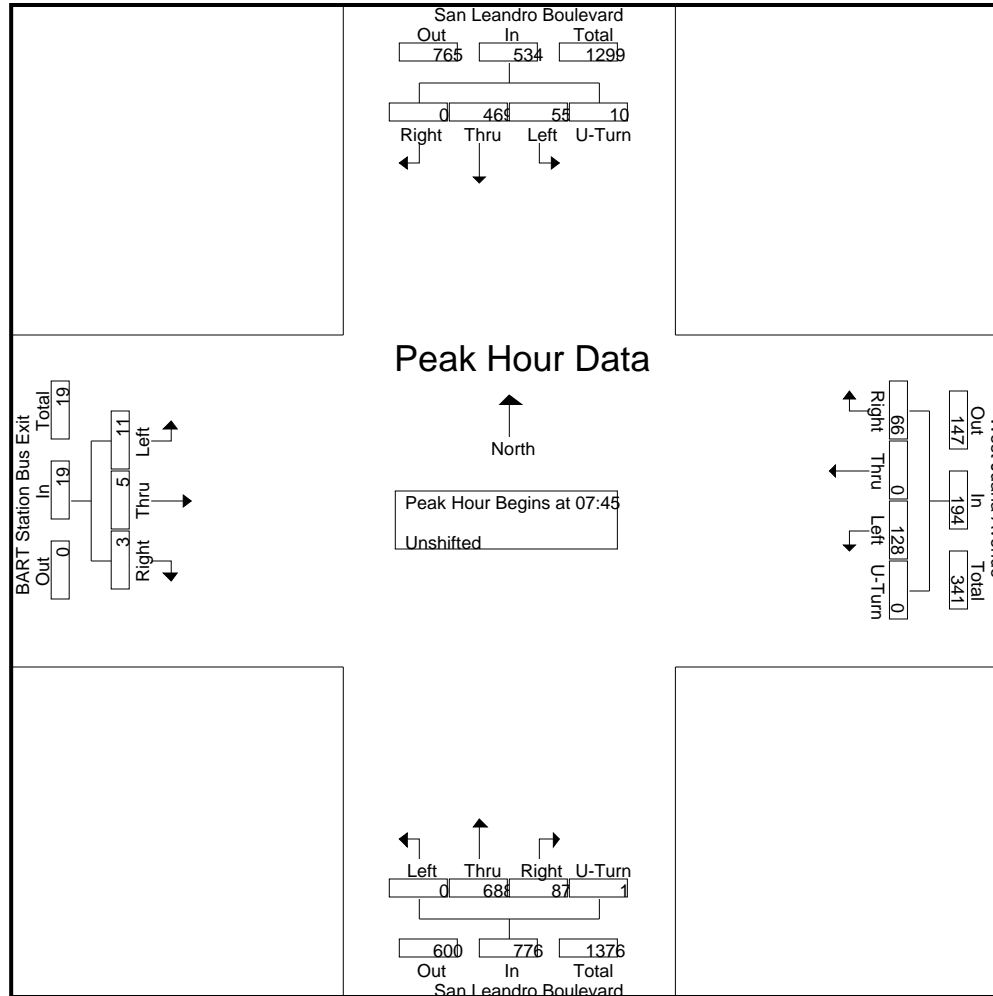
City of San Leandro

File Name : 13-7249-003 San Leandro-W Juana

Site Code : 00000000

Start Date : 4/30/2013

Page No : 3



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-003 San Leandro-W Juana

Site Code : 00000000

Start Date : 4/30/2013

Page No : 4

| Start Time | San Leandro Boulevard Southbound | | | | | West Juana Avenue Westbound | | | | | San Leandro Boulevard Northbound | | | | | BART Station Bus Exit Eastbound | | | | Int. Total |
|--|-------------------------------------|------|-------|--------|------------|--------------------------------|------|-------|--------|------------|-------------------------------------|------|-------|--------|------------|------------------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | | | |
| 17:00 | 22 | 183 | 0 | 5 | 210 | 29 | 0 | 15 | 0 | 44 | 0 | 147 | 22 | 0 | 169 | 4 | 1 | 0 | 5 | 428 |
| 17:15 | 29 | 195 | 0 | 4 | 228 | 32 | 0 | 14 | 0 | 46 | 0 | 143 | 16 | 0 | 159 | 3 | 2 | 1 | 6 | 439 |
| 17:30 | 28 | 204 | 0 | 4 | 236 | 35 | 0 | 20 | 0 | 55 | 0 | 132 | 15 | 0 | 147 | 3 | 1 | 0 | 4 | 442 |
| 17:45 | 22 | 177 | 0 | 5 | 204 | 43 | 0 | 26 | 0 | 69 | 0 | 135 | 18 | 0 | 153 | 3 | 1 | 0 | 4 | 430 |
| Total Volume | 101 | 759 | 0 | 18 | 878 | 139 | 0 | 75 | 0 | 214 | 0 | 557 | 71 | 0 | 628 | 13 | 5 | 1 | 19 | 1739 |
| % App. Total | 11.5 | 86.4 | 0 | 2.1 | | 65 | 0 | 35 | 0 | | 0 | 88.7 | 11.3 | 0 | | 68.4 | 26.3 | 5.3 | | |
| PHF | .871 | .930 | .000 | .900 | .930 | .808 | .000 | .721 | .000 | .775 | .000 | .947 | .807 | .000 | .929 | .813 | .625 | .250 | .792 | .984 |

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

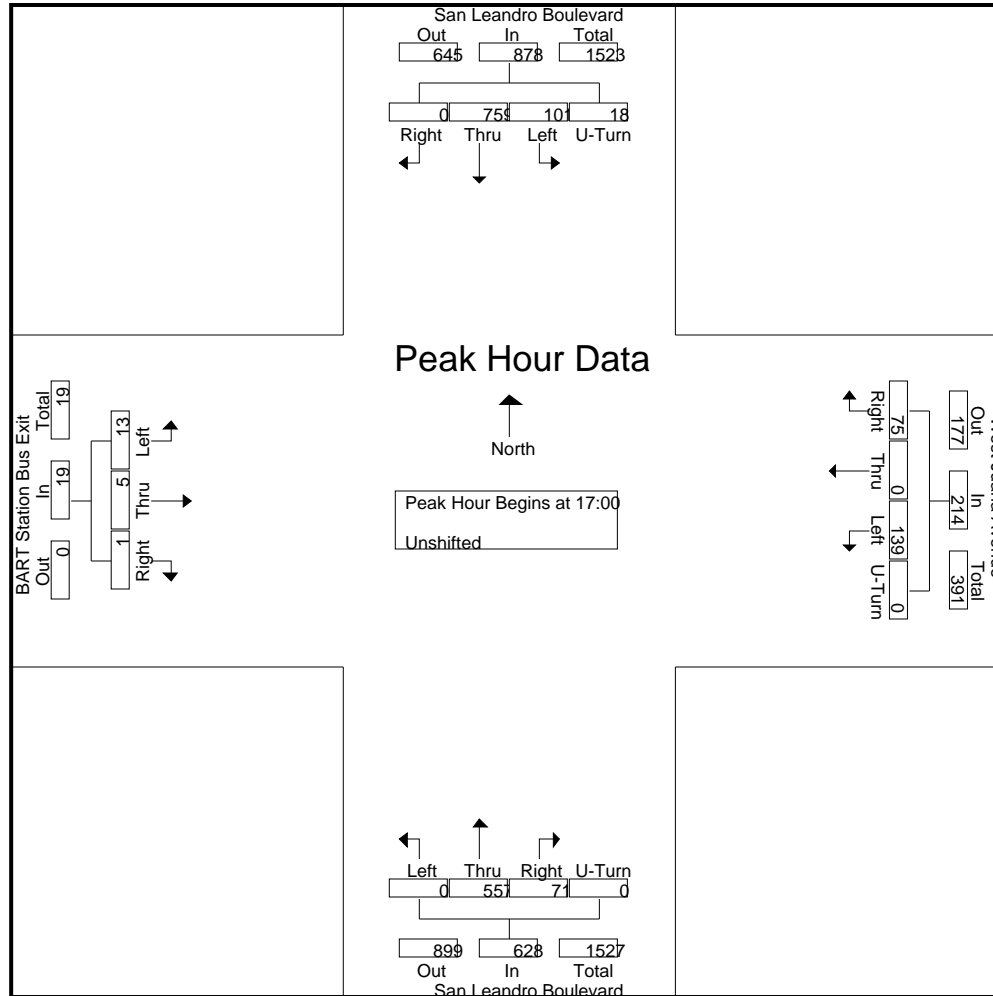
City of San Leandro

File Name : 13-7249-003 San Leandro-W Juana

Site Code : 00000000

Start Date : 4/30/2013

Page No : 5



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-004 San Leandro-Parrott

Site Code : 00000000

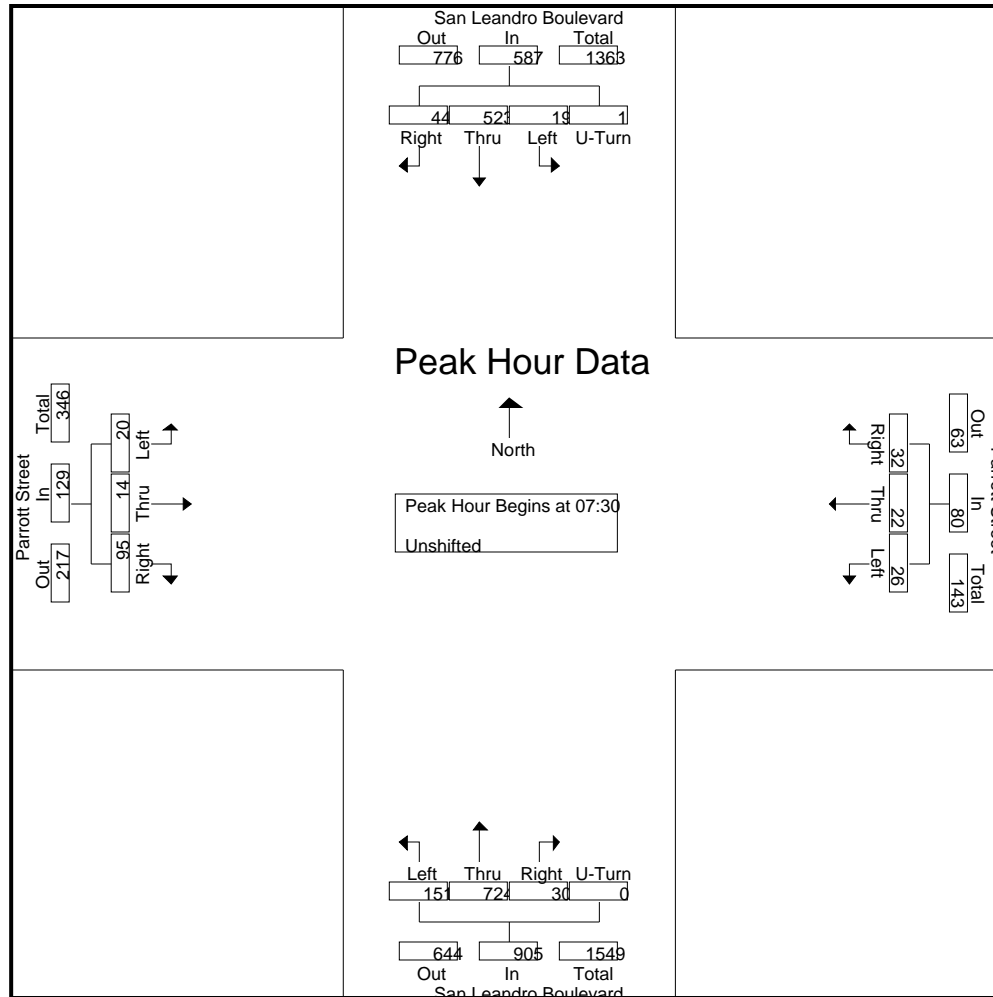
Start Date : 4/30/2013

Page No : 1

Groups Printed- Unshifted

| Start Time | San Leandro Boulevard Southbound | | | | | Parrott Street Westbound | | | | San Leandro Boulevard Northbound | | | | | Parrott Street Eastbound | | | | Int. Total |
|-------------|----------------------------------|------|-------|--------|------------|--------------------------|------|-------|------------|----------------------------------|------|-------|--------|------------|--------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| 07:00 | 2 | 62 | 6 | 2 | 72 | 1 | 6 | 8 | 15 | 48 | 70 | 5 | 0 | 123 | 4 | 3 | 9 | 16 | 226 |
| 07:15 | 3 | 86 | 9 | 0 | 98 | 3 | 6 | 2 | 11 | 53 | 88 | 5 | 0 | 146 | 4 | 5 | 11 | 20 | 275 |
| 07:30 | 1 | 112 | 7 | 1 | 121 | 9 | 4 | 6 | 19 | 55 | 159 | 5 | 0 | 219 | 10 | 6 | 28 | 44 | 403 |
| 07:45 | 4 | 167 | 13 | 0 | 184 | 6 | 6 | 10 | 22 | 38 | 173 | 7 | 0 | 218 | 3 | 5 | 35 | 43 | 467 |
| Total | 10 | 427 | 35 | 3 | 475 | 19 | 22 | 26 | 67 | 194 | 490 | 22 | 0 | 706 | 21 | 19 | 83 | 123 | 1371 |
| 08:00 | 6 | 117 | 11 | 0 | 134 | 5 | 7 | 9 | 21 | 30 | 208 | 6 | 0 | 244 | 5 | 0 | 21 | 26 | 425 |
| 08:15 | 8 | 127 | 13 | 0 | 148 | 6 | 5 | 7 | 18 | 28 | 184 | 12 | 0 | 224 | 2 | 3 | 11 | 16 | 406 |
| 08:30 | 7 | 116 | 10 | 1 | 134 | 6 | 6 | 8 | 20 | 26 | 160 | 7 | 0 | 193 | 2 | 4 | 13 | 19 | 366 |
| 08:45 | 6 | 84 | 7 | 1 | 98 | 4 | 5 | 4 | 13 | 18 | 105 | 3 | 0 | 126 | 8 | 4 | 9 | 21 | 258 |
| Total | 27 | 444 | 41 | 2 | 514 | 21 | 23 | 28 | 72 | 102 | 657 | 28 | 0 | 787 | 17 | 11 | 54 | 82 | 1455 |
| 15:00 | 5 | 175 | 7 | 0 | 187 | 9 | 1 | 10 | 20 | 8 | 137 | 3 | 0 | 148 | 1 | 2 | 15 | 18 | 373 |
| 15:15 | 7 | 160 | 6 | 0 | 173 | 13 | 1 | 7 | 21 | 14 | 152 | 16 | 0 | 182 | 0 | 4 | 17 | 21 | 397 |
| 15:30 | 5 | 173 | 6 | 0 | 184 | 7 | 1 | 9 | 17 | 16 | 159 | 13 | 0 | 188 | 6 | 5 | 13 | 24 | 413 |
| 15:45 | 11 | 186 | 5 | 0 | 202 | 5 | 3 | 8 | 16 | 10 | 144 | 6 | 0 | 160 | 4 | 4 | 22 | 30 | 408 |
| Total | 28 | 694 | 24 | 0 | 746 | 34 | 6 | 34 | 74 | 48 | 592 | 38 | 0 | 678 | 11 | 15 | 67 | 93 | 1591 |
| 16:00 | 13 | 148 | 9 | 1 | 171 | 10 | 3 | 4 | 17 | 16 | 129 | 14 | 0 | 159 | 12 | 7 | 26 | 45 | 392 |
| 16:15 | 8 | 173 | 7 | 0 | 188 | 8 | 4 | 8 | 20 | 11 | 135 | 5 | 0 | 151 | 5 | 5 | 23 | 33 | 392 |
| 16:30 | 15 | 179 | 9 | 0 | 203 | 9 | 7 | 5 | 21 | 19 | 115 | 6 | 0 | 140 | 16 | 6 | 34 | 56 | 420 |
| 16:45 | 12 | 169 | 8 | 0 | 189 | 7 | 5 | 14 | 26 | 16 | 165 | 13 | 1 | 195 | 7 | 10 | 35 | 52 | 462 |
| Total | 48 | 669 | 33 | 1 | 751 | 34 | 19 | 31 | 84 | 62 | 544 | 38 | 1 | 645 | 40 | 28 | 118 | 186 | 1666 |
| 17:00 | 18 | 180 | 13 | 0 | 211 | 6 | 1 | 8 | 15 | 23 | 150 | 17 | 0 | 190 | 9 | 4 | 38 | 51 | 467 |
| 17:15 | 10 | 204 | 11 | 1 | 226 | 9 | 4 | 7 | 20 | 18 | 147 | 8 | 0 | 173 | 7 | 10 | 32 | 49 | 468 |
| 17:30 | 7 | 213 | 11 | 0 | 231 | 1 | 4 | 8 | 13 | 29 | 129 | 11 | 0 | 169 | 7 | 15 | 51 | 73 | 486 |
| 17:45 | 11 | 202 | 12 | 0 | 225 | 3 | 2 | 11 | 16 | 24 | 128 | 11 | 1 | 164 | 12 | 23 | 58 | 93 | 498 |
| Total | 46 | 799 | 47 | 1 | 893 | 19 | 11 | 34 | 64 | 94 | 554 | 47 | 1 | 696 | 35 | 52 | 179 | 266 | 1919 |
| Grand Total | 159 | 3033 | 180 | 7 | 3379 | 127 | 81 | 153 | 361 | 500 | 2837 | 173 | 2 | 3512 | 124 | 125 | 501 | 750 | 8002 |
| Apprch % | 4.7 | 89.8 | 5.3 | 0.2 | | 35.2 | 22.4 | 42.4 | | 14.2 | 80.8 | 4.9 | 0.1 | | 16.5 | 16.7 | 66.8 | | |
| Total % | 2 | 37.9 | 2.2 | 0.1 | 42.2 | 1.6 | 1 | 1.9 | 4.5 | 6.2 | 35.5 | 2.2 | 0 | 43.9 | 1.5 | 1.6 | 6.3 | 9.4 | |

| Start Time | San Leandro Boulevard Southbound | | | | | Parrott Street Westbound | | | | San Leandro Boulevard Northbound | | | | | Parrott Street Eastbound | | | | Int. Total | |
|--|----------------------------------|------|-------|--------|------------|--------------------------|------|-------|------------|----------------------------------|------|-------|--------|------------|--------------------------|------|-------|------------|------------|--|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | | |
| Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 1 | 112 | 7 | 1 | 121 | 9 | 4 | 6 | 19 | 55 | 159 | 5 | 0 | 219 | 10 | 6 | 28 | 44 | 403 | |
| 07:45 | 4 | 167 | 13 | 0 | 184 | 6 | 6 | 10 | 22 | 38 | 173 | 7 | 0 | 218 | 3 | 5 | 35 | 43 | 467 | |
| 08:00 | 6 | 117 | 11 | 0 | 134 | 5 | 7 | 9 | 21 | 30 | 208 | 6 | 0 | 244 | 5 | 0 | 21 | 26 | 425 | |
| 08:15 | 8 | 127 | 13 | 0 | 148 | 6 | 5 | 7 | 18 | 28 | 184 | 12 | 0 | 224 | 2 | 3 | 11 | 16 | 406 | |
| Total Volume | 19 | 523 | 44 | 1 | 587 | 26 | 22 | 32 | 80 | 151 | 724 | 30 | 0 | 905 | 20 | 14 | 95 | 129 | 1701 | |
| % App. Total | 3.2 | 89.1 | 7.5 | 0.2 | | 32.5 | 27.5 | 40 | | 16.7 | 80 | 3.3 | 0 | | 15.5 | 10.9 | 73.6 | | | |
| PHF | .594 | .783 | .846 | .250 | .798 | .722 | .786 | .800 | .909 | .686 | .870 | .625 | .000 | .927 | .500 | .583 | .679 | .733 | .911 | |



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-004 San Leandro-Parrott

Site Code : 00000000

Start Date : 4/30/2013

Page No : 3

| Start Time | San Leandro Boulevard Southbound | | | | | Parrott Street Westbound | | | | San Leandro Boulevard Northbound | | | | | Parrott Street Eastbound | | | | Int. Total |
|--|-------------------------------------|------|-------|--------|------------|-----------------------------|------|-------|------------|-------------------------------------|------|-------|--------|------------|-----------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | | |
| 17:00 | 18 | 180 | 13 | 0 | 211 | 6 | 1 | 8 | 15 | 23 | 150 | 17 | 0 | 190 | 9 | 4 | 38 | 51 | 467 |
| 17:15 | 10 | 204 | 11 | 1 | 226 | 9 | 4 | 7 | 20 | 18 | 147 | 8 | 0 | 173 | 7 | 10 | 32 | 49 | 468 |
| 17:30 | 7 | 213 | 11 | 0 | 231 | 1 | 4 | 8 | 13 | 29 | 129 | 11 | 0 | 169 | 7 | 15 | 51 | 73 | 486 |
| 17:45 | 11 | 202 | 12 | 0 | 225 | 3 | 2 | 11 | 16 | 24 | 128 | 11 | 1 | 164 | 12 | 23 | 58 | 93 | 498 |
| Total Volume | 46 | 799 | 47 | 1 | 893 | 19 | 11 | 34 | 64 | 94 | 554 | 47 | 1 | 696 | 35 | 52 | 179 | 266 | 1919 |
| % App. Total | 5.2 | 89.5 | 5.3 | 0.1 | | 29.7 | 17.2 | 53.1 | | 13.5 | 79.6 | 6.8 | 0.1 | | 13.2 | 19.5 | 67.3 | | |
| PHF | .639 | .938 | .904 | .250 | .966 | .528 | .688 | .773 | .800 | .810 | .923 | .691 | .250 | .916 | .729 | .565 | .772 | .715 | .963 |

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

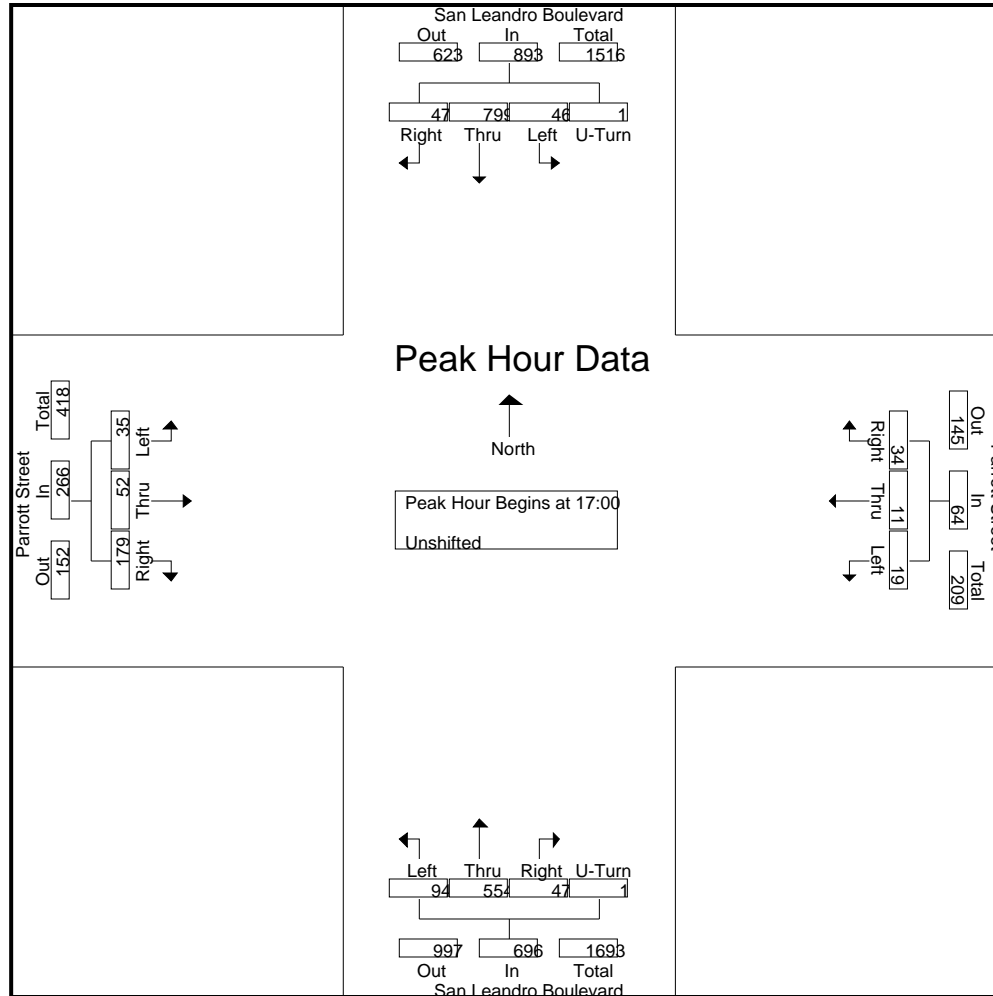
City of San Leandro

File Name : 13-7249-004 San Leandro-Parrott

Site Code : 00000000

Start Date : 4/30/2013

Page No : 4



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-005 San Leandro-Thornton

Site Code : 00000000

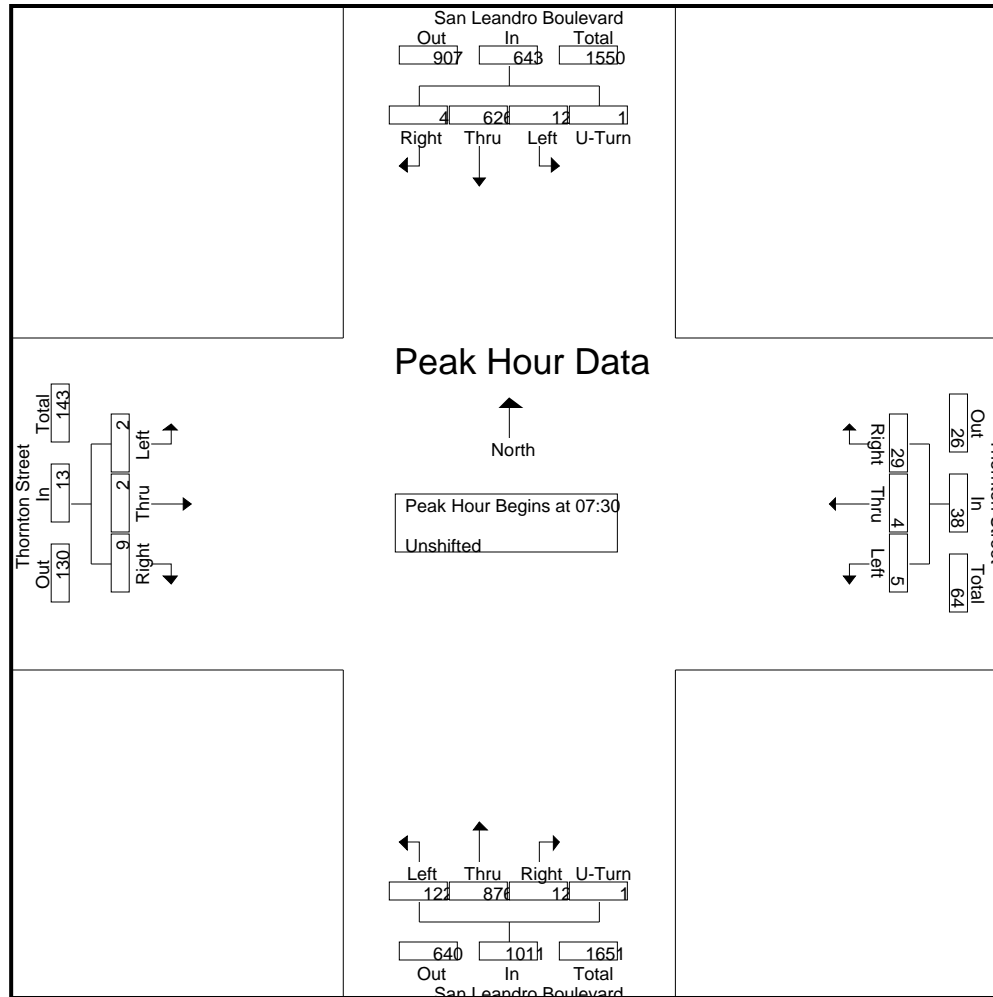
Start Date : 4/30/2013

Page No : 1

Groups Printed- Unshifted

| Start Time | San Leandro Boulevard Southbound | | | | | Thornton Street Westbound | | | | San Leandro Boulevard Northbound | | | | | Thornton Street Eastbound | | | | Int. Total |
|-------------|----------------------------------|------|-------|--------|------------|---------------------------|------|-------|------------|----------------------------------|------|-------|--------|------------|---------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| 07:00 | 4 | 68 | 1 | 1 | 74 | 2 | 1 | 5 | 8 | 6 | 112 | 1 | 1 | 120 | 0 | 0 | 2 | 2 | 204 |
| 07:15 | 3 | 95 | 1 | 0 | 99 | 3 | 0 | 9 | 12 | 16 | 141 | 0 | 0 | 157 | 1 | 0 | 3 | 4 | 272 |
| 07:30 | 2 | 148 | 0 | 0 | 150 | 3 | 0 | 9 | 12 | 20 | 202 | 0 | 0 | 222 | 1 | 0 | 2 | 3 | 387 |
| 07:45 | 3 | 199 | 1 | 1 | 204 | 0 | 1 | 8 | 9 | 37 | 213 | 8 | 0 | 258 | 1 | 0 | 3 | 4 | 475 |
| Total | 12 | 510 | 3 | 2 | 527 | 8 | 2 | 31 | 41 | 79 | 668 | 9 | 1 | 757 | 3 | 0 | 10 | 13 | 1338 |
| 08:00 | 1 | 143 | 3 | 0 | 147 | 1 | 3 | 6 | 10 | 34 | 235 | 0 | 1 | 270 | 0 | 2 | 3 | 5 | 432 |
| 08:15 | 6 | 136 | 0 | 0 | 142 | 1 | 0 | 6 | 7 | 31 | 226 | 4 | 0 | 261 | 0 | 0 | 1 | 1 | 411 |
| 08:30 | 4 | 131 | 0 | 0 | 135 | 4 | 1 | 7 | 12 | 3 | 175 | 3 | 0 | 181 | 2 | 1 | 2 | 5 | 333 |
| 08:45 | 1 | 94 | 0 | 0 | 95 | 1 | 0 | 2 | 3 | 8 | 128 | 2 | 0 | 138 | 1 | 2 | 0 | 3 | 239 |
| Total | 12 | 504 | 3 | 0 | 519 | 7 | 4 | 21 | 32 | 76 | 764 | 9 | 1 | 850 | 3 | 5 | 6 | 14 | 1415 |
| 15:00 | 3 | 204 | 0 | 0 | 207 | 4 | 0 | 3 | 7 | 5 | 149 | 2 | 0 | 156 | 2 | 0 | 1 | 3 | 373 |
| 15:15 | 4 | 182 | 0 | 1 | 187 | 0 | 0 | 5 | 5 | 8 | 176 | 1 | 0 | 185 | 0 | 0 | 6 | 6 | 383 |
| 15:30 | 2 | 191 | 2 | 0 | 195 | 0 | 0 | 7 | 7 | 4 | 180 | 2 | 1 | 187 | 2 | 0 | 4 | 6 | 395 |
| 15:45 | 5 | 207 | 0 | 0 | 212 | 1 | 0 | 7 | 8 | 6 | 150 | 2 | 0 | 158 | 0 | 2 | 2 | 4 | 382 |
| Total | 14 | 784 | 2 | 1 | 801 | 5 | 0 | 22 | 27 | 23 | 655 | 7 | 1 | 686 | 4 | 2 | 13 | 19 | 1533 |
| 16:00 | 5 | 179 | 1 | 0 | 185 | 2 | 1 | 3 | 6 | 3 | 158 | 0 | 0 | 161 | 1 | 1 | 0 | 2 | 354 |
| 16:15 | 2 | 196 | 1 | 0 | 199 | 0 | 1 | 2 | 3 | 2 | 148 | 1 | 0 | 151 | 0 | 0 | 4 | 4 | 357 |
| 16:30 | 5 | 218 | 0 | 1 | 224 | 3 | 0 | 4 | 7 | 3 | 138 | 4 | 0 | 145 | 0 | 0 | 4 | 4 | 380 |
| 16:45 | 4 | 204 | 0 | 0 | 208 | 1 | 2 | 7 | 10 | 5 | 181 | 1 | 0 | 187 | 1 | 1 | 8 | 10 | 415 |
| Total | 16 | 797 | 2 | 1 | 816 | 6 | 4 | 16 | 26 | 13 | 625 | 6 | 0 | 644 | 2 | 2 | 16 | 20 | 1506 |
| 17:00 | 5 | 222 | 0 | 0 | 227 | 2 | 0 | 7 | 9 | 2 | 187 | 2 | 0 | 191 | 0 | 0 | 8 | 8 | 435 |
| 17:15 | 4 | 239 | 0 | 0 | 243 | 1 | 0 | 4 | 5 | 7 | 166 | 4 | 1 | 178 | 1 | 0 | 7 | 8 | 434 |
| 17:30 | 6 | 261 | 1 | 0 | 268 | 2 | 0 | 7 | 9 | 5 | 162 | 2 | 0 | 169 | 1 | 0 | 18 | 19 | 465 |
| 17:45 | 3 | 257 | 1 | 0 | 261 | 2 | 0 | 3 | 5 | 2 | 155 | 2 | 0 | 159 | 0 | 1 | 18 | 19 | 444 |
| Total | 18 | 979 | 2 | 0 | 999 | 7 | 0 | 21 | 28 | 16 | 670 | 10 | 1 | 697 | 2 | 1 | 51 | 54 | 1778 |
| Grand Total | 72 | 3574 | 12 | 4 | 3662 | 33 | 10 | 111 | 154 | 207 | 3382 | 41 | 4 | 3634 | 14 | 10 | 96 | 120 | 7570 |
| Apprch % | 2 | 97.6 | 0.3 | 0.1 | | 21.4 | 6.5 | 72.1 | | 5.7 | 93.1 | 1.1 | 0.1 | | 11.7 | 8.3 | 80 | | |
| Total % | 1 | 47.2 | 0.2 | 0.1 | 48.4 | 0.4 | 0.1 | 1.5 | 2 | 2.7 | 44.7 | 0.5 | 0.1 | 48 | 0.2 | 0.1 | 1.3 | 1.6 | |

| Start Time | San Leandro Boulevard Southbound | | | | | Thornton Street Westbound | | | | San Leandro Boulevard Northbound | | | | | Thornton Street Eastbound | | | | Int. Total | |
|--|----------------------------------|------|-------|--------|------------|---------------------------|------|-------|------------|----------------------------------|------|-------|--------|------------|---------------------------|------|-------|------------|------------|--|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | | |
| Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 2 | 148 | 0 | 0 | 150 | 3 | 0 | 9 | 12 | 20 | 202 | 0 | 0 | 222 | 1 | 0 | 2 | 3 | 387 | |
| 07:45 | 3 | 199 | 1 | 1 | 204 | 0 | 1 | 8 | 9 | 37 | 213 | 8 | 0 | 258 | 1 | 0 | 3 | 4 | 475 | |
| 08:00 | 1 | 143 | 3 | 0 | 147 | 1 | 3 | 6 | 10 | 34 | 235 | 0 | 1 | 270 | 0 | 2 | 3 | 5 | 432 | |
| 08:15 | 6 | 136 | 0 | 0 | 142 | 1 | 0 | 6 | 7 | 31 | 226 | 4 | 0 | 261 | 0 | 0 | 1 | 1 | 411 | |
| Total Volume | 12 | 626 | 4 | 1 | 643 | 5 | 4 | 29 | 38 | 122 | 876 | 12 | 1 | 1011 | 2 | 2 | 9 | 13 | 1705 | |
| % App. Total | 1.9 | 97.4 | 0.6 | 0.2 | | 13.2 | 10.5 | 76.3 | | 12.1 | 86.6 | 1.2 | 0.1 | | 15.4 | 15.4 | 69.2 | | | |
| PHF | .500 | .786 | .333 | .250 | .788 | .417 | .333 | .806 | .792 | .824 | .932 | .375 | .250 | .936 | .500 | .250 | .750 | .650 | .897 | |



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-005 San Leandro-Thornton

Site Code : 00000000

Start Date : 4/30/2013

Page No : 3

| Start Time | San Leandro Boulevard Southbound | | | | | Thornton Street Westbound | | | | San Leandro Boulevard Northbound | | | | | Thornton Street Eastbound | | | | Int. Total |
|--|-------------------------------------|------|-------|--------|------------|------------------------------|------|-------|------------|-------------------------------------|------|-------|--------|------------|------------------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | | |
| 17:00 | 5 | 222 | 0 | 0 | 227 | 2 | 0 | 7 | 9 | 2 | 187 | 2 | 0 | 191 | 0 | 0 | 8 | 8 | 435 |
| 17:15 | 4 | 239 | 0 | 0 | 243 | 1 | 0 | 4 | 5 | 7 | 166 | 4 | 1 | 178 | 1 | 0 | 7 | 8 | 434 |
| 17:30 | 6 | 261 | 1 | 0 | 268 | 2 | 0 | 7 | 9 | 5 | 162 | 2 | 0 | 169 | 1 | 0 | 18 | 19 | 465 |
| 17:45 | 3 | 257 | 1 | 0 | 261 | 2 | 0 | 3 | 5 | 2 | 155 | 2 | 0 | 159 | 0 | 1 | 18 | 19 | 444 |
| Total Volume | 18 | 979 | 2 | 0 | 999 | 7 | 0 | 21 | 28 | 16 | 670 | 10 | 1 | 697 | 2 | 1 | 51 | 54 | 1778 |
| % App. Total | 1.8 | 98 | 0.2 | 0 | | 25 | 0 | 75 | | 2.3 | 96.1 | 1.4 | 0.1 | | 3.7 | 1.9 | 94.4 | | |
| PHF | .750 | .938 | .500 | .000 | .932 | .875 | .000 | .750 | .778 | .571 | .896 | .625 | .250 | .912 | .500 | .250 | .708 | .711 | .956 |

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

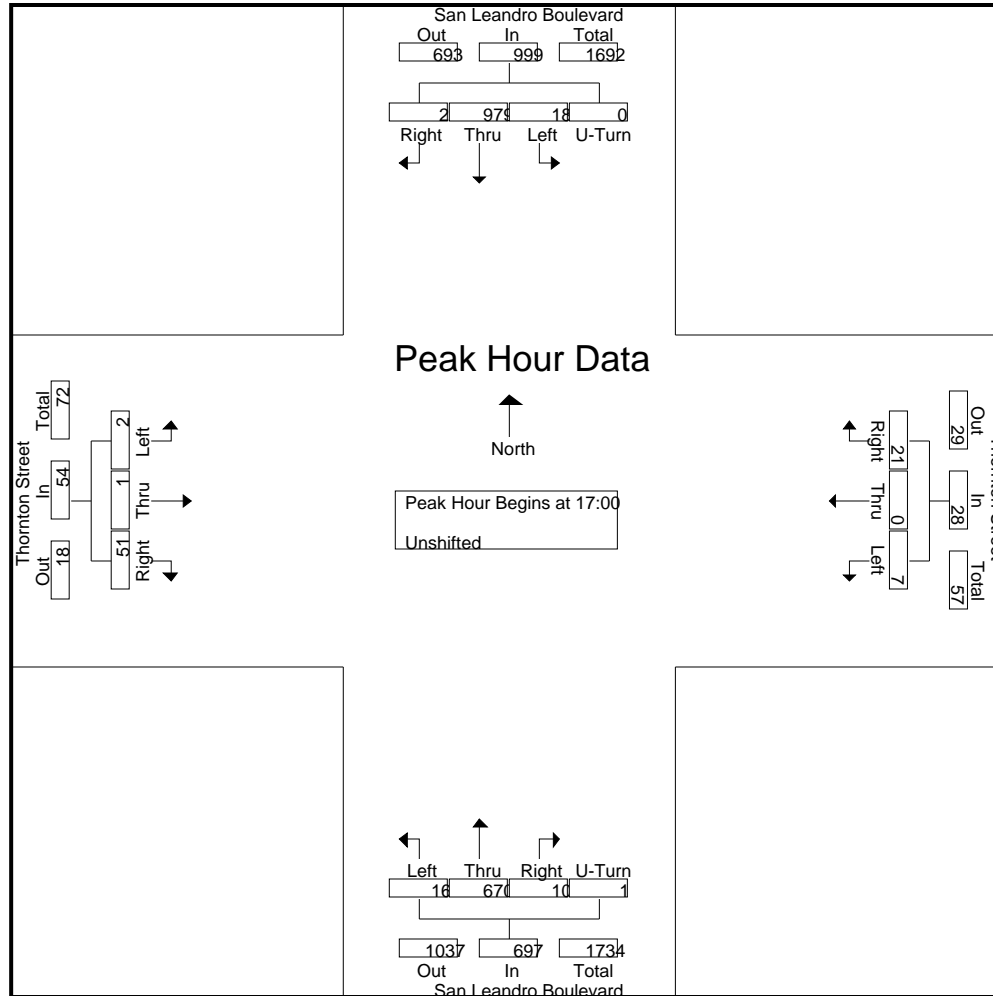
City of San Leandro

File Name : 13-7249-005 San Leandro-Thornton

Site Code : 00000000

Start Date : 4/30/2013

Page No : 4



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-006 Alvarado-West Estudillo

Site Code : 00000000

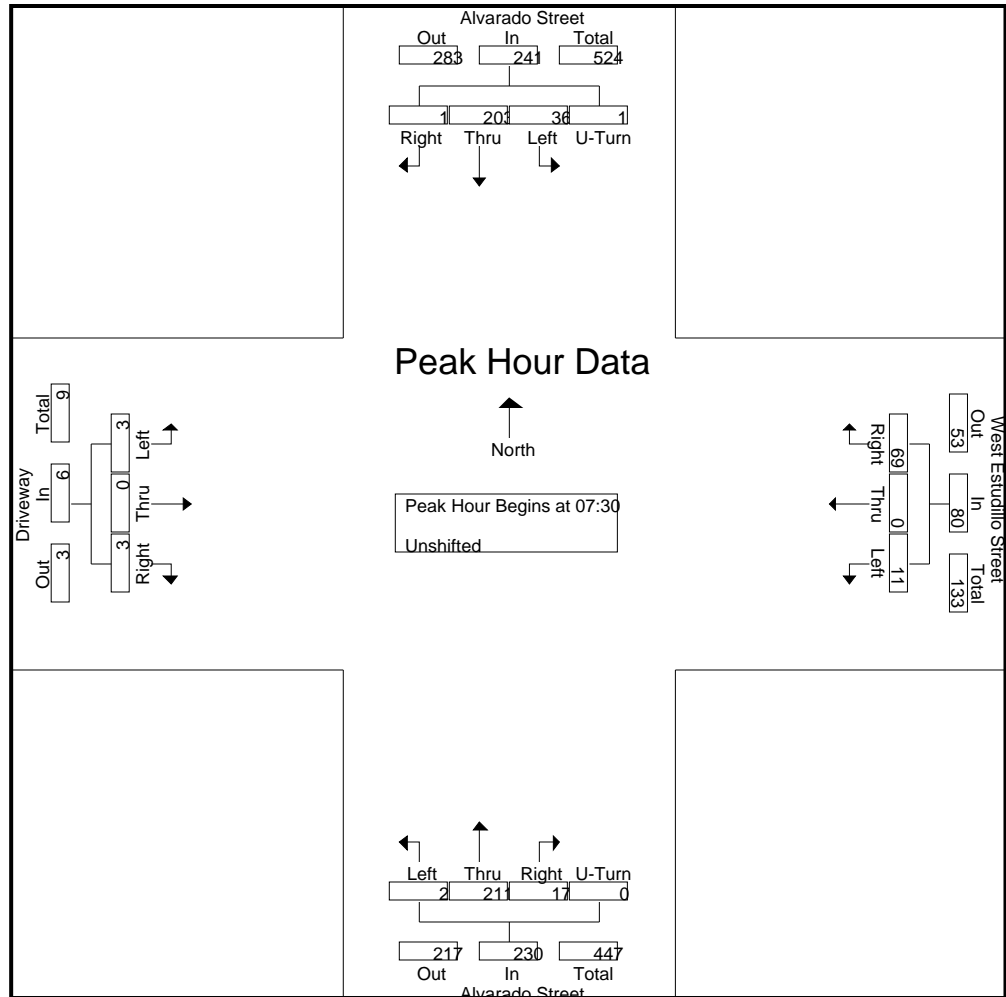
Start Date : 4/30/2013

Page No : 1

Groups Printed- Unshifted

| Start Time | Alvarado Street Southbound | | | | | West Estudillo Street Westbound | | | | Alvarado Street Northbound | | | | | Driveway Eastbound | | | | Int. Total |
|-------------|----------------------------|------|-------|--------|------------|---------------------------------|------|-------|------------|----------------------------|------|-------|--------|------------|--------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| 07:00 | 4 | 18 | 0 | 0 | 22 | 2 | 0 | 10 | 12 | 0 | 10 | 3 | 0 | 13 | 0 | 0 | 0 | 0 | 47 |
| 07:15 | 8 | 30 | 0 | 0 | 38 | 2 | 0 | 10 | 12 | 0 | 33 | 7 | 0 | 40 | 0 | 0 | 0 | 0 | 90 |
| 07:30 | 12 | 35 | 0 | 0 | 47 | 0 | 0 | 9 | 9 | 0 | 37 | 4 | 0 | 41 | 0 | 0 | 0 | 0 | 97 |
| 07:45 | 7 | 70 | 0 | 0 | 77 | 4 | 0 | 19 | 23 | 0 | 44 | 9 | 0 | 53 | 0 | 0 | 2 | 2 | 155 |
| Total | 31 | 153 | 0 | 0 | 184 | 8 | 0 | 48 | 56 | 0 | 124 | 23 | 0 | 147 | 0 | 0 | 2 | 2 | 389 |
| 08:00 | 9 | 56 | 1 | 0 | 66 | 4 | 0 | 24 | 28 | 1 | 65 | 0 | 0 | 66 | 1 | 0 | 1 | 2 | 162 |
| 08:15 | 8 | 42 | 0 | 1 | 51 | 3 | 0 | 17 | 20 | 1 | 65 | 4 | 0 | 70 | 2 | 0 | 0 | 2 | 143 |
| 08:30 | 2 | 29 | 1 | 0 | 32 | 0 | 1 | 13 | 14 | 0 | 37 | 4 | 0 | 41 | 4 | 0 | 0 | 4 | 91 |
| 08:45 | 0 | 41 | 0 | 0 | 41 | 0 | 0 | 13 | 13 | 0 | 45 | 0 | 1 | 46 | 2 | 0 | 3 | 5 | 105 |
| Total | 19 | 168 | 2 | 1 | 190 | 7 | 1 | 67 | 75 | 2 | 212 | 8 | 1 | 223 | 9 | 0 | 4 | 13 | 501 |
| 15:00 | 6 | 43 | 0 | 0 | 49 | 0 | 0 | 6 | 6 | 0 | 43 | 3 | 0 | 46 | 1 | 0 | 0 | 1 | 102 |
| 15:15 | 7 | 41 | 0 | 0 | 48 | 1 | 0 | 12 | 13 | 0 | 56 | 0 | 0 | 56 | 1 | 0 | 0 | 1 | 118 |
| 15:30 | 2 | 31 | 0 | 0 | 33 | 6 | 0 | 16 | 22 | 1 | 45 | 1 | 0 | 47 | 0 | 0 | 1 | 1 | 103 |
| 15:45 | 6 | 40 | 0 | 0 | 46 | 1 | 0 | 14 | 15 | 0 | 45 | 3 | 0 | 48 | 1 | 0 | 0 | 1 | 110 |
| Total | 21 | 155 | 0 | 0 | 176 | 8 | 0 | 48 | 56 | 1 | 189 | 7 | 0 | 197 | 3 | 0 | 1 | 4 | 433 |
| 16:00 | 5 | 29 | 0 | 0 | 34 | 1 | 0 | 20 | 21 | 0 | 45 | 4 | 0 | 49 | 2 | 0 | 0 | 2 | 106 |
| 16:15 | 2 | 31 | 0 | 0 | 33 | 8 | 0 | 17 | 25 | 0 | 37 | 6 | 0 | 43 | 2 | 0 | 0 | 2 | 103 |
| 16:30 | 4 | 40 | 0 | 0 | 44 | 3 | 0 | 14 | 17 | 0 | 43 | 0 | 0 | 43 | 0 | 0 | 0 | 0 | 104 |
| 16:45 | 4 | 43 | 0 | 0 | 47 | 6 | 0 | 13 | 19 | 1 | 46 | 3 | 0 | 50 | 0 | 0 | 0 | 0 | 116 |
| Total | 15 | 143 | 0 | 0 | 158 | 18 | 0 | 64 | 82 | 1 | 171 | 13 | 0 | 185 | 4 | 0 | 0 | 4 | 429 |
| 17:00 | 4 | 45 | 0 | 0 | 49 | 7 | 0 | 20 | 27 | 1 | 52 | 3 | 0 | 56 | 2 | 0 | 1 | 3 | 135 |
| 17:15 | 9 | 55 | 0 | 0 | 64 | 3 | 0 | 22 | 25 | 0 | 49 | 4 | 0 | 53 | 0 | 0 | 0 | 0 | 142 |
| 17:30 | 13 | 40 | 0 | 0 | 53 | 7 | 0 | 23 | 30 | 0 | 40 | 6 | 0 | 46 | 0 | 0 | 0 | 0 | 129 |
| 17:45 | 13 | 36 | 0 | 0 | 49 | 5 | 0 | 52 | 57 | 0 | 51 | 5 | 0 | 56 | 2 | 0 | 1 | 3 | 165 |
| Total | 39 | 176 | 0 | 0 | 215 | 22 | 0 | 117 | 139 | 1 | 192 | 18 | 0 | 211 | 4 | 0 | 2 | 6 | 571 |
| Grand Total | 125 | 795 | 2 | 1 | 923 | 63 | 1 | 344 | 408 | 5 | 888 | 69 | 1 | 963 | 20 | 0 | 9 | 29 | 2323 |
| Apprch % | 13.5 | 86.1 | 0.2 | 0.1 | | 15.4 | 0.2 | 84.3 | | 0.5 | 92.2 | 7.2 | 0.1 | | 69 | 0 | 31 | | |
| Total % | 5.4 | 34.2 | 0.1 | 0 | 39.7 | 2.7 | 0 | 14.8 | 17.6 | 0.2 | 38.2 | 3 | 0 | 41.5 | 0.9 | 0 | 0.4 | 1.2 | |

| Start Time | Alvarado Street Southbound | | | | | West Estudillo Street Westbound | | | | Alvarado Street Northbound | | | | | Driveway Eastbound | | | | Int. Total | |
|--|----------------------------|------|-------|--------|------------|---------------------------------|------|-------|------------|----------------------------|------|-------|--------|------------|--------------------|------|-------|------------|------------|--|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | | |
| Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:30 | | | | | | | | | | | | | | | | | | | | |
| 07:30 | 12 | 35 | 0 | 0 | 47 | 0 | 0 | 9 | 9 | 0 | 37 | 4 | 0 | 41 | 0 | 0 | 0 | 0 | 97 | |
| 07:45 | 7 | 70 | 0 | 0 | 77 | 4 | 0 | 19 | 23 | 0 | 44 | 9 | 0 | 53 | 0 | 0 | 2 | 2 | 155 | |
| 08:00 | 9 | 56 | 1 | 0 | 66 | 4 | 0 | 24 | 28 | 1 | 65 | 0 | 0 | 66 | 1 | 0 | 1 | 2 | 162 | |
| 08:15 | 8 | 42 | 0 | 1 | 51 | 3 | 0 | 17 | 20 | 1 | 65 | 4 | 0 | 70 | 2 | 0 | 0 | 2 | 143 | |
| Total Volume | 36 | 203 | 1 | 1 | 241 | 11 | 0 | 69 | 80 | 2 | 211 | 17 | 0 | 230 | 3 | 0 | 3 | 6 | 557 | |
| % App. Total | 14.9 | 84.2 | 0.4 | 0.4 | | 13.8 | 0 | 86.2 | | 0.9 | 91.7 | 7.4 | 0 | | 50 | 0 | 50 | | | |
| PHF | .750 | .725 | .250 | .250 | .782 | .688 | .000 | .719 | .714 | .500 | .812 | .472 | .000 | .821 | .375 | .000 | .375 | .750 | .860 | |



All Traffic Data

(916) 771-8700

orders@atdtraffic.com

City of San Leandro

File Name : 13-7249-006 Alvarado-West Estudillo

Site Code : 00000000

Start Date : 4/30/2013

Page No : 3

| Start Time | Alvarado Street Southbound | | | | | West Estudillo Street Westbound | | | | Alvarado Street Northbound | | | | | Driveway Eastbound | | | | Int. Total |
|--|----------------------------|------|-------|--------|------------|---------------------------------|------|-------|------------|----------------------------|------|-------|--------|------------|--------------------|------|-------|------------|------------|
| | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | U-Turn | App. Total | Left | Thru | Right | App. Total | |
| Peak Hour Analysis From 15:00 to 17:45 - Peak 1 of 1 | | | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 17:00 | | | | | | | | | | | | | | | | | | | |
| 17:00 | 4 | 45 | 0 | 0 | 49 | 7 | 0 | 20 | 27 | 1 | 52 | 3 | 0 | 56 | 2 | 0 | 1 | 3 | 135 |
| 17:15 | 9 | 55 | 0 | 0 | 64 | 3 | 0 | 22 | 25 | 0 | 49 | 4 | 0 | 53 | 0 | 0 | 0 | 0 | 142 |
| 17:30 | 13 | 40 | 0 | 0 | 53 | 7 | 0 | 23 | 30 | 0 | 40 | 6 | 0 | 46 | 0 | 0 | 0 | 0 | 129 |
| 17:45 | 13 | 36 | 0 | 0 | 49 | 5 | 0 | 52 | 57 | 0 | 51 | 5 | 0 | 56 | 2 | 0 | 1 | 3 | 165 |
| Total Volume | 39 | 176 | 0 | 0 | 215 | 22 | 0 | 117 | 139 | 1 | 192 | 18 | 0 | 211 | 4 | 0 | 2 | 6 | 571 |
| % App. Total | 18.1 | 81.9 | 0 | 0 | | 15.8 | 0 | 84.2 | | 0.5 | 91 | 8.5 | 0 | | 66.7 | 0 | 33.3 | | |
| PHF | .750 | .800 | .000 | .000 | .840 | .786 | .000 | .563 | .610 | .250 | .923 | .750 | .000 | .942 | .500 | .000 | .500 | .500 | .865 |

All Traffic Data

(916) 771-8700

orders@atdtraffic.com

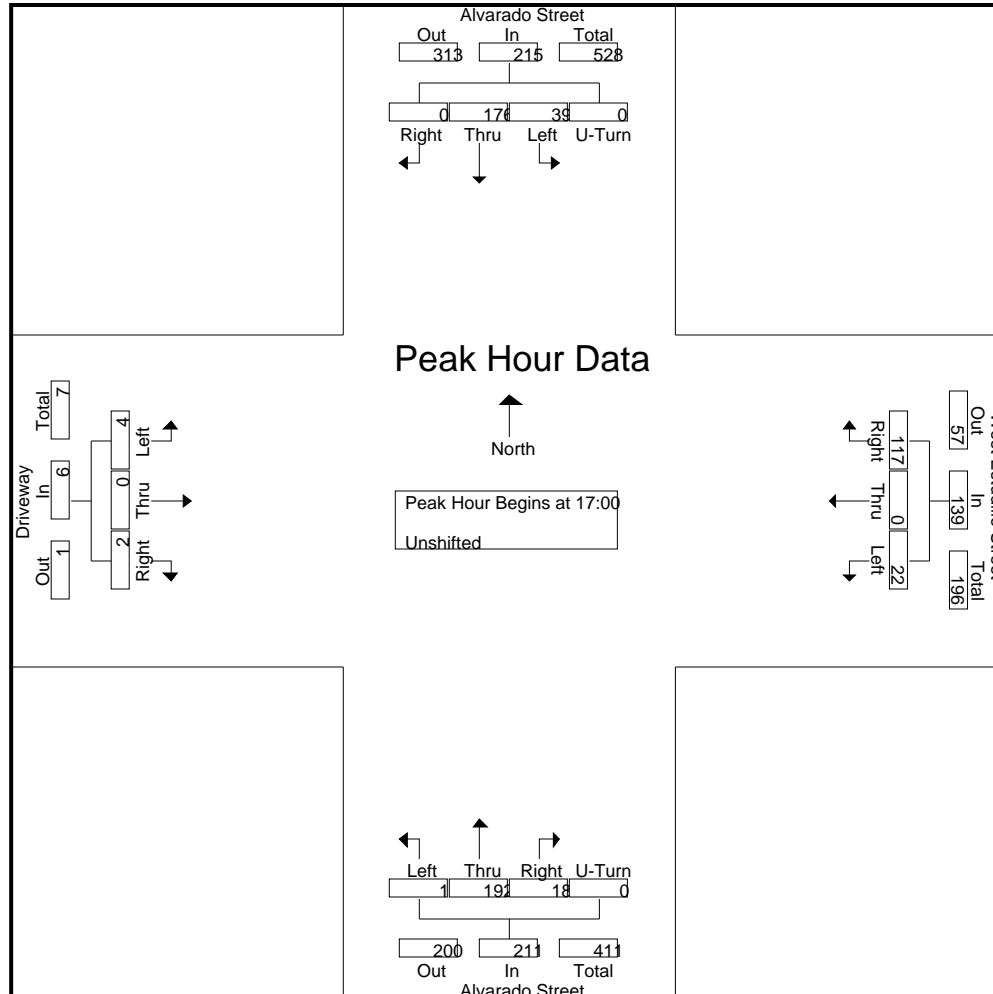
City of San Leandro

File Name : 13-7249-006 Alvarado-West Estudillo

Site Code : 00000000

Start Date : 4/30/2013

Page No : 4



Prepared by NDS/ATD

Volumes for: Tuesday, April 30, 2013

City: San Leandro

Project #: 13-7250-001

Location: West Estudillo Avenue between Alvarado Street and Martinez Street.

| Start Time | Eastbound | | Hour Totals | | Westbound | | Hour Totals | | Combined Totals | |
|-----------------------|----------------|--------------|-------------|------------|----------------|--------------|-------------|------------|-----------------|------------|
| | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 12:00 | 1 | 6 | | | 0 | 5 | | | | |
| 12:15 | 1 | 8 | | | 2 | 15 | | | | |
| 12:30 | 0 | 3 | | | 1 | 10 | | | | |
| 12:45 | 0 | 0 | 2 | 17 | 1 | 14 | 4 | 44 | 6 | 61 |
| 1:00 | 1 | 3 | | | 0 | 12 | | | | |
| 1:15 | 0 | 6 | | | 1 | 5 | | | | |
| 1:30 | 0 | 4 | | | 0 | 6 | | | | |
| 1:45 | 0 | 5 | 1 | 18 | 0 | 13 | 1 | 36 | 2 | 54 |
| 2:00 | 0 | 8 | | | 0 | 17 | | | | |
| 2:15 | 0 | 8 | | | 1 | 8 | | | | |
| 2:30 | 0 | 9 | | | 0 | 10 | | | | |
| 2:45 | 0 | 7 | 0 | 32 | 1 | 7 | 2 | 42 | 2 | 74 |
| 3:00 | 0 | 9 | | | 0 | 10 | | | | |
| 3:15 | 0 | 7 | | | 1 | 14 | | | | |
| 3:30 | 0 | 4 | | | 0 | 20 | | | | |
| 3:45 | 0 | 9 | 0 | 29 | 0 | 16 | 1 | 60 | 1 | 89 |
| 4:00 | 1 | 8 | | | 1 | 24 | | | | |
| 4:15 | 2 | 8 | | | 0 | 22 | | | | |
| 4:30 | 0 | 5 | | | 1 | 17 | | | | |
| 4:45 | 0 | 7 | 3 | 28 | 2 | 22 | 4 | 85 | 7 | 113 |
| 5:00 | 3 | 8 | | | 4 | 25 | | | | |
| 5:15 | 2 | 15 | | | 6 | 27 | | | | |
| 5:30 | 3 | 19 | | | 5 | 29 | | | | |
| 5:45 | 4 | 16 | 12 | 58 | 8 | 55 | 23 | 136 | 35 | 194 |
| 6:00 | 13 | 8 | | | 3 | 29 | | | | |
| 6:15 | 5 | 3 | | | 1 | 20 | | | | |
| 6:30 | 10 | 2 | | | 9 | 18 | | | | |
| 6:45 | 12 | 3 | 40 | 16 | 11 | 12 | 24 | 79 | 64 | 95 |
| 7:00 | 7 | 2 | | | 11 | 9 | | | | |
| 7:15 | 14 | 2 | | | 12 | 8 | | | | |
| 7:30 | 19 | 1 | | | 13 | 14 | | | | |
| 7:45 | 15 | 2 | 55 | 7 | 22 | 8 | 58 | 39 | 113 | 46 |
| 8:00 | 10 | 2 | | | 27 | 7 | | | | |
| 8:15 | 11 | 0 | | | 19 | 4 | | | | |
| 8:30 | 7 | 3 | | | 15 | 5 | | | | |
| 8:45 | 0 | 5 | 28 | 10 | 12 | 8 | 73 | 24 | 101 | 34 |
| 9:00 | 2 | 0 | | | 12 | 6 | | | | |
| 9:15 | 2 | 1 | | | 11 | 5 | | | | |
| 9:30 | 4 | 2 | | | 10 | 5 | | | | |
| 9:45 | 3 | 1 | 11 | 4 | 6 | 3 | 39 | 19 | 50 | 23 |
| 10:00 | 3 | 0 | | | 14 | 4 | | | | |
| 10:15 | 1 | 2 | | | 6 | 4 | | | | |
| 10:30 | 6 | 1 | | | 5 | 0 | | | | |
| 10:45 | 2 | 0 | 12 | 3 | 5 | 5 | 30 | 13 | 42 | 16 |
| 11:00 | 4 | 0 | | | 6 | 2 | | | | |
| 11:15 | 2 | 0 | | | 7 | 0 | | | | |
| 11:30 | 4 | 1 | | | 6 | 1 | | | | |
| 11:45 | 2 | 0 | 12 | 1 | 13 | 4 | 32 | 7 | 44 | 8 |
| Total | 176 | 223 | 176 | 223 | 291 | 584 | 291 | 584 | 467 | 807 |
| Combined Total | 399 | | 399 | | 875 | | 875 | | 1274 | |
| AM Peak | 7:15 AM | | | | 7:45 AM | | | | | |
| Vol. | 58 | | | | 83 | | | | | |
| P.H.F. | 0.763 | | | | 0.769 | | | | | |
| PM Peak | 5:00 PM | | | | 5:15 PM | | | | | |
| Vol. | 58 | | | | 140 | | | | | |
| P.H.F. | 0.763 | | | | 0.636 | | | | | |
| Percentage | 44.1% | 55.9% | | | 33.3% | 66.7% | | | | |

Prepared by NDS/ATD

Volumes for: Wednesday, May 01, 2013

City: San Leandro

Project #: 13-7250-001

Location: West Estudillo Avenue between Alvarado Street and Martinez Street.

| Start Time | Eastbound | | Hour Totals | | Westbound | | Hour Totals | | Combined Totals | |
|-----------------------|------------|------------|-------------|------------|------------|------------|-------------|------------|-----------------|------------|
| | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon | Morning | Afternoon |
| 12:00 | 1 | 6 | | | 3 | 8 | | | | |
| 12:15 | 0 | 6 | | | 2 | 7 | | | | |
| 12:30 | 0 | 3 | | | 2 | 8 | | | | |
| 12:45 | 0 | 3 | 1 | 18 | 2 | 10 | 9 | 33 | 10 | 51 |
| 1:00 | 1 | 4 | | | 1 | 8 | | | | |
| 1:15 | 0 | 4 | | | 1 | 10 | | | | |
| 1:30 | 0 | 2 | | | 0 | 3 | | | | |
| 1:45 | 0 | 9 | 1 | 19 | 0 | 10 | 2 | 31 | 3 | 50 |
| 2:00 | 0 | 5 | | | 0 | 4 | | | | |
| 2:15 | 0 | 9 | | | 0 | 14 | | | | |
| 2:30 | 0 | 4 | | | 0 | 11 | | | | |
| 2:45 | 3 | 5 | 3 | 23 | 1 | 8 | 1 | 37 | 4 | 60 |
| 3:00 | 0 | 10 | | | 0 | 9 | | | | |
| 3:15 | 0 | 4 | | | 0 | 21 | | | | |
| 3:30 | 0 | 6 | | | 0 | 24 | | | | |
| 3:45 | 0 | 9 | 0 | 29 | 1 | 12 | 1 | 66 | 1 | 95 |
| 4:00 | 1 | 5 | | | 0 | 12 | | | | |
| 4:15 | 1 | 8 | | | 0 | 18 | | | | |
| 4:30 | 0 | 12 | | | 0 | 23 | | | | |
| 4:45 | 1 | 8 | 3 | 33 | 2 | 26 | 2 | 79 | 5 | 112 |
| 5:00 | 5 | 11 | | | 4 | 28 | | | | |
| 5:15 | 4 | 14 | | | 6 | 32 | | | | |
| 5:30 | 7 | 16 | | | 4 | 37 | | | | |
| 5:45 | 6 | 10 | 22 | 51 | 6 | 33 | 20 | 130 | 42 | 181 |
| 6:00 | 8 | 10 | | | 4 | 29 | | | | |
| 6:15 | 7 | 8 | | | 2 | 21 | | | | |
| 6:30 | 7 | 7 | | | 13 | 16 | | | | |
| 6:45 | 4 | 0 | 26 | 25 | 11 | 14 | 30 | 80 | 56 | 105 |
| 7:00 | 9 | 5 | | | 9 | 12 | | | | |
| 7:15 | 17 | 3 | | | 13 | 15 | | | | |
| 7:30 | 13 | 1 | | | 12 | 9 | | | | |
| 7:45 | 10 | 4 | 49 | 13 | 21 | 15 | 55 | 51 | 104 | 64 |
| 8:00 | 10 | 2 | | | 25 | 4 | | | | |
| 8:15 | 10 | 4 | | | 20 | 10 | | | | |
| 8:30 | 12 | 2 | | | 7 | 7 | | | | |
| 8:45 | 9 | 2 | 41 | 10 | 15 | 6 | 67 | 27 | 108 | 37 |
| 9:00 | 14 | 3 | | | 14 | 7 | | | | |
| 9:15 | 4 | 4 | | | 18 | 8 | | | | |
| 9:30 | 4 | 2 | | | 10 | 5 | | | | |
| 9:45 | 2 | 1 | 24 | 10 | 7 | 1 | 49 | 21 | 73 | 31 |
| 10:00 | 4 | 2 | | | 7 | 7 | | | | |
| 10:15 | 10 | 0 | | | 10 | 5 | | | | |
| 10:30 | 7 | 1 | | | 10 | 4 | | | | |
| 10:45 | 6 | 0 | 27 | 3 | 11 | 6 | 38 | 22 | 65 | 25 |
| 11:00 | 7 | 2 | | | 8 | 6 | | | | |
| 11:15 | 9 | 0 | | | 5 | 0 | | | | |
| 11:30 | 5 | 2 | | | 6 | 3 | | | | |
| 11:45 | 2 | 1 | 23 | 5 | 8 | 2 | 27 | 11 | 50 | 16 |
| Total | 220 | 239 | 220 | 239 | 301 | 588 | 301 | 588 | 521 | 827 |
| Combined Total | 459 | | 459 | | 889 | | 889 | | 1348 | |
| AM Peak | 7:15 AM | | | | 7:30 AM | | | | | |
| Vol. | 50 | | | | 78 | | | | | |
| P.H.F. | 0.735 | | | | 0.780 | | | | | |
| PM Peak | 5:00 PM | | | | 5:15 PM | | | | | |
| Vol. | 51 | | | | 131 | | | | | |
| P.H.F. | 0.797 | | | | 0.885 | | | | | |
| Percentage | 47.9% | 52.1% | | | 33.9% | 66.1% | | | | |

Attachment B:

*Analysis Worksheets for
Existing (2013) and Existing (2013) plus Proposed Project Conditions*

San Leandro Crossings TIA
Existing Conditions - AM Peak

Scenario Report

Scenario: Existing AM

Command: Existing AM
Volume: Existing AM
Geometry: AM Existing
Impact Fee: Default Impact Fee
Trip Generation: None
Trip Distribution: None
Paths: Default Path
Routes: Default Route
Configuration: AM Existing

San Leandro Crossings TIA
Existing Conditions - AM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|-----------------|---------|-----------------|---------|--------------|
| | | Del/ LOS Veh | V/ C | Del/ LOS Veh | V/ C | |
| # 1 Alvarado Street / Davis Street | B | 19.2 | 0.544 | B 19.2 | 0.544 | + 0.000 D/V |
| # 2 San Leandro Boulevard / Davis | C | 34.6 | 0.766 | C 34.6 | 0.766 | + 0.000 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 13.0 | 0.395 | B 13.0 | 0.395 | + 0.000 D/V |
| # 4 San Leandro Blvd / Parrott St | F | 69.1 | 0.693 | F 69.1 | 0.693 | + 0.000 D/V |
| # 5 San Leandro Blvd / Thornton St | C | 16.6 | 0.160 | C 16.6 | 0.160 | + 0.000 D/V |

San Leandro Crossings TIA Existing Conditions - AM Peak

Level of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)
Intersection #1 Alvarado Street / Davis Street
Cycle (sec): 100 Critical Vol./Cap.(X): 0.544
Loss Time (sec): 9 Average Delay (sec/veh): 19.2
Optimal Cycle: 37 Level of Service: B
Street Name: Alvarado Street Davis Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 1 0 1
Volume Module:
Base Vol: 117 65 108 96 58 112 59 773 96 114 1035 107
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 117 65 108 96 58 112 59 773 96 114 1035 107
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 117 65 108 96 58 112 59 773 96 114 1035 107
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.84 0.84 0.84 0.72 0.72 0.72 0.90 0.90 0.90 0.94 0.94 0.94
PHF Volume: 139 77 128 133 80 155 66 863 107 121 1101 114
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 139 77 128 133 80 155 66 863 107 121 1101 114
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 139 77 128 133 80 155 66 863 107 121 1101 114
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.67 0.98 0.83 0.67 0.98 0.83 0.93 0.92 0.92 0.93 0.92 0.92
Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.78 0.22 1.00 1.81 0.19
Final Sat.: 1264 1862 1583 1277 1862 1583 1769 3097 385 1769 3161 327
Capacity Analysis Module:
Vol/Sat: 0.11 0.04 0.08 0.10 0.04 0.10 0.04 0.28 0.28 0.07 0.35 0.35
Crit Moves: ****
Green/Cycle: 0.20 0.20 0.20 0.20 0.20 0.20 0.07 0.57 0.57 0.14 0.64 0.64
Volume/Cap: 0.54 0.21 0.40 0.52 0.21 0.49 0.54 0.49 0.49 0.49 0.54 0.54
Delay/Veh: 38.2 33.5 35.5 37.4 33.6 36.5 50.1 13.1 13.1 41.2 10.2 10.2
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 38.2 33.5 35.5 37.4 33.6 36.5 50.1 13.1 13.1 41.2 10.2 10.2
LOS by Move: D C D D C D D B B D B B
HCM2k95thQ: 224 104 186 211 108 231 102 426 426 164 475 475
Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA Existing Conditions - AM Peak

Level of Service Detailed Computation Report
2000 HCM Operations Method
Future Volume Alternative
Intersection #1 Alvarado Street / Davis Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
HCM Ops Adjusted Lane Utilization Module:
Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 1 1 0 1 1 0
Lane Group: L T R L T R L RT RT L RT RT
#LnsInGrps: 1 1 1 1 1 1 1 2 2 1 2 2
HCM Ops Input Saturation Adj Module:
Lane Width: 12 12 12 12 12 12 12 12 12 12 12 12
CrsswalkWid: 8 8 8 8
% Hev Veh: 2 2 2 2
Grade: 0% 0% 0% 0%
Parking/Hr: No No No No
Bus Stp/Hr: 0 0 0 0
Area Type: <<<<<<<<<<<<<<<< Other >>>>>>>>>>>>>>>>>>>>>>>>>>>>
Cnft Ped/Hr: 0 0 0 0
ExclusiveRT: Include Include Include Include
% RT Prct: 0 0 0 0
HCM Ops f(lt) Adj Case Module:
f(lt) Case: 2 xxxx xxxx 2 xxxx xxxx 1 xxxx xxxx 1 xxxx xxxx
HCM Ops Saturation Adj Module:
Ln Wid Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Hev Veh Adj: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98
Grade Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Parking Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Bus Stp Adj: xxxx xxxx 1.00 xxxx xxxx 1.00 xxxx 1.00 1.00 xxxx 1.00 1.00
Area Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
RT Adj: xxxx xxxx 0.85 xxxx xxxx 0.85 xxxx 0.98 0.98 xxxx 0.99 0.99
LT Adj: 0.68 xxxx xxxxxx 0.69 xxxx xxxxxx 0.95 xxxx xxxxxx 0.95 xxxx xxxxxx
PedBike Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
HCM Sat Adj: 0.67 0.98 0.83 0.67 0.98 0.83 0.93 0.96 0.96 0.93 0.97 0.97
Usr Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Sat Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.95 0.95 1.00 0.95 0.95
Fnl Sat Adj: 0.67 0.98 0.83 0.67 0.98 0.83 0.93 0.92 0.92 0.93 0.92 0.92
Delay Adjustment Factor Module:
Coordinated: <<<<<<<<<<<<<<<< No >>>>>>>>>>>>>>>>>>>>>>>>>>>>
Signal Type: <<<<<<<<<<<<<<<< Actuated >>>>>>>>>>>>>>>>>>>>>>>>>>>>
DelAdjFctr: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

San Leandro Crossings TIA
Existing Conditions - AM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 19.16 | 19.16 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 20.16 | 20.16 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 20.16 | 20.16 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 139 | 133 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 3.86 | 3.69 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 80 | 77 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 2.22 | 2.14 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.80 | 0.80 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.71 | 0.57 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 19.45 | 19.59 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gg-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.83 | 0.83 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, ell: | 1.42 | 1.42 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, el2: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.20 | 0.20 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.68 | 0.69 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.68 | 0.69 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Existing Conditions - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.07 | 0.57 | 0.57 | 0.14 | 0.64 | 0.64 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 3.5 | 1.8 | 3.1 | 3.3 | 1.9 | 3.8 | 1.8 | 8.5 | 8.5 | 3.1 | 9.8 | 9.8 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.33 | 0.33 | 0.33 | 0.77 | 0.77 | 0.77 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | 0.95 | 0.95 | 0.55 | 0.55 | 0.55 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.20 | 0.72 | 0.72 | 0.18 | 0.45 | 0.45 |
| Q2: | 1.1 | 0.3 | 0.7 | 1.0 | 0.3 | 0.9 | 0.2 | 0.7 | 0.7 | 0.2 | 0.5 | 0.5 |
| HCM2kQueue: | 4.6 | 2.0 | 3.7 | 4.3 | 2.1 | 4.7 | 2.0 | 9.2 | 9.2 | 3.3 | 10.3 | 10.3 |
| 70th%Factor: | 1.19 | 1.20 | 1.19 | 1.19 | 1.19 | 1.19 | 1.20 | 1.18 | 1.18 | 1.19 | 1.18 | 1.18 |
| HCM2k70thQ: | 5.4 | 2.4 | 4.5 | 5.1 | 2.5 | 5.6 | 2.4 | 10.8 | 10.8 | 3.9 | 12.2 | 12.2 |
| 85th%Factor: | 1.56 | 1.58 | 1.56 | 1.56 | 1.58 | 1.56 | 1.58 | 1.52 | 1.52 | 1.57 | 1.51 | 1.51 |
| HCM2k85thQ: | 7.1 | 3.2 | 5.9 | 6.7 | 3.4 | 7.3 | 3.2 | 13.9 | 13.9 | 5.1 | 15.6 | 15.6 |
| 90th%Factor: | 1.72 | 1.76 | 1.73 | 1.72 | 1.76 | 1.72 | 1.76 | 1.65 | 1.65 | 1.74 | 1.64 | 1.64 |
| HCM2k90thQ: | 7.8 | 3.6 | 6.5 | 7.4 | 3.7 | 8.1 | 3.5 | 15.2 | 15.2 | 5.7 | 17.0 | 17.0 |
| 95th%Factor: | 1.97 | 2.04 | 1.99 | 1.97 | 2.03 | 1.96 | 2.04 | 1.86 | 1.86 | 2.00 | 1.84 | 1.84 |
| HCM2k95thQ: | 9.0 | 4.2 | 7.4 | 8.5 | 4.3 | 9.2 | 4.1 | 17.1 | 17.1 | 6.6 | 19.0 | 19.0 |
| 98th%Factor: | 2.40 | 2.55 | 2.45 | 2.42 | 2.55 | 2.40 | 2.56 | 2.19 | 2.19 | 2.48 | 2.15 | 2.15 |
| HCM2k98thQ: | 11.0 | 5.2 | 9.2 | 10.4 | 5.4 | 11.3 | 5.1 | 20.1 | 20.1 | 8.1 | 22.3 | 22.3 |

San Leandro Crossings TIA
Existing Conditions - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|----------------|----------------|---------------|---------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Run Speed: | 30 MPH | 30 MPH | 30 MPH | 30 MPH |
| NumOfStops: | 31.1 16.1 27.8 | 29.6 16.7 34.3 | 15.9 129 16.0 | 28.0 152 15.7 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 78.349 pounds |
| | 12.692 gallons |
| Carbon Dioxide: | 244.448 pounds |
| Carbon Monoxide: | 18.588 pounds |
| Hydrocarbons: | 3.188 pounds |
| Nitrogen Oxides: | 0.903 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 78.349 pounds |
| | 12.692 gallons |
| Carbon Dioxide: | 244.448 pounds |
| Carbon Monoxide: | 18.588 pounds |
| Hydrocarbons: | 3.188 pounds |
| Nitrogen Oxides: | 0.903 pounds |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Conditions - AM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.766 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 34.6 |
| Optimal Cycle: | 70 | Level Of Service: | C |

Street Name: San Leandro Boulevard Davis Street

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|-------------|-------------|-------------|-------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Protected | Protected | Protected | Protected |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 1 0 1 1 0 | 2 0 1 1 0 | 2 0 2 0 1 | 2 0 2 0 1 |

Volume Module:

| | | | | |
|--------------|----------------|----------------|----------------|----------------|
| Base Vol: | 246 481 110 | 73 355 269 | 255 519 123 | 175 758 159 |
| Growth Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| Initial Bse: | 246 481 110 | 73 355 269 | 255 519 123 | 175 758 159 |
| Added Vol: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| PasserByVol: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Initial Fut: | 246 481 110 | 73 355 269 | 255 519 123 | 175 758 159 |
| User Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| PHF Adj: | 0.96 0.96 0.96 | 0.87 0.87 0.87 | 0.88 0.88 0.88 | 0.95 0.95 0.95 |
| PHF Volume: | 258 504 115 | 84 409 310 | 289 588 139 | 185 802 168 |
| Reduct Vol: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Reduced Vol: | 258 504 115 | 84 409 310 | 289 588 139 | 185 802 168 |
| PCE Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| MLF Adj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| FinalVolume: | 258 504 115 | 84 409 310 | 289 588 139 | 185 802 168 |

Saturation Flow Module:

| | | | | |
|-------------|----------------|----------------|----------------|----------------|
| Sat/Lane: | 1900 1900 1900 | 1900 1900 1900 | 1900 1900 1900 | 1900 1900 1900 |
| Adjustment: | 0.93 0.90 0.90 | 0.90 0.87 0.87 | 0.90 0.93 0.83 | 0.90 0.93 0.83 |
| Lanes: | 1.00 1.63 0.37 | 2.00 1.14 0.86 | 2.00 2.00 1.00 | 2.00 2.00 1.00 |
| Final Sat.: | 1769 2799 640 | 3432 1882 1426 | 3432 3538 1583 | 3432 3538 1583 |

Capacity Analysis Module:

| | | | | |
|--------------|----------------|----------------|----------------|----------------|
| Vol/Sat: | 0.15 0.18 0.18 | 0.02 0.22 0.22 | 0.08 0.17 0.09 | 0.05 0.23 0.11 |
| Crit Moves: | **** | **** | **** | **** |
| Green/Cycle: | 0.19 0.42 0.42 | 0.06 0.28 0.28 | 0.11 0.31 0.31 | 0.10 0.30 0.30 |
| Volume/Cap: | 0.77 0.43 0.43 | 0.43 0.77 0.77 | 0.77 0.54 0.29 | 0.54 0.77 0.36 |
| Delay/Veh: | 48.5 20.9 20.9 | 47.1 36.6 36.6 | 52.4 29.4 26.7 | 44.6 35.5 28.2 |
| User DelAdj: | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 | 1.00 1.00 1.00 |
| AdjDel/Veh: | 48.5 20.9 20.9 | 47.1 36.6 36.6 | 52.4 29.4 26.7 | 44.6 35.5 28.2 |
| LOS by Move: | D C C | D D D | D C C | D D C |
| HCM2k95thQ: | 435 341 341 | 95 558 558 | 231 363 156 | 140 542 193 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Conditions - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Run Speed: 30 MPH 30 MPH 30 MPH 30 MPH
NumOfStops: 61.0 89.5 20.5 20.4 93.7 71.0 70.2 122 26.5 44.1 183 33.1

Name: year 1995 composite fleet
Fuel Consumption: 141.224 pounds
22.878 gallons
Carbon Dioxide: 440.617 pounds
Carbon Monoxide: 35.323 pounds
Hydrocarbons: 6.618 pounds
Nitrogen Oxides: 1.588 pounds

Name: year 2000 composite fleet
Fuel Consumption: 141.224 pounds
22.878 gallons
Carbon Dioxide: 440.617 pounds
Carbon Monoxide: 35.323 pounds
Hydrocarbons: 6.618 pounds
Nitrogen Oxides: 1.588 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Conditions - AM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.395
Loss Time (sec): 12 Average Delay (sec/veh): 13.0
Optimal Cycle: 35 Level Of Service: B

Street Name: San Leandro Blvd Juana Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 1 0 0 0 1 1

Volume Module:
Base Vol: 0 688 87 65 469 0 11 5 3 128 0 66
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 688 87 65 469 0 11 5 3 128 0 66
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 0 688 87 65 469 0 11 5 3 128 0 66
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.81 0.81 0.81 0.79 0.79 0.79 0.77 0.77 0.77
PHF Volume: 0 759 96 80 580 0 14 6 4 166 0 86
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 759 96 80 580 0 14 6 4 166 0 86
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 759 96 80 580 0 14 6 4 166 0 86

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 0.28 0.93 1.00 0.93 0.98 0.83 0.93 1.00 0.83
Lanes: 0.00 1.78 0.22 1.00 2.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00
Final Sat.: 0 3087 390 527 3538 0 1769 1862 1583 1769 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.25 0.25 0.15 0.16 0.00 0.01 0.00 0.00 0.09 0.00 0.05
Crit Moves: ****
Green/Cycle: 0.00 0.62 0.62 0.62 0.62 0.00 0.02 0.02 0.02 0.24 0.00 0.24
Volume/Cap: 0.00 0.39 0.39 0.25 0.26 0.00 0.39 0.17 0.12 0.39 0.00 0.23
Delay/Veh: 0.0 9.6 9.6 8.8 8.6 0.0 55.6 50.4 49.9 32.7 0.0 31.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.6 9.6 8.8 8.6 0.0 55.6 50.4 49.9 32.7 0.0 31.0
LOS by Move: A A A A A E D D C A C
HCM2k95thQ: 0 316 316 68 207 0 48 19 12 205 0 103

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA Existing Conditions - AM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
HCM Ops Adjusted Lane Utilization Module:
Lanes: 0 0 1 1 0 1 0 2 0 0 1 0 1 0 1 1 0 0 0 1
Lane Group: xxxx RT RT L T xxxx L T R L xxxx R
#LnsInGrps: 0 2 2 1 2 0 1 1 1 1 0 1

San Leandro Crossings TIA Existing Conditions - AM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj) 2000 HCM Operations Method Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave
Approach: North South East West
Cycle Length, C: xxxxxx 100 xxxxxx xxxxxx
Actual Green Time Per Lane Group, G: xxxxxx 62.22 xxxxxx xxxxxx
Effective Green Time Per Lane Group, g: xxxxxx 62.22 xxxxxx xxxxxx
Opposing Effective Green Time, go: xxxxxx 62.22 xxxxxx xxxxxx
Number Of Opposing Lanes, No: xxxxxx 2 xxxxxx xxxxxx
Number Of Lanes In Lane Group, N: xxxxxx 1 xxxxxx xxxxxx
Adjusted Left-Turn Flow Rate, Vlt: xxxxxx 80 xxxxxx xxxxxx
Proportion of Left Turns in Lane Group, Plt: xxxxxx 1.00 xxxxxx xxxxxx
Proportion of Left Turns in Opp Flow, Plto: xxxxxx xxxxxx xxxxxx xxxxxx
Left Turns Per Cycle, LTC: xxxxxx 2.23 xxxxxx xxxxxx
Adjusted Opposing Flow Rate, Vo: xxxxxx 854 xxxxxx xxxxxx
Opposing Flow Per Lane Per Cycle, Volc: xxxxxx 12.49 xxxxxx xxxxxx
Opposing Platoon Ratio, Rpo: xxxxxx 1.00 xxxxxx xxxxxx
Lost Time Per Phase, t1: xxxxxx 4.00 xxxxxx xxxxxx
Eff grn until arrival of left-turn car, gf: xxxxxx 0.00 xxxxxx xxxxxx
Opposing Queue Ratio, qro: xxxxxx 0.38 xxxxxx xxxxxx
Eff grn blocked by opposing queue, gg: xxxxxx 8.58 xxxxxx xxxxxx
Eff grn while left turns filter thru, gu: xxxxxx 53.64 xxxxxx xxxxxx
Max opposing cars arriving during gg-gf, n: xxxxxx xxxxxx xxxxxx xxxxxx
Proportion of Opposing Thru & RT cars, ptho: xxxxxx xxxxxx xxxxxx xxxxxx
Left-turn Saturation Factor, fs: xxxxxx 0.34 xxxxxx xxxxxx
Proportion of Left Turns in Shared Lane, pl: xxxxxx 1.00 xxxxxx xxxxxx
Through-car Equivalents, ell: xxxxxx 3.05 xxxxxx xxxxxx
Single Lane Through-car Equivalents, el2: xxxxxx xxxxxx xxxxxx xxxxxx
Minimum Left Turn Adjustment Factor, fmin: xxxxxx 0.06 xxxxxx xxxxxx
Single Lane Left Turn Adjustment Factor, fm: xxxxxx 0.28 xxxxxx xxxxxx
Left Turn Adjustment Factor, flt: xxxxxx 0.28 xxxxxx xxxxxx

San Leandro Crossings TIA
Existing Conditions - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.62 | 0.62 | 0.62 | 0.62 | 0.00 | 0.02 | 0.02 | 0.02 | 0.24 | 0.00 | 0.24 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 6.3 | 6.3 | 1.0 | 3.8 | 0.0 | 0.4 | 0.2 | 0.1 | 3.9 | 0.0 | 1.9 |
| UpstreamVC: | 0.00 | 0.70 | 0.70 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 0.00 | 0.35 |
| UpstreamAdj: | 0.00 | 0.65 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.94 | 0.00 | 0.94 |
| EarlyArrAdj: | 0.00 | 0.52 | 0.52 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.41 | 0.00 | 0.39 |
| Q2: | 0.0 | 0.3 | 0.3 | 0.3 | 0.4 | 0.0 | 0.5 | 0.2 | 0.1 | 0.3 | 0.0 | 0.1 |
| HCM2KQueue: | 0.0 | 6.6 | 6.6 | 1.3 | 4.2 | 0.0 | 0.9 | 0.4 | 0.2 | 4.2 | 0.0 | 2.0 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.20 | 1.19 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.20 |
| HCM2k70thQ: | 0.0 | 7.8 | 7.8 | 1.6 | 5.0 | 0.0 | 1.1 | 0.4 | 0.3 | 4.9 | 0.0 | 2.4 |
| 85th%Factor: | 1.60 | 1.54 | 1.54 | 1.59 | 1.56 | 1.60 | 1.59 | 1.60 | 1.60 | 1.56 | 1.60 | 1.58 |
| HCM2k85thQ: | 0.0 | 10.2 | 10.2 | 2.1 | 6.5 | 0.0 | 1.5 | 0.6 | 0.4 | 6.5 | 0.0 | 3.2 |
| 90th%Factor: | 1.80 | 1.69 | 1.69 | 1.77 | 1.72 | 1.80 | 1.78 | 1.79 | 1.80 | 1.73 | 1.80 | 1.76 |
| HCM2k90thQ: | 0.0 | 11.1 | 11.1 | 2.3 | 7.2 | 0.0 | 1.6 | 0.7 | 0.4 | 7.2 | 0.0 | 3.6 |
| 95th%Factor: | 2.10 | 1.92 | 1.92 | 2.06 | 1.98 | 2.10 | 2.07 | 2.09 | 2.09 | 1.98 | 2.10 | 2.04 |
| HCM2k95thQ: | 0.0 | 12.6 | 12.6 | 2.7 | 8.3 | 0.0 | 1.9 | 0.8 | 0.5 | 8.2 | 0.0 | 4.1 |
| 98th%Factor: | 2.70 | 2.30 | 2.30 | 2.60 | 2.42 | 2.70 | 2.63 | 2.67 | 2.68 | 2.43 | 2.70 | 2.56 |
| HCM2k98thQ: | 0.0 | 15.2 | 15.2 | 3.4 | 10.2 | 0.0 | 2.4 | 1.0 | 0.6 | 10.1 | 0.0 | 5.2 |

San Leandro Crossings TIA
Existing Conditions - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|---------------------------|------|------|-------------|------|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 95.0 | 12.0 | 9.0 | 65.5 | 0.0 | 3.4 | 1.6 | 0.9 | 35.0 | 0.0 | 17.3 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 37.106 pounds | | | | | | | | | | | |
| | 6.011 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 115.772 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 8.464 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.354 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.429 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 37.106 pounds | | | | | | | | | | | |
| | 6.011 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 115.772 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 8.464 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.354 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.429 pounds | | | | | | | | | | | |

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The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA Existing Conditions - AM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 San Leandro Blvd / Parrott St

Average Delay (sec/veh): 9.4 Worst Case Level Of Service: F [69.1]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Includes data for San Leandro Blvd and Parrott St.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with columns for Critical Gap Module, Critical Gp, and FollowUpTim.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with columns for Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA Existing Conditions - AM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C [16.6]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Includes data for San Leandro Blvd and Thornton St.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and FinalVolume.

Table with columns for Critical Gap Module, Critical Gp, and FollowUpTim.

Table with columns for Capacity Module, Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap.

Table with columns for Level Of Service Module, 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Conditions - PM Peak

Scenario Report

Scenario: Existing PM
Command: Existing PM
Volume: Existing PM
Geometry: AM Existing
Impact Fee: Default Impact Fee
Trip Generation: None
Trip Distribution: None
Paths: Default Path
Routes: Default Route
Configuration: PM Existing

San Leandro Crossings TIA
Existing Conditions - PM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|-------|-------|--------|-------------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS | Veh C | LOS | Veh C | |
| # 1 Alvarado Street / Davis Street | C | 21.3 | 0.709 | C | 21.3 0.709 | + 0.000 D/V |
| # 2 San Leandro Boulevard / Davis | D | 40.5 | 0.858 | D | 40.5 0.858 | + 0.000 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 13.9 | 0.388 | B | 13.9 0.388 | + 0.000 D/V |
| # 4 San Leandro Blvd / Parrott St | F | 203.4 | 1.144 | F | 203.4 1.144 | + 0.000 D/V |
| # 5 San Leandro Blvd / Thornton St | B | 13.0 | 0.145 | B | 13.0 0.145 | + 0.000 D/V |

San Leandro Crossings TIA
Existing Conditions - PM Peak

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

Intersection #1 Alvarado Street / Davis Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.709
Loss Time (sec): 9 Average Delay (sec/veh): 21.3
Optimal Cycle: 52 Level Of Service: C

Street Name: Alvarado Street Davis Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|---|---|
| Rights: | Include | | | Include | | | Include | | | Include | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | |
| Lanes: | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 174 | 43 | 184 | 94 | 49 | 133 | 76 | 1247 | 69 | 106 | 1019 | 62 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 174 | 43 | 184 | 94 | 49 | 133 | 76 | 1247 | 69 | 106 | 1019 | 62 |
| Added Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 174 | 43 | 184 | 94 | 49 | 133 | 76 | 1247 | 69 | 106 | 1019 | 62 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.84 | 0.84 | 0.84 | 0.83 | 0.83 | 0.83 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 |
| PHF Volume: | 208 | 51 | 220 | 113 | 59 | 160 | 86 | 1409 | 78 | 117 | 1126 | 69 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 208 | 51 | 220 | 113 | 59 | 160 | 86 | 1409 | 78 | 117 | 1126 | 69 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 208 | 51 | 220 | 113 | 59 | 160 | 86 | 1409 | 78 | 117 | 1126 | 69 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.71 | 0.98 | 0.83 | 0.71 | 0.98 | 0.83 | 0.93 | 0.92 | 0.92 | 0.93 | 0.92 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.90 | 0.10 | 1.00 | 1.89 | 0.11 |
| Final Sat.: | 1341 | 1862 | 1583 | 1352 | 1862 | 1583 | 1769 | 3325 | 184 | 1769 | 3305 | 201 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.16 | 0.03 | 0.14 | 0.08 | 0.03 | 0.10 | 0.05 | 0.42 | 0.42 | 0.07 | 0.34 | 0.34 |
| Crit Moves: | **** | | | | | | **** | | | **** | | |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.60 | 0.60 | 0.09 | 0.60 | 0.60 |
| Volume/Cap: | 0.71 | 0.13 | 0.64 | 0.38 | 0.14 | 0.46 | 0.56 | 0.71 | 0.71 | 0.71 | 0.56 | 0.56 |
| Delay/Veh: | 43.9 | 31.5 | 39.3 | 34.1 | 31.6 | 34.9 | 48.7 | 15.2 | 15.2 | 57.3 | 12.2 | 12.2 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 43.9 | 31.5 | 39.3 | 34.1 | 31.6 | 34.9 | 48.7 | 15.2 | 15.2 | 57.3 | 12.2 | 12.2 |
| LOS by Move: | D | C | D | C | C | C | D | B | B | E | B | B |
| HCM2k95thQ: | 351 | 67 | 340 | 164 | 76 | 230 | 128 | 722 | 722 | 169 | 497 | 497 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Conditions - PM Peak

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.09 | 0.60 | 0.60 | 0.09 | 0.60 | 0.60 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 5.4 | 1.1 | 5.6 | 2.7 | 1.3 | 3.9 | 2.3 | 15.2 | 15.2 | 3.2 | 10.5 | 10.5 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.58 | 0.58 | 0.58 | 0.86 | 0.86 | 0.86 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.78 | 0.78 | 0.78 | 0.40 | 0.40 | 0.40 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.19 | 0.61 | 0.61 | 0.10 | 0.31 | 0.31 |
| Q2: | 2.0 | 0.1 | 1.6 | 0.6 | 0.2 | 0.8 | 0.2 | 1.4 | 1.4 | 0.2 | 0.4 | 0.4 |
| HCM2kQueue: | 7.4 | 1.3 | 7.1 | 3.3 | 1.5 | 4.7 | 2.5 | 16.6 | 16.6 | 3.4 | 10.9 | 10.9 |
| 70th%Factor: | 1.18 | 1.20 | 1.18 | 1.19 | 1.20 | 1.19 | 1.19 | 1.17 | 1.17 | 1.19 | 1.18 | 1.18 |
| HCM2k70thQ: | 8.8 | 1.5 | 8.4 | 3.9 | 1.8 | 5.6 | 3.0 | 19.4 | 19.4 | 4.0 | 12.8 | 12.8 |
| 85th%Factor: | 1.53 | 1.59 | 1.54 | 1.57 | 1.59 | 1.56 | 1.58 | 1.47 | 1.47 | 1.57 | 1.51 | 1.51 |
| HCM2k85thQ: | 11.4 | 2.1 | 11.0 | 5.1 | 2.4 | 7.3 | 4.0 | 24.5 | 24.5 | 5.3 | 16.4 | 16.4 |
| 90th%Factor: | 1.68 | 1.77 | 1.68 | 1.74 | 1.77 | 1.72 | 1.75 | 1.57 | 1.57 | 1.74 | 1.63 | 1.63 |
| HCM2k90thQ: | 12.4 | 2.3 | 12.0 | 5.7 | 2.6 | 8.0 | 4.4 | 26.2 | 26.2 | 5.9 | 17.7 | 17.7 |
| 95th%Factor: | 1.90 | 2.06 | 1.90 | 2.00 | 2.05 | 1.96 | 2.02 | 1.74 | 1.74 | 2.00 | 1.83 | 1.83 |
| HCM2k95thQ: | 14.0 | 2.7 | 13.6 | 6.6 | 3.1 | 9.2 | 5.1 | 28.9 | 28.9 | 6.8 | 19.9 | 19.9 |
| 98th%Factor: | 2.27 | 2.61 | 2.28 | 2.48 | 2.59 | 2.40 | 2.52 | 1.98 | 1.98 | 2.47 | 2.13 | 2.13 |
| HCM2k98thQ: | 16.8 | 3.4 | 16.3 | 8.1 | 3.9 | 11.2 | 6.4 | 32.9 | 32.9 | 8.4 | 23.2 | 23.2 |

San Leandro Crossings TIA
Existing Conditions - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|---------------------------|------|------|-------------|------|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 48.2 | 10.3 | 50.0 | 24.1 | 11.9 | 34.8 | 20.6 | 246 | 13.6 | 28.4 | 169 | 10.3 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 100.015 pounds | | | | | | | | | | | |
| | 16.202 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 312.046 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 23.968 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.176 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.156 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 100.015 pounds | | | | | | | | | | | |
| | 16.202 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 312.046 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 23.968 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.176 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.156 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Conditions - PM Peak

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.15 | 0.33 | 0.33 | 0.14 | 0.33 | 0.33 | 0.16 | 0.34 | 0.34 | 0.07 | 0.25 | 0.25 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 6.0 | 6.5 | 6.5 | 3.2 | 12.7 | 12.7 | 6.7 | 13.0 | 3.6 | 2.6 | 10.4 | 2.8 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.71 | 0.71 | 0.71 | 0.47 | 0.47 | 0.47 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.64 | 0.64 | 0.64 | 0.88 | 0.88 | 0.88 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.22 | 0.36 | 0.32 | 0.18 | 0.41 | 0.37 |
| Q2: | 3.5 | 1.0 | 1.0 | 0.9 | 4.3 | 4.3 | 1.1 | 1.4 | 0.2 | 0.6 | 2.0 | 0.2 |
| HCM2kQueue: | 9.5 | 7.4 | 7.4 | 4.1 | 17.0 | 17.0 | 7.8 | 14.4 | 3.8 | 3.2 | 12.4 | 3.0 |
| 70th%Factor: | 1.18 | 1.18 | 1.18 | 1.19 | 1.17 | 1.17 | 1.18 | 1.17 | 1.19 | 1.19 | 1.17 | 1.19 |
| HCM2k70thQ: | 11.2 | 8.8 | 8.8 | 4.9 | 19.8 | 19.8 | 9.2 | 16.9 | 4.5 | 3.8 | 14.6 | 3.6 |
| 85th%Factor: | 1.52 | 1.53 | 1.53 | 1.56 | 1.47 | 1.47 | 1.53 | 1.49 | 1.56 | 1.57 | 1.50 | 1.57 |
| HCM2k85thQ: | 14.4 | 11.4 | 11.4 | 6.4 | 25.0 | 25.0 | 11.9 | 21.5 | 5.9 | 5.1 | 18.6 | 4.7 |
| 90th%Factor: | 1.65 | 1.68 | 1.68 | 1.73 | 1.57 | 1.57 | 1.67 | 1.59 | 1.73 | 1.74 | 1.61 | 1.74 |
| HCM2k90thQ: | 15.6 | 12.5 | 12.5 | 7.1 | 26.7 | 26.7 | 13.0 | 23.0 | 6.6 | 5.6 | 20.1 | 5.2 |
| 95th%Factor: | 1.85 | 1.90 | 1.90 | 1.98 | 1.73 | 1.73 | 1.89 | 1.77 | 1.99 | 2.00 | 1.80 | 2.01 |
| HCM2k95thQ: | 17.6 | 14.1 | 14.1 | 8.1 | 29.5 | 29.5 | 14.7 | 25.5 | 7.5 | 6.4 | 22.4 | 6.0 |
| 98th%Factor: | 2.18 | 2.26 | 2.26 | 2.43 | 1.97 | 1.97 | 2.25 | 2.03 | 2.45 | 2.48 | 2.08 | 2.49 |
| HCM2k98thQ: | 20.7 | 16.9 | 16.9 | 10.0 | 33.5 | 33.5 | 17.5 | 29.3 | 9.3 | 8.0 | 25.9 | 7.5 |

San Leandro Crossings TIA
Existing Conditions - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|---------------------------|------|------|-------------|-----|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 54.2 | 80.1 | 30.9 | 55.5 | 135 | 83.1 | 116.4 | 223 | 32.7 | 45.4 | 179 | 25.5 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 189.496 pounds | | | | | | | | | | | |
| | 30.698 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 591.227 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 47.978 pounds | | | | | | | | | | | |
| Hydrocarbons: | 9.170 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.107 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 189.496 pounds | | | | | | | | | | | |
| | 30.698 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 591.227 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 47.978 pounds | | | | | | | | | | | |
| Hydrocarbons: | 9.170 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.107 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Conditions - PM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | xxxxxx | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | xxxxxx | 59.47 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | xxxxxx | 59.47 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | xxxxxx | 59.47 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | xxxxxx | 2 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | xxxxxx | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | xxxxxx | 128 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | xxxxxx | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | xxxxxx | 3.55 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | xxxxxx | 676 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | xxxxxx | 9.88 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | xxxxxx | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | xxxxxx | 4.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | xxxxxx | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | xxxxxx | 0.41 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | xxxxxx | 5.98 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | xxxxxx | 53.49 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gq-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | xxxxxx | 0.45 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | xxxxxx | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, e1: | xxxxxx | 2.58 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, e12: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | xxxxxx | 0.07 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | xxxxxx | 0.35 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | xxxxxx | 0.35 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Existing Conditions - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.59 | 0.59 | 0.59 | 0.59 | 0.00 | 0.02 | 0.02 | 0.02 | 0.26 | 0.00 | 0.26 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 5.0 | 5.0 | 1.8 | 6.3 | 0.0 | 0.4 | 0.2 | 0.0 | 4.1 | 0.0 | 2.1 |
| UpstreamVC: | 0.00 | 0.53 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 0.00 | 0.35 |
| UpstreamAdj: | 0.00 | 0.84 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | 0.00 | 0.95 |
| EarlyArrAdj: | 0.00 | 0.65 | 0.65 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.44 | 0.00 | 0.41 |
| Q2: | 0.0 | 0.3 | 0.3 | 0.5 | 0.6 | 0.0 | 0.5 | 0.2 | 0.0 | 0.3 | 0.0 | 0.1 |
| HCM2KQueue: | 0.0 | 5.3 | 5.3 | 2.3 | 6.9 | 0.0 | 1.0 | 0.3 | 0.1 | 4.4 | 0.0 | 2.2 |
| 70th%Factor: | 1.20 | 1.19 | 1.19 | 1.19 | 1.18 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 6.3 | 6.3 | 2.7 | 8.2 | 0.0 | 1.2 | 0.4 | 0.1 | 5.2 | 0.0 | 2.7 |
| 85th%Factor: | 1.60 | 1.55 | 1.55 | 1.58 | 1.54 | 1.60 | 1.59 | 1.60 | 1.60 | 1.56 | 1.60 | 1.58 |
| HCM2k85thQ: | 0.0 | 8.2 | 8.2 | 3.6 | 10.6 | 0.0 | 1.6 | 0.5 | 0.1 | 6.8 | 0.0 | 3.5 |
| 90th%Factor: | 1.80 | 1.71 | 1.71 | 1.76 | 1.68 | 1.80 | 1.78 | 1.79 | 1.80 | 1.72 | 1.80 | 1.76 |
| HCM2k90thQ: | 0.0 | 9.0 | 9.0 | 4.0 | 11.6 | 0.0 | 1.8 | 0.6 | 0.1 | 7.5 | 0.0 | 3.9 |
| 95th%Factor: | 2.10 | 1.95 | 1.95 | 2.03 | 1.91 | 2.10 | 2.07 | 2.09 | 2.10 | 1.97 | 2.10 | 2.03 |
| HCM2k95thQ: | 0.0 | 10.3 | 10.3 | 4.6 | 13.2 | 0.0 | 2.1 | 0.7 | 0.1 | 8.6 | 0.0 | 4.5 |
| 98th%Factor: | 2.70 | 2.37 | 2.37 | 2.54 | 2.29 | 2.70 | 2.63 | 2.67 | 2.69 | 2.41 | 2.70 | 2.54 |
| HCM2k98thQ: | 0.0 | 12.5 | 12.5 | 5.8 | 15.8 | 0.0 | 2.6 | 0.9 | 0.2 | 10.6 | 0.0 | 5.7 |

San Leandro Crossings TIA
Existing Conditions - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Run Speed: 30 MPH 30 MPH 30 MPH 30 MPH
NumOfStops: 0.0 75.4 9.6 16.1 107 0.0 4.0 1.5 0.3 36.9 0.0 19.0
Name: year 1995 composite fleet
Fuel Consumption: 41.236 pounds
Carbon Dioxide: 128.657 pounds
Carbon Monoxide: 9.475 pounds
Hydrocarbons: 1.535 pounds
Nitrogen Oxides: 0.477 pounds
Name: year 2000 composite fleet
Fuel Consumption: 41.236 pounds
Carbon Dioxide: 128.657 pounds
Carbon Monoxide: 9.475 pounds
Hydrocarbons: 1.535 pounds
Nitrogen Oxides: 0.477 pounds

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Conditions - PM Peak

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

Intersection #4 San Leandro Blvd / Parrott St
Average Delay (sec/veh): 38.5 Worst Case Level Of Service: F[203.4]
Street Name: San Leandro Blvd Parrott St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 0
Volume Module:
Base Vol: 95 554 47 47 799 47 35 52 179 19 11 34
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 95 554 47 47 799 47 35 52 179 19 11 34
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 95 554 47 47 799 47 35 52 179 19 11 34
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.92 0.92 0.92 0.92 0.97 0.97 0.97 0.72 0.72 0.72 0.80 0.80 0.80
PHF Volume: 104 605 51 49 827 49 49 73 250 24 14 43
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 104 605 51 49 827 49 49 73 250 24 14 43
Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3
Capacity Module:
Cnflct Vol: 876 xxxxx xxxxxx 656 xxxxx xxxxxx 1465 1812 438 1385 1811 328
Potent Cap.: 767 xxxxx xxxxxx 927 xxxxx xxxxxx 89 78 567 103 78 668
Move Cap.: 767 xxxxx xxxxxx 927 xxxxx xxxxxx 60 64 567 0 64 668
Volume/Cap: 0.14 xxxxx xxxxx 0.05 xxxxx xxxxx 0.81 1.14 0.44 xxxxx 0.22 0.06
Level Of Service Module:
2Way95thQ: 11.7 xxxxx xxxxxx 4.1 xxxxx xxxxxx xxxxx xxxxx 56.2 xxxxx xxxxx xxxxxx
Control Del: 10.4 xxxxx xxxxxx 9.1 xxxxx xxxxxx xxxxxx xxxxx 16.3 xxxxxx xxxxx xxxxxx
LOS by Move: B * * A * * C * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 62 xxxxx xxxxxx xxxxx 136 xxxxxx
SharedQueue: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 11.4 xxxxx xxxxxx xxxxxx 3.0 xxxxxx
Shrd ConDel: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 588.4 xxxxx xxxxxx xxxxxx 63.8 xxxxxx
Shared LOS: * * * * * F * * * * * F *
ApproachDel: xxxxxxx xxxxxxx 203.4 63.8
ApproachLOS: * * F F

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Conditions - PM Peak

Level of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 0.9 Worst Case Level of Service: B [13.0]

Street Name: San Leandro Blvd Thornton St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1! 0 0 0 0 1! 0 0

Volume Module:
Base Vol: 17 670 10 18 979 2 2 1 51 7 0 21
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 17 670 10 18 979 2 2 1 51 7 0 21
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 17 670 10 18 979 2 2 1 51 7 0 21
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.93 0.93 0.93 0.71 0.71 0.71 0.78 0.78 0.78
PHF Volume: 19 735 11 19 1050 2 3 1 72 9 0 27
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 19 735 11 19 1050 2 3 1 72 9 0 27

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 1053 xxxxx xxxxx 746 xxxxx xxxxx 1495 1873 526 1342 1869 373
Potent Cap.: 657 xxxxx xxxxx 858 xxxxx xxxxx 85 71 496 110 72 625
Move Cap.: 657 xxxxx xxxxx 858 xxxxx xxxxx 78 68 496 89 68 625
Volume/Cap: 0.03 xxxxx xxxxx 0.02 xxxxx xxxxx 0.04 0.02 0.14 0.10 0.00 0.04

Level of Service Module:
2Way95thQ: 2.2 xxxxx xxxxx 1.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: 10.6 xxxxx xxxxx 9.3 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: B * * A * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 525 xxxxx xxxxx 630 xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 0.5 xxxxx xxxxx 0.2 xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 13.0 xxxxx xxxxx 11.1 xxxxx
Shared LOS: * * * * * * B * * * B *
ApproachDel: xxxxxxx xxxxxxx 13.0 11.1
ApproachLOS: * * B B

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Scenario: Scenario Report
Existing + Project AM (SLC)

Command: Existing + Project AM (SLC)
Volume: Existing + Project AM (SLC)
Geometry: AM Existing +P
Impact Fee: Default Impact Fee
Trip Generation: San Leandro Crossings Ph I AM
Trip Distribution: All Scenarios
Paths: Default Path
Routes: Default Route
Configuration: AM Existing

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|--------------|--------------------------------|---------|------------|---------|-------------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS Veh | C | LOS Veh | C | |
| # 1 | Alvarado Street / Davis Street | B | 19.2 0.544 | B | 19.3 0.580 | + 0.124 D/V |
| # 2 | San Leandro Boulevard / Davis | C | 34.6 0.766 | D | 38.6 0.843 | + 3.996 D/V |
| # 3 | San Leandro Blvd / Juana Ave | B | 13.0 0.395 | B | 13.4 0.449 | + 0.403 D/V |
| # 4 | San Leandro Blvd / Parrott St | F | 69.1 0.693 | F | OVRFL 2.966 | + +Inf D/V |
| # 5 | San Leandro Blvd / Thornton St | C | 16.6 0.160 | D | 30.3 0.371 | +13.677 D/V |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 18.32 | 18.32 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 19.32 | 19.32 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 19.32 | 19.32 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 107 | 152 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 2.97 | 4.23 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 61 | 47 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 1.69 | 1.31 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.81 | 0.81 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 19.32 | 19.32 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gg-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.84 | 0.85 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, e1: | 1.39 | 1.37 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, e12: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.21 | 0.21 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.72 | 0.73 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.72 | 0.73 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.07 | 0.56 | 0.56 | 0.15 | 0.65 | 0.65 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 2.6 | 1.1 | 3.3 | 3.8 | 1.4 | 3.8 | 1.8 | 10.7 | 10.7 | 4.0 | 10.5 | 10.5 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.40 | 0.40 | 0.40 | 0.84 | 0.84 | 0.84 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 | 0.92 | 0.92 | 0.42 | 0.42 | 0.42 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.19 | 0.69 | 0.69 | 0.14 | 0.35 | 0.35 |
| Q2: | 0.7 | 0.2 | 0.8 | 1.3 | 0.2 | 1.0 | 0.2 | 0.9 | 0.9 | 0.2 | 0.5 | 0.5 |
| HCM2KQueue: | 3.3 | 1.2 | 4.1 | 5.1 | 1.6 | 4.8 | 2.0 | 11.6 | 11.6 | 4.2 | 11.0 | 11.0 |
| 70th%Factor: | 1.19 | 1.20 | 1.19 | 1.19 | 1.20 | 1.19 | 1.20 | 1.17 | 1.17 | 1.19 | 1.18 | 1.18 |
| HCM2k70thQ: | 3.9 | 1.5 | 4.9 | 6.1 | 1.9 | 5.7 | 2.4 | 13.6 | 13.6 | 5.0 | 12.9 | 12.9 |
| 85th%Factor: | 1.57 | 1.59 | 1.56 | 1.55 | 1.58 | 1.56 | 1.58 | 1.50 | 1.50 | 1.56 | 1.51 | 1.51 |
| HCM2k85thQ: | 5.1 | 2.0 | 6.4 | 7.9 | 2.6 | 7.5 | 3.2 | 17.5 | 17.5 | 6.6 | 16.6 | 16.6 |
| 90th%Factor: | 1.74 | 1.78 | 1.73 | 1.71 | 1.77 | 1.71 | 1.76 | 1.62 | 1.62 | 1.72 | 1.63 | 1.63 |
| HCM2k90thQ: | 5.7 | 2.2 | 7.0 | 8.7 | 2.9 | 8.3 | 3.5 | 18.9 | 18.9 | 7.3 | 17.9 | 17.9 |
| 95th%Factor: | 2.00 | 2.06 | 1.98 | 1.95 | 2.05 | 1.96 | 2.04 | 1.81 | 1.81 | 1.97 | 1.83 | 1.83 |
| HCM2k95thQ: | 6.6 | 2.6 | 8.1 | 10.0 | 3.3 | 9.5 | 4.1 | 21.1 | 21.1 | 8.4 | 20.0 | 20.0 |
| 98th%Factor: | 2.48 | 2.61 | 2.43 | 2.38 | 2.58 | 2.39 | 2.56 | 2.11 | 2.11 | 2.42 | 2.13 | 2.13 |
| HCM2k98thQ: | 8.1 | 3.2 | 9.9 | 12.1 | 4.2 | 11.5 | 5.1 | 24.5 | 24.5 | 10.3 | 23.4 | 23.4 |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|------|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 23.4 | 9.8 | 29.8 | 34.6 | 12.7 | 34.6 | 16.0 | 152 | 30.3 | 36.3 | 164 | 15.8 |

Name: year 1995 composite fleet
Fuel Consumption: 84.407 pounds
13.674 gallons
Carbon Dioxide: 263.349 pounds
Carbon Monoxide: 20.038 pounds
Hydrocarbons: 3.437 pounds
Nitrogen Oxides: 0.976 pounds

Name: year 2000 composite fleet
Fuel Consumption: 84.407 pounds
13.674 gallons
Carbon Dioxide: 263.349 pounds
Carbon Monoxide: 20.038 pounds
Hydrocarbons: 3.437 pounds
Nitrogen Oxides: 0.976 pounds

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.843 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 38.6 |
| Optimal Cycle: | 88 | Level Of Service: | D |

| Street Name: | San Leandro Boulevard | | | Davis Street | | |
|--------------|-----------------------|---|---|--------------|---|---|
| Approach: | North Bound | | | South Bound | | |
| Movement: | L | T | R | L | T | R |

| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|---|---|---|
| Rights: | Include | | | Include | | | Include | | | Include | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 246 | 481 | 110 | 73 | 355 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 246 | 481 | 110 | 73 | 355 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Added Vol: | 9 | 6 | 12 | 0 | 31 | 10 | 2 | 4 | 47 | 69 | 23 | 0 |
| PasserByVol: | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 |
| Initial Fut: | 324 | 487 | 122 | 73 | 386 | 279 | 257 | 523 | 207 | 244 | 781 | 159 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.96 | 0.96 | 0.96 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 339 | 510 | 128 | 84 | 445 | 322 | 291 | 592 | 234 | 258 | 826 | 168 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 339 | 510 | 128 | 84 | 445 | 322 | 291 | 592 | 234 | 258 | 826 | 168 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 339 | 510 | 128 | 84 | 445 | 322 | 291 | 592 | 234 | 258 | 826 | 168 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.93 | 0.90 | 0.90 | 0.90 | 0.87 | 0.87 | 0.90 | 0.93 | 0.83 | 0.90 | 0.93 | 0.83 |
| Lanes: | 1.00 | 1.60 | 0.40 | 2.00 | 1.16 | 0.84 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 1769 | 2744 | 687 | 3432 | 1924 | 1391 | 3432 | 3538 | 1583 | 3432 | 3538 | 1583 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.19 | 0.19 | 0.19 | 0.02 | 0.23 | 0.23 | 0.08 | 0.17 | 0.15 | 0.08 | 0.23 | 0.11 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.23 | 0.44 | 0.44 | 0.06 | 0.27 | 0.27 | 0.10 | 0.26 | 0.26 | 0.12 | 0.28 | 0.28 |
| Volume/Cap: | 0.84 | 0.42 | 0.42 | 0.42 | 0.84 | 0.84 | 0.84 | 0.64 | 0.57 | 0.64 | 0.84 | 0.38 |
| Delay/Veh: | 51.7 | 19.2 | 19.2 | 46.8 | 41.4 | 41.4 | 61.1 | 34.4 | 34.0 | 45.7 | 40.8 | 29.8 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 51.7 | 19.2 | 19.2 | 46.8 | 41.4 | 41.4 | 61.1 | 34.4 | 34.0 | 45.7 | 40.8 | 29.8 |
| LOS by Move: | D | B | B | D | D | D | E | C | C | D | D | C |
| HCM2k95thQ: | 569 | 337 | 337 | 93 | 637 | 637 | 243 | 392 | 294 | 195 | 591 | 198 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|------|------|-------------|-----|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 81.1 | 87.1 | 21.8 | 20.3 | 105 | 75.9 | 71.5 | 131 | 50.9 | 61.6 | 195 | 34.0 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 165.817 pounds |
| | 26.862 gallons |
| Carbon Dioxide: | 517.348 pounds |
| Carbon Monoxide: | 41.835 pounds |
| Hydrocarbons: | 7.953 pounds |
| Nitrogen Oxides: | 1.847 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 165.817 pounds |
| | 26.862 gallons |
| Carbon Dioxide: | 517.348 pounds |
| Carbon Monoxide: | 41.835 pounds |
| Hydrocarbons: | 7.953 pounds |
| Nitrogen Oxides: | 1.847 pounds |

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San Leandro Crossings TIA
Existing Plus Project - AM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.449 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 13.4 |
| Optimal Cycle: | 38 | Level Of Service: | B |

| Street Name: | San Leandro Blvd | | | Juana Ave | | | | | | | | |
|--------------|------------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |

| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 688 | 87 | 65 | 469 | 0 | 11 | 5 | 3 | 128 | 0 | 66 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 688 | 87 | 65 | 469 | 0 | 11 | 5 | 3 | 128 | 0 | 66 |
| Added Vol: | 0 | 26 | 4 | 0 | 146 | 0 | 0 | 0 | 0 | 23 | 0 | 0 |
| PasserByVol: | 0 | 69 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 783 | 91 | 65 | 649 | 0 | 11 | 5 | 3 | 151 | 0 | 66 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.81 | 0.81 | 0.81 | 0.79 | 0.79 | 0.79 | 0.77 | 0.77 | 0.77 |
| PHF Volume: | 0 | 863 | 100 | 80 | 802 | 0 | 14 | 6 | 4 | 196 | 0 | 86 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 863 | 100 | 80 | 802 | 0 | 14 | 6 | 4 | 196 | 0 | 86 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 863 | 100 | 80 | 802 | 0 | 14 | 6 | 4 | 196 | 0 | 86 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.92 | 0.92 | 0.24 | 0.93 | 1.00 | 0.93 | 0.98 | 0.83 | 0.93 | 1.00 | 0.83 |
| Lanes: | 0.00 | 1.79 | 0.21 | 1.00 | 2.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Sat.: | 0 | 3119 | 362 | 456 | 3538 | 0 | 1769 | 1862 | 1583 | 1769 | 0 | 1583 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.28 | 0.28 | 0.18 | 0.23 | 0.00 | 0.01 | 0.00 | 0.00 | 0.11 | 0.00 | 0.05 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.00 | 0.62 | 0.62 | 0.62 | 0.62 | 0.00 | 0.02 | 0.02 | 0.02 | 0.25 | 0.00 | 0.25 |
| Volume/Cap: | 0.00 | 0.45 | 0.45 | 0.29 | 0.37 | 0.00 | 0.45 | 0.19 | 0.14 | 0.45 | 0.00 | 0.22 |
| Delay/Veh: | 0.0 | 10.4 | 10.4 | 9.5 | 9.6 | 0.0 | 58.7 | 51.3 | 50.6 | 32.7 | 0.0 | 30.3 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 10.4 | 10.4 | 9.5 | 9.6 | 0.0 | 58.7 | 51.3 | 50.6 | 32.7 | 0.0 | 30.3 |
| LOS by Move: | A | B | B | A | A | A | E | D | D | C | A | C |
| HCM2k95thQ: | 0 | 369 | 369 | 74 | 308 | 0 | 52 | 21 | 13 | 242 | 0 | 102 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.62 | 0.62 | 0.62 | 0.62 | 0.00 | 0.02 | 0.02 | 0.02 | 0.25 | 0.00 | 0.25 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 7.5 | 7.5 | 1.0 | 5.8 | 0.0 | 0.4 | 0.2 | 0.1 | 4.6 | 0.0 | 1.9 |
| UpstreamVC: | 0.00 | 0.78 | 0.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.37 | 0.00 | 0.37 |
| UpstreamAdj: | 0.00 | 0.53 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.94 | 0.00 | 0.94 |
| EarlyArrAdj: | 0.00 | 0.42 | 0.42 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.42 | 0.00 | 0.39 |
| Q2: | 0.0 | 0.3 | 0.3 | 0.4 | 0.6 | 0.0 | 0.6 | 0.2 | 0.2 | 0.3 | 0.0 | 0.1 |
| HCM2KQueue: | 0.0 | 7.8 | 7.8 | 1.4 | 6.4 | 0.0 | 1.0 | 0.4 | 0.3 | 5.0 | 0.0 | 2.0 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.20 | 1.19 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.20 |
| HCM2k70thQ: | 0.0 | 9.2 | 9.2 | 1.7 | 7.6 | 0.0 | 1.2 | 0.5 | 0.3 | 5.9 | 0.0 | 2.4 |
| 85th%Factor: | 1.60 | 1.53 | 1.53 | 1.59 | 1.54 | 1.60 | 1.59 | 1.60 | 1.60 | 1.55 | 1.60 | 1.58 |
| HCM2k85thQ: | 0.0 | 12.0 | 12.0 | 2.3 | 9.9 | 0.0 | 1.6 | 0.6 | 0.4 | 7.7 | 0.0 | 3.2 |
| 90th%Factor: | 1.80 | 1.67 | 1.67 | 1.77 | 1.69 | 1.80 | 1.78 | 1.79 | 1.79 | 1.71 | 1.80 | 1.76 |
| HCM2k90thQ: | 0.0 | 13.1 | 13.1 | 2.5 | 10.8 | 0.0 | 1.8 | 0.7 | 0.5 | 8.5 | 0.0 | 3.5 |
| 95th%Factor: | 2.10 | 1.89 | 1.89 | 2.05 | 1.92 | 2.10 | 2.07 | 2.09 | 2.09 | 1.96 | 2.10 | 2.04 |
| HCM2k95thQ: | 0.0 | 14.8 | 14.8 | 2.9 | 12.3 | 0.0 | 2.1 | 0.8 | 0.5 | 9.7 | 0.0 | 4.1 |
| 98th%Factor: | 2.70 | 2.25 | 2.25 | 2.60 | 2.31 | 2.70 | 2.63 | 2.67 | 2.68 | 2.38 | 2.70 | 2.56 |
| HCM2k98thQ: | 0.0 | 17.6 | 17.6 | 3.7 | 14.8 | 0.0 | 2.7 | 1.1 | 0.7 | 11.8 | 0.0 | 5.1 |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|---------------------------|-----|------|-------------|------|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 115 | 13.3 | 9.4 | 99.6 | 0.0 | 3.4 | 1.6 | 0.9 | 41.5 | 0.0 | 17.1 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 45.369 pounds | | | | | | | | | | | |
| | 7.350 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 141.551 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 10.382 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.668 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.527 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 45.369 pounds | | | | | | | | | | | |
| | 7.350 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 141.551 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 10.382 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.668 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.527 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 San Leandro Blvd / Parrott St

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes. Rows include San Leandro Blvd (North, South, East, West) and Parrott St (West).

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume. Rows include San Leandro Blvd and Parrott St.

Critical Gap Module table with columns for Critical Gap, FollowUpTim, and various traffic flow indicators.

Capacity Module table with columns for Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap. for different approaches.

Level Of Service Module table with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS.

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method

Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

Table with columns for Approach, Movement, and LaneWidth for North, South, East, and West bounds.

Table with columns for HevVeh, Grade, Peds/Hour, Pedestrian Walk Speed, LaneWidth, and Time Period.

Table with columns for Upstream Signals, Link Index, Dist(miles), Speed (mph), SignalIndex, Cycle Time, InitVolume, Saturation, ArrivalType, and G/C.

Table with columns for Computation 1: Time for Queue to Clear at Each Upstream Intersection, including P, gg1, gg2, and gg.

Table with columns for Computation 2: Time Intersection Blocked Because of Upstream Platoons, including alpha, beta, ta, F, f, vcmax, vcg, vcmin, tp, and p.

Table with columns for Computation 3: Platoon Event Periods, including pdom/psubo.

Table with columns for Computation 4: Conflicting Flows During Each Unblocked Period, including InitCnflVol, AdjCnflVol, UpstreamAdj, ConflictVol, and Potent Cap.

Table with columns for Computation 5: Capacity for Subject Movement During Unblocked Period, including InitPotCap, UpstreamAdj, and Potent Cap.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

```

Flared Lane Approach Module:
DelaySep:  xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0.0  0.0  0.0 xxxxx 1256.3  11.5
VolumeSep:  xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0  0  0 xxxxx 65  35
QueueSep:   xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0.00 0.00 0.00 xxxxx 22.65  0.11
QueueMax:   xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0  0  0 xxxxx 24 xxxxxx
CapShare:   xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0  0  0 xxxxx 0 xxxxxx
CapacitySum:xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0  0  0 xxxxx 30 xxxxxx
Queue:      xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0  0  0 xxxxx 3 xxxxxx
Capacity:   xxxx xxxxxx xxxxxx  xxxx xxxxxx xxxxxx  0  0  0 xxxxx 4 xxxxxx
    
```

San Leandro Crossings TIA
Existing Plus Project - AM Peak

```

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)
*****
Intersection #5 San Leandro Blvd / Thornton St
*****
Average Delay (sec/veh):      2.1      Worst Case Level Of Service: D [ 30.3 ]
*****
Street Name:      San Leandro Blvd      Thornton St
Approach:         North Bound      South Bound      East Bound      West Bound
Movement:         L - T - R      L - T - R      L - T - R      L - T - R
Control:          Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:           Include          Include          Include          Include
Lanes:           1 0 1 1 0      1 0 1 1 0      0 0 1! 0 0      0 0 1! 0 0
*****
Volume Module:
Base Vol:         123 876 12 13 626 4 2 2 9 5 4 29
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:     123 876 12 13 626 4 2 2 9 5 4 29
Added Vol:       41 83 0 0 12 49 0 0 11 0 0 0
PasserByVol:    8 9 0 0 10 3 6 0 1 0 0 0
Initial Fut:    172 968 12 13 648 56 8 2 21 5 4 29
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:        0.94 0.94 0.94 0.79 0.79 0.79 0.65 0.65 0.65 0.79 0.79 0.79
PHF Volume:     184 1034 13 16 822 71 12 3 32 6 5 37
Reduct Vol:     0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:    184 1034 13 16 822 71 12 3 32 6 5 37
*****
Critical Gap Module:
Critical Gp:     4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim:    2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3
*****
Capacity Module:
Cnflct Vol:     893 xxxxx xxxxxx 1047 xxxxx xxxxxx 1778 2305 447 1854 2335 524
Potent Cap.:    755 xxxxx xxxxxx 660 xxxxx xxxxxx 52 38 559 46 36 498
Move Cap.:     755 xxxxx xxxxxx 660 xxxxx xxxxxx 33 28 559 32 27 498
Volume/Cap:    0.24 xxxxx xxxxx 0.02 xxxxx xxxxx 0.37 0.11 0.06 0.20 0.19 0.07
*****
Level Of Service Module:
2Way95thQ:     23.8 xxxxx xxxxxx 1.9 xxxxx xxxxxx xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx
Control Del:   11.3 xxxxx xxxxxx 10.6 xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx
LOS by Move:   B * * * B * * * * * * * * * * * * * * * *
Movement:     LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.:  xxxx xxxxx xxxxxx xxxx xxxxx xxxxxx xxxxx 189 xxxxxx xxxxx 246 xxxxxx
SharedQueue:  xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx 1.0 xxxxxx xxxxxx 0.7 xxxxxx
Shrd ConDel:  xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx xxxxxx 30.3 xxxxxx xxxxxx 23.1 xxxxxx
Shared LOS:   * * * * * * * * * * * * * * * * * * * * * *
ApproachDel:  xxxxxxxx xxxxxxxx xxxxxxxx 30.3 23.1
ApproachLOS:  * * * * * * * * * * * * * * * * * * * * * *
*****
Note: Queue reported is the distance per lane in feet.
*****
    
```

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level of Service Detailed Computation Report
2000 HCM Unsignalized Method
Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

| Approach: | North Bound | South Bound | East Bound | West Bound |
|---|---------------------------|------------------|-----------------------------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| HevVeh: | 2% | 2% | 2% | 2% |
| Grade: | 0% | 0% | 0% | 0% |
| Peds/Hour: | 0 | 0 | 0 | 0 |
| Pedestrian Walk Speed: | 4.00 feet/sec | | | |
| LaneWidth: | 12 feet | 12 feet | 12 feet | 12 feet |
| Time Period: | 0.25 hour | | | |
| Upstream Signals: | | | | |
| Link Index: | #107 | #112 | | |
| Dist(miles): | 0.000 | 0.000 | | |
| Speed (mph): | 0.00 | 0.00 | | |
| SignalIndex: | #19 | #3 | | |
| Cycle Time: | 0 secs | 0 secs | | |
| InitVolume: | 0 0 | 0 0 | | |
| Saturation: | 0 0 | 0 0 | | |
| ArrivalType: | 0 0 | 0 0 | | |
| G/C: | 0.00 0.00 | 0.00 0.00 | | |
| *** Computation 1: Time for Queue to Clear at Each Upstream Intersection | | | | |
| P: | 0.000 0.000 | 0.000 0.000 | | |
| gg1: | 0.00 0.00 | 0.00 0.00 | | |
| gg2: | 0.00 0.00 | 0.00 0.00 | | |
| gg: | 0.00 0.00 | 0.00 0.00 | | |
| *** Computation 2: Time Intersection Blocked Because of Upstream Platoons | | | | |
| alpha: | 0.000 | 0.000 | | |
| beta: | 0.000 | 0.000 | | |
| ta (secs): | 0.000 | 0.000 | | |
| F: | 0.000 | 0.000 | | |
| f: | 0.000 0.000 | 0.000 0.000 | | |
| vcmax: | 0 0 | 0 0 | | |
| vcg: | 0 0 | 0 0 | | |
| vcmin: | 0 0 | 0 0 | | |
| tp: | 0.0 0.0 | 0.0 0.0 | | |
| p: | 0.000 | 0.000 | | |
| *** Computation 3: Platoon Event Periods | | | | |
| pdom/psubo: | 0.000/0.000/Unconstrained | | | |
| *** Computation 4: Conflicting Flows During Each Unblocked Period | | | | |
| InitCnflVol: | 893 xxxxx xxxxx | 1047 xxxxx xxxxx | 1778 2305 447 1854 2335 524 | |
| AdjCnflVol: | 893 xxxxx xxxxx | 1047 xxxxx xxxxx | 1778 2305 447 1854 2335 524 | |
| UpstreamAdj: | 1.00 x.xxx x.xxx | 1.00 x.xxx x.xxx | 1.00 1.000 1.000 1.00 1.000 1.000 | |
| ConflictVol: | 893 xxxxx xxxxx | 1047 xxxxx xxxxx | 1778 2305 447 1854 2335 524 | |
| *** Computation 5: Capacity for Subject Movement During Unblocked Period | | | | |
| InitPotCap: | 755 xxxxx xxxxx | 660 xxxxx xxxxx | 52 38 559 46 36 498 | |
| UpstreamAdj: | 1.00 x.xxx x.xxx | 1.00 x.xxx x.xxx | 1.00 1.000 1.000 1.00 1.000 1.000 | |
| Potent Cap.: | 755 xxxxx xxxxx | 660 xxxxx xxxxx | 52 38 559 46 36 498 | |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Flared Lane Approach Module:

| | | | | | | |
|--------------|------------------------------------|-------|-------------|-----------|-------|-----------|
| DelaySep: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 167.6 | 149.2 | 11.8145.8 | 168.5 | 12.8 |
| VolumeSep: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 12 | 3 | 32 | 6 | 5 37 |
| QueueSep: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0.57 | 0.13 | 0.11 | 0.26 | 0.24 0.13 |
| QueueMax: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 2 | xxxxx xxxxx | 1 | xxxxx | |
| CapShare: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 88 | xxxxx xxxxx | 104 | xxxxx | |
| CapacitySum: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 189 | xxxxx xxxxx | 246 | xxxxx | |
| Queue: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 3 | xxxxx xxxxx | 3 | xxxxx | |
| Capacity: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 189 | xxxxx xxxxx | 246 | xxxxx | |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Scenario Report

Scenario: Existing + Project PM (SLC)

Command: Existing + Project PM (SLC)

Volume: Existing + Project PM (SLC)

Geometry: AM Existing +P

Impact Fee: Default Impact Fee

Trip Generation: San Leandro Crossings Ph I PM

Trip Distribution: All Scenarios

Paths: Default Path

Routes: Default Route

Configuration: PM Existing

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|-------|-------|--------|-------------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS | Veh C | LOS | Veh C | |
| # 1 Alvarado Street / Davis Street | C | 21.3 | 0.709 | C | 21.9 0.732 | + 0.568 D/V |
| # 2 San Leandro Boulevard / Davis | D | 40.5 | 0.858 | E | 55.2 0.977 | +14.715 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 13.9 | 0.388 | B | 13.1 0.449 | -0.800 D/V |
| # 4 San Leandro Blvd / Parrott St | F | 203.4 | 1.144 | F | OVRFL XXXXX | +3716.415 D/ |
| # 5 San Leandro Blvd / Thornton St | B | 13.0 | 0.145 | C | 15.8 0.338 | + 2.830 D/V |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

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

Intersection #1 Alvarado Street / Davis Street

Cycle (sec): 100 Critical Vol./Cap.(X): 0.732
Loss Time (sec): 9 Average Delay (sec/veh): 21.9
Optimal Cycle: 56 Level Of Service: C

Street Name: Alvarado Street Davis Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

| Control: | Permitted | | | Permitted | | | Protected | | | Protected | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 174 | 43 | 184 | 94 | 49 | 133 | 76 | 1247 | 69 | 106 | 1019 | 62 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 174 | 43 | 184 | 94 | 49 | 133 | 76 | 1247 | 69 | 106 | 1019 | 62 |
| Added Vol: | 87 | 0 | 30 | 0 | 0 | 0 | 0 | 12 | 21 | 7 | 44 | 0 |
| PasserByVol: | -94 | -23 | 0 | 16 | -16 | 0 | 0 | 23 | -23 | 0 | 117 | 0 |
| Initial Fut: | 167 | 20 | 214 | 110 | 33 | 133 | 76 | 1282 | 67 | 113 | 1180 | 62 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.84 | 0.84 | 0.84 | 0.83 | 0.83 | 0.83 | 0.89 | 0.89 | 0.89 | 0.91 | 0.91 | 0.91 |
| PHF Volume: | 200 | 24 | 256 | 132 | 40 | 160 | 86 | 1449 | 76 | 125 | 1304 | 69 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 200 | 24 | 256 | 132 | 40 | 160 | 86 | 1449 | 76 | 125 | 1304 | 69 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 200 | 24 | 256 | 132 | 40 | 160 | 86 | 1449 | 76 | 125 | 1304 | 69 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.72 | 0.98 | 0.83 | 0.73 | 0.98 | 0.83 | 0.93 | 0.92 | 0.92 | 0.93 | 0.92 | 0.92 |
| Lanes: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.90 | 0.10 | 1.00 | 1.90 | 0.10 |
| Final Sat.: | 1369 | 1862 | 1583 | 1395 | 1862 | 1583 | 1769 | 3339 | 174 | 1769 | 3338 | 175 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.15 | 0.01 | 0.16 | 0.09 | 0.02 | 0.10 | 0.05 | 0.43 | 0.43 | 0.07 | 0.39 | 0.39 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.08 | 0.59 | 0.59 | 0.10 | 0.61 | 0.61 |
| Volume/Cap: | 0.66 | 0.06 | 0.73 | 0.43 | 0.10 | 0.46 | 0.64 | 0.73 | 0.73 | 0.73 | 0.64 | 0.64 |
| Delay/Veh: | 40.9 | 30.8 | 43.9 | 34.5 | 31.1 | 34.7 | 54.6 | 16.0 | 16.0 | 59.0 | 13.0 | 13.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.9 | 30.8 | 43.9 | 34.5 | 31.1 | 34.7 | 54.6 | 16.0 | 16.0 | 59.0 | 13.0 | 13.0 |
| LOS by Move: | D | C | D | D | C | C | D | B | B | E | B | B |
| HCM2k95thQ: | 324 | 31 | 415 | 193 | 51 | 229 | 131 | 760 | 760 | 173 | 580 | 580 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.08 | 0.59 | 0.59 | 0.10 | 0.61 | 0.61 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 5.1 | 0.5 | 6.6 | 3.2 | 0.9 | 3.9 | 2.3 | 16.0 | 16.0 | 3.4 | 12.8 | 12.8 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59 | 0.59 | 0.59 | 0.98 | 0.98 | 0.98 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.77 | 0.77 | 0.77 | 0.14 | 0.14 | 0.14 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.17 | 0.60 | 0.60 | 0.04 | 0.11 | 0.11 |
| Q2: | 1.7 | 0.1 | 2.3 | 0.7 | 0.1 | 0.8 | 0.3 | 1.6 | 1.6 | 0.1 | 0.2 | 0.2 |
| HCM2kQueue: | 6.8 | 0.6 | 8.9 | 3.9 | 1.0 | 4.7 | 2.6 | 17.6 | 17.6 | 3.5 | 13.0 | 13.0 |
| 70th%Factor: | 1.18 | 1.20 | 1.18 | 1.19 | 1.20 | 1.19 | 1.19 | 1.16 | 1.16 | 1.19 | 1.17 | 1.17 |
| HCM2k70thQ: | 8.0 | 0.7 | 10.5 | 4.6 | 1.2 | 5.5 | 3.1 | 20.5 | 20.5 | 4.1 | 15.2 | 15.2 |
| 85th%Factor: | 1.54 | 1.59 | 1.52 | 1.56 | 1.59 | 1.56 | 1.58 | 1.47 | 1.47 | 1.57 | 1.49 | 1.49 |
| HCM2k85thQ: | 10.4 | 0.9 | 13.6 | 6.1 | 1.6 | 7.3 | 4.1 | 25.8 | 25.8 | 5.4 | 19.4 | 19.4 |
| 90th%Factor: | 1.68 | 1.79 | 1.66 | 1.73 | 1.78 | 1.72 | 1.75 | 1.57 | 1.57 | 1.74 | 1.61 | 1.61 |
| HCM2k90thQ: | 11.4 | 1.0 | 14.7 | 6.7 | 1.8 | 8.0 | 4.6 | 27.6 | 27.6 | 6.0 | 20.8 | 20.8 |
| 95th%Factor: | 1.91 | 2.08 | 1.87 | 1.98 | 2.07 | 1.96 | 2.02 | 1.73 | 1.73 | 1.99 | 1.79 | 1.79 |
| HCM2k95thQ: | 13.0 | 1.2 | 16.6 | 7.7 | 2.0 | 9.2 | 5.3 | 30.4 | 30.4 | 6.9 | 23.2 | 23.2 |
| 98th%Factor: | 2.29 | 2.66 | 2.20 | 2.44 | 2.63 | 2.40 | 2.52 | 1.96 | 1.96 | 2.47 | 2.07 | 2.07 |
| HCM2k98thQ: | 15.6 | 1.6 | 19.6 | 9.5 | 2.6 | 11.2 | 6.6 | 34.5 | 34.5 | 8.6 | 26.8 | 26.8 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|------|-------------|-----|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 45.6 | 4.7 | 59.5 | 28.5 | 7.9 | 34.7 | 20.8 | 261 | 13.6 | 30.3 | 207 | 10.9 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 107.798 pounds | | | | | | | | | | | |
| | 17.463 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 336.329 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 25.897 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.528 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.247 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 107.798 pounds | | | | | | | | | | | |
| | 17.463 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 336.329 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 25.897 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.528 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.247 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.23 | 0.38 | 0.38 | 0.14 | 0.29 | 0.29 | 0.15 | 0.30 | 0.30 | 0.06 | 0.22 | 0.22 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 10.9 | 7.3 | 7.3 | 3.2 | 13.6 | 13.6 | 7.0 | 14.3 | 5.2 | 2.9 | 10.9 | 2.9 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.73 | 0.73 | 0.73 | 0.47 | 0.47 | 0.47 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.61 | 0.61 | 0.88 | 0.88 | 0.88 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.20 | 0.31 | 0.29 | 0.17 | 0.38 | 0.34 |
| Q2: | 6.5 | 1.0 | 1.0 | 1.0 | 7.2 | 7.2 | 2.2 | 2.9 | 0.3 | 1.1 | 3.8 | 0.2 |
| HCM2kQueue: | 17.4 | 8.4 | 8.4 | 4.2 | 20.8 | 20.8 | 9.1 | 17.2 | 5.5 | 4.0 | 14.7 | 3.1 |
| 70th%Factor: | 1.16 | 1.18 | 1.18 | 1.19 | 1.16 | 1.16 | 1.18 | 1.16 | 1.19 | 1.19 | 1.17 | 1.19 |
| HCM2k70thQ: | 20.2 | 9.9 | 9.9 | 5.0 | 24.1 | 24.1 | 10.7 | 20.1 | 6.5 | 4.8 | 17.2 | 3.7 |
| 85th%Factor: | 1.47 | 1.53 | 1.53 | 1.56 | 1.45 | 1.45 | 1.52 | 1.47 | 1.55 | 1.56 | 1.48 | 1.57 |
| HCM2k85thQ: | 25.5 | 12.8 | 12.8 | 6.5 | 30.2 | 30.2 | 13.9 | 25.3 | 8.5 | 6.2 | 21.8 | 4.9 |
| 90th%Factor: | 1.57 | 1.66 | 1.66 | 1.72 | 1.54 | 1.54 | 1.65 | 1.57 | 1.70 | 1.73 | 1.59 | 1.74 |
| HCM2k90thQ: | 27.2 | 13.9 | 13.9 | 7.2 | 32.1 | 32.1 | 15.1 | 27.1 | 9.4 | 6.9 | 23.4 | 5.4 |
| 95th%Factor: | 1.73 | 1.88 | 1.88 | 1.98 | 1.69 | 1.69 | 1.86 | 1.73 | 1.94 | 1.98 | 1.76 | 2.00 |
| HCM2k95thQ: | 30.0 | 15.7 | 15.7 | 8.3 | 35.2 | 35.2 | 17.0 | 29.8 | 10.7 | 7.9 | 26.0 | 6.3 |
| 98th%Factor: | 1.96 | 2.23 | 2.23 | 2.43 | 1.90 | 1.90 | 2.20 | 1.97 | 2.36 | 2.44 | 2.02 | 2.49 |
| HCM2k98thQ: | 34.1 | 18.6 | 18.6 | 10.1 | 39.6 | 39.6 | 20.0 | 33.9 | 12.9 | 9.7 | 29.8 | 7.8 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|------|------|-------------|-----|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 98.0 | 82.7 | 42.7 | 55.8 | 145 | 88.6 | 121.5 | 245 | 47.1 | 49.9 | 187 | 26.4 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 256.689 pounds | | | | | | | | | | | |
| | 41.584 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 800.871 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 66.438 pounds | | | | | | | | | | | |
| Hydrocarbons: | 13.180 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.763 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 256.689 pounds | | | | | | | | | | | |
| | 41.584 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 800.871 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 66.438 pounds | | | | | | | | | | | |
| Hydrocarbons: | 13.180 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.763 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | xxxxxx | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | xxxxxx | 62.40 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | xxxxxx | 62.40 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | xxxxxx | 62.40 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | xxxxxx | 2 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | xxxxxx | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | xxxxxx | 128 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | xxxxxx | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | xxxxxx | 3.55 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | xxxxxx | 969 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | xxxxxx | 14.17 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | xxxxxx | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | xxxxxx | 4.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | xxxxxx | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | xxxxxx | 0.38 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | xxxxxx | 10.86 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | xxxxxx | 51.54 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gg-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | xxxxxx | 0.27 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | xxxxxx | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, ell: | xxxxxx | 3.37 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, el2: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | xxxxxx | 0.06 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | xxxxxx | 0.25 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | xxxxxx | 0.25 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.62 | 0.62 | 0.62 | 0.62 | 0.00 | 0.02 | 0.02 | 0.02 | 0.24 | 0.00 | 0.24 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 7.4 | 7.4 | 1.9 | 6.5 | 0.0 | 0.5 | 0.2 | 0.0 | 4.4 | 0.0 | 2.2 |
| UpstreamVC: | 0.00 | 0.52 | 0.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 0.00 | 0.35 |
| UpstreamAdj: | 0.00 | 0.84 | 0.84 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | 0.00 | 0.95 |
| EarlyArrAdj: | 0.00 | 0.67 | 0.67 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.41 | 0.00 | 0.38 |
| Q2: | 0.0 | 0.5 | 0.5 | 0.8 | 0.7 | 0.0 | 0.6 | 0.2 | 0.0 | 0.3 | 0.0 | 0.1 |
| HCM2KQueue: | 0.0 | 7.9 | 7.9 | 2.6 | 7.2 | 0.0 | 1.1 | 0.4 | 0.1 | 4.8 | 0.0 | 2.3 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.19 | 1.18 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 9.4 | 9.4 | 3.2 | 8.5 | 0.0 | 1.3 | 0.4 | 0.1 | 5.7 | 0.0 | 2.8 |
| 85th%Factor: | 1.60 | 1.53 | 1.53 | 1.57 | 1.54 | 1.60 | 1.59 | 1.60 | 1.60 | 1.56 | 1.60 | 1.58 |
| HCM2k85thQ: | 0.0 | 12.1 | 12.1 | 4.2 | 11.1 | 0.0 | 1.7 | 0.6 | 0.1 | 7.4 | 0.0 | 3.7 |
| 90th%Factor: | 1.80 | 1.67 | 1.67 | 1.75 | 1.68 | 1.80 | 1.78 | 1.79 | 1.80 | 1.72 | 1.80 | 1.76 |
| HCM2k90thQ: | 0.0 | 13.2 | 13.2 | 4.6 | 12.1 | 0.0 | 2.0 | 0.6 | 0.1 | 8.2 | 0.0 | 4.1 |
| 95th%Factor: | 2.10 | 1.89 | 1.89 | 2.02 | 1.90 | 2.10 | 2.06 | 2.09 | 2.10 | 1.96 | 2.10 | 2.03 |
| HCM2k95thQ: | 0.0 | 14.9 | 14.9 | 5.3 | 13.7 | 0.0 | 2.3 | 0.8 | 0.2 | 9.4 | 0.0 | 4.7 |
| 98th%Factor: | 2.70 | 2.24 | 2.24 | 2.52 | 2.27 | 2.70 | 2.62 | 2.67 | 2.69 | 2.39 | 2.70 | 2.54 |
| HCM2k98thQ: | 0.0 | 17.8 | 17.8 | 6.6 | 16.4 | 0.0 | 2.9 | 1.0 | 0.2 | 11.4 | 0.0 | 5.9 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

 Intersection #3 San Leandro Blvd / Juana Ave

 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Run Speed: 30 MPH 30 MPH 30 MPH 30 MPH
 NumOfStops: 0.0 113 12.9 16.7 112 0.0 4.1 1.6 0.3 40.0 0.0 19.7
 Name: year 1995 composite fleet
 Fuel Consumption: 48.006 pounds
 7.777 gallons
 Carbon Dioxide: 149.780 pounds
 Carbon Monoxide: 10.965 pounds
 Hydrocarbons: 1.755 pounds
 Nitrogen Oxides: 0.558 pounds
 Name: year 2000 composite fleet
 Fuel Consumption: 48.006 pounds
 7.777 gallons
 Carbon Dioxide: 149.780 pounds
 Carbon Monoxide: 10.965 pounds
 Hydrocarbons: 1.755 pounds
 Nitrogen Oxides: 0.558 pounds

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 The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

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

 Intersection #4 San Leandro Blvd / Parrott St

 Average Delay (sec/veh): 1263.0 Worst Case Level Of Service: F[3919.8]

 Street Name: San Leandro Blvd Parrott St
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
 Rights: Include Include Include Include
 Lanes: 1 0 1 1 0 1 0 1 1 0 0 1 0 0 1 0 0 1 0 0
 Volume Module:
 Base Vol: 95 554 47 47 799 47 35 52 179 19 11 34
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 95 554 47 47 799 47 35 52 179 19 11 34
 Added Vol: 19 1 0 0 12 27 154 34 58 0 8 0
 PasserByVol: 15 6 0 0 0 37 111 0 17 0 0 0
 Initial Fut: 129 561 47 47 811 111 300 86 254 19 19 34
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.92 0.92 0.92 0.97 0.97 0.97 0.72 0.72 0.72 0.80 0.80 0.80
 PHF Volume: 141 612 51 49 840 115 420 120 355 24 24 43
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 FinalVolume: 141 612 51 49 840 115 420 120 355 24 24 43
 Critical Gap Module:
 Critical Gp: 4.1 xxxxx xxxxxx 4.1 xxxxx xxxxxx 7.5 6.5 6.9 7.5 6.5 6.9
 FollowUpTim: 2.2 xxxxx xxxxxx 2.2 xxxxx xxxxxx 3.5 4.0 3.3 3.5 4.0 3.3
 Capacity Module:
 Cnflct Vol: 954 xxxxx xxxxxx 664 xxxxx xxxxxx 1594 1940 477 1497 1972 332
 Potent Cap.: 716 xxxxx xxxxxx 921 xxxxx xxxxxx 72 65 534 85 62 664
 Move Cap.: 716 xxxxx xxxxxx 921 xxxxx xxxxxx 34 49 534 0 47 664
 Volume/Cap: 0.20 xxxxx xxxxx 0.05 xxxxx xxxxx 12.49 2.45 0.67 xxxxx 0.51 0.06
 Level Of Service Module:
 2Way95thQ: 18.2 xxxxx xxxxxx 4.2 xxxxx xxxxxx xxxxx xxxxx 122.2 xxxxx xxxxx xxxxxx
 Control Del: 11.3 xxxxx xxxxxx 9.1 xxxxx xxxxxx xxxxxx xxxxx 24.1 xxxxxx xxxxx xxxxxx
 LOS by Move: B * * * A * * * C * * *
 Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
 Shared Cap.: xxxxx xxxxx xxxxxx xxxxx xxxxx xxxxxx 36 xxxxx xxxxxx xxxxx 89 xxxxxx
 SharedQueue: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 66.0 xxxxx xxxxxx xxxxxx 5.9 xxxxxx
 Shrd ConDel: xxxxxx xxxxx xxxxxx xxxxxx xxxxx xxxxxx 6483 xxxxx xxxxxx 184 xxxxxx
 Shared LOS: * * * * * F * * * F *
 ApproachDel: xxxxxxx xxxxxxx 3919.8 184.0
 ApproachLOS: * * F F
 Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level of Service Detailed Computation Report
2000 HCM Unsignalized Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | South Bound | East Bound | West Bound |
|---|---------------------------|------------------|-----------------------|-------------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| HevVeh: | 2% | 2% | 2% | 2% |
| Grade: | 0% | 0% | 0% | 0% |
| Peds/Hour: | 0 | 0 | 0 | 0 |
| Pedestrian Walk Speed: | 4.00 feet/sec | | | |
| LaneWidth: | 12 feet | 12 feet | 12 feet | 12 feet |
| Time Period: | 0.25 hour | | | |
| Upstream Signals: | | | | |
| Link Index: | #107 | #112 | | |
| Dist(miles): | 0.000 | 0.000 | | |
| Speed (mph): | 0.00 | 0.00 | | |
| SignalIndex: | #19 | #3 | | |
| Cycle Time: | 0 secs | 0 secs | | |
| InitVolume: | 0 0 | 0 0 | | |
| Saturation: | 0 0 | 0 0 | | |
| ArrivalType: | 0 0 | 0 0 | | |
| G/C: | 0.00 0.00 | 0.00 0.00 | | |
| *** Computation 1: Time for Queue to Clear at Each Upstream Intersection | | | | |
| P: | 0.000 0.000 | 0.000 0.000 | | |
| gg1: | 0.00 0.00 | 0.00 0.00 | | |
| gg2: | 0.00 0.00 | 0.00 0.00 | | |
| gg: | 0.00 0.00 | 0.00 0.00 | | |
| *** Computation 2: Time Intersection Blocked Because of Upstream Platoons | | | | |
| alpha: | 0.000 | 0.000 | | |
| beta: | 0.000 | 0.000 | | |
| ta (secs): | 0.000 | 0.000 | | |
| F: | 0.000 | 0.000 | | |
| f: | 0.000 0.000 | 0.000 0.000 | | |
| vcmax: | 0 0 | 0 0 | | |
| vcg: | 0 0 | 0 0 | | |
| vcmin: | 0 0 | 0 0 | | |
| tp: | 0.0 0.0 | 0.0 0.0 | | |
| p: | 0.000 | 0.000 | | |
| *** Computation 3: Platoon Event Periods | | | | |
| pdom/psubo: | 0.000/0.000/Unconstrained | | | |
| *** Computation 4: Conflicting Flows During Each Unblocked Period | | | | |
| InitCnflVol: | 954 xxxxx xxxxx | 664 xxxxx xxxxx | 1594 1940 | 477 1497 1972 332 |
| AdjCnflVol: | 954 xxxxx xxxxx | 664 xxxxx xxxxx | 1594 1940 | 477 1497 1972 332 |
| UpstreamAdj: | 1.00 x.xxx x.xxx | 1.00 x.xxx x.xxx | 1.00 1.000 1.000 1.00 | 1.000 1.000 |
| ConflictVol: | 954 xxxxx xxxxx | 664 xxxxx xxxxx | 1594 1940 | 477 1497 1972 332 |
| *** Computation 5: Capacity for Subject Movement During Unblocked Period | | | | |
| InitPotCap: | 716 xxxxx xxxxx | 921 xxxxx xxxxx | 72 65 534 85 | 62 664 |
| UpstreamAdj: | 1.00 x.xxx x.xxx | 1.00 x.xxx x.xxx | 1.00 1.000 1.000 1.00 | 1.000 1.000 |
| Potent Cap.: | 716 xxxxx xxxxx | 921 xxxxx xxxxx | 72 65 534 85 | 62 664 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Flared Lane Approach Module:

| | | | | | | | |
|--------------|------------------------------------|------|------|------|------|-------|-------|
| DelaySep: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0.0 | 0.0 | 0.0 | xxxx | 143.2 | 10.8 |
| VolumeSep: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0 | 0 | 0 | xxxx | 24 | 43 |
| QueueSep: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0.00 | 0.00 | 0.00 | xxxx | 0.94 | 0.13 |
| QueueMax: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0 | 0 | 0 | xxxx | 2 | xxxxx |
| CapShare: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0 | 0 | 0 | xxxx | 0 | xxxxx |
| CapacitySum: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0 | 0 | 0 | xxxx | 89 | xxxxx |
| Queue: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0 | 0 | 0 | xxxx | 3 | xxxxx |
| Capacity: | xxxx xxxxx xxxxx xxxxx xxxxx xxxxx | 0 | 0 | 0 | xxxx | 89 | xxxxx |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: [15.8]

| Street Name: | San Leandro Blvd | | | | Thornton St | | | | | | | | | | | | | | | |
|--------------|------------------|---|--------------|---|-------------|---|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Approach: | North Bound | | South Bound | | East Bound | | West Bound | | | | | | | | | | | | | |
| Movement: | L | T | R | L | T | R | L | T | R | | | | | | | | | | | |
| Control: | Uncontrolled | | Uncontrolled | | Stop Sign | | Stop Sign | | | | | | | | | | | | | |
| Rights: | Include | | Include | | Include | | Include | | | | | | | | | | | | | |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |

| Volume Module: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|----------------|-------------|------|-------------|------|------------|------|------------|------|------|------|------|------|
| Base Vol: | 17 | 670 | 10 | 18 | 979 | 2 | 2 | 1 | 51 | 7 | 0 | 21 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 17 | 670 | 10 | 18 | 979 | 2 | 2 | 1 | 51 | 7 | 0 | 21 |
| Added Vol: | 9 | 19 | 0 | 0 | 58 | 11 | 0 | 0 | 55 | 0 | 0 | 0 |
| PasserByVol: | 3 | 15 | 0 | 0 | 17 | 2 | 6 | 0 | 5 | 0 | 0 | 0 |
| Initial Fut: | 29 | 704 | 10 | 18 | 1054 | 15 | 8 | 1 | 111 | 7 | 0 | 21 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.93 | 0.93 | 0.93 | 0.71 | 0.71 | 0.71 | 0.78 | 0.78 | 0.78 |
| PHF Volume: | 32 | 772 | 11 | 19 | 1131 | 16 | 11 | 1 | 156 | 9 | 0 | 27 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Volume: | 32 | 772 | 11 | 19 | 1131 | 16 | 11 | 1 | 156 | 9 | 0 | 27 |

| Critical Gap Module: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|----------------------|-------------|------|-------------|-----|------------|------|------------|-----|-----|-----|-----|-----|
| Critical Gp: | 4.1 | xxxx | xxxx | 4.1 | xxxx | xxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxx | 2.2 | xxxx | xxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

| Capacity Module: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|------------------|-------------|------|-------------|------|------------|------|------------|------|------|------|------|------|
| Cnflct Vol: | 1147 | xxxx | xxxx | 783 | xxxx | xxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| Potent Cap.: | 605 | xxxx | xxxx | 831 | xxxx | xxxx | 68 | 57 | 462 | 92 | 57 | 607 |
| Move Cap.: | 605 | xxxx | xxxx | 831 | xxxx | xxxx | 61 | 53 | 462 | 57 | 53 | 607 |
| Volume/Cap: | 0.05 | xxxx | xxxx | 0.02 | xxxx | xxxx | 0.18 | 0.03 | 0.34 | 0.16 | 0.00 | 0.04 |

| Level Of Service Module: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|------|------|------|
| 2Way95thQ: | 4.2 | xxxx | xxxx | 1.8 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| Control Del: | 11.3 | xxxx | xxxx | 9.4 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| LOS by Move: | B | * | * | A | * | * | * | * | * | * | * | * |
| Movement: | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | LT - LTR - RT | | | |
| Shared Cap.: | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 500 | xxxx | xxxx | 437 | xxxx | xxxx |
| SharedQueue: | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 1.5 | xxxx | xxxx | 0.3 | xxxx | xxxx |
| Shrd ConDel: | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 15.8 | xxxx | xxxx | 14.0 | xxxx | xxxx |
| Shared LOS: | * | * | * | * | * | * | C | * | * | B | * | * |
| ApproachDel: | xxxxxx | xxxxxx | | xxxxxx | xxxxxx | | 15.8 | | | 14.0 | | |
| ApproachLOS: | * | * | | * | * | | C | | | B | | |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method

Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

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

| | | | | | | | | | | | | |
|------------------------|---------------|--|--|---------------|--|--|---------------|--|--|---------------|--|--|
| HevVeh: | 2% | | | 2% | | | 2% | | | 2% | | |
| Grade: | 0% | | | 0% | | | 0% | | | 0% | | |
| Peds/Hour: | 0 | | | 0 | | | 0 | | | 0 | | |
| Pedestrian Walk Speed: | 4.00 feet/sec | | | 4.00 feet/sec | | | 4.00 feet/sec | | | 4.00 feet/sec | | |
| LaneWidth: | 12 feet | | | 12 feet | | | 12 feet | | | 12 feet | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |

| Upstream Signals: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|-------------|--|--|-------------|--|--|------------|--|--|------------|--|--|
| Link Index: | #107 | | | #112 | | | | | | | | |
| Dist(miles): | 0.000 | | | 0.000 | | | | | | | | |
| Speed (mph): | 0.00 | | | 0.00 | | | | | | | | |
| SignalIndex: | #19 | | | #3 | | | | | | | | |
| Cycle Time: | 0 secs | | | 0 secs | | | | | | | | |
| InitVolume: | 0 | | | 0 | | | | | | | | |
| Saturation: | 0 | | | 0 | | | | | | | | |
| ArrivalType: | 0 | | | 0 | | | | | | | | |
| G/C: | 0.00 | | | 0.00 | | | | | | | | |

| *** Computation 1: Time for Queue to Clear at Each Upstream Intersection | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--|-------------|--|--|-------------|--|--|------------|--|--|------------|--|--|
| P: | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| gg1: | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| gg2: | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| gg: | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |

| *** Computation 2: Time Intersection Blocked Because of Upstream Platoons | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---|-------------|--|--|-------------|--|--|------------|--|--|------------|--|--|
| alpha: | 0.000 | | | 0.000 | | | | | | | | |
| beta: | 0.000 | | | 0.000 | | | | | | | | |
| ta (secs): | 0.000 | | | 0.000 | | | | | | | | |
| F: | 0.000 | | | 0.000 | | | | | | | | |
| f: | 0.000 | | | 0.000 | | | | | | | | |
| vcmax: | 0 | | | 0 | | | | | | | | |
| vcg: | 0 | | | 0 | | | | | | | | |
| vcmin: | 0 | | | 0 | | | | | | | | |
| tp: | 0.0 | | | 0.0 | | | | | | | | |
| p: | 0.000 | | | 0.000 | | | | | | | | |

| *** Computation 3: Platoon Event Periods | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--|---------------------------|-------|-------|-------------|-------|-------|------------|-------|-------|------------|-------|-------|
| pdom/psubo: | 0.000/0.000/Unconstrained | | | | | | | | | | | |
| *** Computation 4: Conflicting Flows During Each Unblocked Period | | | | | | | | | | | | |
| InitCnflVol: | 1147 | xxxx | xxxx | 783 | xxxx | xxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| AdjCnflVol: | 1147 | xxxx | xxxx | 783 | xxxx | xxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| UpstreamAdj: | 1.00 | x.xxx | x.xxx | 1.00 | x.xxx | x.xxx | 1.00 | 1.000 | 1.000 | 1.00 | 1.000 | 1.000 |
| ConflictVol: | 1147 | xxxx | xxxx | 783 | xxxx | xxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| *** Computation 5: Capacity for Subject Movement During Unblocked Period | | | | | | | | | | | | |
| InitPotCap: | 605 | xxxx | xxxx | 831 | xxxx | xxxx | 68 | 57 | 462 | 92 | 57 | 607 |
| UpstreamAdj: | 1.00 | x.xxx | x.xxx | 1.00 | x.xxx | x.xxx | 1.00 | 1.000 | 1.000 | 1.00 | 1.000 | 1.000 |
| Potent Cap.: | 605 | xxxx | xxxx | 831 | xxxx | xxxx | 68 | 57 | 462 | 92 | 57 | 607 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|------|------|-------|------|------|-------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 77.0 | 74.9 | 16.7 | 80.3 | 73.3 | 11.2 |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 11 | 1 | 156 | 9 | 0 | 27 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.24 | 0.03 | 0.72 | 0.20 | 0.00 | 0.08 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 2 | xxxxx | xxxx | 1 | xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 307 | xxxxx | xxxx | 177 | xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 500 | xxxxx | xxxx | 437 | xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxx | 3 | xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 500 | xxxxx | xxxx | 437 | xxxxx |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Scenario: Scenario Report
Existing + Project AM (SLC)

Command: Existing + Project AM (SLC)
Volume: Existing + Project AM (SLC)
Geometry: AM Existing +P
Impact Fee: Default Impact Fee
Trip Generation: San Leandro Crossings Ph I AM
Trip Distribution: All Scenarios
Paths: Default Path
Routes: Default Route
Configuration: AM Existing

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|--------------|--------------------------------|---------|------------|---------|------------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS Veh | C | LOS Veh | C | |
| # 1 | Alvarado Street / Davis Street | B | 19.2 0.544 | B | 19.3 0.580 | + 0.124 D/V |
| # 2 | San Leandro Boulevard / Davis | C | 32.0 0.686 | C | 33.9 0.737 | + 1.934 D/V |
| # 3 | San Leandro Blvd / Juana Ave | B | 13.0 0.395 | B | 13.4 0.449 | + 0.405 D/V |
| # 4 | San Leandro Blvd / Parrott St | C | 28.7 0.498 | D | 39.3 0.776 | +10.578 D/V |
| # 5 | San Leandro Blvd / Thornton St | C | 16.6 0.160 | D | 30.3 0.371 | +13.677 D/V |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 18.32 | 18.32 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 19.32 | 19.32 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 19.32 | 19.32 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 107 | 152 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 2.97 | 4.23 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 61 | 47 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 1.69 | 1.31 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.81 | 0.81 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 19.32 | 19.32 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gg-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.84 | 0.85 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, e1: | 1.39 | 1.37 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, e12: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.21 | 0.21 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.72 | 0.73 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.72 | 0.73 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.07 | 0.56 | 0.56 | 0.15 | 0.65 | 0.65 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 2.6 | 1.1 | 3.3 | 3.8 | 1.4 | 3.8 | 1.8 | 10.7 | 10.7 | 4.0 | 10.5 | 10.5 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.40 | 0.40 | 0.40 | 0.74 | 0.74 | 0.74 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.92 | 0.92 | 0.92 | 0.60 | 0.60 | 0.60 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.19 | 0.69 | 0.69 | 0.20 | 0.49 | 0.49 |
| Q2: | 0.7 | 0.2 | 0.8 | 1.3 | 0.2 | 1.0 | 0.2 | 0.9 | 0.9 | 0.3 | 0.6 | 0.6 |
| HCM2KQueue: | 3.3 | 1.2 | 4.1 | 5.1 | 1.6 | 4.8 | 2.0 | 11.6 | 11.6 | 4.3 | 11.2 | 11.2 |
| 70th%Factor: | 1.19 | 1.20 | 1.19 | 1.19 | 1.20 | 1.19 | 1.20 | 1.17 | 1.17 | 1.19 | 1.18 | 1.18 |
| HCM2k70thQ: | 3.9 | 1.5 | 4.9 | 6.1 | 1.9 | 5.7 | 2.4 | 13.6 | 13.6 | 5.1 | 13.1 | 13.1 |
| 85th%Factor: | 1.57 | 1.59 | 1.56 | 1.55 | 1.58 | 1.56 | 1.58 | 1.50 | 1.50 | 1.56 | 1.51 | 1.51 |
| HCM2k85thQ: | 5.1 | 2.0 | 6.4 | 7.9 | 2.6 | 7.5 | 3.2 | 17.5 | 17.5 | 6.7 | 16.8 | 16.8 |
| 90th%Factor: | 1.74 | 1.78 | 1.73 | 1.71 | 1.77 | 1.71 | 1.76 | 1.62 | 1.62 | 1.72 | 1.63 | 1.63 |
| HCM2k90thQ: | 5.7 | 2.2 | 7.0 | 8.7 | 2.9 | 8.3 | 3.5 | 18.9 | 18.9 | 7.4 | 18.2 | 18.2 |
| 95th%Factor: | 2.00 | 2.06 | 1.98 | 1.95 | 2.05 | 1.96 | 2.04 | 1.81 | 1.81 | 1.97 | 1.82 | 1.82 |
| HCM2k95thQ: | 6.6 | 2.6 | 8.1 | 10.0 | 3.3 | 9.5 | 4.1 | 21.1 | 21.1 | 8.5 | 20.3 | 20.3 |
| 98th%Factor: | 2.48 | 2.61 | 2.43 | 2.38 | 2.58 | 2.39 | 2.56 | 2.11 | 2.11 | 2.42 | 2.12 | 2.12 |
| HCM2k98thQ: | 8.1 | 3.2 | 9.9 | 12.1 | 4.2 | 11.5 | 5.1 | 24.5 | 24.5 | 10.4 | 23.7 | 23.7 |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|------|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 23.4 | 9.8 | 29.8 | 34.6 | 12.7 | 34.6 | 16.0 | 152 | 30.3 | 36.3 | 164 | 15.8 |

Name: year 1995 composite fleet
Fuel Consumption: 84.407 pounds
13.674 gallons
Carbon Dioxide: 263.349 pounds
Carbon Monoxide: 20.038 pounds
Hydrocarbons: 3.437 pounds
Nitrogen Oxides: 0.976 pounds

Name: year 2000 composite fleet
Fuel Consumption: 84.407 pounds
13.674 gallons
Carbon Dioxide: 263.349 pounds
Carbon Monoxide: 20.038 pounds
Hydrocarbons: 3.437 pounds
Nitrogen Oxides: 0.976 pounds

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.737 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 33.9 |
| Optimal Cycle: | 65 | Level Of Service: | C |

| Street Name: | San Leandro Boulevard | | | Davis Street | | |
|--------------|-----------------------|---|---|--------------|---|---|
| Approach: | North Bound | | | South Bound | | |
| Movement: | L | T | R | L | T | R |

| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|---|---|---|
| Rights: | Include | | | Include | | | Include | | | Include | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | | | |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 246 | 481 | 110 | 73 | 355 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 246 | 481 | 110 | 73 | 355 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Added Vol: | 9 | 6 | 12 | 0 | 31 | 10 | 2 | 4 | 47 | 69 | 23 | 0 |
| PasserByVol: | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 |
| Initial Fut: | 324 | 487 | 122 | 73 | 386 | 279 | 257 | 523 | 207 | 244 | 781 | 159 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.96 | 0.96 | 0.96 | 0.87 | 0.87 | 0.87 | 0.88 | 0.88 | 0.88 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 339 | 510 | 128 | 84 | 445 | 322 | 291 | 592 | 234 | 258 | 826 | 168 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 339 | 510 | 128 | 84 | 445 | 322 | 291 | 592 | 234 | 258 | 826 | 168 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 339 | 510 | 128 | 84 | 445 | 322 | 291 | 592 | 234 | 258 | 826 | 168 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.90 | 0.90 | 0.90 | 0.90 | 0.87 | 0.87 | 0.90 | 0.93 | 0.83 | 0.90 | 0.93 | 0.83 |
| Lanes: | 2.00 | 1.60 | 0.40 | 2.00 | 1.16 | 0.84 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3432 | 2744 | 687 | 3432 | 1924 | 1391 | 3432 | 3538 | 1583 | 3432 | 3538 | 1583 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.10 | 0.19 | 0.19 | 0.02 | 0.23 | 0.23 | 0.08 | 0.17 | 0.15 | 0.08 | 0.23 | 0.11 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.13 | 0.40 | 0.40 | 0.05 | 0.31 | 0.31 | 0.12 | 0.30 | 0.30 | 0.13 | 0.32 | 0.32 |
| Volume/Cap: | 0.74 | 0.47 | 0.47 | 0.47 | 0.74 | 0.74 | 0.74 | 0.56 | 0.50 | 0.56 | 0.74 | 0.34 |
| Delay/Veh: | 47.8 | 22.7 | 22.7 | 48.0 | 33.4 | 33.4 | 49.9 | 30.3 | 29.7 | 42.1 | 33.0 | 26.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 47.8 | 22.7 | 22.7 | 48.0 | 33.4 | 33.4 | 49.9 | 30.3 | 29.7 | 42.1 | 33.0 | 26.5 |
| LOS by Move: | D | C | C | D | C | C | D | C | C | D | C | C |
| HCM2k95thQ: | 327 | 368 | 368 | 100 | 561 | 561 | 226 | 369 | 277 | 188 | 540 | 187 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|----------------|---------------------|---------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Run Speed: | 30 MPH | 30 MPH | 30 MPH | 30 MPH |
| NumOfStops: | 81.5 94.6 23.7 | 20.5 99.4 71.8 70.4 | 125 48.3 60.5 | 184 32.2 |

Name: year 1995 composite fleet
Fuel Consumption: 151.968 pounds
24.619 gallons
Carbon Dioxide: 474.139 pounds
Carbon Monoxide: 37.946 pounds
Hydrocarbons: 7.087 pounds
Nitrogen Oxides: 1.713 pounds

Name: year 2000 composite fleet
Fuel Consumption: 151.968 pounds
24.619 gallons
Carbon Dioxide: 474.139 pounds
Carbon Monoxide: 37.946 pounds
Hydrocarbons: 7.087 pounds
Nitrogen Oxides: 1.713 pounds

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.449 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 13.4 |
| Optimal Cycle: | 38 | Level Of Service: | B |

Street Name: San Leandro Blvd Juana Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

| Control: | Permitted | Permitted | Split Phase | Split Phase |
|-------------|-------------|-------------|-------------|-------------|
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 0 0 1 1 0 | 1 0 2 0 0 | 1 0 0 1 0 | 1 0 0 0 1 |

Volume Module:
Base Vol: 0 688 87 65 469 0 11 5 3 128 0 66
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 688 87 65 469 0 11 5 3 128 0 66
Added Vol: 0 26 4 0 146 0 0 0 0 23 0 0
PasserByVol: 0 69 0 0 34 0 0 0 0 0 0 0
Initial Fut: 0 783 91 65 649 0 11 5 3 151 0 66
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.91 0.91 0.91 0.81 0.81 0.81 0.79 0.79 0.79 0.77 0.77 0.77
PHF Volume: 0 863 100 80 802 0 14 6 4 196 0 86
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 863 100 80 802 0 14 6 4 196 0 86
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 863 100 80 802 0 14 6 4 196 0 86

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.92 0.92 0.24 0.93 1.00 0.93 0.93 0.93 0.93 1.00 0.83
Lanes: 0.00 1.79 0.21 1.00 2.00 0.00 1.00 0.62 0.38 1.00 0.00 1.00
Final Sat.: 0 3119 362 456 3538 0 1769 1099 659 1769 0 1583

Capacity Analysis Module:
Vol/Sat: 0.00 0.28 0.28 0.18 0.23 0.00 0.01 0.01 0.01 0.11 0.00 0.05
Crit Moves: ****
Green/Cycle: 0.00 0.62 0.62 0.62 0.62 0.00 0.02 0.02 0.02 0.25 0.00 0.25
Volume/Cap: 0.00 0.45 0.45 0.29 0.37 0.00 0.45 0.33 0.33 0.45 0.00 0.22
Delay/Veh: 0.0 10.4 10.4 9.5 9.6 0.0 58.7 54.7 54.7 32.7 0.0 30.3
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 10.4 10.4 9.5 9.6 0.0 58.7 54.7 54.7 32.7 0.0 30.3
LOS by Move: A B B A A A E D D C A C
HCM2k95thQ: 0 379 379 74 308 0 52 36 36 242 0 102

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.62 | 0.62 | 0.62 | 0.62 | 0.00 | 0.02 | 0.02 | 0.02 | 0.25 | 0.00 | 0.25 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 7.5 | 7.5 | 1.0 | 5.8 | 0.0 | 0.4 | 0.3 | 0.3 | 4.6 | 0.0 | 1.9 |
| UpstreamVC: | 0.00 | 0.44 | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.37 | 0.00 | 0.37 |
| UpstreamAdj: | 0.00 | 0.90 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.94 | 0.00 | 0.94 |
| EarlyArrAdj: | 0.00 | 0.71 | 0.71 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.42 | 0.00 | 0.39 |
| Q2: | 0.0 | 0.6 | 0.6 | 0.4 | 0.6 | 0.0 | 0.6 | 0.4 | 0.4 | 0.3 | 0.0 | 0.1 |
| HCM2kQueue: | 0.0 | 8.1 | 8.1 | 1.4 | 6.4 | 0.0 | 1.0 | 0.7 | 0.7 | 5.0 | 0.0 | 2.0 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.20 | 1.19 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.20 |
| HCM2k70thQ: | 0.0 | 9.5 | 9.5 | 1.7 | 7.6 | 0.0 | 1.2 | 0.8 | 0.8 | 5.9 | 0.0 | 2.4 |
| 85th%Factor: | 1.60 | 1.53 | 1.53 | 1.59 | 1.54 | 1.60 | 1.59 | 1.59 | 1.59 | 1.55 | 1.60 | 1.58 |
| HCM2k85thQ: | 0.0 | 12.3 | 12.3 | 2.3 | 9.9 | 0.0 | 1.6 | 1.1 | 1.1 | 7.7 | 0.0 | 3.2 |
| 90th%Factor: | 1.80 | 1.67 | 1.67 | 1.77 | 1.69 | 1.80 | 1.78 | 1.79 | 1.79 | 1.71 | 1.80 | 1.76 |
| HCM2k90thQ: | 0.0 | 13.4 | 13.4 | 2.5 | 10.8 | 0.0 | 1.8 | 1.2 | 1.2 | 8.5 | 0.0 | 3.5 |
| 95th%Factor: | 2.10 | 1.88 | 1.88 | 2.05 | 1.92 | 2.10 | 2.07 | 2.08 | 2.08 | 1.96 | 2.10 | 2.04 |
| HCM2k95thQ: | 0.0 | 15.2 | 15.2 | 2.9 | 12.3 | 0.0 | 2.1 | 1.5 | 1.5 | 9.7 | 0.0 | 4.1 |
| 98th%Factor: | 2.70 | 2.24 | 2.24 | 2.60 | 2.31 | 2.70 | 2.63 | 2.65 | 2.65 | 2.38 | 2.70 | 2.56 |
| HCM2k98thQ: | 0.0 | 18.0 | 18.0 | 3.7 | 14.8 | 0.0 | 2.7 | 1.8 | 1.8 | 11.8 | 0.0 | 5.1 |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|------|-------------|------|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 115 | 13.3 | 9.4 | 99.6 | 0.0 | 3.4 | 1.6 | 0.9 | 41.5 | 0.0 | 17.1 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 45.395 pounds | | | | | | | | | | | |
| | 7.354 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 141.631 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 10.389 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.670 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.527 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 45.395 pounds | | | | | | | | | | | |
| | 7.354 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 141.631 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 10.389 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.670 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.527 pounds | | | | | | | | | | | |

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San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.19 | 0.52 | 0.52 | 0.03 | 0.37 | 0.37 | 0.26 | 0.26 | 0.26 | 0.09 | 0.09 | 0.09 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 9.0 | 9.7 | 9.7 | 0.9 | 16.2 | 16.2 | 11.4 | 11.4 | 11.4 | 4.5 | 4.5 | 4.5 |
| UpstreamVC: | 0.78 | 0.78 | 0.78 | 0.37 | 0.37 | 0.37 | 0.00 | 0.00 | 0.00 | 0.48 | 0.48 | 0.48 |
| UpstreamAdj: | 0.53 | 0.53 | 0.53 | 0.94 | 0.94 | 0.94 | 0.00 | 0.00 | 0.00 | 0.87 | 0.87 | 0.87 |
| EarlyArrAdj: | 0.24 | 0.45 | 0.45 | 0.14 | 0.63 | 0.63 | 1.00 | 1.00 | 1.00 | 0.26 | 0.26 | 0.26 |
| Q2: | 0.8 | 0.4 | 0.4 | 0.1 | 2.0 | 2.0 | 2.8 | 2.8 | 2.8 | 0.8 | 0.8 | 0.8 |
| HCM2kQueue: | 9.8 | 10.0 | 10.0 | 1.0 | 18.2 | 18.2 | 14.2 | 14.2 | 14.2 | 5.3 | 5.3 | 5.3 |
| 70th%Factor: | 1.18 | 1.18 | 1.18 | 1.20 | 1.16 | 1.16 | 1.17 | 1.17 | 1.17 | 1.19 | 1.19 | 1.19 |
| HCM2k70thQ: | 11.5 | 11.8 | 11.8 | 1.2 | 21.2 | 21.2 | 16.7 | 16.7 | 16.7 | 6.3 | 6.3 | 6.3 |
| 85th%Factor: | 1.52 | 1.51 | 1.51 | 1.59 | 1.46 | 1.46 | 1.49 | 1.49 | 1.49 | 1.55 | 1.55 | 1.55 |
| HCM2k85thQ: | 14.8 | 15.2 | 15.2 | 1.6 | 26.6 | 26.6 | 21.2 | 21.2 | 21.2 | 8.2 | 8.2 | 8.2 |
| 90th%Factor: | 1.65 | 1.64 | 1.64 | 1.78 | 1.56 | 1.56 | 1.60 | 1.60 | 1.60 | 1.71 | 1.71 | 1.71 |
| HCM2k90thQ: | 16.0 | 16.4 | 16.4 | 1.8 | 28.4 | 28.4 | 22.7 | 22.7 | 22.7 | 9.1 | 9.1 | 9.1 |
| 95th%Factor: | 1.85 | 1.84 | 1.84 | 2.07 | 1.72 | 1.72 | 1.77 | 1.77 | 1.77 | 1.95 | 1.95 | 1.95 |
| HCM2k95thQ: | 18.0 | 18.5 | 18.5 | 2.1 | 31.3 | 31.3 | 25.2 | 25.2 | 25.2 | 10.3 | 10.3 | 10.3 |
| 98th%Factor: | 2.17 | 2.16 | 2.16 | 2.63 | 1.95 | 1.95 | 2.03 | 2.03 | 2.03 | 2.37 | 2.37 | 2.37 |
| HCM2k98thQ: | 21.2 | 21.7 | 21.7 | 2.6 | 35.4 | 35.4 | 29.0 | 29.0 | 29.0 | 12.5 | 12.5 | 12.5 |

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|-----|-------------|-----|------|------------|-----|------|------------|------|-----|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 62.2 | 122 | 5.0 | 6.2 | 159 | 54.9 | 35.8 | 6.6 | 36.7 | 7.0 | 15.9 | 8.6 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 100.976 pounds | | | | | | | | | | | |
| | 16.358 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 315.046 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 25.521 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.882 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.108 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 100.976 pounds | | | | | | | | | | | |
| | 16.358 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 315.046 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 25.521 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.882 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.108 pounds | | | | | | | | | | | |

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San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: [30.3]

Street Name: San Leandro Blvd Thornton St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 1 1 0 1 0 1 1 0 0 0 1 1 0 0

Volume Module:
Base Vol: 123 876 12 13 626 4 2 2 9 5 4 29
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 123 876 12 13 626 4 2 2 9 5 4 29
Added Vol: 41 83 0 0 12 49 0 0 11 0 0 0
PasserByVol: 8 9 0 0 10 3 6 0 1 0 0 0
Initial Fut: 172 968 12 13 648 56 8 2 21 5 4 29
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.94 0.94 0.94 0.79 0.79 0.79 0.65 0.65 0.65 0.79 0.79 0.79
PHF Volume: 184 1034 13 16 822 71 12 3 32 6 5 37
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 184 1034 13 16 822 71 12 3 32 6 5 37

Critical Gap Module:
Critical Gp: 4.1 xxxxx xxxxx 4.1 xxxxx xxxxx 7.5 6.5 6.9 7.5 6.5 6.9
FollowUpTim: 2.2 xxxxx xxxxx 2.2 xxxxx xxxxx 3.5 4.0 3.3 3.5 4.0 3.3

Capacity Module:
Cnflct Vol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
Potent Cap.: 755 xxxxx xxxxx 660 xxxxx xxxxx 52 38 559 46 36 498
Move Cap.: 755 xxxxx xxxxx 660 xxxxx xxxxx 33 28 559 32 27 498
Volume/Cap: 0.24 xxxxx xxxxx 0.02 xxxxx xxxxx 0.37 0.11 0.06 0.20 0.19 0.07

Level Of Service Module:
2Way95thQ: 23.8 xxxxx xxxxx 1.9 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Control Del: 11.3 xxxxx xxxxx 10.6 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: B * * B * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 189 xxxxx xxxxx 246 xxxxx
SharedQueue: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 1.0 xxxxx xxxxx 0.7 xxxxx
Shrd ConDel: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx 30.3 xxxxx xxxxx 23.1 xxxxx
Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx 30.3 23.1
ApproachLOS: * * * * * D C

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method

Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

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

HevVeh: 2% 2% 2% 2%
Grade: 0% 0% 0% 0%
Peds/Hour: 0 0 0 0
Pedestrian Walk Speed: 4.00 feet/sec
LaneWidth: 12 feet 12 feet 12 feet 12 feet
Time Period: 0.25 hour
Upstream Signals:
Link Index: #107 #110
Dist(miles): 0.000 0.000
Speed (mph): 0.00 0.00
SignalIndex: #19 #4
Cycle Time: 0 secs 0 secs
InitVolume: 0 0 0 0
Saturation: 0 0 0 0
ArrivalType: 0 0 0 0
G/C: 0.00 0.00 0.00 0.00

*** Computation 1: Time for Queue to Clear at Each Upstream Intersection
P: 0.000 0.000 0.000 0.000
gg1: 0.00 0.00 0.00 0.00
gg2: 0.00 0.00 0.00 0.00
gg: 0.00 0.00 0.00 0.00
*** Computation 2: Time Intersection Blocked Because of Upstream Platoons
alpha: 0.000 0.000
beta: 0.000 0.000
ta (secs): 0.000 0.000
F: 0.000 0.000
f: 0.000 0.000 0.000 0.000
vcmax: 0 0 0 0
vcg: 0 0 0 0
vcmin: 0 0 0 0
tp: 0.0 0.0 0.0 0.0
p: 0.000 0.000
*** Computation 3: Platoon Event Periods
pdom/psubo: 0.000/0.000/Unconstrained
*** Computation 4: Conflicting Flows During Each Unblocked Period
InitCnflVol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
AdjCnflVol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
UpstreamAdj: 1.00 x.xxx x.xxx 1.00 x.xxx x.xxx 1.00 1.000 1.000 1.00 1.000 1.000
ConflictVol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
*** Computation 5: Capacity for Subject Movement During Unblocked Period
InitPotCap: 755 xxxxx xxxxx 660 xxxxx xxxxx 52 38 559 46 36 498
UpstreamAdj: 1.00 x.xxx x.xxx 1.00 x.xxx x.xxx 1.00 1.000 1.000 1.00 1.000 1.000
Potent Cap.: 755 xxxxx xxxxx 660 xxxxx xxxxx 52 38 559 46 36 498

*** Computation 1: Time for Queue to Clear at Each Upstream Intersection
P: 0.000 0.000 0.000 0.000
gg1: 0.00 0.00 0.00 0.00
gg2: 0.00 0.00 0.00 0.00
gg: 0.00 0.00 0.00 0.00
*** Computation 2: Time Intersection Blocked Because of Upstream Platoons
alpha: 0.000 0.000
beta: 0.000 0.000
ta (secs): 0.000 0.000
F: 0.000 0.000
f: 0.000 0.000 0.000 0.000
vcmax: 0 0 0 0
vcg: 0 0 0 0
vcmin: 0 0 0 0
tp: 0.0 0.0 0.0 0.0
p: 0.000 0.000
*** Computation 3: Platoon Event Periods
pdom/psubo: 0.000/0.000/Unconstrained
*** Computation 4: Conflicting Flows During Each Unblocked Period
InitCnflVol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
AdjCnflVol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
UpstreamAdj: 1.00 x.xxx x.xxx 1.00 x.xxx x.xxx 1.00 1.000 1.000 1.00 1.000 1.000
ConflictVol: 893 xxxxx xxxxx 1047 xxxxx xxxxx 1778 2305 447 1854 2335 524
*** Computation 5: Capacity for Subject Movement During Unblocked Period
InitPotCap: 755 xxxxx xxxxx 660 xxxxx xxxxx 52 38 559 46 36 498
UpstreamAdj: 1.00 x.xxx x.xxx 1.00 x.xxx x.xxx 1.00 1.000 1.000 1.00 1.000 1.000
Potent Cap.: 755 xxxxx xxxxx 660 xxxxx xxxxx 52 38 559 46 36 498

San Leandro Crossings TIA
Existing Plus Project - AM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 167.6 | 149.2 | 11.8 | 145.8 | 168.5 | 12.8 |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 12 | 3 | 32 | 6 | 5 | 37 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.57 | 0.13 | 0.11 | 0.26 | 0.24 | 0.13 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 2 | xxxxx | xxxxx | 1 | xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 88 | xxxxx | xxxxx | 104 | xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 189 | xxxxx | xxxxx | 246 | xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxxx | 3 | xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 189 | xxxxx | xxxxx | 246 | xxxxx |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Scenario: Scenario Report
Existing + Project PM (SLC)

Command: Existing + Project PM (SLC)
Volume: Existing + Project PM (SLC)
Geometry: AM Existing +P
Impact Fee: Default Impact Fee
Trip Generation: San Leandro Crossings Ph I PM
Trip Distribution: All Scenarios
Paths: Default Path
Routes: Default Route
Configuration: PM Existing

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|---------|-------|---------|-------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS Veh | C | LOS Veh | C | |
| # 1 Alvarado Street / Davis Street | C | 21.3 | 0.709 | C 21.9 | 0.732 | + 0.568 D/V |
| # 2 San Leandro Boulevard / Davis | D | 36.2 | 0.789 | D 40.4 | 0.855 | + 4.163 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 13.9 | 0.388 | B 13.1 | 0.449 | -0.799 D/V |
| # 4 San Leandro Blvd / Parrott St | D | 35.4 | 0.635 | E 73.2 | 1.021 | +37.724 D/V |
| # 5 San Leandro Blvd / Thornton St | B | 13.0 | 0.145 | C 15.8 | 0.338 | + 2.830 D/V |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 21.11 | 21.11 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 22.11 | 22.11 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 22.11 | 22.11 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 200 | 132 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 5.56 | 3.68 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 40 | 24 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 1.11 | 0.67 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.78 | 0.78 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 22.11 | 22.11 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gq-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.85 | 0.86 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, ell: | 1.36 | 1.34 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, el2: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.18 | 0.18 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.74 | 0.75 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.74 | 0.75 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.08 | 0.59 | 0.59 | 0.10 | 0.61 | 0.61 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 5.1 | 0.5 | 6.6 | 3.2 | 0.9 | 3.9 | 2.3 | 16.0 | 16.0 | 3.4 | 12.8 | 12.8 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59 | 0.59 | 0.59 | 0.85 | 0.85 | 0.85 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.77 | 0.77 | 0.77 | 0.40 | 0.40 | 0.40 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.17 | 0.60 | 0.60 | 0.10 | 0.32 | 0.32 |
| Q2: | 1.7 | 0.1 | 2.3 | 0.7 | 0.1 | 0.8 | 0.3 | 1.6 | 1.6 | 0.3 | 0.6 | 0.6 |
| HCM2KQueue: | 6.8 | 0.6 | 8.9 | 3.9 | 1.0 | 4.7 | 2.6 | 17.6 | 17.6 | 3.6 | 13.3 | 13.3 |
| 70th%Factor: | 1.18 | 1.20 | 1.18 | 1.19 | 1.20 | 1.19 | 1.19 | 1.16 | 1.16 | 1.19 | 1.17 | 1.17 |
| HCM2k70thQ: | 8.0 | 0.7 | 10.5 | 4.6 | 1.2 | 5.5 | 3.1 | 20.5 | 20.5 | 4.3 | 15.6 | 15.6 |
| 85th%Factor: | 1.54 | 1.59 | 1.52 | 1.56 | 1.59 | 1.56 | 1.58 | 1.47 | 1.47 | 1.57 | 1.49 | 1.49 |
| HCM2k85thQ: | 10.4 | 0.9 | 13.6 | 6.1 | 1.6 | 7.3 | 4.1 | 25.8 | 25.8 | 5.7 | 19.9 | 19.9 |
| 90th%Factor: | 1.68 | 1.79 | 1.66 | 1.73 | 1.78 | 1.72 | 1.75 | 1.57 | 1.57 | 1.73 | 1.61 | 1.61 |
| HCM2k90thQ: | 11.4 | 1.0 | 14.7 | 6.7 | 1.8 | 8.0 | 4.6 | 27.6 | 27.6 | 6.3 | 21.4 | 21.4 |
| 95th%Factor: | 1.91 | 2.08 | 1.87 | 1.98 | 2.07 | 1.96 | 2.02 | 1.73 | 1.73 | 1.99 | 1.79 | 1.79 |
| HCM2k95thQ: | 13.0 | 1.2 | 16.6 | 7.7 | 2.0 | 9.2 | 5.3 | 30.4 | 30.4 | 7.2 | 23.8 | 23.8 |
| 98th%Factor: | 2.29 | 2.66 | 2.20 | 2.44 | 2.63 | 2.40 | 2.52 | 1.96 | 1.96 | 2.46 | 2.06 | 2.06 |
| HCM2k98thQ: | 15.6 | 1.6 | 19.6 | 9.5 | 2.6 | 11.2 | 6.6 | 34.5 | 34.5 | 8.9 | 27.4 | 27.4 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|-----|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 45.6 | 4.7 | 59.5 | 28.5 | 7.9 | 34.7 | 20.8 | 26.1 | 13.6 | 30.3 | 20.7 | 10.9 |

Name: year 1995 composite fleet
Fuel Consumption: 107.798 pounds
17.463 gallons
Carbon Dioxide: 336.329 pounds
Carbon Monoxide: 25.897 pounds
Hydrocarbons: 4.528 pounds
Nitrogen Oxides: 1.247 pounds

Name: year 2000 composite fleet
Fuel Consumption: 107.798 pounds
17.463 gallons
Carbon Dioxide: 336.329 pounds
Carbon Monoxide: 25.897 pounds
Hydrocarbons: 4.528 pounds
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DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.855 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 40.4 |
| Optimal Cycle: | 92 | Level Of Service: | D |

Street Name: San Leandro Boulevard Davis Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
|-------------|-----------|---------|---------|-----------|---------|---------|-----------|---------|---------|-----------|---------|--|
| Rights: | Include | Include | Include | Include | Include | Include | Include | Include | Include | Include | Include | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | |

Volume Module:
Base Vol: 207 373 144 216 517 319 455 933 168 167 679 113
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 207 373 144 216 517 319 455 933 168 167 679 113
Added Vol: 44 28 63 0 7 2 9 21 12 15 5 0
PasserByVol: 117 0 0 0 0 0 0 0 0 39 0 0
Initial Fut: 368 401 207 216 524 321 464 954 219 182 684 113
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.90 0.90 0.90 0.95 0.95 0.95 0.91 0.91 0.91
PHF Volume: 394 430 222 241 584 357 488 1003 230 200 753 124
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 394 430 222 241 584 357 488 1003 230 200 753 124
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 394 430 222 241 584 357 488 1003 230 200 753 124

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.90 0.88 0.88 0.90 0.88 0.88 0.90 0.93 0.83 0.90 0.93 0.83
Lanes: 2.00 1.32 0.68 2.00 1.24 0.76 2.00 2.00 1.00 2.00 2.00 1.00
Final Sat.: 3432 2214 1143 3432 2069 1267 3432 3538 1583 3432 3538 1583

Capacity Analysis Module:
Vol/Sat: 0.11 0.19 0.19 0.07 0.28 0.28 0.14 0.28 0.15 0.06 0.21 0.08
Crit Moves: ****
Green/Cycle: 0.13 0.34 0.34 0.12 0.33 0.33 0.17 0.34 0.34 0.07 0.25 0.25
Volume/Cap: 0.85 0.57 0.57 0.57 0.85 0.85 0.85 0.82 0.42 0.82 0.85 0.32
Delay/Veh: 56.7 27.6 27.6 43.2 38.0 38.0 52.5 34.6 25.7 65.6 44.0 31.1
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 56.7 27.6 27.6 43.2 38.0 38.0 52.5 34.6 25.7 65.6 44.0 31.1
LOS by Move: E C C D D D D C C E D C
HCM2k95thQ: 413 422 422 219 738 738 370 655 250 176 560 150

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|----------------|---------------------|-------------------|------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Run Speed: | 30 MPH | 30 MPH | 30 MPH | 30 MPH |
| NumOfStops: | 96.4 87.8 45.3 | 56.7 136 83.4 118.5 | 229 44.2 49.4 180 | 25.4 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 204.982 pounds |
| | 33.207 gallons |
| Carbon Dioxide: | 639.543 pounds |
| Carbon Monoxide: | 51.887 pounds |
| Hydrocarbons: | 9.912 pounds |
| Nitrogen Oxides: | 2.281 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 204.982 pounds |
| | 33.207 gallons |
| Carbon Dioxide: | 639.543 pounds |
| Carbon Monoxide: | 51.887 pounds |
| Hydrocarbons: | 9.912 pounds |
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The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.449 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 13.1 |
| Optimal Cycle: | 38 | Level Of Service: | B |

Street Name: San Leandro Blvd Juana Ave

| Approach: | North Bound | South Bound | East Bound | West Bound |
|-------------|-------------|-------------|-------------|-------------|
| Movement: | L - T - R | L - T - R | L - T - R | L - T - R |
| Control: | Permitted | Permitted | Split Phase | Split Phase |
| Rights: | Include | Include | Include | Include |
| Min. Green: | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 |
| Y+R: | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 | 4.0 4.0 4.0 |
| Lanes: | 0 0 1 1 0 | 1 0 2 0 0 | 1 0 0 1 0 | 1 0 0 0 1 |

Volume Module:

| | | |
|---------------|-------------------------------|-------------------------------|
| Base Vol: | 0 557 71 119 759 0 | 13 5 1 139 0 75 |
| Growth Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| Initial Bse: | 0 557 71 119 759 0 | 13 5 1 139 0 75 |
| Added Vol: | 0 134 21 0 33 0 | 0 0 0 6 0 0 |
| PasserByVol: | 0 117 0 0 37 0 | 0 0 0 0 0 0 |
| Initial Fut: | 0 808 92 119 829 0 | 13 5 1 145 0 75 |
| User Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| PHF Adj: | 0.93 0.93 0.93 0.93 0.93 0.93 | 0.79 0.79 0.79 0.78 0.78 0.78 |
| PHF Volume: | 0 870 99 128 891 0 | 16 6 1 187 0 97 |
| Reduct Vol: | 0 0 0 0 0 0 | 0 0 0 0 0 0 |
| Reduced Vol: | 0 870 99 128 891 0 | 16 6 1 187 0 97 |
| PCE Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| MLF Adj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| Final Volume: | 0 870 99 128 891 0 | 16 6 1 187 0 97 |

Saturation Flow Module:

| | | |
|-------------|-------------------------------|-------------------------------|
| Sat/Lane: | 1900 1900 1900 1900 1900 1900 | 1900 1900 1900 1900 1900 1900 |
| Adjustment: | 1.00 0.92 0.92 0.24 0.93 1.00 | 0.93 0.96 0.96 0.93 1.00 0.83 |
| Lanes: | 0.00 1.80 0.20 1.00 2.00 0.00 | 1.00 0.83 0.17 1.00 0.00 1.00 |
| Final Sat.: | 0 3129 356 456 3538 0 | 1769 1513 303 1769 0 1583 |

Capacity Analysis Module:

| | | |
|--------------|-------------------------------|-------------------------------|
| Vol/Sat: | 0.00 0.28 0.28 0.28 0.25 0.00 | 0.01 0.00 0.00 0.11 0.00 0.06 |
| Crit Moves: | **** | **** |
| Green/Cycle: | 0.00 0.62 0.62 0.62 0.62 0.00 | 0.02 0.02 0.02 0.24 0.00 0.24 |
| Volume/Cap: | 0.00 0.45 0.45 0.45 0.40 0.00 | 0.45 0.20 0.20 0.45 0.00 0.26 |
| Delay/Veh: | 0.0 9.9 9.9 11.0 9.6 0.0 | 57.0 50.8 50.8 33.5 0.0 31.5 |
| User DelAdj: | 1.00 1.00 1.00 1.00 1.00 1.00 | 1.00 1.00 1.00 1.00 1.00 1.00 |
| AdjDel/Veh: | 0.0 9.9 9.9 11.0 9.6 0.0 | 57.0 50.8 50.8 33.5 0.0 31.5 |
| LOS by Move: | A A A B A A | E D D C A C |
| HCM2k95thQ: | 0 370 370 133 343 0 | 57 23 23 234 0 118 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.62 | 0.62 | 0.62 | 0.62 | 0.00 | 0.02 | 0.02 | 0.02 | 0.24 | 0.00 | 0.24 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 7.4 | 7.4 | 1.9 | 6.5 | 0.0 | 0.5 | 0.2 | 0.2 | 4.4 | 0.0 | 2.2 |
| UpstreamVC: | 0.00 | 0.63 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.35 | 0.00 | 0.35 |
| UpstreamAdj: | 0.00 | 0.74 | 0.74 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.95 | 0.00 | 0.95 |
| EarlyArrAdj: | 0.00 | 0.59 | 0.59 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.41 | 0.00 | 0.38 |
| Q2: | 0.0 | 0.5 | 0.5 | 0.8 | 0.7 | 0.0 | 0.6 | 0.2 | 0.2 | 0.3 | 0.0 | 0.1 |
| HCM2KQueue: | 0.0 | 7.8 | 7.8 | 2.6 | 7.2 | 0.0 | 1.1 | 0.4 | 0.4 | 4.8 | 0.0 | 2.3 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.19 | 1.18 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 9.3 | 9.3 | 3.2 | 8.5 | 0.0 | 1.3 | 0.5 | 0.5 | 5.7 | 0.0 | 2.8 |
| 85th%Factor: | 1.60 | 1.53 | 1.53 | 1.57 | 1.54 | 1.60 | 1.59 | 1.60 | 1.60 | 1.56 | 1.60 | 1.58 |
| HCM2k85thQ: | 0.0 | 12.0 | 12.0 | 4.2 | 11.1 | 0.0 | 1.7 | 0.7 | 0.7 | 7.4 | 0.0 | 3.7 |
| 90th%Factor: | 1.80 | 1.67 | 1.67 | 1.75 | 1.68 | 1.80 | 1.78 | 1.79 | 1.79 | 1.72 | 1.80 | 1.76 |
| HCM2k90thQ: | 0.0 | 13.1 | 13.1 | 4.6 | 12.1 | 0.0 | 2.0 | 0.8 | 0.8 | 8.2 | 0.0 | 4.1 |
| 95th%Factor: | 2.10 | 1.89 | 1.89 | 2.02 | 1.90 | 2.10 | 2.06 | 2.09 | 2.09 | 1.96 | 2.10 | 2.03 |
| HCM2k95thQ: | 0.0 | 14.8 | 14.8 | 5.3 | 13.7 | 0.0 | 2.3 | 0.9 | 0.9 | 9.4 | 0.0 | 4.7 |
| 98th%Factor: | 2.70 | 2.25 | 2.25 | 2.52 | 2.27 | 2.70 | 2.62 | 2.67 | 2.67 | 2.39 | 2.70 | 2.54 |
| HCM2k98thQ: | 0.0 | 17.6 | 17.6 | 6.6 | 16.4 | 0.0 | 2.9 | 1.2 | 1.2 | 11.4 | 0.0 | 5.9 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|------|------|-------------|------|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 11.3 | 12.9 | 16.7 | 11.2 | 0.0 | 4.1 | 1.6 | 0.3 | 40.0 | 0.0 | 19.7 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 48.011 pounds | | | | | | | | | | | |
| | 7.778 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 149.795 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 10.967 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.755 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.558 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 48.011 pounds | | | | | | | | | | | |
| | 7.778 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 149.795 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 10.967 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.755 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.558 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.08 | 0.30 | 0.30 | 0.04 | 0.27 | 0.27 | 0.51 | 0.51 | 0.51 | 0.05 | 0.05 | 0.05 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 5.1 | 10.9 | 10.9 | 1.7 | 18.1 | 18.1 | 32.3 | 32.3 | 32.3 | 3.3 | 3.3 | 3.2 |
| UpstreamVC: | 0.52 | 0.52 | 0.52 | 0.40 | 0.40 | 0.40 | 0.00 | 0.00 | 0.00 | 0.23 | 0.23 | 0.23 |
| UpstreamAdj: | 0.84 | 0.84 | 0.84 | 0.92 | 0.92 | 0.92 | 0.00 | 0.00 | 0.00 | 0.98 | 0.98 | 0.98 |
| EarlyArrAdj: | 0.22 | 0.51 | 0.51 | 0.17 | 0.52 | 0.52 | 1.00 | 1.00 | 1.00 | 0.20 | 0.20 | 0.20 |
| Q2: | 2.2 | 0.8 | 0.8 | 0.3 | 6.4 | 6.4 | 11.8 | 11.8 | 11.8 | 1.6 | 1.6 | 1.6 |
| HCM2kQueue: | 7.2 | 11.7 | 11.7 | 2.0 | 24.5 | 24.5 | 44.1 | 44.1 | 44.1 | 4.9 | 4.9 | 4.9 |
| 70th%Factor: | 1.18 | 1.17 | 1.17 | 1.20 | 1.15 | 1.15 | 1.13 | 1.13 | 1.13 | 1.19 | 1.19 | 1.19 |
| HCM2k70thQ: | 8.6 | 13.7 | 13.7 | 2.4 | 28.3 | 28.3 | 50.0 | 50.0 | 50.0 | 5.8 | 5.8 | 5.8 |
| 85th%Factor: | 1.54 | 1.50 | 1.50 | 1.58 | 1.43 | 1.43 | 1.37 | 1.37 | 1.37 | 1.56 | 1.56 | 1.56 |
| HCM2k85thQ: | 11.1 | 17.6 | 17.6 | 3.2 | 35.1 | 35.1 | 60.4 | 60.4 | 60.4 | 7.6 | 7.6 | 7.6 |
| 90th%Factor: | 1.68 | 1.62 | 1.62 | 1.76 | 1.52 | 1.52 | 1.44 | 1.44 | 1.44 | 1.71 | 1.71 | 1.71 |
| HCM2k90thQ: | 12.2 | 19.0 | 19.0 | 3.5 | 37.2 | 37.2 | 63.7 | 63.7 | 63.7 | 8.3 | 8.3 | 8.3 |
| 95th%Factor: | 1.90 | 1.81 | 1.81 | 2.04 | 1.65 | 1.65 | 1.55 | 1.55 | 1.55 | 1.96 | 1.96 | 1.96 |
| HCM2k95thQ: | 13.8 | 21.2 | 21.2 | 4.1 | 40.6 | 40.6 | 68.5 | 68.5 | 68.5 | 9.5 | 9.5 | 9.5 |
| 98th%Factor: | 2.27 | 2.11 | 2.11 | 2.56 | 1.85 | 1.85 | 1.73 | 1.73 | 1.73 | 2.39 | 2.39 | 2.39 |
| HCM2k98thQ: | 16.5 | 24.6 | 24.6 | 5.1 | 45.4 | 45.4 | 76.5 | 76.5 | 76.5 | 11.6 | 11.6 | 11.6 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|------|-------------|-----|------|------------|------|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 35.3 | 132 | 11.0 | 12.0 | 212 | 29.0 | 107.2 | 30.7 | 90.8 | 5.9 | 5.9 | 10.6 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 177.375 pounds | | | | | | | | | | | |
| | 28.735 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 553.410 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 46.696 pounds | | | | | | | | | | | |
| Hydrocarbons: | 9.521 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.858 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 177.375 pounds | | | | | | | | | | | |
| | 28.735 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 553.410 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 46.696 pounds | | | | | | | | | | | |
| Hydrocarbons: | 9.521 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.858 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: [15.8]

| Street Name: | San Leandro Blvd | | | | Thornton St | | | | |
|--------------|------------------|---|--------------|---|-------------|---|------------|---|---|
| | North Bound | | South Bound | | East Bound | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | Uncontrolled | | Stop Sign | | Stop Sign | | |
| Rights: | Include | | Include | | Include | | Include | | |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |

| Volume Module: | | | | | | | | | | | | |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 17 | 670 | 10 | 18 | 979 | 2 | 2 | 1 | 51 | 7 | 0 | 21 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 17 | 670 | 10 | 18 | 979 | 2 | 2 | 1 | 51 | 7 | 0 | 21 |
| Added Vol: | 9 | 19 | 0 | 0 | 58 | 11 | 0 | 0 | 55 | 0 | 0 | 0 |
| PasserByVol: | 3 | 15 | 0 | 0 | 17 | 2 | 6 | 0 | 5 | 0 | 0 | 0 |
| Initial Fut: | 29 | 704 | 10 | 18 | 1054 | 15 | 8 | 1 | 111 | 7 | 0 | 21 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.91 | 0.91 | 0.91 | 0.93 | 0.93 | 0.93 | 0.71 | 0.71 | 0.71 | 0.78 | 0.78 | 0.78 |
| PHF Volume: | 32 | 772 | 11 | 19 | 1131 | 16 | 11 | 1 | 156 | 9 | 0 | 27 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Volume: | 32 | 772 | 11 | 19 | 1131 | 16 | 11 | 1 | 156 | 9 | 0 | 27 |

| Critical Gap Module: | | | | | | | | | | | | |
|----------------------|-----|------|--------|-----|------|--------|-----|-----|-----|-----|-----|-----|
| Critical Gp: | 4.1 | xxxx | xxxxxx | 4.1 | xxxx | xxxxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| FollowUpTim: | 2.2 | xxxx | xxxxxx | 2.2 | xxxx | xxxxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

| Capacity Module: | | | | | | | | | | | | |
|------------------|------|------|--------|------|------|--------|------|------|------|------|------|------|
| Cnflct Vol: | 1147 | xxxx | xxxxxx | 783 | xxxx | xxxxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| Potent Cap.: | 605 | xxxx | xxxxxx | 831 | xxxx | xxxxxx | 68 | 57 | 462 | 92 | 57 | 607 |
| Move Cap.: | 605 | xxxx | xxxxxx | 831 | xxxx | xxxxxx | 61 | 53 | 462 | 57 | 53 | 607 |
| Volume/Cap: | 0.05 | xxxx | xxxx | 0.02 | xxxx | xxxx | 0.18 | 0.03 | 0.34 | 0.16 | 0.00 | 0.04 |

| Level Of Service Module: | | | | | | | | | | | | |
|--------------------------|---------------|------|--------|---------------|------|--------|---------------|------|--------|---------------|------|--------|
| 2Way95thQ: | 4.2 | xxxx | xxxxxx | 1.8 | xxxx | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx |
| Control Del: | 11.3 | xxxx | xxxxxx | 9.4 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx |
| LOS by Move: | B | * | * | A | * | * | * | * | * | * | * | * |
| Movement: | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | | LT - LTR - RT | | |
| Shared Cap.: | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | 500 | xxxxxx | xxxx | 437 | xxxxxx |
| Shared Queue: | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | 1.5 | xxxxxx | xxxxxx | 0.3 | xxxxxx |
| Shrd ConDel: | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | 15.8 | xxxxxx | xxxxxx | 14.0 | xxxxxx |
| Shared LOS: | * | * | * | * | * | * | * | C | * | * | B | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | | 15.8 | | | 14.0 | |
| ApproachLOS: | * | | | * | | | | C | | | B | |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method

Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

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

| | | | | | | | | | | | | |
|------------------------|---------------|--|--|---------|--|--|---------|--|--|---------|--|--|
| HevVeh: | 2% | | | 2% | | | 2% | | | 2% | | |
| Grade: | 0% | | | 0% | | | 0% | | | 0% | | |
| Peds/Hour: | 0 | | | 0 | | | 0 | | | 0 | | |
| Pedestrian Walk Speed: | 4.00 feet/sec | | | | | | | | | | | |
| LaneWidth: | 12 feet | | | 12 feet | | | 12 feet | | | 12 feet | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |

| | | | | | | | | | | | | |
|-------------------|--------|------|------|--------|------|------|------|------|------|------|------|------|
| Upstream Signals: | | | | | | | | | | | | |
| Link Index: | #107 | | | #110 | | | | | | | | |
| Dist(miles): | 0.000 | | | 0.000 | | | | | | | | |
| Speed (mph): | 0.00 | | | 0.00 | | | | | | | | |
| SignalIndex: | #19 | | | #4 | | | | | | | | |
| Cycle Time: | 0 secs | | | 0 secs | | | | | | | | |
| InitVolume: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Saturation: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ArrivalType: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| G/C: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

*** Computation 1: Time for Queue to Clear at Each Upstream Intersection

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| gg1: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| gg2: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| gg: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

*** Computation 2: Time Intersection Blocked Because of Upstream Platoons

| | | | | | | | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| alpha: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| beta: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| ta (secs): | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| F: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| f: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| vcmax: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| vcg: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| vcmin: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| tp: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| p: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

*** Computation 3: Platoon Event Periods

pdom/psubo: 0.000/0.000/Unconstrained

*** Computation 4: Conflicting Flows During Each Unblocked Period

| | | | | | | | | | | | | |
|--------------|------|--------|--------|------|--------|--------|------|-------|-------|------|-------|-------|
| InitCnflVol: | 1147 | xxxxxx | xxxxxx | 783 | xxxxxx | xxxxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| AdjCnflVol: | 1147 | xxxxxx | xxxxxx | 783 | xxxxxx | xxxxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |
| UpstreamAdj: | 1.00 | x.xxxx | x.xxxx | 1.00 | x.xxxx | x.xxxx | 1.00 | 1.000 | 1.000 | 1.00 | 1.000 | 1.000 |
| ConflictVol: | 1147 | xxxxxx | xxxxxx | 783 | xxxxxx | xxxxxx | 1627 | 2024 | 573 | 1446 | 2027 | 391 |

*** Computation 5: Capacity for Subject Movement During Unblocked Period

| | | | | | | | | | | | | |
|--------------|------|--------|--------|------|--------|--------|------|-------|-------|------|-------|-------|
| InitPotCap: | 605 | xxxxxx | xxxxxx | 831 | xxxxxx | xxxxxx | 68 | 57 | 462 | 92 | 57 | 607 |
| UpstreamAdj: | 1.00 | x.xxxx | x.xxxx | 1.00 | x.xxxx | x.xxxx | 1.00 | 1.000 | 1.000 | 1.00 | 1.000 | 1.000 |
| Potent Cap.: | 605 | xxxxxx | xxxxxx | 831 | xxxxxx | xxxxxx | 68 | 57 | 462 | 92 | 57 | 607 |

San Leandro Crossings TIA
Existing Plus Project - PM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|------|------|-------|------|------|-------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 77.0 | 74.9 | 16.7 | 80.3 | 73.3 | 11.2 |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 11 | 1 | 156 | 9 | 0 | 27 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.24 | 0.03 | 0.72 | 0.20 | 0.00 | 0.08 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 2 | xxxxx | xxxx | 1 | xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 307 | xxxxx | xxxx | 177 | xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 500 | xxxxx | xxxx | 437 | xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxx | 3 | xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 500 | xxxxx | xxxx | 437 | xxxxx |

Attachment C:

*Analysis Worksheets for
Cumulative (2030) and Cumulative (2030) plus Proposed Project Conditions*

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Scenario Report

Scenario: San Leandro TOD Cumulative (AM)

Command: Mixed AM
 Volume: Cumulative AM
 Geometry: AM Cumulative
 Impact Fee: Default Impact Fee
 Trip Generation: Mixed AM
 Trip Distribution: All Scenarios
 Paths: Default Path
 Routes: Default Route
 Configuration: Mixed AM

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|---------|-------|---------|-------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS Veh | C | LOS Veh | C | |
| # 1 Alvarado Street / Davis Street | C | 20.4 | 0.615 | C 26.4 | 0.781 | + 6.050 D/V |
| # 2 San Leandro Boulevard / Davis | D | 35.2 | 0.809 | D 39.8 | 0.880 | + 4.529 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 12.3 | 0.515 | B 12.8 | 0.548 | + 0.476 D/V |
| # 4 San Leandro Blvd / Parrott St | C | 23.3 | 0.639 | C 30.5 | 0.779 | + 7.263 D/V |
| # 5 San Leandro Blvd / Thornton St | E | 45.2 | 0.375 | F 68.3 | 0.527 | +23.116 D/V |

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 26.44 | 26.44 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 27.44 | 27.44 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 27.44 | 27.44 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 262 | 144 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 7.27 | 4.01 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 89 | 86 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 2.47 | 2.39 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.73 | 0.73 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.77 | 0.64 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 26.67 | 26.80 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gg-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.82 | 0.82 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, ell: | 1.43 | 1.43 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, el2: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.15 | 0.15 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.68 | 0.68 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.68 | 0.68 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.10 | 0.52 | 0.52 | 0.11 | 0.54 | 0.54 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 6.7 | 1.8 | 5.3 | 3.3 | 1.9 | 5.3 | 3.6 | 13.5 | 13.5 | 3.6 | 16.5 | 16.5 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45 | 0.45 | 0.45 | 0.88 | 0.88 | 0.88 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | 0.89 | 0.89 | 0.35 | 0.35 | 0.35 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.23 | 0.63 | 0.63 | 0.10 | 0.25 | 0.25 |
| Q2: | 2.7 | 0.2 | 1.1 | 0.7 | 0.2 | 1.1 | 0.7 | 1.4 | 1.4 | 0.2 | 0.9 | 0.9 |
| HCM2KQueue: | 9.5 | 2.0 | 6.4 | 4.0 | 2.1 | 6.4 | 4.3 | 14.9 | 14.9 | 3.8 | 17.4 | 17.4 |
| 70th%Factor: | 1.18 | 1.20 | 1.19 | 1.19 | 1.19 | 1.19 | 1.19 | 1.17 | 1.17 | 1.19 | 1.16 | 1.16 |
| HCM2k70thQ: | 11.2 | 2.4 | 7.6 | 4.8 | 2.5 | 7.6 | 5.1 | 17.4 | 17.4 | 4.5 | 20.2 | 20.2 |
| 85th%Factor: | 1.52 | 1.58 | 1.54 | 1.56 | 1.58 | 1.54 | 1.56 | 1.48 | 1.48 | 1.56 | 1.47 | 1.47 |
| HCM2k85thQ: | 14.4 | 3.2 | 9.9 | 6.3 | 3.3 | 9.8 | 6.7 | 22.0 | 22.0 | 5.9 | 25.5 | 25.5 |
| 90th%Factor: | 1.65 | 1.76 | 1.69 | 1.73 | 1.76 | 1.69 | 1.72 | 1.59 | 1.59 | 1.73 | 1.57 | 1.57 |
| HCM2k90thQ: | 15.6 | 3.6 | 10.9 | 6.9 | 3.7 | 10.8 | 7.5 | 23.6 | 23.6 | 6.5 | 27.2 | 27.2 |
| 95th%Factor: | 1.85 | 2.04 | 1.92 | 1.98 | 2.03 | 1.92 | 1.97 | 1.76 | 1.76 | 1.99 | 1.73 | 1.73 |
| HCM2k95thQ: | 17.6 | 4.2 | 12.4 | 8.0 | 4.3 | 12.3 | 8.5 | 26.2 | 26.2 | 7.5 | 30.0 | 30.0 |
| 98th%Factor: | 2.18 | 2.55 | 2.31 | 2.43 | 2.55 | 2.31 | 2.42 | 2.02 | 2.02 | 2.45 | 1.96 | 1.96 |
| HCM2k98thQ: | 20.7 | 5.2 | 14.9 | 9.8 | 5.4 | 14.8 | 10.5 | 30.0 | 30.0 | 9.2 | 34.1 | 34.1 |

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|------|------|-------------|------|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 60.4 | 16.5 | 48.0 | 29.7 | 16.9 | 47.6 | 32.6 | 206 | 24.8 | 32.0 | 257 | 24.7 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 121.502 pounds |
| | 19.683 gallons |
| Carbon Dioxide: | 379.085 pounds |
| Carbon Monoxide: | 29.697 pounds |
| Hydrocarbons: | 5.346 pounds |
| Nitrogen Oxides: | 1.396 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 121.502 pounds |
| | 19.683 gallons |
| Carbon Dioxide: | 379.085 pounds |
| Carbon Monoxide: | 29.697 pounds |
| Hydrocarbons: | 5.346 pounds |
| Nitrogen Oxides: | 1.396 pounds |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.880 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 39.8 |
| Optimal Cycle: | 101 | Level Of Service: | D |

Street Name: San Leandro Boulevard Davis Street

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

| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 246 | 481 | 110 | 73 | 355 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 246 | 606 | 110 | 73 | 447 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Added Vol: | 36 | 27 | 11 | 38 | 20 | 8 | 71 | 61 | 66 | 39 | 38 | 93 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 282 | 633 | 121 | 111 | 467 | 277 | 326 | 580 | 189 | 214 | 796 | 252 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.88 | 0.88 | 0.88 | 0.80 | 0.80 | 0.80 | 0.81 | 0.81 | 0.81 | 0.87 | 0.87 | 0.87 |
| PHF Volume: | 321 | 721 | 138 | 139 | 586 | 347 | 401 | 714 | 233 | 246 | 916 | 290 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 321 | 721 | 138 | 139 | 586 | 347 | 401 | 714 | 233 | 246 | 916 | 290 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 321 | 721 | 138 | 139 | 586 | 347 | 401 | 714 | 233 | 246 | 916 | 290 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.92 | 0.93 | 0.93 | 0.92 | 0.90 | 0.90 | 0.92 | 0.95 | 0.85 | 0.92 | 0.95 | 0.85 |
| Lanes: | 2.00 | 1.68 | 0.32 | 2.00 | 1.26 | 0.74 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3317 | 2802 | 536 | 3317 | 2027 | 1202 | 3317 | 3420 | 1530 | 3317 | 3420 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.10 | 0.26 | 0.26 | 0.04 | 0.29 | 0.29 | 0.12 | 0.21 | 0.15 | 0.07 | 0.27 | 0.19 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.11 | 0.38 | 0.38 | 0.06 | 0.33 | 0.33 | 0.14 | 0.33 | 0.33 | 0.12 | 0.30 | 0.30 |
| Volume/Cap: | 0.88 | 0.68 | 0.68 | 0.68 | 0.88 | 0.88 | 0.88 | 0.64 | 0.47 | 0.64 | 0.88 | 0.62 |
| Delay/Veh: | 64.9 | 27.7 | 27.7 | 55.1 | 40.4 | 40.4 | 60.0 | 30.0 | 27.5 | 45.9 | 41.9 | 32.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 64.9 | 27.7 | 27.7 | 55.1 | 40.4 | 40.4 | 60.0 | 30.0 | 27.5 | 45.9 | 41.9 | 32.5 |
| LOS by Move: | E | C | C | E | D | D | E | C | C | D | D | C |
| HCM2k95thQ: | 372 | 563 | 563 | 175 | 759 | 759 | 323 | 441 | 263 | 184 | 651 | 352 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|-----|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 79.1 | 151 | 28.9 | 34.1 | 138 | 82.0 | 98.4 | 152 | 46.2 | 58.8 | 217 | 62.2 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 203.772 pounds |
| | 33.011 gallons |
| Carbon Dioxide: | 635.770 pounds |
| Carbon Monoxide: | 51.524 pounds |
| Hydrocarbons: | 9.826 pounds |
| Nitrogen Oxides: | 2.269 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 203.772 pounds |
| | 33.011 gallons |
| Carbon Dioxide: | 635.770 pounds |
| Carbon Monoxide: | 51.524 pounds |
| Hydrocarbons: | 9.826 pounds |
| Nitrogen Oxides: | 2.269 pounds |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.548 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 12.8 |
| Optimal Cycle: | 44 | Level Of Service: | B |

Street Name: San Leandro Blvd Juana Ave

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

| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 688 | 87 | 65 | 469 | 0 | 11 | 5 | 3 | 128 | 0 | 66 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 867 | 87 | 65 | 591 | 0 | 11 | 5 | 3 | 128 | 0 | 66 |
| Added Vol: | 0 | 60 | 2 | 4 | 36 | 0 | 0 | 0 | 0 | 9 | 0 | 12 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 927 | 89 | 69 | 627 | 0 | 11 | 5 | 3 | 137 | 0 | 78 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.83 | 0.83 | 0.83 | 0.74 | 0.74 | 0.74 | 0.73 | 0.73 | 0.73 | 0.71 | 0.71 | 0.71 |
| PHF Volume: | 0 | 1111 | 107 | 93 | 842 | 0 | 15 | 7 | 4 | 193 | 0 | 110 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1111 | 107 | 93 | 842 | 0 | 15 | 7 | 4 | 193 | 0 | 110 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1111 | 107 | 93 | 842 | 0 | 15 | 7 | 4 | 193 | 0 | 110 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 1.00 | 0.94 | 0.94 | 0.19 | 0.95 | 1.00 | 0.95 | 0.94 | 0.94 | 0.95 | 1.00 | 0.85 |
| Lanes: | 0.00 | 1.82 | 0.18 | 1.00 | 2.00 | 0.00 | 1.00 | 0.62 | 0.38 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3080 | 296 | 338 | 3420 | 0 | 1710 | 1062 | 637 | 1710 | 0 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.36 | 0.36 | 0.27 | 0.25 | 0.00 | 0.01 | 0.01 | 0.01 | 0.11 | 0.00 | 0.07 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.00 | 0.66 | 0.66 | 0.66 | 0.66 | 0.00 | 0.02 | 0.02 | 0.02 | 0.21 | 0.00 | 0.21 |
| Volume/Cap: | 0.00 | 0.55 | 0.55 | 0.42 | 0.37 | 0.00 | 0.55 | 0.40 | 0.40 | 0.55 | 0.00 | 0.35 |
| Delay/Veh: | 0.0 | 9.5 | 9.5 | 9.3 | 7.9 | 0.0 | 70.2 | 58.1 | 58.1 | 37.3 | 0.0 | 34.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 9.5 | 9.5 | 9.3 | 7.9 | 0.0 | 70.2 | 58.1 | 58.1 | 37.3 | 0.0 | 34.6 |
| LOS by Move: | A | A | A | A | A | A | E | E | E | D | A | C |
| HCM2k95thQ: | 0 | 471 | 471 | 97 | 298 | 0 | 63 | 43 | 43 | 255 | 0 | 141 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.66 | 0.66 | 0.66 | 0.66 | 0.00 | 0.02 | 0.02 | 0.02 | 0.21 | 0.00 | 0.21 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 9.5 | 9.5 | 1.2 | 5.6 | 0.0 | 0.4 | 0.3 | 0.3 | 4.8 | 0.0 | 2.6 |
| UpstreamVC: | 0.00 | 0.64 | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.45 | 0.00 | 0.45 |
| UpstreamAdj: | 0.00 | 0.73 | 0.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.89 | 0.00 | 0.89 |
| EarlyArrAdj: | 0.00 | 0.59 | 0.59 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.35 | 0.00 | 0.33 |
| Q2: | 0.0 | 0.7 | 0.7 | 0.7 | 0.6 | 0.0 | 0.8 | 0.5 | 0.5 | 0.4 | 0.0 | 0.2 |
| HCM2kQueue: | 0.0 | 10.2 | 10.2 | 1.9 | 6.2 | 0.0 | 1.2 | 0.8 | 0.8 | 5.2 | 0.0 | 2.8 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.20 | 1.19 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 12.0 | 12.0 | 2.3 | 7.3 | 0.0 | 1.5 | 1.0 | 1.0 | 6.2 | 0.0 | 3.3 |
| 85th%Factor: | 1.60 | 1.51 | 1.51 | 1.58 | 1.54 | 1.60 | 1.59 | 1.59 | 1.59 | 1.55 | 1.60 | 1.57 |
| HCM2k85thQ: | 0.0 | 15.5 | 15.5 | 3.0 | 9.6 | 0.0 | 1.9 | 1.3 | 1.3 | 8.1 | 0.0 | 4.4 |
| 90th%Factor: | 1.80 | 1.64 | 1.64 | 1.76 | 1.69 | 1.80 | 1.78 | 1.78 | 1.78 | 1.71 | 1.80 | 1.75 |
| HCM2k90thQ: | 0.0 | 16.8 | 16.8 | 3.3 | 10.5 | 0.0 | 2.2 | 1.5 | 1.5 | 8.9 | 0.0 | 4.9 |
| 95th%Factor: | 2.10 | 1.84 | 1.84 | 2.04 | 1.93 | 2.10 | 2.06 | 2.07 | 2.07 | 1.95 | 2.10 | 2.01 |
| HCM2k95thQ: | 0.0 | 18.8 | 18.8 | 3.9 | 11.9 | 0.0 | 2.5 | 1.7 | 1.7 | 10.2 | 0.0 | 5.6 |
| 98th%Factor: | 2.70 | 2.16 | 2.16 | 2.56 | 2.32 | 2.70 | 2.61 | 2.64 | 2.64 | 2.37 | 2.70 | 2.51 |
| HCM2k98thQ: | 0.0 | 22.1 | 22.1 | 4.9 | 14.4 | 0.0 | 3.2 | 2.2 | 2.2 | 12.4 | 0.0 | 7.0 |

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|---------------------------|-----|------|-------------|------|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 149 | 14.3 | 10.9 | 95.6 | 0.0 | 3.7 | 1.7 | 1.0 | 43.3 | 0.0 | 23.5 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 51.247 pounds | | | | | | | | | | | |
| | 8.302 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 159.890 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 11.673 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.858 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.596 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 51.247 pounds | | | | | | | | | | | |
| | 8.302 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 159.890 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 11.673 pounds | | | | | | | | | | | |
| Hydrocarbons: | 1.858 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.596 pounds | | | | | | | | | | | |

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The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.18 | 0.53 | 0.53 | 0.03 | 0.39 | 0.39 | 0.20 | 0.20 | 0.20 | 0.12 | 0.12 | 0.12 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 6.2 | 12.0 | 12.0 | 0.9 | 13.0 | 13.0 | 6.7 | 6.7 | 6.7 | 4.1 | 4.1 | 4.1 |
| UpstreamVC: | 0.90 | 0.90 | 0.90 | 0.37 | 0.37 | 0.37 | 0.00 | 0.00 | 0.00 | 0.55 | 0.55 | 0.55 |
| UpstreamAdj: | 0.31 | 0.31 | 0.31 | 0.93 | 0.93 | 0.93 | 0.00 | 0.00 | 0.00 | 0.81 | 0.81 | 0.81 |
| EarlyArrAdj: | 0.11 | 0.22 | 0.22 | 0.12 | 0.55 | 0.55 | 1.00 | 1.00 | 1.00 | 0.22 | 0.22 | 0.22 |
| Q2: | 0.4 | 0.4 | 0.4 | 0.2 | 1.8 | 1.8 | 2.7 | 2.7 | 2.7 | 0.7 | 0.7 | 0.7 |
| HCM2KQueue: | 6.6 | 12.4 | 12.4 | 1.1 | 14.8 | 14.8 | 9.5 | 9.5 | 9.5 | 4.8 | 4.8 | 4.8 |
| 70th%Factor: | 1.18 | 1.17 | 1.17 | 1.20 | 1.17 | 1.17 | 1.18 | 1.18 | 1.18 | 1.19 | 1.19 | 1.19 |
| HCM2k70thQ: | 7.8 | 14.5 | 14.5 | 1.3 | 17.3 | 17.3 | 11.1 | 11.1 | 11.1 | 5.7 | 5.7 | 5.7 |
| 85th%Factor: | 1.54 | 1.50 | 1.50 | 1.59 | 1.48 | 1.48 | 1.52 | 1.52 | 1.52 | 1.56 | 1.56 | 1.56 |
| HCM2k85thQ: | 10.2 | 18.5 | 18.5 | 1.7 | 21.9 | 21.9 | 14.4 | 14.4 | 14.4 | 7.4 | 7.4 | 7.4 |
| 90th%Factor: | 1.69 | 1.62 | 1.62 | 1.78 | 1.59 | 1.59 | 1.65 | 1.65 | 1.65 | 1.72 | 1.72 | 1.72 |
| HCM2k90thQ: | 11.1 | 20.0 | 20.0 | 1.9 | 23.5 | 23.5 | 15.6 | 15.6 | 15.6 | 8.2 | 8.2 | 8.2 |
| 95th%Factor: | 1.92 | 1.80 | 1.80 | 2.06 | 1.76 | 1.76 | 1.85 | 1.85 | 1.85 | 1.96 | 1.96 | 1.96 |
| HCM2k95thQ: | 12.6 | 22.3 | 22.3 | 2.2 | 26.1 | 26.1 | 17.5 | 17.5 | 17.5 | 9.3 | 9.3 | 9.3 |
| 98th%Factor: | 2.30 | 2.09 | 2.09 | 2.62 | 2.02 | 2.02 | 2.18 | 2.18 | 2.18 | 2.39 | 2.39 | 2.39 |
| HCM2k98thQ: | 15.2 | 25.8 | 25.8 | 2.8 | 29.9 | 29.9 | 20.6 | 20.6 | 20.6 | 11.4 | 11.4 | 11.4 |

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|-----|-------------|-----|------|------------|-----|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 56.0 | 198 | 6.7 | 8.1 | 204 | 18.5 | 8.1 | 9.8 | 42.8 | 9.3 | 12.8 | 14.5 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 95.871 pounds | | | | | | | | | | | |
| | 15.531 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 299.119 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 23.730 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.370 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.087 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 95.871 pounds | | | | | | | | | | | |
| | 15.531 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 299.119 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 23.730 pounds | | | | | | | | | | | |
| Hydrocarbons: | 4.370 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.087 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: F [68.3]

| Street Name: | San Leandro Blvd | | | | Thornton St | | | | | |
|--------------|------------------|---|--------------|---|-------------|---|------------|---|---|---|
| Approach: | North Bound | | South Bound | | East Bound | | West Bound | | | |
| Movement: | L | T | R | L | T | R | L | T | R | |
| Control: | Uncontrolled | | Uncontrolled | | Stop Sign | | Stop Sign | | | |
| Rights: | Include | | Include | | Include | | Include | | | |
| Lanes: | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |

Volume Module:

| | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|--------------|-------------|------|-------------|------|------------|------|------------|------|------|------|------|------|
| Base Vol: | 123 | 876 | 12 | 13 | 626 | 4 | 2 | 2 | 9 | 5 | 4 | 29 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 123 | 1104 | 12 | 13 | 789 | 4 | 2 | 2 | 9 | 5 | 4 | 29 |
| Added Vol: | 0 | 92 | 0 | 0 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 123 | 1196 | 12 | 13 | 845 | 4 | 2 | 2 | 9 | 5 | 4 | 29 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.86 | 0.86 | 0.86 | 0.72 | 0.72 | 0.72 | 0.72 | 0.60 | 0.60 | 0.73 | 0.73 | 0.73 |
| PHF Volume: | 143 | 1389 | 14 | 18 | 1165 | 6 | 3 | 3 | 15 | 7 | 5 | 40 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 143 | 1389 | 14 | 18 | 1165 | 6 | 3 | 3 | 15 | 7 | 5 | 40 |

Critical Gap Module:

| Critical Gp: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|--------------|-------------|------|-------------|-----|------------|------|------------|-----|-----|-----|-----|-----|
| FollowUpTim: | 4.1 | xxxx | xxxx | 4.1 | xxxx | xxxx | 7.5 | 6.5 | 6.9 | 7.5 | 6.5 | 6.9 |
| | 2.2 | xxxx | xxxx | 2.2 | xxxx | xxxx | 3.5 | 4.0 | 3.3 | 3.5 | 4.0 | 3.3 |

Capacity Module:

| Cnflct Vol: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|--------------|-------------|------|-------------|------|------------|------|------------|------|------|------|------|------|
| Potent Cap.: | 604 | xxxx | xxxx | 493 | xxxx | xxxx | 26 | 16 | 459 | 21 | 16 | 386 |
| Move Cap.: | 604 | xxxx | xxxx | 493 | xxxx | xxxx | 12 | 12 | 459 | 13 | 12 | 386 |
| Volume/Cap: | 0.24 | xxxx | xxxx | 0.04 | xxxx | xxxx | 0.27 | 0.28 | 0.03 | 0.53 | 0.46 | 0.10 |

Level Of Service Module:

| 2Way95thQ: | North Bound | | South Bound | | East Bound | | West Bound | | | | | |
|---------------|-------------|------|-------------|------|------------|------|------------|------|------|------|------|------|
| Control Del: | 22.9 | xxxx | xxxx | 2.8 | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx |
| LOS by Move: | B | * | * | B | * | * | * | * | * | * | * | * |
| Shared Queue: | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 79 | xxxx | xxxx | 106 | xxxx |
| Shrd ConDel: | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | xxxx | 1.0 | xxxx | xxxx | 2.2 | xxxx |
| Shared LOS: | * | * | * | * | * | * | * | F | * | * | F | * |
| ApproachDel: | xxxxxx | | xxxxxx | | | | | 67.5 | | | 68.3 | |
| ApproachLOS: | * | | * | | | | | F | | | F | |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method

Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

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

| | | | | | | | | | | | | |
|------------------------|------------------|--|--|------------------|--|--|------------------|--|--|------------------|--|--|
| HevVeh: | 0% | | | 0% | | | 0% | | | 0% | | |
| Grade: | 0% | | | 0% | | | 0% | | | 0% | | |
| Peds/Hour: | 0 | | | 0 | | | 0 | | | 0 | | |
| Pedestrian Walk Speed: | 4.00 feet/sec | | | 4.00 feet/sec | | | 4.00 feet/sec | | | 4.00 feet/sec | | |
| LaneWidth: | 12 feet | | | 12 feet | | | 12 feet | | | 12 feet | | |
| Time Period: | 0.25 hour | | | | | | | | | | | |
| Upstream Signals: | Link Index: #107 | | | Link Index: #110 | | | Link Index: #107 | | | Link Index: #110 | | |
| Dist(miles): | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| Speed (mph): | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |
| SignalIndex: | #19 | | | #19 | | | #19 | | | #19 | | |
| Cycle Time: | 0 secs | | | 0 secs | | | 0 secs | | | 0 secs | | |
| InitVolume: | 0 | | | 0 | | | 0 | | | 0 | | |
| Saturation: | 0 | | | 0 | | | 0 | | | 0 | | |
| ArrivalType: | 0 | | | 0 | | | 0 | | | 0 | | |
| G/C: | 0.00 | | | 0.00 | | | 0.00 | | | 0.00 | | |

*** Computation 1: Time for Queue to Clear at Each Upstream Intersection

| | | | | | | | | | | | | |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P: | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| gg1: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| gg2: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| gg: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

*** Computation 2: Time Intersection Blocked Because of Upstream Platoons

| | | | | | | | | | | | | |
|------------|-------|--|--|-------|--|--|-------|--|--|-------|--|--|
| alpha: | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| beta: | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| ta (secs): | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| F: | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| f: | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| vcmax: | 0 | | | 0 | | | 0 | | | 0 | | |
| vcl: | 0 | | | 0 | | | 0 | | | 0 | | |
| vcmin: | 0 | | | 0 | | | 0 | | | 0 | | |
| tp: | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | | |
| p: | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |

*** Computation 3: Platoon Event Periods

| | | | | | | | | | | | | |
|-------------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|
| pdom/psubo: | 0.000/0.000/Unconstrained | | | | | | | | | | | |
|-------------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|

*** Computation 4: Conflicting Flows During Each Unblocked Period

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| InitCnflVol: | 1171 | xxxx | xxxx | 1403 | xxxx | xxxx | 2187 | 2892 | 585 | 2301 | 2888 | 701 |
| AdjCnflVol: | 1171 | xxxx | xxxx | 1403 | xxxx | xxxx | 2187 | 2892 | 585 | 2301 | 2888 | 701 |
| UpstreamAdj: | 1.00 | x.xxx | x.xxx | 1.00 | x.xxx | x.xxx | 1.00 | 1.000 | 1.000 | 1.00 | 1.000 | 1.000 |
| ConflictVol: | 1171 | xxxx | xxxx | 1403 | xxxx | xxxx | 2187 | 2892 | 585 | 2301 | 2888 | 701 |

*** Computation 5: Capacity for Subject Movement During Unblocked Period

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|------|-------|-------|------|-------|-------|
| InitPotCap: | 604 | xxxx | xxxx | 493 | xxxx | xxxx | 26 | 16 | 459 | 21 | 16 | 386 |
| UpstreamAdj: | 1.00 | x.xxx | x.xxx | 1.00 | x.xxx | x.xxx | 1.00 | 1.000 | 1.000 | 1.00 | 1.000 | 1.000 |
| Potent Cap.: | 604 | xxxx | xxxx | 493 | xxxx | xxxx | 26 | 16 | 459 | 21 | 16 | 386 |

San Leandro Crossings TIA
Cumulative No Project - AM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|-------|-------|-----------|-------|------|-------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 387.2 | 397.0 | 13.1452.6 | 457.8 | 15.4 | |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 3 | 3 | 15 | 7 | 5 | 40 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.36 | 0.37 | 0.05 | 0.86 | 0.70 | 0.17 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 1 | xxxxx | xxxx | 2 | xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 37 | xxxxx | xxxx | 48 | xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 79 | xxxxx | xxxx | 106 | xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxx | 3 | xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 79 | xxxxx | xxxx | 106 | xxxxx |

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Scenario Report

Scenario: San Leandro TOD Cumulative (PM)

Command: Mixed PM
Volume: Cumulative PM
Geometry: PM Cumulative
Impact Fee: Default Impact Fee
Trip Generation: Mixed PM
Trip Distribution: All Scenarios
Paths: Default Path
Routes: Default Route
Configuration: Mixed PM

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|---------|-------|---------|------------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS Veh | C | LOS Veh | C | |
| # 1 Alvarado Street / Davis Street | C | 23.9 | 0.798 | D | 37.0 0.971 | +13.029 D/V |
| # 2 San Leandro Boulevard / Davis | D | 46.9 | 0.941 | E | 65.5 1.053 | +18.672 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 13.1 | 0.513 | B | 13.3 0.552 | + 0.110 D/V |
| # 4 San Leandro Blvd / Parrott St | C | 32.2 | 0.815 | E | 56.6 0.996 | +24.402 D/V |
| # 5 San Leandro Blvd / Thornton St | C | 22.4 | 0.274 | D | 30.3 0.370 | + 7.886 D/V |

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 20.63 | 20.63 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 21.63 | 21.63 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 21.63 | 21.63 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 269 | 123 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 7.49 | 3.42 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 67 | 59 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 1.86 | 1.64 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.78 | 0.78 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.03 | 0.00 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 21.60 | 21.63 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gq-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.83 | 0.84 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, e1: | 1.40 | 1.39 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, e12: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.18 | 0.18 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.71 | 0.72 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.71 | 0.72 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.11 | 0.57 | 0.57 | 0.13 | 0.58 | 0.58 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 7.4 | 1.3 | 6.8 | 3.0 | 1.5 | 6.4 | 3.9 | 26.0 | 26.0 | 5.8 | 16.1 | 16.1 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.74 | 0.74 | 0.74 | 1.05 | 1.05 | 1.05 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59 | 0.59 | 0.59 | 0.09 | 0.09 | 0.09 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.16 | 0.44 | 0.44 | 0.03 | 0.07 | 0.07 |
| Q2: | 5.3 | 0.2 | 2.8 | 0.8 | 0.2 | 2.4 | 0.5 | 5.7 | 5.7 | 0.5 | 0.2 | 0.2 |
| HCM2KQueue: | 12.7 | 1.5 | 9.6 | 3.7 | 1.7 | 8.7 | 4.3 | 31.7 | 31.7 | 6.4 | 16.3 | 16.3 |
| 70th%Factor: | 1.17 | 1.20 | 1.18 | 1.19 | 1.20 | 1.18 | 1.19 | 1.15 | 1.15 | 1.19 | 1.17 | 1.17 |
| HCM2k70thQ: | 14.9 | 1.8 | 11.3 | 4.4 | 2.0 | 10.3 | 5.1 | 36.3 | 36.3 | 7.6 | 19.0 | 19.0 |
| 85th%Factor: | 1.50 | 1.59 | 1.52 | 1.57 | 1.58 | 1.52 | 1.56 | 1.40 | 1.40 | 1.54 | 1.47 | 1.47 |
| HCM2k85thQ: | 19.1 | 2.4 | 14.6 | 5.8 | 2.7 | 13.3 | 6.7 | 44.5 | 44.5 | 9.8 | 24.1 | 24.1 |
| 90th%Factor: | 1.61 | 1.77 | 1.65 | 1.73 | 1.77 | 1.66 | 1.72 | 1.48 | 1.48 | 1.69 | 1.58 | 1.58 |
| HCM2k90thQ: | 20.5 | 2.6 | 15.9 | 6.4 | 3.0 | 14.5 | 7.4 | 47.0 | 47.0 | 10.8 | 25.7 | 25.7 |
| 95th%Factor: | 1.80 | 2.05 | 1.85 | 1.99 | 2.05 | 1.87 | 1.97 | 1.60 | 1.60 | 1.92 | 1.74 | 1.74 |
| HCM2k95thQ: | 22.9 | 3.1 | 17.8 | 7.4 | 3.5 | 16.3 | 8.5 | 50.8 | 50.8 | 12.2 | 28.4 | 28.4 |
| 98th%Factor: | 2.08 | 2.59 | 2.18 | 2.45 | 2.58 | 2.21 | 2.42 | 1.79 | 1.79 | 2.31 | 1.98 | 1.98 |
| HCM2k98thQ: | 26.4 | 3.9 | 21.0 | 9.1 | 4.4 | 19.3 | 10.5 | 56.7 | 56.7 | 14.7 | 32.4 | 32.4 |

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|------|------|-------------|------|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 66.8 | 11.9 | 61.5 | 26.6 | 13.6 | 57.4 | 34.8 | 398 | 47.0 | 52.6 | 262 | 13.8 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 180.702 pounds |
| | 29.274 gallons |
| Carbon Dioxide: | 563.790 pounds |
| Carbon Monoxide: | 45.432 pounds |
| Hydrocarbons: | 8.585 pounds |
| Nitrogen Oxides: | 2.023 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 180.702 pounds |
| | 29.274 gallons |
| Carbon Dioxide: | 563.790 pounds |
| Carbon Monoxide: | 45.432 pounds |
| Hydrocarbons: | 8.585 pounds |
| Nitrogen Oxides: | 2.023 pounds |

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The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.053 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 65.5 |
| Optimal Cycle: | 180 | Level Of Service: | E |

Street Name: San Leandro Boulevard Davis Street

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

| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 207 | 373 | 144 | 216 | 517 | 319 | 455 | 933 | 168 | 167 | 679 | 113 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 207 | 470 | 144 | 216 | 651 | 319 | 455 | 933 | 168 | 167 | 679 | 113 |
| Added Vol: | 84 | 26 | 36 | 90 | 31 | 65 | 14 | 47 | 55 | 14 | 75 | 45 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 291 | 496 | 180 | 306 | 682 | 384 | 469 | 980 | 223 | 181 | 754 | 158 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 | 0.87 | 0.87 | 0.87 | 0.84 | 0.84 | 0.84 |
| PHF Volume: | 339 | 578 | 210 | 370 | 826 | 465 | 536 | 1120 | 255 | 217 | 903 | 189 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 339 | 578 | 210 | 370 | 826 | 465 | 536 | 1120 | 255 | 217 | 903 | 189 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 339 | 578 | 210 | 370 | 826 | 465 | 536 | 1120 | 255 | 217 | 903 | 189 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.92 | 0.91 | 0.91 | 0.92 | 0.90 | 0.90 | 0.92 | 0.95 | 0.85 | 0.92 | 0.95 | 0.85 |
| Lanes: | 2.00 | 1.47 | 0.53 | 2.00 | 1.28 | 0.72 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3317 | 2409 | 874 | 3317 | 2070 | 1165 | 3317 | 3420 | 1530 | 3317 | 3420 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.10 | 0.24 | 0.24 | 0.11 | 0.40 | 0.40 | 0.16 | 0.33 | 0.17 | 0.07 | 0.26 | 0.12 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.10 | 0.32 | 0.32 | 0.15 | 0.38 | 0.38 | 0.15 | 0.34 | 0.34 | 0.07 | 0.25 | 0.25 |
| Volume/Cap: | 1.05 | 0.74 | 0.74 | 0.74 | 1.05 | 1.05 | 1.05 | 0.97 | 0.49 | 0.97 | 1.05 | 0.49 |
| Delay/Veh: | 109.9 | 32.8 | 32.8 | 46.3 | 71.9 | 71.9 | 96.9 | 52.7 | 27.1 | 98.7 | 83.1 | 33.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 109.9 | 32.8 | 32.8 | 46.3 | 71.9 | 71.9 | 96.9 | 52.7 | 27.1 | 98.7 | 83.1 | 33.0 |
| LOS by Move: | F | C | C | D | E | E | F | D | C | F | F | C |
| HCM2k95thQ: | 466 | 571 | 571 | 347 | 1227 | 1227 | 467 | 768 | 277 | 216 | 830 | 235 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|-----|-------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 85.2 | 128 | 46.6 | 88.5 | 213 | 120.1 | 135.3 | 276 | 50.7 | 54.1 | 230 | 40.4 |

Name: year 1995 composite fleet

| | |
|-------------------|-----------------|
| Fuel Consumption: | 350.082 pounds |
| | 56.713 gallons |
| Carbon Dioxide: | 1092.256 pounds |
| Carbon Monoxide: | 91.579 pounds |
| Hydrocarbons: | 18.478 pounds |
| Nitrogen Oxides: | 3.712 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|-----------------|
| Fuel Consumption: | 350.082 pounds |
| | 56.713 gallons |
| Carbon Dioxide: | 1092.256 pounds |
| Carbon Monoxide: | 91.579 pounds |
| Hydrocarbons: | 18.478 pounds |
| Nitrogen Oxides: | 3.712 pounds |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.552 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 13.3 |
| Optimal Cycle: | 44 | Level Of Service: | B |

Street Name: San Leandro Blvd Juana Ave

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

| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 557 | 71 | 119 | 759 | 0 | 13 | 5 | 1 | 139 | 0 | 75 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 702 | 71 | 119 | 956 | 0 | 13 | 5 | 1 | 139 | 0 | 75 |
| Added Vol: | 0 | 50 | 8 | 19 | 72 | 0 | 0 | 0 | 0 | 4 | 0 | 14 |
| PasserByVol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 752 | 79 | 138 | 1028 | 0 | 13 | 5 | 1 | 143 | 0 | 89 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.85 | 0.85 | 0.85 | 0.86 | 0.86 | 0.86 | 0.73 | 0.73 | 0.73 | 0.71 | 0.71 | 0.71 |
| PHF Volume: | 0 | 880 | 92 | 161 | 1202 | 0 | 18 | 7 | 1 | 201 | 0 | 125 |
| Reduced Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 880 | 92 | 161 | 1202 | 0 | 18 | 7 | 1 | 201 | 0 | 125 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 880 | 92 | 161 | 1202 | 0 | 18 | 7 | 1 | 201 | 0 | 125 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 1.00 | 0.94 | 0.94 | 0.25 | 0.95 | 1.00 | 0.95 | 0.98 | 0.98 | 0.95 | 1.00 | 0.85 |
| Lanes: | 0.00 | 1.81 | 0.19 | 1.00 | 2.00 | 0.00 | 1.00 | 0.83 | 0.17 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3051 | 321 | 450 | 3420 | 0 | 1710 | 1463 | 293 | 1710 | 0 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.29 | 0.29 | 0.36 | 0.35 | 0.00 | 0.01 | 0.00 | 0.00 | 0.12 | 0.00 | 0.08 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.00 | 0.65 | 0.65 | 0.65 | 0.65 | 0.00 | 0.02 | 0.02 | 0.02 | 0.21 | 0.00 | 0.21 |
| Volume/Cap: | 0.00 | 0.44 | 0.44 | 0.55 | 0.54 | 0.00 | 0.55 | 0.25 | 0.25 | 0.55 | 0.00 | 0.38 |
| Delay/Veh: | 0.0 | 8.8 | 8.8 | 11.9 | 9.8 | 0.0 | 67.7 | 52.3 | 52.3 | 37.0 | 0.0 | 34.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 8.8 | 8.8 | 11.9 | 9.8 | 0.0 | 67.7 | 52.3 | 52.3 | 37.0 | 0.0 | 34.5 |
| LOS by Move: | A | A | A | A | B | A | A | E | D | D | D | A |
| HCM2k95thQ: | 0 | 351 | 351 | 179 | 489 | 0 | 69 | 27 | 27 | 262 | 0 | 159 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.65 | 0.65 | 0.65 | 0.65 | 0.00 | 0.02 | 0.02 | 0.02 | 0.21 | 0.00 | 0.21 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 7.0 | 7.0 | 2.5 | 9.5 | 0.0 | 0.5 | 0.2 | 0.2 | 5.0 | 0.0 | 3.0 |
| UpstreamVC: | 0.00 | 0.72 | 0.72 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.51 | 0.00 | 0.51 |
| UpstreamAdj: | 0.00 | 0.62 | 0.62 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.85 | 0.00 | 0.85 |
| EarlyArrAdj: | 0.00 | 0.50 | 0.50 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.34 | 0.00 | 0.32 |
| Q2: | 0.0 | 0.4 | 0.4 | 1.2 | 1.2 | 0.0 | 0.8 | 0.3 | 0.3 | 0.4 | 0.0 | 0.2 |
| HCM2KQueue: | 0.0 | 7.4 | 7.4 | 3.6 | 10.7 | 0.0 | 1.3 | 0.5 | 0.5 | 5.4 | 0.0 | 3.2 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.19 | 1.18 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 8.8 | 8.8 | 4.3 | 12.6 | 0.0 | 1.6 | 0.6 | 0.6 | 6.4 | 0.0 | 3.8 |
| 85th%Factor: | 1.60 | 1.53 | 1.53 | 1.57 | 1.51 | 1.60 | 1.59 | 1.59 | 1.59 | 1.55 | 1.60 | 1.57 |
| HCM2k85thQ: | 0.0 | 11.4 | 11.4 | 5.6 | 16.1 | 0.0 | 2.1 | 0.8 | 0.8 | 8.3 | 0.0 | 5.0 |
| 90th%Factor: | 1.80 | 1.68 | 1.68 | 1.73 | 1.63 | 1.80 | 1.77 | 1.79 | 1.79 | 1.71 | 1.80 | 1.74 |
| HCM2k90thQ: | 0.0 | 12.4 | 12.4 | 6.3 | 17.5 | 0.0 | 2.4 | 0.9 | 0.9 | 9.2 | 0.0 | 5.5 |
| 95th%Factor: | 2.10 | 1.90 | 1.90 | 1.99 | 1.83 | 2.10 | 2.06 | 2.08 | 2.08 | 1.94 | 2.10 | 2.00 |
| HCM2k95thQ: | 0.0 | 14.1 | 14.1 | 7.2 | 19.6 | 0.0 | 2.7 | 1.1 | 1.1 | 10.5 | 0.0 | 6.4 |
| 98th%Factor: | 2.70 | 2.27 | 2.27 | 2.46 | 2.14 | 2.70 | 2.60 | 2.66 | 2.66 | 2.36 | 2.70 | 2.48 |
| HCM2k98thQ: | 0.0 | 16.8 | 16.8 | 8.9 | 22.8 | 0.0 | 3.5 | 1.4 | 1.4 | 12.7 | 0.0 | 7.9 |

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|--------------------------------|-----|------|-------------|-----|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 109 | 11.4 | 22.1 | 163 | 0.0 | 4.4 | 1.7 | 0.3 | 44.7 | 0.0 | 26.8 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 56.475 pounds 9.149 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 176.202 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 12.911 pounds | | | | | | | | | | | |
| Hydrocarbons: | 2.068 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.658 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 56.475 pounds 9.149 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 176.202 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 12.911 pounds | | | | | | | | | | | |
| Hydrocarbons: | 2.068 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.658 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.09 | 0.38 | 0.38 | 0.07 | 0.37 | 0.37 | 0.34 | 0.34 | 0.34 | 0.09 | 0.09 | 0.09 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 4.2 | 11.6 | 11.6 | 2.4 | 18.0 | 18.0 | 15.2 | 15.2 | 15.2 | 4.2 | 4.2 | 4.2 |
| UpstreamVC: | 0.67 | 0.67 | 0.67 | 0.54 | 0.54 | 0.54 | 0.00 | 0.00 | 0.00 | 0.29 | 0.29 | 0.29 |
| UpstreamAdj: | 0.69 | 0.69 | 0.69 | 0.82 | 0.82 | 0.82 | 0.00 | 0.00 | 0.00 | 0.97 | 0.97 | 0.97 |
| EarlyArrAdj: | 0.16 | 0.40 | 0.40 | 0.17 | 0.47 | 0.47 | 1.00 | 1.00 | 1.00 | 0.23 | 0.23 | 0.23 |
| Q2: | 1.7 | 1.0 | 1.0 | 0.4 | 6.0 | 6.0 | 8.1 | 8.1 | 8.1 | 2.0 | 2.0 | 2.0 |
| HCM2KQueue: | 5.9 | 12.6 | 12.6 | 2.8 | 24.1 | 24.1 | 23.3 | 23.3 | 23.3 | 6.2 | 6.2 | 6.2 |
| 70th%Factor: | 1.19 | 1.17 | 1.17 | 1.19 | 1.15 | 1.15 | 1.16 | 1.16 | 1.16 | 1.19 | 1.19 | 1.19 |
| HCM2k70thQ: | 7.0 | 14.8 | 14.8 | 3.3 | 27.8 | 27.8 | 27.0 | 27.0 | 27.0 | 7.3 | 7.3 | 7.3 |
| 85th%Factor: | 1.55 | 1.50 | 1.50 | 1.57 | 1.43 | 1.43 | 1.44 | 1.44 | 1.44 | 1.54 | 1.54 | 1.54 |
| HCM2k85thQ: | 9.1 | 18.8 | 18.8 | 4.4 | 34.5 | 34.5 | 33.5 | 33.5 | 33.5 | 9.5 | 9.5 | 9.5 |
| 90th%Factor: | 1.70 | 1.61 | 1.61 | 1.75 | 1.52 | 1.52 | 1.52 | 1.52 | 1.52 | 1.69 | 1.69 | 1.69 |
| HCM2k90thQ: | 10.0 | 20.3 | 20.3 | 4.9 | 36.6 | 36.6 | 35.6 | 35.6 | 35.6 | 10.5 | 10.5 | 10.5 |
| 95th%Factor: | 1.93 | 1.80 | 1.80 | 2.01 | 1.66 | 1.66 | 1.66 | 1.66 | 1.66 | 1.93 | 1.93 | 1.93 |
| HCM2k95thQ: | 11.3 | 22.6 | 22.6 | 5.6 | 39.9 | 39.9 | 38.8 | 38.8 | 38.8 | 11.9 | 11.9 | 11.9 |
| 98th%Factor: | 2.34 | 2.08 | 2.08 | 2.51 | 1.86 | 1.86 | 1.87 | 1.87 | 1.87 | 2.32 | 2.32 | 2.32 |
| HCM2k98thQ: | 13.7 | 26.2 | 26.2 | 7.0 | 44.7 | 44.7 | 43.5 | 43.5 | 43.5 | 14.3 | 14.3 | 14.3 |

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|---------------------------|-----|------|-------------|-----|------|------------|------|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 37.4 | 182 | 15.7 | 21.5 | 294 | 14.3 | 19.3 | 29.2 | 88.0 | 10.2 | 9.2 | 18.0 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 161.345 pounds | | | | | | | | | | | |
| | 26.138 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 503.397 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 41.828 pounds | | | | | | | | | | | |
| Hydrocarbons: | 8.318 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.734 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 161.345 pounds | | | | | | | | | | | |
| | 26.138 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 503.397 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 41.828 pounds | | | | | | | | | | | |
| Hydrocarbons: | 8.318 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.734 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: [30.3]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include San Leandro Blvd and Thornton St with various movement and control details.

Table with columns for Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Table for Critical Gap Module with columns for Critical Gp, FollowUpTim, and values for different movements.

Table for Capacity Module with columns for Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Table for Level Of Service Module with columns for 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method
Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

Approach: North Bound South Bound East Bound West Bound

Table with columns for Movement, HevVeh, Grade, Peds/Hour, Pedestrian Walk Speed, LaneWidth, Time Period, Upstream Signals.

Table with columns for Link Index, Dist(miles), Speed (mph), SignalIndex, Cycle Time, InitVolume, Saturation, ArrivalType, G/C.

Table for Computation 1: Time for Queue to Clear at Each Upstream Intersection. Includes columns for P, gg1, gg2, gg.

Table for Computation 2: Time Intersection Blocked Because of Upstream Platoons. Includes columns for alpha, beta, ta, F, f, vcmax, vcg, vcmin, tp, p.

San Leandro Crossings TIA
Cumulative No Project - PM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|-------|-------|-----------|-------|------|-------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 185.1 | 214.5 | 18.6206.0 | 196.6 | 12.9 | |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 3 | 2 | 78 | 10 | 0 | 29 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 0.16 | 0.09 | 0.40 | 0.56 | 0.00 | 0.11 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 1 | xxxxx | xxxx | 2 | xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 186 | xxxxx | xxxx | 91 | xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 361 | xxxxx | xxxx | 181 | xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxx | 3 | xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 361 | xxxxx | xxxx | 181 | xxxxx |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Scenario: Scenario Report
Cumulative + Project AM (SLC)

Command: Cumulative + Project AM (SLC)
Volume: Cumulative + Project AM (SLC)
Geometry: AM Cumulative + P
Impact Fee: Default Impact Fee
Trip Generation: San Leandro Crossings Ph II AM
Trip Distribution: All Scenarios
Paths: Default Path
Routes: Default Route
Configuration: Mixed AM

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|--------------|--------------------------------|------|------------|---------|------------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS | Veh | LOS | Veh | |
| # 1 | Alvarado Street / Davis Street | C | 20.4 0.615 | C | 23.2 0.735 | + 2.824 D/V |
| # 2 | San Leandro Boulevard / Davis | D | 35.2 0.809 | D | 43.8 0.919 | + 8.532 D/V |
| # 3 | San Leandro Blvd / Juana Ave | B | 12.3 0.515 | B | 13.7 0.609 | + 1.431 D/V |
| # 4 | San Leandro Blvd / Parrott St | C | 28.2 0.619 | E | 63.3 1.015 | +35.109 D/V |
| # 5 | San Leandro Blvd / Thornton St | E | 45.2 0.375 | F OVRFL | 3.401 | +1198.101 D/ |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 18.92 | 18.92 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 19.92 | 19.92 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 19.92 | 19.92 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 147 | 165 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 4.08 | 4.59 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 68 | 54 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 1.89 | 1.50 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.80 | 0.80 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.14 | 0.00 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 19.78 | 19.92 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gg-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.83 | 0.84 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, ell: | 1.40 | 1.38 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, el2: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.20 | 0.20 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.71 | 0.72 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.71 | 0.72 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.11 | 0.59 | 0.59 | 0.12 | 0.60 | 0.60 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 3.7 | 1.2 | 4.4 | 4.2 | 1.6 | 5.8 | 3.6 | 13.3 | 13.3 | 3.6 | 15.6 | 15.6 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.51 | 0.51 | 0.51 | 0.92 | 0.92 | 0.92 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.85 | 0.85 | 0.85 | 0.27 | 0.27 | 0.27 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.22 | 0.64 | 0.64 | 0.08 | 0.21 | 0.21 |
| Q2: | 1.3 | 0.2 | 1.3 | 1.6 | 0.2 | 2.3 | 0.6 | 1.3 | 1.3 | 0.2 | 0.6 | 0.6 |
| HCM2KQueue: | 5.0 | 1.4 | 5.7 | 5.8 | 1.8 | 8.1 | 4.2 | 14.6 | 14.6 | 3.7 | 16.2 | 16.2 |
| 70th%Factor: | 1.19 | 1.20 | 1.19 | 1.19 | 1.20 | 1.18 | 1.19 | 1.17 | 1.17 | 1.19 | 1.17 | 1.17 |
| HCM2k70thQ: | 5.9 | 1.7 | 6.7 | 6.8 | 2.1 | 9.6 | 5.0 | 17.0 | 17.0 | 4.4 | 18.9 | 18.9 |
| 85th%Factor: | 1.55 | 1.59 | 1.55 | 1.55 | 1.58 | 1.53 | 1.56 | 1.48 | 1.48 | 1.56 | 1.47 | 1.47 |
| HCM2k85thQ: | 7.7 | 2.3 | 8.8 | 8.9 | 2.8 | 12.4 | 6.5 | 21.6 | 21.6 | 5.8 | 23.9 | 23.9 |
| 90th%Factor: | 1.71 | 1.77 | 1.70 | 1.70 | 1.77 | 1.67 | 1.72 | 1.59 | 1.59 | 1.73 | 1.58 | 1.58 |
| HCM2k90thQ: | 8.5 | 2.5 | 9.6 | 9.8 | 3.2 | 13.5 | 7.2 | 23.2 | 23.2 | 6.5 | 25.6 | 25.6 |
| 95th%Factor: | 1.96 | 2.05 | 1.94 | 1.94 | 2.04 | 1.88 | 1.98 | 1.77 | 1.77 | 1.99 | 1.74 | 1.74 |
| HCM2k95thQ: | 9.7 | 2.9 | 11.0 | 11.2 | 3.7 | 15.3 | 8.2 | 25.8 | 25.8 | 7.4 | 28.3 | 28.3 |
| 98th%Factor: | 2.38 | 2.60 | 2.35 | 2.34 | 2.57 | 2.24 | 2.43 | 2.03 | 2.03 | 2.45 | 1.99 | 1.99 |
| HCM2k98thQ: | 11.8 | 3.7 | 13.3 | 13.5 | 4.6 | 18.1 | 10.1 | 29.5 | 29.5 | 9.1 | 32.2 | 32.2 |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|------|------|-------------|------|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 33.3 | 11.2 | 39.7 | 37.9 | 14.1 | 52.5 | 32.3 | 200 | 27.7 | 32.1 | 245 | 22.0 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 112.353 pounds |
| | 18.201 gallons |
| Carbon Dioxide: | 350.542 pounds |
| Carbon Monoxide: | 27.139 pounds |
| Hydrocarbons: | 4.790 pounds |
| Nitrogen Oxides: | 1.297 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 112.353 pounds |
| | 18.201 gallons |
| Carbon Dioxide: | 350.542 pounds |
| Carbon Monoxide: | 27.139 pounds |
| Hydrocarbons: | 4.790 pounds |
| Nitrogen Oxides: | 1.297 pounds |

DISCLAIMER
The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.919 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 43.8 |
| Optimal Cycle: | 119 | Level Of Service: | D |

Street Name: San Leandro Boulevard Davis Street

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

| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 246 | 481 | 110 | 73 | 355 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 246 | 606 | 110 | 73 | 447 | 269 | 255 | 519 | 123 | 175 | 758 | 159 |
| Added Vol: | 44 | 33 | 24 | 38 | 51 | 10 | 62 | 30 | 112 | 108 | 36 | 93 |
| PasserByVol: | 69 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 0 | 0 |
| Initial Fut: | 359 | 639 | 134 | 111 | 498 | 279 | 317 | 549 | 272 | 283 | 794 | 252 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.88 | 0.88 | 0.88 | 0.80 | 0.80 | 0.80 | 0.81 | 0.81 | 0.81 | 0.87 | 0.87 | 0.87 |
| PHF Volume: | 409 | 727 | 153 | 139 | 625 | 350 | 390 | 676 | 335 | 326 | 913 | 290 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 409 | 727 | 153 | 139 | 625 | 350 | 390 | 676 | 335 | 326 | 913 | 290 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 409 | 727 | 153 | 139 | 625 | 350 | 390 | 676 | 335 | 326 | 913 | 290 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.92 | 0.93 | 0.93 | 0.92 | 0.90 | 0.90 | 0.92 | 0.95 | 0.85 | 0.92 | 0.95 | 0.85 |
| Lanes: | 2.00 | 1.65 | 0.35 | 2.00 | 1.28 | 0.72 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3317 | 2754 | 577 | 3317 | 2074 | 1161 | 3317 | 3420 | 1530 | 3317 | 3420 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.12 | 0.26 | 0.26 | 0.04 | 0.30 | 0.30 | 0.12 | 0.20 | 0.22 | 0.10 | 0.27 | 0.19 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.13 | 0.40 | 0.40 | 0.06 | 0.33 | 0.33 | 0.13 | 0.29 | 0.29 | 0.13 | 0.29 | 0.29 |
| Volume/Cap: | 0.92 | 0.66 | 0.66 | 0.66 | 0.92 | 0.92 | 0.92 | 0.68 | 0.76 | 0.76 | 0.92 | 0.65 |
| Delay/Veh: | 66.9 | 25.9 | 25.9 | 53.5 | 44.9 | 44.9 | 68.0 | 33.5 | 39.8 | 49.6 | 47.5 | 34.5 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 66.9 | 25.9 | 25.9 | 53.5 | 44.9 | 44.9 | 68.0 | 33.5 | 39.8 | 49.6 | 47.5 | 34.5 |
| LOS by Move: | E | C | C | D | D | D | E | C | D | D | D | C |
| HCM2k95thQ: | 456 | 557 | 557 | 171 | 826 | 826 | 330 | 439 | 435 | 247 | 676 | 359 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|-----|------|------------|-----|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 100.9 | 149 | 31.2 | 34.0 | 150 | 84.1 | 96.4 | 150 | 76.2 | 78.5 | 221 | 63.4 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 230.047 pounds |
| | 37.268 gallons |
| Carbon Dioxide: | 717.748 pounds |
| Carbon Monoxide: | 58.588 pounds |
| Hydrocarbons: | 11.310 pounds |
| Nitrogen Oxides: | 2.538 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 230.047 pounds |
| | 37.268 gallons |
| Carbon Dioxide: | 717.748 pounds |
| Carbon Monoxide: | 58.588 pounds |
| Hydrocarbons: | 11.310 pounds |
| Nitrogen Oxides: | 2.538 pounds |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 0.609 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 13.7 |
| Optimal Cycle: | 49 | Level Of Service: | B |

| Street Name: | San Leandro Blvd | | | Juana Ave | | | | | | | | |
|--------------|------------------|---|---|-------------|---|---|------------|---|---|------------|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |

| Control: | Permitted | | | Permitted | | | Split Phase | | | Split Phase | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-------------|-----|-----|-------------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 688 | 87 | 65 | 469 | 0 | 11 | 5 | 3 | 128 | 0 | 66 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 867 | 87 | 65 | 591 | 0 | 11 | 5 | 3 | 128 | 0 | 66 |
| Added Vol: | 0 | 86 | 6 | 4 | 182 | 0 | 0 | 0 | 0 | 31 | 0 | 12 |
| PasserByVol: | 0 | 69 | 0 | 0 | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Initial Fut: | 0 | 1022 | 93 | 69 | 807 | 0 | 11 | 5 | 3 | 159 | 0 | 78 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.83 | 0.83 | 0.83 | 0.74 | 0.74 | 0.74 | 0.73 | 0.73 | 0.73 | 0.71 | 0.71 | 0.71 |
| PHF Volume: | 0 | 1225 | 111 | 93 | 1084 | 0 | 15 | 7 | 4 | 224 | 0 | 110 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 1225 | 111 | 93 | 1084 | 0 | 15 | 7 | 4 | 224 | 0 | 110 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 0 | 1225 | 111 | 93 | 1084 | 0 | 15 | 7 | 4 | 224 | 0 | 110 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 1.00 | 0.94 | 0.94 | 0.16 | 0.95 | 1.00 | 0.95 | 0.94 | 0.94 | 0.95 | 1.00 | 0.85 |
| Lanes: | 0.00 | 1.83 | 0.17 | 1.00 | 2.00 | 0.00 | 1.00 | 0.62 | 0.38 | 1.00 | 0.00 | 1.00 |
| Final Sat.: | 0 | 3097 | 282 | 279 | 3420 | 0 | 1710 | 1062 | 637 | 1710 | 0 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.40 | 0.40 | 0.33 | 0.32 | 0.00 | 0.01 | 0.01 | 0.01 | 0.13 | 0.00 | 0.07 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.00 | 0.65 | 0.65 | 0.65 | 0.65 | 0.00 | 0.01 | 0.01 | 0.01 | 0.22 | 0.00 | 0.22 |
| Volume/Cap: | 0.00 | 0.61 | 0.61 | 0.51 | 0.49 | 0.00 | 0.61 | 0.45 | 0.45 | 0.61 | 0.00 | 0.33 |
| Delay/Veh: | 0.0 | 10.6 | 10.6 | 11.6 | 9.1 | 0.0 | 85.7 | 61.2 | 61.2 | 38.3 | 0.0 | 33.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 10.6 | 10.6 | 11.6 | 9.1 | 0.0 | 85.7 | 61.2 | 61.2 | 38.3 | 0.0 | 33.7 |
| LOS by Move: | A | B | B | B | A | A | F | E | E | D | A | C |
| HCM2k95thQ: | 0 | 551 | 551 | 117 | 422 | 0 | 67 | 46 | 46 | 297 | 0 | 139 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.65 | 0.65 | 0.65 | 0.65 | 0.00 | 0.01 | 0.01 | 0.01 | 0.22 | 0.00 | 0.22 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 11.3 | 11.3 | 1.4 | 8.1 | 0.0 | 0.4 | 0.3 | 0.3 | 5.6 | 0.0 | 2.6 |
| UpstreamVC: | 0.00 | 0.63 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 0.00 | 0.47 |
| UpstreamAdj: | 0.00 | 0.73 | 0.73 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.88 | 0.00 | 0.88 |
| EarlyArrAdj: | 0.00 | 0.59 | 0.59 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.36 | 0.00 | 0.33 |
| Q2: | 0.0 | 0.9 | 0.9 | 1.0 | 0.9 | 0.0 | 0.9 | 0.6 | 0.6 | 0.5 | 0.0 | 0.2 |
| HCM2kQueue: | 0.0 | 12.2 | 12.2 | 2.3 | 9.1 | 0.0 | 1.3 | 0.9 | 0.9 | 6.2 | 0.0 | 2.8 |
| 70th%Factor: | 1.20 | 1.17 | 1.17 | 1.19 | 1.18 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 14.3 | 14.3 | 2.8 | 10.7 | 0.0 | 1.6 | 1.1 | 1.1 | 7.3 | 0.0 | 3.3 |
| 85th%Factor: | 1.60 | 1.50 | 1.50 | 1.58 | 1.52 | 1.60 | 1.59 | 1.59 | 1.59 | 1.54 | 1.60 | 1.57 |
| HCM2k85thQ: | 0.0 | 18.3 | 18.3 | 3.7 | 13.8 | 0.0 | 2.1 | 1.4 | 1.4 | 9.5 | 0.0 | 4.3 |
| 90th%Factor: | 1.80 | 1.62 | 1.62 | 1.76 | 1.65 | 1.80 | 1.77 | 1.78 | 1.78 | 1.69 | 1.80 | 1.75 |
| HCM2k90thQ: | 0.0 | 19.8 | 19.8 | 4.1 | 15.0 | 0.0 | 2.3 | 1.6 | 1.6 | 10.4 | 0.0 | 4.8 |
| 95th%Factor: | 2.10 | 1.80 | 1.80 | 2.03 | 1.86 | 2.10 | 2.06 | 2.07 | 2.07 | 1.93 | 2.10 | 2.01 |
| HCM2k95thQ: | 0.0 | 22.0 | 22.0 | 4.7 | 16.9 | 0.0 | 2.7 | 1.9 | 1.9 | 11.9 | 0.0 | 5.5 |
| 98th%Factor: | 2.70 | 2.09 | 2.09 | 2.54 | 2.20 | 2.70 | 2.60 | 2.63 | 2.63 | 2.32 | 2.70 | 2.51 |
| HCM2k98thQ: | 0.0 | 25.5 | 25.5 | 5.9 | 19.9 | 0.0 | 3.4 | 2.4 | 2.4 | 14.3 | 0.0 | 6.9 |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------------|--------------------------------|-----|------|-------------|-----|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 177 | 16.1 | 12.2 | 139 | 0.0 | 3.8 | 1.7 | 1.0 | 50.7 | 0.0 | 23.3 |
| Name: | year 1995 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 61.581 pounds 9.976 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 192.131 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 14.131 pounds | | | | | | | | | | | |
| Hydrocarbons: | 2.277 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.720 pounds | | | | | | | | | | | |
| Name: | year 2000 composite fleet | | | | | | | | | | | |
| Fuel Consumption: | 61.581 pounds 9.976 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 192.131 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 14.131 pounds | | | | | | | | | | | |
| Hydrocarbons: | 2.277 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.720 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.19 | 0.54 | 0.54 | 0.03 | 0.38 | 0.38 | 0.23 | 0.23 | 0.23 | 0.11 | 0.11 | 0.11 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 11.6 | 15.4 | 15.4 | 1.2 | 24.5 | 24.5 | 14.0 | 14.0 | 14.0 | 6.6 | 6.6 | 6.6 |
| UpstreamVC: | 0.98 | 0.98 | 0.98 | 0.49 | 0.49 | 0.49 | 0.00 | 0.00 | 0.00 | 0.58 | 0.58 | 0.58 |
| UpstreamAdj: | 0.14 | 0.14 | 0.14 | 0.87 | 0.87 | 0.87 | 0.00 | 0.00 | 0.00 | 0.79 | 0.79 | 0.79 |
| EarlyArrAdj: | 0.06 | 0.12 | 0.12 | 0.13 | 0.59 | 0.59 | 1.00 | 1.00 | 1.00 | 0.24 | 0.24 | 0.24 |
| Q2: | 1.9 | 0.2 | 0.2 | 0.2 | 7.7 | 7.7 | 7.3 | 7.3 | 7.3 | 2.5 | 2.5 | 2.5 |
| HCM2kQueue: | 13.5 | 15.6 | 15.6 | 1.4 | 32.2 | 32.2 | 21.3 | 21.3 | 21.3 | 9.1 | 9.1 | 9.1 |
| 70th%Factor: | 1.17 | 1.17 | 1.17 | 1.20 | 1.14 | 1.14 | 1.16 | 1.16 | 1.16 | 1.18 | 1.18 | 1.18 |
| HCM2k70thQ: | 15.8 | 18.2 | 18.2 | 1.6 | 36.9 | 36.9 | 24.7 | 24.7 | 24.7 | 10.8 | 10.8 | 10.8 |
| 85th%Factor: | 1.49 | 1.48 | 1.48 | 1.59 | 1.40 | 1.40 | 1.45 | 1.45 | 1.45 | 1.52 | 1.52 | 1.52 |
| HCM2k85thQ: | 20.2 | 23.1 | 23.1 | 2.2 | 45.2 | 45.2 | 30.8 | 30.8 | 30.8 | 13.9 | 13.9 | 13.9 |
| 90th%Factor: | 1.60 | 1.58 | 1.58 | 1.77 | 1.48 | 1.48 | 1.54 | 1.54 | 1.54 | 1.65 | 1.65 | 1.65 |
| HCM2k90thQ: | 21.7 | 24.7 | 24.7 | 2.4 | 47.7 | 47.7 | 32.8 | 32.8 | 32.8 | 15.1 | 15.1 | 15.1 |
| 95th%Factor: | 1.78 | 1.75 | 1.75 | 2.06 | 1.60 | 1.60 | 1.68 | 1.68 | 1.68 | 1.86 | 1.86 | 1.86 |
| HCM2k95thQ: | 24.1 | 27.4 | 27.4 | 2.8 | 51.6 | 51.6 | 35.9 | 35.9 | 35.9 | 17.0 | 17.0 | 17.0 |
| 98th%Factor: | 2.05 | 2.00 | 2.00 | 2.60 | 1.78 | 1.78 | 1.89 | 1.89 | 1.89 | 2.19 | 2.19 | 2.19 |
| HCM2k98thQ: | 27.8 | 31.3 | 31.3 | 3.6 | 57.5 | 57.5 | 40.3 | 40.3 | 40.3 | 20.1 | 20.1 | 20.1 |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|-----|-------------|-----|------|------------|-----|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 80.9 | 196 | 6.6 | 8.1 | 251 | 74.2 | 43.2 | 8.2 | 45.8 | 9.6 | 21.3 | 15.0 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 190.783 pounds | | | | | | | | | | | |
| | 30.907 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 595.242 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 49.824 pounds | | | | | | | | | | | |
| Hydrocarbons: | 10.045 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.010 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 190.783 pounds | | | | | | | | | | | |
| | 30.907 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 595.242 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 49.824 pounds | | | | | | | | | | | |
| Hydrocarbons: | 10.045 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.010 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 San Leandro Blvd / Thornton St

Average Delay (sec/veh): 24.7 Worst Case Level Of Service: F[1243.3]

Table with columns for Street Name, Approach, Movement, Control, Rights, Lanes, and Volume Module. Rows include San Leandro Blvd (North, South, East, West) and Thornton St (North, South, East, West).

Volume Module table showing traffic volume and delay metrics for each approach and movement.

Critical Gap Module table showing gap times for different movements.

Capacity Module table showing conflict volumes and capacity for each approach.

Level Of Service Module table showing delay, control, LOS, and movement details.

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Detailed Computation Report

2000 HCM Unsignalized Method

Future Volume Alternative

Intersection #5 San Leandro Blvd / Thornton St

Approach table with columns for North Bound, South Bound, East Bound, West Bound and rows for Movement (L, T, R).

Table with columns for HevVeh, Grade, Peds/Hour, Pedestrian Walk Speed, LaneWidth, Time Period, Upstream Signals.

Table with columns for Link Index, Dist(miles), Speed (mph), SignalIndex, Cycle Time, InitVolume, Saturation, ArrivalType, G/C.

Table for Computation 1: Time for Queue to Clear at Each Upstream Intersection, showing P, gq1, gq2, and gg values.

Table for Computation 2: Time Intersection Blocked Because of Upstream Platoons, showing alpha, beta, ta, F, f, vcmax, vcg, vcmin, tp, and p values.

Table for Computation 3: Platoon Event Periods, showing pdom/psubo values.

Table for Computation 4: Conflicting Flows During Each Unblocked Period, showing InitCnflVol, AdjCnflVol, UpstreamAdj, ConflictVol, and Potent Cap.

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|--------|-------|--------|------|-------|-------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 2761.0 | 749.1 | 13.911 | 24.9 | 946.8 | 16.2 |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 13 | 3 | 32 | 7 | 5 | 40 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 10.26 | 0.70 | 0.12 | 2.14 | 1.44 | 0.18 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 11 | xxxxx | xxxx | 3 | xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 12 | xxxxx | xxxx | 26 | xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 32 | xxxxx | xxxx | 55 | xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxx | 3 | xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 18 | xxxxx | xxxx | 55 | xxxxx |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Scenario: Scenario Report
Cumulative + Project PM (SLC)

Command: Cumulative + Project PM (SLC)
Volume: Cumulative + Project PM (SLC)
Geometry: AM Cumulative + P
Impact Fee: Default Impact Fee
Trip Generation: San Leandro Crossings Ph II PM
Trip Distribution: All Scenarios
Paths: Default Path
Routes: Default Route
Configuration: Mixed PM

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|------------------------------------|---|---------|-------|---------|-------|--------------|
| | | Del/ | V/ | Del/ | V/ | |
| | | LOS Veh | C | LOS Veh | C | |
| # 1 Alvarado Street / Davis Street | C | 23.9 | 0.798 | C 28.2 | 0.865 | + 4.314 D/V |
| # 2 San Leandro Boulevard / Davis | D | 46.9 | 0.941 | E 79.5 | 1.102 | +32.656 D/V |
| # 3 San Leandro Blvd / Juana Ave | B | 13.1 | 0.513 | B 13.1 | 0.720 | -0.058 D/V |
| # 4 San Leandro Blvd / Parrott St | D | 37.8 | 0.790 | F 169.5 | 1.346 | +131.747 D/V |
| # 5 San Leandro Blvd / Thornton St | C | 22.4 | 0.274 | E 49.7 | 0.675 | +27.297 D/V |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Level Of Service Detailed Computation Report (Permitted Left Turn Sat Adj)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North | South | East | West |
|--|--------|--------|--------|--------|
| Cycle Length, C: | 100 | 100 | xxxxxx | xxxxxx |
| Actual Green Time Per Lane Group, G: | 17.57 | 17.57 | xxxxxx | xxxxxx |
| Effective Green Time Per Lane Group, g: | 18.57 | 18.57 | xxxxxx | xxxxxx |
| Opposing Effective Green Time, go: | 18.57 | 18.57 | xxxxxx | xxxxxx |
| Number Of Opposing Lanes, No: | 1 | 1 | xxxxxx | xxxxxx |
| Number Of Lanes In Lane Group, N: | 1 | 1 | xxxxxx | xxxxxx |
| Adjusted Left-Turn Flow Rate, Vlt: | 177 | 144 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Lane Group, Plt: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Opp Flow, Plto: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left Turns Per Cycle, LTC: | 4.92 | 4.00 | xxxxxx | xxxxxx |
| Adjusted Opposing Flow Rate, Vo: | 46 | 29 | xxxxxx | xxxxxx |
| Opposing Flow Per Lane Per Cycle, Volc: | 1.28 | 0.81 | xxxxxx | xxxxxx |
| Opposing Platoon Ratio, Rpo: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Lost Time Per Phase, tl: | 3.00 | 3.00 | xxxxxx | xxxxxx |
| Eff grn until arrival of left-turn car, gf: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Opposing Queue Ratio, gro: | 0.81 | 0.81 | xxxxxx | xxxxxx |
| Eff grn blocked by opposing queue, gg: | 0.00 | 0.00 | xxxxxx | xxxxxx |
| Eff grn while left turns filter thru, gu: | 18.57 | 18.57 | xxxxxx | xxxxxx |
| Max opposing cars arriving during gq-gf, n: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Proportion of Opposing Thru & RT cars, ptho: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Left-turn Saturation Factor, fs: | 0.85 | 0.86 | xxxxxx | xxxxxx |
| Proportion of Left Turns in Shared Lane, pl: | 1.00 | 1.00 | xxxxxx | xxxxxx |
| Through-car Equivalents, e1: | 1.37 | 1.34 | xxxxxx | xxxxxx |
| Single Lane Through-car Equivalents, e12: | xxxxxx | xxxxxx | xxxxxx | xxxxxx |
| Minimum Left Turn Adjustment Factor, fmin: | 0.22 | 0.22 | xxxxxx | xxxxxx |
| Single Lane Left Turn Adjustment Factor, fm: | 0.73 | 0.74 | xxxxxx | xxxxxx |
| Left Turn Adjustment Factor, flt: | 0.73 | 0.74 | xxxxxx | xxxxxx |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.11 | 0.62 | 0.62 | 0.11 | 0.62 | 0.62 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 4.6 | 0.7 | 6.4 | 3.6 | 1.1 | 6.6 | 3.9 | 21.7 | 21.7 | 4.4 | 18.4 | 18.4 |
| UpstreamVC: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.73 | 0.73 | 0.73 | 1.10 | 1.10 | 1.10 |
| UpstreamAdj: | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.61 | 0.61 | 0.61 | 0.09 | 0.09 | 0.09 |
| EarlyArrAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.16 | 0.48 | 0.48 | 0.02 | 0.07 | 0.07 |
| Q2: | 2.1 | 0.1 | 3.4 | 1.3 | 0.2 | 3.6 | 0.6 | 2.7 | 2.7 | 0.1 | 0.3 | 0.3 |
| HCM2KQueue: | 6.7 | 0.8 | 9.8 | 4.9 | 1.2 | 10.3 | 4.5 | 24.4 | 24.4 | 4.5 | 18.7 | 18.7 |
| 70th%Factor: | 1.18 | 1.20 | 1.18 | 1.19 | 1.20 | 1.18 | 1.19 | 1.15 | 1.15 | 1.19 | 1.16 | 1.16 |
| HCM2k70thQ: | 8.0 | 0.9 | 11.5 | 5.8 | 1.5 | 12.1 | 5.3 | 28.2 | 28.2 | 5.4 | 21.7 | 21.7 |
| 85th%Factor: | 1.54 | 1.59 | 1.52 | 1.55 | 1.59 | 1.51 | 1.56 | 1.43 | 1.43 | 1.56 | 1.46 | 1.46 |
| HCM2k85thQ: | 10.4 | 1.2 | 14.8 | 7.6 | 1.9 | 15.5 | 7.0 | 35.0 | 35.0 | 7.1 | 27.3 | 27.3 |
| 90th%Factor: | 1.69 | 1.79 | 1.65 | 1.71 | 1.78 | 1.64 | 1.72 | 1.52 | 1.52 | 1.72 | 1.56 | 1.56 |
| HCM2k90thQ: | 11.4 | 1.3 | 16.1 | 8.4 | 2.2 | 16.8 | 7.7 | 37.0 | 37.0 | 7.8 | 29.1 | 29.1 |
| 95th%Factor: | 1.91 | 2.08 | 1.85 | 1.96 | 2.06 | 1.84 | 1.97 | 1.65 | 1.65 | 1.97 | 1.71 | 1.71 |
| HCM2k95thQ: | 12.9 | 1.6 | 18.1 | 9.6 | 2.5 | 18.9 | 8.8 | 40.4 | 40.4 | 8.9 | 32.0 | 32.0 |
| 98th%Factor: | 2.30 | 2.64 | 2.17 | 2.39 | 2.61 | 2.15 | 2.41 | 1.85 | 1.85 | 2.40 | 1.94 | 1.94 |
| HCM2k98thQ: | 15.5 | 2.0 | 21.2 | 11.7 | 3.2 | 22.1 | 10.8 | 45.2 | 45.2 | 10.9 | 36.2 | 36.2 |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #1 Alvarado Street / Davis Street

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|-------------|-------------|-----|------|-------------|-----|------|------------|------|------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 41.7 | 5.9 | 57.8 | 32.8 | 9.6 | 59.6 | 35.1 | 34.9 | 22.7 | 39.6 | 301 | 14.0 |

Name: year 1995 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 150.080 pounds |
| | 24.313 gallons |
| Carbon Dioxide: | 468.250 pounds |
| Carbon Monoxide: | 36.897 pounds |
| Hydrocarbons: | 6.708 pounds |
| Nitrogen Oxides: | 1.718 pounds |

Name: year 2000 composite fleet

| | |
|-------------------|----------------|
| Fuel Consumption: | 150.080 pounds |
| | 24.313 gallons |
| Carbon Dioxide: | 468.250 pounds |
| Carbon Monoxide: | 36.897 pounds |
| Hydrocarbons: | 6.708 pounds |
| Nitrogen Oxides: | 1.718 pounds |

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The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

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

Intersection #2 San Leandro Boulevard / Davis Street

| | | | |
|------------------|-----|--------------------------|-------|
| Cycle (sec): | 100 | Critical Vol./Cap.(X): | 1.102 |
| Loss Time (sec): | 12 | Average Delay (sec/veh): | 79.5 |
| Optimal Cycle: | 180 | Level Of Service: | E |

| Street Name: | San Leandro Boulevard | | | Davis Street | | |
|--------------|-----------------------|---|---|--------------|---|---|
| Approach: | North Bound | | | South Bound | | |
| Movement: | L | T | R | L | T | R |

| Control: | Protected | | | Protected | | | Protected | | | Protected | | |
|-------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Y+R: | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lanes: | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 207 | 373 | 144 | 216 | 517 | 319 | 455 | 933 | 168 | 167 | 679 | 113 |
| Growth Adj: | 1.00 | 1.26 | 1.00 | 1.00 | 1.26 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 207 | 470 | 144 | 216 | 651 | 319 | 455 | 933 | 168 | 167 | 679 | 113 |
| Added Vol: | 127 | 54 | 98 | 90 | 38 | 56 | 12 | 33 | 65 | 30 | 42 | 45 |
| PasserByVol: | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 0 |
| Initial Fut: | 451 | 524 | 242 | 306 | 689 | 375 | 467 | 966 | 272 | 197 | 721 | 158 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 | 0.87 | 0.87 | 0.87 | 0.84 | 0.84 | 0.84 |
| PHF Volume: | 525 | 610 | 282 | 370 | 834 | 454 | 534 | 1104 | 311 | 236 | 863 | 189 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 525 | 610 | 282 | 370 | 834 | 454 | 534 | 1104 | 311 | 236 | 863 | 189 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| FinalVolume: | 525 | 610 | 282 | 370 | 834 | 454 | 534 | 1104 | 311 | 236 | 863 | 189 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Adjustment: | 0.92 | 0.91 | 0.91 | 0.92 | 0.90 | 0.90 | 0.92 | 0.95 | 0.85 | 0.92 | 0.95 | 0.85 |
| Lanes: | 2.00 | 1.37 | 0.63 | 2.00 | 1.30 | 0.70 | 2.00 | 2.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3317 | 2230 | 1030 | 3317 | 2098 | 1141 | 3317 | 3420 | 1530 | 3317 | 3420 | 1530 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|--------------|-------|------|------|------|------|------|-------|------|------|-------|------|------|
| Vol/Sat: | 0.16 | 0.27 | 0.27 | 0.11 | 0.40 | 0.40 | 0.16 | 0.32 | 0.20 | 0.07 | 0.25 | 0.12 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.14 | 0.36 | 0.36 | 0.15 | 0.36 | 0.36 | 0.15 | 0.31 | 0.31 | 0.07 | 0.23 | 0.23 |
| Volume/Cap: | 1.10 | 0.76 | 0.76 | 0.76 | 1.10 | 1.10 | 1.10 | 1.05 | 0.66 | 1.05 | 1.10 | 0.54 |
| Delay/Veh: | 114.6 | 31.4 | 31.4 | 48.1 | 90.7 | 90.7 | 114.2 | 76.5 | 33.6 | 120.5 | 102 | 35.6 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 114.6 | 31.4 | 31.4 | 48.1 | 90.7 | 90.7 | 114.2 | 76.5 | 33.6 | 120.5 | 102 | 35.6 |
| LOS by Move: | F | C | C | D | F | F | F | E | C | F | F | D |
| HCM2k95thQ: | 665 | 634 | 634 | 357 | 1308 | 1308 | 535 | 924 | 370 | 259 | 862 | 243 |

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #2 San Leandro Boulevard / Davis Street

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Run Speed: 30 MPH 30 MPH 30 MPH 30 MPH
NumOfStops: 133.6 135 62.3 89.0 221 120.4 135.8 282 67.6 59.2 222 41.6
-----|-----|-----|-----|

Name: year 1995 composite fleet
Fuel Consumption: 428.971 pounds
69.493 gallons
Carbon Dioxide: 1338.389 pounds
Carbon Monoxide: 113.434 pounds
Hydrocarbons: 23.287 pounds
Nitrogen Oxides: 4.466 pounds
-----|-----|-----|-----|

Name: year 2000 composite fleet
Fuel Consumption: 428.971 pounds
69.493 gallons
Carbon Dioxide: 1338.389 pounds
Carbon Monoxide: 113.434 pounds
Hydrocarbons: 23.287 pounds
Nitrogen Oxides: 4.466 pounds
-----|-----|-----|-----|

DISCLAIMER
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San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

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

Intersection #3 San Leandro Blvd / Juana Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.720
Loss Time (sec): 12 Average Delay (sec/veh): 13.1
Optimal Cycle: 62 Level Of Service: B

Street Name: San Leandro Blvd Juana Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
-----|-----|-----|-----|
Control: Permitted Permitted Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 1 0 1 0 2 0 0 1 0 0 1 0 1
-----|-----|-----|-----|

Volume Module:
Base Vol: 0 557 71 119 759 0 13 5 1 139 0 75
Growth Adj: 1.00 1.26 1.00 1.00 1.26 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 702 71 119 956 0 13 5 1 139 0 75
Added Vol: 0 184 29 19 105 0 0 0 0 10 0 14
PasserByVol: 0 117 0 0 37 0 0 0 0 0 0 0
Initial Fut: 0 1003 100 138 1098 0 13 5 1 149 0 89
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.85 0.85 0.85 0.86 0.86 0.86 0.73 0.73 0.73 0.71 0.71 0.71
PHF Volume: 0 1173 117 161 1284 0 18 7 1 209 0 125
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 1173 117 161 1284 0 18 7 1 209 0 125
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 1173 117 161 1284 0 18 7 1 209 0 125
-----|-----|-----|-----|

Saturation Flow Module:
Sat/Lane: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800
Adjustment: 1.00 0.94 0.94 0.18 0.95 1.00 0.95 0.98 0.98 0.95 1.00 0.85
Lanes: 0.00 1.82 0.18 1.00 2.00 0.00 1.00 0.83 0.17 1.00 0.00 1.00
Final Sat.: 0 3066 306 322 3420 0 1710 1463 293 1710 0 1530
-----|-----|-----|-----|

Capacity Analysis Module:
Vol/Sat: 0.00 0.38 0.38 0.50 0.38 0.00 0.01 0.00 0.00 0.12 0.00 0.08
Crit Moves: *****
Green/Cycle: 0.00 0.70 0.70 0.70 0.70 0.00 0.01 0.01 0.01 0.17 0.00 0.17
Volume/Cap: 0.00 0.55 0.55 0.72 0.54 0.00 0.72 0.32 0.32 0.72 0.00 0.48
Delay/Veh: 0.0 7.8 7.8 20.0 7.7 0.0 117.6 56.1 56.1 47.7 0.0 38.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 7.8 7.8 20.0 7.7 0.0 117.6 56.1 56.1 47.7 0.0 38.9
LOS by Move: A A A C A A F E E D A D
HCM2k95thQ: 0 444 444 234 473 0 83 33 33 299 0 169

Note: Queue reported is the distance per lane in feet.

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.00 | 0.70 | 0.70 | 0.70 | 0.70 | 0.00 | 0.01 | 0.01 | 0.01 | 0.17 | 0.00 | 0.17 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 0.0 | 9.3 | 9.3 | 2.7 | 9.1 | 0.0 | 0.5 | 0.2 | 0.2 | 5.5 | 0.0 | 3.1 |
| UpstreamVC: | 0.00 | 0.91 | 0.91 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.51 | 0.00 | 0.51 |
| UpstreamAdj: | 0.00 | 0.30 | 0.30 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.85 | 0.00 | 0.85 |
| EarlyArrAdj: | 0.00 | 0.25 | 0.25 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.30 | 0.00 | 0.28 |
| Q2: | 0.0 | 0.3 | 0.3 | 2.0 | 1.2 | 0.0 | 1.1 | 0.4 | 0.4 | 0.7 | 0.0 | 0.3 |
| HCM2KQueue: | 0.0 | 9.6 | 9.6 | 4.8 | 10.3 | 0.0 | 1.6 | 0.6 | 0.6 | 6.2 | 0.0 | 3.4 |
| 70th%Factor: | 1.20 | 1.18 | 1.18 | 1.19 | 1.18 | 1.20 | 1.20 | 1.20 | 1.20 | 1.19 | 1.20 | 1.19 |
| HCM2k70thQ: | 0.0 | 11.3 | 11.3 | 5.7 | 12.1 | 0.0 | 1.9 | 0.8 | 0.8 | 7.4 | 0.0 | 4.0 |
| 85th%Factor: | 1.60 | 1.52 | 1.52 | 1.56 | 1.51 | 1.60 | 1.58 | 1.59 | 1.59 | 1.54 | 1.60 | 1.57 |
| HCM2k85thQ: | 0.0 | 14.6 | 14.6 | 7.4 | 15.6 | 0.0 | 2.6 | 1.0 | 1.0 | 9.6 | 0.0 | 5.3 |
| 90th%Factor: | 1.80 | 1.65 | 1.65 | 1.72 | 1.64 | 1.80 | 1.77 | 1.79 | 1.79 | 1.69 | 1.80 | 1.74 |
| HCM2k90thQ: | 0.0 | 15.8 | 15.8 | 8.2 | 16.9 | 0.0 | 2.9 | 1.1 | 1.1 | 10.5 | 0.0 | 5.9 |
| 95th%Factor: | 2.10 | 1.85 | 1.85 | 1.96 | 1.84 | 2.10 | 2.05 | 2.08 | 2.08 | 1.93 | 2.10 | 2.00 |
| HCM2k95thQ: | 0.0 | 17.8 | 17.8 | 9.3 | 18.9 | 0.0 | 3.3 | 1.3 | 1.3 | 11.9 | 0.0 | 6.8 |
| 98th%Factor: | 2.70 | 2.18 | 2.18 | 2.39 | 2.15 | 2.70 | 2.58 | 2.65 | 2.65 | 2.32 | 2.70 | 2.47 |
| HCM2k98thQ: | 0.0 | 20.9 | 20.9 | 11.4 | 22.2 | 0.0 | 4.2 | 1.7 | 1.7 | 14.4 | 0.0 | 8.4 |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #3 San Leandro Blvd / Juana Ave

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|------|-------------|-----|-----|------------|-----|-----|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 0.0 | 145 | 14.4 | 24.6 | 156 | 0.0 | 4.4 | 1.7 | 0.3 | 49.4 | 0.0 | 28.2 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 64.488 pounds | | | | | | | | | | | |
| | 10.447 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 201.202 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 14.722 pounds | | | | | | | | | | | |
| Hydrocarbons: | 2.356 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.748 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 64.488 pounds | | | | | | | | | | | |
| | 10.447 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 201.202 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 14.722 pounds | | | | | | | | | | | |
| Hydrocarbons: | 2.356 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 0.748 pounds | | | | | | | | | | | |

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San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|-------|-------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.07 | 0.30 | 0.30 | 0.06 | 0.29 | 0.29 | 0.48 | 0.48 | 0.48 | 0.06 | 0.06 | 0.06 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 5.8 | 17.1 | 17.1 | 3.2 | 25.1 | 25.1 | 39.0 | 39.0 | 39.0 | 5.2 | 5.2 | 5.2 |
| UpstreamVC: | 0.65 | 0.65 | 0.65 | 0.54 | 0.54 | 0.54 | 0.00 | 0.00 | 0.00 | 0.27 | 0.27 | 0.27 |
| UpstreamAdj: | 0.72 | 0.72 | 0.72 | 0.83 | 0.83 | 0.83 | 0.00 | 0.00 | 0.00 | 0.97 | 0.97 | 0.97 |
| EarlyArrAdj: | 0.17 | 0.43 | 0.43 | 0.17 | 0.48 | 0.48 | 1.00 | 1.00 | 1.00 | 0.22 | 0.22 | 0.22 |
| Q2: | 5.8 | 2.9 | 2.9 | 0.9 | 24.1 | 24.1 | 38.2 | 38.2 | 38.2 | 5.3 | 5.3 | 5.3 |
| HCM2KQueue: | 11.6 | 20.0 | 20.0 | 4.1 | 49.2 | 49.2 | 77.2 | 77.2 | 77.2 | 10.5 | 10.5 | 10.5 |
| 70th%Factor: | 1.17 | 1.16 | 1.16 | 1.19 | 1.13 | 1.13 | 1.11 | 1.11 | 1.11 | 1.18 | 1.18 | 1.18 |
| HCM2k70thQ: | 13.7 | 23.2 | 23.2 | 4.9 | 55.5 | 55.5 | 86.1 | 86.1 | 86.1 | 12.3 | 12.3 | 12.3 |
| 85th%Factor: | 1.50 | 1.45 | 1.45 | 1.56 | 1.36 | 1.36 | 1.32 | 1.32 | 1.32 | 1.51 | 1.51 | 1.51 |
| HCM2k85thQ: | 17.5 | 29.1 | 29.1 | 6.4 | 66.8 | 66.8 | 102.2 | 102.2 | 102.2 | 15.8 | 15.8 | 15.8 |
| 90th%Factor: | 1.62 | 1.55 | 1.55 | 1.73 | 1.43 | 1.43 | 1.41 | 1.41 | 1.41 | 1.64 | 1.64 | 1.64 |
| HCM2k90thQ: | 18.9 | 31.0 | 31.0 | 7.1 | 70.5 | 70.5 | 108.8 | 109 | 108.8 | 17.1 | 17.1 | 17.1 |
| 95th%Factor: | 1.81 | 1.70 | 1.70 | 1.98 | 1.54 | 1.54 | 1.51 | 1.51 | 1.51 | 1.84 | 1.84 | 1.84 |
| HCM2k95thQ: | 21.1 | 34.0 | 34.0 | 8.1 | 75.7 | 75.7 | 116.5 | 116 | 116.5 | 19.2 | 19.2 | 19.2 |
| 98th%Factor: | 2.11 | 1.91 | 1.91 | 2.43 | 1.72 | 1.72 | 1.70 | 1.70 | 1.70 | 2.15 | 2.15 | 2.15 |
| HCM2k98thQ: | 24.5 | 38.3 | 38.3 | 9.9 | 84.7 | 84.7 | 131.5 | 131 | 131.5 | 22.5 | 22.5 | 22.5 |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|-----------------|-----|------|-------------|-----|------|------------|------|-------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 41.4 | 207 | 17.7 | 21.8 | 347 | 37.7 | 177.9 | 55.0 | 165.6 | 10.4 | 7.7 | 18.4 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 486.356 pounds | | | | | | | | | | | |
| | 78.790 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 1517.431 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 132.553 pounds | | | | | | | | | | | |
| Hydrocarbons: | 28.467 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 4.816 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 486.356 pounds | | | | | | | | | | | |
| | 78.790 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 1517.431 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 132.553 pounds | | | | | | | | | | | |
| Hydrocarbons: | 28.467 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 4.816 pounds | | | | | | | | | | | |

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San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Flared Lane Approach Module:

| | | | | | | | | | | | |
|--------------|------|-------|-------|------|-------|-------|-------|-------|-----------|-------|-----------|
| DelaySep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 387.1 | 272.3 | 26.4453.2 | 247.4 | 13.0 |
| VolumeSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 12 | 2 | 154 | 10 | 0 29 |
| QueueSep: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | 1.32 | 0.12 | 1.13 | 1.23 | 0.00 0.11 |
| QueueMax: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 2 | xxxxx | xxxxx | 2 xxxxx |
| CapShare: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 133 | xxxxx | xxxxx | 54 xxxxx |
| CapacitySum: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 348 | xxxxx | xxxxx | 118 xxxxx |
| Queue: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 3 | xxxxx | xxxxx | 3 xxxxx |
| Capacity: | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | 348 | xxxxx | xxxxx | 118 xxxxx |

Attachment D:

*Analysis Worksheets for
Cumulative (2030) Mitigated Conditions*

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.21 | 0.61 | 0.61 | 0.03 | 0.44 | 0.44 | 0.14 | 0.14 | 0.14 | 0.12 | 0.12 | 0.12 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 11.3 | 13.0 | 13.0 | 1.2 | 22.6 | 22.6 | 7.2 | 7.2 | 7.2 | 6.5 | 6.5 | 6.5 |
| UpstreamVC: | 0.57 | 0.57 | 0.57 | 0.49 | 0.49 | 0.49 | 0.00 | 0.00 | 0.00 | 0.58 | 0.58 | 0.58 |
| UpstreamAdj: | 0.80 | 0.80 | 0.80 | 0.87 | 0.87 | 0.87 | 0.00 | 0.00 | 0.00 | 0.79 | 0.79 | 0.79 |
| EarlyArrAdj: | 0.37 | 0.72 | 0.72 | 0.14 | 0.63 | 0.63 | 1.00 | 1.00 | 1.00 | 0.26 | 0.26 | 0.26 |
| Q2: | 2.1 | 0.9 | 0.9 | 0.2 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 1.4 | 1.4 | 1.4 |
| HCM2kQueue: | 13.5 | 13.9 | 13.9 | 1.3 | 26.5 | 26.5 | 11.0 | 11.0 | 11.0 | 8.0 | 8.0 | 8.0 |
| 70th%Factor: | 1.17 | 1.17 | 1.17 | 1.20 | 1.15 | 1.15 | 1.18 | 1.18 | 1.18 | 1.18 | 1.18 | 1.18 |
| HCM2k70thQ: | 15.8 | 16.2 | 16.2 | 1.6 | 30.5 | 30.5 | 12.9 | 12.9 | 12.9 | 9.4 | 9.4 | 9.4 |
| 85th%Factor: | 1.49 | 1.49 | 1.49 | 1.59 | 1.42 | 1.42 | 1.51 | 1.51 | 1.51 | 1.53 | 1.53 | 1.53 |
| HCM2k85thQ: | 20.1 | 20.6 | 20.6 | 2.1 | 37.7 | 37.7 | 16.6 | 16.6 | 16.6 | 12.2 | 12.2 | 12.2 |
| 90th%Factor: | 1.60 | 1.60 | 1.60 | 1.77 | 1.51 | 1.51 | 1.63 | 1.63 | 1.63 | 1.67 | 1.67 | 1.67 |
| HCM2k90thQ: | 21.6 | 22.2 | 22.2 | 2.4 | 39.9 | 39.9 | 17.9 | 17.9 | 17.9 | 13.3 | 13.3 | 13.3 |
| 95th%Factor: | 1.78 | 1.78 | 1.78 | 2.06 | 1.64 | 1.64 | 1.83 | 1.83 | 1.83 | 1.89 | 1.89 | 1.89 |
| HCM2k95thQ: | 24.0 | 24.6 | 24.6 | 2.7 | 43.4 | 43.4 | 20.1 | 20.1 | 20.1 | 15.0 | 15.0 | 15.0 |
| 98th%Factor: | 2.05 | 2.04 | 2.04 | 2.60 | 1.83 | 1.83 | 2.13 | 2.13 | 2.13 | 2.24 | 2.24 | 2.24 |
| HCM2k98thQ: | 27.7 | 28.3 | 28.3 | 3.4 | 48.5 | 48.5 | 23.4 | 23.4 | 23.4 | 17.8 | 17.8 | 17.8 |

San Leandro Crossings TIA
Cumulative Plus Project - AM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|-----|-------------|-----|------|------------|-----|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 78.4 | 165 | 5.5 | 8.0 | 230 | 67.9 | 42.3 | 8.0 | 44.8 | 9.4 | 20.9 | 14.7 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 141.051 pounds | | | | | | | | | | | |
| | 22.850 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 440.078 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 35.847 pounds | | | | | | | | | | | |
| Hydrocarbons: | 6.922 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.536 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 141.051 pounds | | | | | | | | | | | |
| | 22.850 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 440.078 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 35.847 pounds | | | | | | | | | | | |
| Hydrocarbons: | 6.922 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 1.536 pounds | | | | | | | | | | | |

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San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Level Of Service Detailed Computation Report (HCM2000 Queue Method)
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|--------------|-------------|------|------|-------------|------|------|------------|------|------|------------|------|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Green/Cycle: | 0.09 | 0.41 | 0.41 | 0.08 | 0.39 | 0.39 | 0.34 | 0.34 | 0.34 | 0.09 | 0.09 | 0.09 |
| ArrivalType: | 3 | | | 3 | | | 3 | | | 3 | | |
| ProgFactor: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Q1: | 5.8 | 14.6 | 14.6 | 3.1 | 25.1 | 25.1 | 20.5 | 20.5 | 20.5 | 5.2 | 5.2 | 5.2 |
| UpstreamVC: | 0.48 | 0.48 | 0.48 | 0.54 | 0.54 | 0.54 | 0.00 | 0.00 | 0.00 | 0.27 | 0.27 | 0.27 |
| UpstreamAdj: | 0.87 | 0.87 | 0.87 | 0.83 | 0.83 | 0.83 | 0.00 | 0.00 | 0.00 | 0.97 | 0.97 | 0.97 |
| EarlyArrAdj: | 0.25 | 0.62 | 0.62 | 0.21 | 0.57 | 0.57 | 1.00 | 1.00 | 1.00 | 0.26 | 0.26 | 0.26 |
| Q2: | 2.3 | 1.3 | 1.3 | 0.4 | 7.5 | 7.5 | 8.8 | 8.8 | 8.8 | 2.2 | 2.2 | 2.2 |
| HCM2kQueue: | 8.2 | 15.9 | 15.9 | 3.5 | 32.6 | 32.6 | 29.3 | 29.3 | 29.3 | 7.4 | 7.4 | 7.4 |
| 70th%Factor: | 1.18 | 1.17 | 1.17 | 1.19 | 1.14 | 1.14 | 1.15 | 1.15 | 1.15 | 1.18 | 1.18 | 1.18 |
| HCM2k70thQ: | 9.7 | 18.5 | 18.5 | 4.2 | 37.3 | 37.3 | 33.6 | 33.6 | 33.6 | 8.7 | 8.7 | 8.7 |
| 85th%Factor: | 1.53 | 1.48 | 1.48 | 1.57 | 1.40 | 1.40 | 1.41 | 1.41 | 1.41 | 1.53 | 1.53 | 1.53 |
| HCM2k85thQ: | 12.5 | 23.4 | 23.4 | 5.5 | 45.6 | 45.6 | 41.4 | 41.4 | 41.4 | 11.3 | 11.3 | 11.3 |
| 90th%Factor: | 1.67 | 1.58 | 1.58 | 1.74 | 1.48 | 1.48 | 1.49 | 1.49 | 1.49 | 1.68 | 1.68 | 1.68 |
| HCM2k90thQ: | 13.6 | 25.1 | 25.1 | 6.1 | 48.1 | 48.1 | 43.7 | 43.7 | 43.7 | 12.4 | 12.4 | 12.4 |
| 95th%Factor: | 1.88 | 1.75 | 1.75 | 1.99 | 1.60 | 1.60 | 1.62 | 1.62 | 1.62 | 1.90 | 1.90 | 1.90 |
| HCM2k95thQ: | 15.4 | 27.8 | 27.8 | 7.0 | 52.0 | 52.0 | 47.4 | 47.4 | 47.4 | 14.0 | 14.0 | 14.0 |
| 98th%Factor: | 2.23 | 1.99 | 1.99 | 2.46 | 1.78 | 1.78 | 1.81 | 1.81 | 1.81 | 2.27 | 2.27 | 2.27 |
| HCM2k98thQ: | 18.2 | 31.7 | 31.7 | 8.6 | 58.0 | 58.0 | 52.9 | 52.9 | 52.9 | 16.7 | 16.7 | 16.7 |

San Leandro Crossings TIA
Cumulative Plus Project - PM Peak

Fuel Consumption and Emissions
2000 HCM Operations Method
Future Volume Alternative

Intersection #4 San Leandro Blvd / Parrott St

| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
|---------------------------------|----------------|-----|------|-------------|-----|------|------------|------|-------|------------|-----|------|
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Run Speed: | 30 MPH | | | 30 MPH | | | 30 MPH | | | 30 MPH | | |
| NumOfStops: | 40.4 | 177 | 15.1 | 21.4 | 300 | 32.6 | 121.1 | 37.4 | 112.7 | 10.2 | 7.5 | 18.0 |
| Name: year 1995 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 217.986 pounds | | | | | | | | | | | |
| | 35.314 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 680.115 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 57.049 pounds | | | | | | | | | | | |
| Hydrocarbons: | 11.525 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.304 pounds | | | | | | | | | | | |
| Name: year 2000 composite fleet | | | | | | | | | | | | |
| Fuel Consumption: | 217.986 pounds | | | | | | | | | | | |
| | 35.314 gallons | | | | | | | | | | | |
| Carbon Dioxide: | 680.115 pounds | | | | | | | | | | | |
| Carbon Monoxide: | 57.049 pounds | | | | | | | | | | | |
| Hydrocarbons: | 11.525 pounds | | | | | | | | | | | |
| Nitrogen Oxides: | 2.304 pounds | | | | | | | | | | | |

DISCLAIMER

The fuel consumption and emissions measures should be used with caution and only for comparisons of different signal timings, geometric design alternatives or for general planning applications, as these calculations are applied to the analysis of a single intersection within the CCG and TRAFFIX. Network models are more appropriate since they can account for the influence of the adjacent control measures and other system elements.

Attachment E:

*Analysis Worksheets for
Traffic Signal Warrant Analysis*

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)

MAJOR STREET: San Leandro Boulevard NB SB # OF APPROACH LANES:

MINOR STREET: Parrott Street WB EB # OF APPROACH LANES:

CITY, STATE: San Leandro, CA

COMMENTS: Existing Conditions

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
 85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|-------------------------|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------|-------------|---------------------------------|----------------|-------------|---|----------------|-------------|---------------------------------|----------------|-------------|------------------------|------------------------|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| THRESHOLD VALUES | | | | 600 | 150 | | 900 | 75 | | 480 | 120 | | 720 | 60 | | 60 | 75 |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 1,492 | 129 | | Y | | | Y | Y | Y | Y | Y | Y | Y | Y | Y | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,589 | 266 | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 3,081 | 395 | | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | NOT SATISFIED | | | NOT SATISFIED | | | NOT SATISFIED | | | | | | NOT SATISFIED | SATISFIED |

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)

MAJOR STREET: San Leandro Boulevard NB SB # OF APPROACH LANES:

MINOR STREET: Thornton Street WB EB # OF APPROACH LANES:

CITY, STATE: San Leandro, CA

COMMENTS: Existing Conditions

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
 85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|-------------------------|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------|-------------|---------------------------------|----------------|-------------|---|----------------|-------------|---------------------------------|----------------|-------------|------------------------|------------------------|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| THRESHOLD VALUES | | | | 600 | 150 | | 900 | 75 | | 480 | 120 | | 720 | 60 | | 60 | 75 |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 1,654 | 38 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,696 | 54 | | Y | | | Y | | | Y | | | Y | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 3,350 | 92 | | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | NOT SATISFIED | | | NOT SATISFIED | | | NOT SATISFIED | | | | | | NOT SATISFIED | NOT SATISFIED |

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)

MAJOR STREET: San Leandro Boulevard NB SB # OF APPROACH LANES:

MINOR STREET: Thornton Street WB EB # OF APPROACH LANES:

CITY, STATE: San Leandro, CA

COMMENTS: Existing Plus Project Conditions

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
 85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|-------------------------|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------|-------------|---------------------------------|----------------|-------------|---|----------------|-------------|---------------------------------|----------------|-------------|------------------------|------------------------|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| THRESHOLD VALUES | | | | 600 | 150 | | 900 | 75 | | 480 | 120 | | 720 | 60 | | 60 | 75 |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 1,869 | 38 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | | | | | | | | | | | | | | | | | |
| 05:30 PM TO 06:30 PM | 1,830 | 120 | | Y | | | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 3,699 | 158 | | 2 | 0 | 0 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | NOT SATISFIED | | | NOT SATISFIED | | | NOT SATISFIED | | | | | | NOT SATISFIED | SATISFIED |

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)

MAJOR STREET: San Leandro Boulevard NB SB # OF APPROACH LANES:

MINOR STREET: Thornton Street WB EB # OF APPROACH LANES:

CITY, STATE: San Leandro, CA

COMMENTS: Cumulative Conditions

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
 85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|-------------------------|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------|-------------|---------------------------------|----------------|-------------|---|----------------|-------------|---------------------------------|----------------|-------------|------------------------|------------------------|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| THRESHOLD VALUES | | | | 600 | 150 | | 900 | 75 | | 480 | 120 | | 720 | 60 | | 60 | 75 |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 2,193 | 38 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | 2,300 | 54 | | Y | | | Y | | | Y | | | Y | | | | |
| 05:30 PM TO 06:30 PM | | | | | | | | | | | | | | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 4,493 | 92 | | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | NOT SATISFIED | | | NOT SATISFIED | | | NOT SATISFIED | | | | | | NOT SATISFIED | NOT SATISFIED |

TRAFFIC SIGNAL VOLUME WARRANT ANALYSIS (2010 MUTCD)

MAJOR STREET: San Leandro Boulevard NB SB # OF APPROACH LANES:

MINOR STREET: Thornton Street WB EB # OF APPROACH LANES:

CITY, STATE: San Leandro, CA

COMMENTS: Cumulative + Project Conditions

ISOLATED COMMUNITY WITH POPULATION LESS THAN 10,000 (Y OR N):
 85TH PERCENTILE SPEED GREATER THAN 40 MPH ON MAJOR STREET (Y OR N):

| | MAJOR ST TWO-WAY TRAFFIC | MINOR ST TRAFFIC HEAVY LEG | Ped Count CROSSING MAJOR ST | WARRANT 1 - Condition A, Part 1 | | | WARRANT 1 - Condition B, Part 1 | | | WARRANT 1 - Condition A, Part 2 | | | WARRANT 1 - Condition B, Part 2 | | | WARRANT 2 Four-Hour | WARRANT 3 Peak Hour |
|-------------------------|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|----------------|-------------|---------------------------------|----------------|-------------|---|----------------|-------------|---------------------------------|----------------|-------------|------------------------|------------------------|
| | | | | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | MAIN LINE | SIDE STREET | BOTH MET | | |
| THRESHOLD VALUES | | | | 600 | 150 | | 900 | 75 | | 480 | 120 | | 720 | 60 | | 60 | 75 |
| 06:30 AM TO 07:30 AM | | | | | | | | | | | | | | | | | |
| 07:30 AM TO 08:30 AM | | | | | | | | | | | | | | | | | |
| 08:30 AM TO 09:30 AM | 2,371 | 38 | | Y | | | Y | | | Y | | | Y | | | | |
| 09:30 AM TO 10:30 AM | | | | | | | | | | | | | | | | | |
| 10:30 AM TO 11:30 AM | | | | | | | | | | | | | | | | | |
| 11:00 AM TO 12:00 PM | | | | | | | | | | | | | | | | | |
| 12:30 PM TO 01:30 PM | | | | | | | | | | | | | | | | | |
| 01:30 PM TO 02:30 PM | | | | | | | | | | | | | | | | | |
| 02:30 PM TO 03:30 PM | | | | | | | | | | | | | | | | | |
| 03:30 PM TO 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM TO 05:30 PM | 2,397 | 110 | | Y | | | Y | Y | Y | Y | | | Y | Y | Y | Y | Y |
| 05:30 PM TO 06:30 PM | | | | | | | | | | | | | | | | | |
| 06:30 PM TO 07:30 PM | | | | | | | | | | | | | | | | | |
| 07:30 PM TO 08:30 PM | | | | | | | | | | | | | | | | | |
| 08:30 PM TO 09:30 PM | | | | | | | | | | | | | | | | | |
| 09:30 PM TO 10:30 PM | | | | | | | | | | | | | | | | | |
| | 4,768 | 148 | | 2 | 0 | 0 | 2 | 1 | 1 | 2 | 0 | 0 | 2 | 1 | 1 | 1 | 1 |
| | | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED | | | 8 HOURS NEEDED for both Condition A & B | | | | | | 4 HRS NEEDED | 1 HR NEEDED |
| | | | | NOT SATISFIED | | | NOT SATISFIED | | | NOT SATISFIED | | | | | | NOT SATISFIED | SATISFIED |

Attachment F:

Summary of Queuing Evaluation Results

Queuing Summary
San Leandro Crossings TIA

| Scenarios Analyzed | Turning Movement | Alvarado Street | | | San Leandro Boulevard | | | | | | | | | | | |
|--------------------------|------------------|-------------------|-----|-----|-----------------------|-----|-----|-------------------|-----|-----|---------------------|-----|-----|----------------------|-----|-----|
| | | #1 - Davis Street | | | #2 - Davis Street | | | #3 - Juana Street | | | #4 - Parrott Street | | | #5 - Thornton Street | | |
| | | Link | AM | PM | Link | AM | PM | Link | AM | PM | Link | AM | PM | Link | AM | PM |
| Existing | EBL | 105 | 102 | 128 | 260 | 231 | 367 | | | | | | | | | |
| | EBR | | | | 90 | 156 | 188 | | | | | | | | | |
| | WBL | 115 | 164 | 169 | 115 | 140 | 161 | 125 | 205 | 215 | | | | | | |
| | WBR | | | | 145 | 193 | 151 | | | | | | | | | |
| | NBL | 185 | 224 | 351 | 230 | 435 | 439 | | | | 70 | <25 | <25 | 65 | <25 | <25 |
| | NBR | 185 | 186 | 340 | | | | | | | | | | 110 | <25 | <25 |
| | SBL | 110 | 211 | 164 | 150 | 95 | 203 | 135 | 68 | 116 | 80 | <25 | <25 | 75 | <25 | <25 |
| SBR | 110 | 231 | 230 | | | | | | | | | | | | | |
| Existing + Project | EBL | 105 | 102 | 131 | 260 | 243 | 424 | | | | | | | | | |
| | EBR | | | | 90 | 294 | 267 | | | | | | | | | |
| | WBL | 115 | 209 | 173 | 115 | 195 | 198 | 125 | 242 | 234 | | | | | | |
| | WBR | | | | 145 | 198 | 157 | | | | | | | | | |
| | NBL | 185 | 164 | 324 | 230 | 569 | 750 | | | | 70 | 43 | <25 | 65 | <25 | <25 |
| | NBR | 185 | 202 | 415 | | | | | | | | | | 110 | <25 | <25 |
| | SBL | 110 | 249 | 193 | 150 | 93 | 206 | 135 | 74 | 133 | 80 | <25 | <25 | 75 | <25 | <25 |
| SBR | 110 | 236 | 229 | | | | | | | | | | | | | |
| Existing + Project + SLB | EBL | 105 | 102 | 131 | 260 | 226 | 370 | | | | | | | | | |
| | EBR | | | | 90 | 277 | 250 | | | | | | | | | |
| | WBL | 115 | 212 | 181 | 115 | 188 | 176 | 125 | 242 | 234 | | | | | | |
| | WBR | | | | 145 | 187 | 150 | | | | | | | | | |
| | NBL | 185 | 164 | 324 | 230 | 327 | 413 | | | | 70 | 451 | 344 | 65 | <25 | <25 |
| | NBR | 185 | 202 | 415 | | | | | | | | | | 110 | <25 | <25 |
| | SBL | 110 | 249 | 193 | 150 | 100 | 219 | 135 | 74 | 133 | 80 | 52 | 102 | 75 | <25 | <25 |
| SBR | 110 | 236 | 229 | | | | | | | | | | | | | |
| Long-term | EBL | 105 | 213 | 213 | 260 | 323 | 467 | | | | | | | | | |
| | EBR | | | | 90 | 263 | 277 | | | | | | | | | |
| | WBL | 115 | 187 | 306 | 115 | 184 | 216 | 125 | 255 | 262 | | | | | | |
| | WBR | | | | 145 | 352 | 235 | | | | | | | | | |
| | NBL | 185 | 439 | 572 | 230 | 372 | 466 | | | | 70 | 316 | 283 | 65 | <25 | <25 |
| | NBR | 185 | 309 | 446 | | | | | | | | | | 110 | <25 | <25 |
| | SBL | 110 | 199 | 184 | 150 | 175 | 347 | 135 | 97 | 179 | 80 | 56 | 140 | 75 | <25 | <25 |
| SBR | 110 | 307 | 409 | | | | | | | | | | | | | |
| Long-term + Project | EBL | 105 | 206 | 220 | 260 | 330 | 535 | | | | | | | | | |
| | EBR | | | | 90 | 435 | 370 | | | | | | | | | |
| | WBL | 115 | 185 | 223 | 115 | 247 | 259 | 125 | 297 | 299 | | | | | | |
| | WBR | | | | 145 | 359 | 243 | | | | | | | | | |
| | NBL | 185 | 242 | 322 | 230 | 456 | 665 | | | | 70 | 603 | 527 | 65 | 40 | <25 |
| | NBR | 185 | 274 | 452 | | | | | | | | | | 110 | <25 | <25 |
| | SBL | 110 | 279 | 240 | 150 | 171 | 357 | 135 | 117 | 234 | 80 | 70 | 202 | 75 | <25 | <25 |
| SBR | 110 | 381 | 472 | | | | | | | | | | | | | |