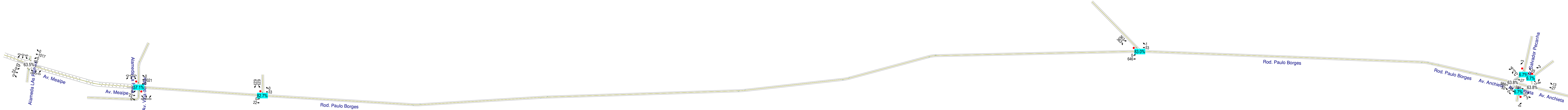















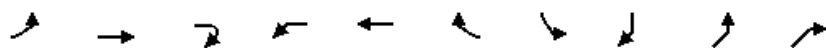


ANEXO 14

CENÁRIO 02 – MAPAS E RELATÓRIOS DE CÁLCULOS



| |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL | SBR | NEL | NER | |
| Lane Configurations | |  | | |  | | | |  |  | |
| Volume (vph) | 0 | 986 | 0 | 0 | 27 | 13 | 0 | 0 | 32 | 3 | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Frt | | | | | 0.956 | | | | | 0.850 | |
| Flt Protected | | | | | | | | | 0.950 | | |
| Satd. Flow (prot) | 0 | 1863 | 0 | 0 | 1781 | 0 | 0 | 0 | 1770 | 1583 | |
| Flt Permitted | | | | | | | | | 0.950 | | |
| Satd. Flow (perm) | 0 | 1863 | 0 | 0 | 1781 | 0 | 0 | 0 | 1770 | 1583 | |
| Right Turn on Red | | | No | | | No | | | | No | |
| Satd. Flow (RTOR) | | | | | | | | | | | |
| Link Speed (k/h) | | 50 | | | 50 | | 50 | | 50 | | |
| Link Distance (m) | | 65.5 | | | 128.2 | | 30.3 | | 47.9 | | |
| Travel Time (s) | | 4.7 | | | 9.2 | | 2.2 | | 3.4 | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | |
| Adj. Flow (vph) | 0 | 1072 | 0 | 0 | 29 | 14 | 0 | 0 | 35 | 3 | |
| Shared Lane Traffic (%) | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1072 | 0 | 0 | 43 | 0 | 0 | 0 | 35 | 3 | |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Right | Left | Right | |
| Median Width(m) | | 0.0 | | | 0.0 | | 0.0 | | 3.6 | | |
| Link Offset(m) | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | 4.8 | | 4.8 | | |
| Two way Left Turn Lane | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | 15 | 25 | 15 | |
| Turn Type | | NA | | | NA | | | | NA | Perm | |
| Protected Phases | | 4 | | | 8 | | | | 2 | | |
| Permitted Phases | | | | | | | | | | 2 | |
| Minimum Split (s) | | 50.0 | | | 50.0 | | | | 20.0 | 20.0 | |
| Total Split (s) | | 50.0 | | | 50.0 | | | | 30.0 | 30.0 | |
| Total Split (%) | | 62.5% | | | 62.5% | | | | 37.5% | 37.5% | |
| Maximum Green (s) | | 46.0 | | | 46.0 | | | | 26.0 | 26.0 | |
| Yellow Time (s) | | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | |
| All-Red Time (s) | | 0.0 | | | 0.0 | | | | 0.0 | 0.0 | |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | 0.0 | |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | | | 4.0 | 4.0 | |
| Lead/Lag | | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | | |
| Act Effct Green (s) | | 46.0 | | | 46.0 | | | | 26.0 | 26.0 | |
| Actuated g/C Ratio | | 0.58 | | | 0.58 | | | | 0.32 | 0.32 | |
| v/c Ratio | | 1.00 | | | 0.04 | | | | 0.06 | 0.01 | |
| Control Delay | | 15.7 | | | 7.6 | | | | 21.1 | 20.7 | |
| Queue Delay | | 8.0 | | | 0.0 | | | | 0.0 | 0.0 | |
| Total Delay | | 23.6 | | | 7.6 | | | | 21.1 | 20.7 | |
| LOS | | C | | | A | | | | C | C | |
| Approach Delay | | 23.6 | | | 7.6 | | | | 21.1 | | |
| Approach LOS | | C | | | A | | | | C | | |
| Queue Length 50th (m) | | ~19.7 | | | 2.7 | | | | 5.0 | 0.4 | |
| Queue Length 95th (m) | | m18.8 | | | 6.9 | | | | m0.0 | m0.7 | |
| Internal Link Dist (m) | | 41.5 | | | 104.2 | | 6.3 | | 23.9 | | |
| Turn Bay Length (m) | | | | | | | | | | | |
| Base Capacity (vph) | | 1071 | | | 1024 | | | | 575 | 514 | |



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | SBL | SBR | NEL | NER |
|------------------------|-----|------|-----|-----|------|-----|-----|-----|------|------|
| Starvation Cap Reductn | | 29 | | | 0 | | | | 0 | 0 |
| Spillback Cap Reductn | | 0 | | | 0 | | | | 0 | 0 |
| Storage Cap Reductn | | 0 | | | 0 | | | | 0 | 0 |
| Reduced v/c Ratio | | 1.03 | | | 0.04 | | | | 0.06 | 0.01 |

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:NEL and 6:, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 23.0

Intersection LOS: C

Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15















~ Volume exceeds capacity, queue is theoretically infinite.












Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 100: Av. Anchieta

| | |
|--------------|----------|
| 30 s | 50 s |
| 50 s | 50 s |

| |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SWL | SWR |
| Lane Configurations | |  | | |  | | | |  |  |
| Volume (vph) | 0 | 986 | 32 | 0 | 27 | 0 | 0 | 0 | 3 | 6 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | 0.996 | | | | | | | | 0.850 |
| Flt Protected | | | | | | | | | 0.950 | |
| Satd. Flow (prot) | 0 | 1855 | 0 | 0 | 1863 | 0 | 0 | 0 | 1770 | 1583 |
| Flt Permitted | | | | | | | | | 0.950 | |
| Satd. Flow (perm) | 0 | 1855 | 0 | 0 | 1863 | 0 | 0 | 0 | 1770 | 1583 |
| Right Turn on Red | | | No | | | No | | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | |
| Link Speed (k/h) | | 50 | | | 50 | | 50 | | 50 | |
| Link Distance (m) | | 133.4 | | | 65.5 | | 35.6 | | 42.8 | |
| Travel Time (s) | | 9.6 | | | 4.7 | | 2.6 | | 3.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 1072 | 35 | 0 | 29 | 0 | 0 | 0 | 3 | 7 |
| Shared Lane Traffic (%) | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 1107 | 0 | 0 | 29 | 0 | 0 | 0 | 3 | 7 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Right | Left | Right |
| Median Width(m) | | 0.0 | | | 0.0 | | 0.0 | | 3.6 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | 15 | 25 | 15 |
| Turn Type | | NA | | | NA | | | | NA | Perm |
| Protected Phases | | 4 | | | 8 | | | | 6 | |
| Permitted Phases | | | | | | | | | | 6 |
| Minimum Split (s) | | 50.0 | | | 50.0 | | | | 30.0 | 30.0 |
| Total Split (s) | | 50.0 | | | 50.0 | | | | 30.0 | 30.0 |
| Total Split (%) | | 62.5% | | | 62.5% | | | | 37.5% | 37.5% |
| Maximum Green (s) | | 46.0 | | | 46.0 | | | | 26.0 | 26.0 |
| Yellow Time (s) | | 4.0 | | | 4.0 | | | | 4.0 | 4.0 |
| All-Red Time (s) | | 0.0 | | | 0.0 | | | | 0.0 | 0.0 |
| Lost Time Adjust (s) | | 0.0 | | | 0.0 | | | | 0.0 | 0.0 |
| Total Lost Time (s) | | 4.0 | | | 4.0 | | | | 4.0 | 4.0 |
| Lead/Lag | | | | | | | | | | |
| Lead-Lag Optimize? | | | | | | | | | | |
| Walk Time (s) | | 5.0 | | | 5.0 | | | | 5.0 | 5.0 |
| Flash Dont Walk (s) | | 11.0 | | | 11.0 | | | | 11.0 | 11.0 |
| Pedestrian Calls (#/hr) | | 0 | | | 0 | | | | 0 | 0 |
| Act Effct Green (s) | | 46.0 | | | 46.0 | | | | 26.0 | 26.0 |
| Actuated g/C Ratio | | 0.58 | | | 0.58 | | | | 0.32 | 0.32 |
| v/c Ratio | | 1.04 | | | 0.03 | | | | 0.01 | 0.01 |
| Control Delay | | 57.5 | | | 2.0 | | | | 12.7 | 12.5 |
| Queue Delay | | 5.7 | | | 0.0 | | | | 0.0 | 0.0 |
| Total Delay | | 63.2 | | | 2.0 | | | | 12.7 | 12.5 |
| LOS | | E | | | A | | | | B | B |
| Approach Delay | | 63.2 | | | 2.0 | | | | 12.6 | |
| Approach LOS | | E | | | A | | | | B | |
| Queue Length 50th (m) | | ~193.9 | | | 0.2 | | | | 0.3 | 0.5 |
| Queue Length 95th (m) | | #268.3 | | | 0.8 | | | | 1.5 | 2.3 |

| |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBR | SWL | SWR | |
| Internal Link Dist (m) | | 109.4 | | | 41.5 | | 11.6 | | 18.8 | | |
| Turn Bay Length (m) | | | | | | | | | | | |
| Base Capacity (vph) | | 1066 | | | 1071 | | | | 575 | 514 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | | 0 | 0 | |
| Spillback Cap Reductn | | 16 | | | 0 | | | | 0 | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | | 0 | 0 | |
| Reduced v/c Ratio | | 1.05 | | | 0.03 | | | | 0.01 | 0.01 | |

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2: and 6:SWL, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 61.2

Intersection LOS: E

Intersection Capacity Utilization 63.8%

ICU Level of Service B

Analysis Period (min) 15






~ Volume exceeds capacity, queue is theoretically infinite.










Queue shown is maximum after two cycles.









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









Queue shown is maximum after two cycles.










Splits and Phases: 101: Av. Anchieta

| | | |
|---|---|---|
|  |  |  |
| | 50 s | |
|  |  |  |
| 30 s | 50 s | |

| |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|
| Lane Group | WBL | WBR | NBT | NBR | SBL | SBT |
| Lane Configurations | | | |  |  |  |
| Volume (vph) | 0 | 0 | 0 | 0 | 35 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | |
| Flt Protected | | | | | 0.950 | |
| Satd. Flow (prot) | 0 | 0 | 0 | 1863 | 1770 | 1863 |
| Flt Permitted | | | | | 0.950 | |
| Satd. Flow (perm) | 0 | 0 | 0 | 1863 | 1770 | 1863 |
| Link Speed (k/h) | 50 | | 50 | | | 50 |
| Link Distance (m) | 47.9 | | 32.5 | | | 35.6 |
| Travel Time (s) | 3.4 | | 2.3 | | | 2.6 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 0 | 0 | 0 | 38 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 0 | 0 | 38 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Left |
| Median Width(m) | 0.0 | | 3.6 | | | 3.6 |
| Link Offset(m) | 0.0 | | 0.0 | | | 0.0 |
| Crosswalk Width(m) | 4.8 | | 4.8 | | | 4.8 |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | 15 | | 15 | 25 | |
| Sign Control | Stop | | Stop | | | Free |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |
| Intersection Capacity Utilization | 6.7% | | | ICU Level of Service A | | |
| Analysis Period (min) | 15 | | | | | |


















| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | WBL | WBR | SBL | SBR | NEL | NER |
| Lane Configurations |  | | |  | | |
| Volume (vph) | 6 | 35 | 0 | 3 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | 0.886 | | | 0.865 | | |
| Flt Protected | 0.992 | | | | | |
| Satd. Flow (prot) | 1637 | 0 | 0 | 1611 | 0 | 0 |
| Flt Permitted | 0.992 | | | | | |
| Satd. Flow (perm) | 1637 | 0 | 0 | 1611 | 0 | 0 |
| Link Speed (k/h) | 50 | | 50 | | 50 | |
| Link Distance (m) | 26.7 | | 127.7 | | 42.8 | |
| Travel Time (s) | 1.9 | | 9.2 | | 3.1 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 7 | 38 | 0 | 3 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 45 | 0 | 0 | 3 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Right |
| Median Width(m) | 3.6 | | 0.0 | | 0.0 | |
| Link Offset(m) | 0.0 | | 0.0 | | 0.0 | |
| Crosswalk Width(m) | 4.8 | | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | 15 | 25 | 15 | 25 | 15 |
| Sign Control | Free | | Stop | | Stop | |
| Intersection Summary | | | | | | |
| Area Type: Other | | | | | | |
| Control Type: Unsignalized | | | | | | |
| Intersection Capacity Utilization 6.7% | | | | | | |
| ICU Level of Service A | | | | | | |
| Analysis Period (min) 15 | | | | | | |

| |  |  |  |  |  |  |
|--|---|---|---|---|---|---|
| Lane Group | EBL | EBR | NBL | NBR | SWL | SWR |
| Lane Configurations | | |  | | |  |
| Volume (vph) | 0 | 0 | 37 | 8 | 0 | 3 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.975 | | | 0.865 |
| Flt Protected | | | 0.961 | | | |
| Satd. Flow (prot) | 0 | 0 | 1745 | 0 | 0 | 1611 |
| Flt Permitted | | | 0.961 | | | |
| Satd. Flow (perm) | 0 | 0 | 1745 | 0 | 0 | 1611 |
| Link Speed (k/h) | 50 | | 50 | | 50 | |
| Link Distance (m) | 26.7 | | 30.3 | | 92.7 | |
| Travel Time (s) | 1.9 | | 2.2 | | 6.7 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 0 | 40 | 9 | 0 | 3 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 0 | 49 | 0 | 0 | 3 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Right | Left | Right | Left | Right |
| Median Width(m) | 0.0 | | 3.6 | | 0.0 | |
| Link Offset(m) | 0.0 | | 0.0 | | 0.0 | |
| Crosswalk Width(m) | 4.8 | | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | 15 | 25 | 15 | 25 | 15 |
| Sign Control | Stop | | Free | | Stop | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |
| Intersection Capacity Utilization 6.7% | ICU Level of Service A | | | | | |
| Analysis Period (min) 15 | | | | | | |

| |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|
| Lane Group | EBL | EBT | WBT | WBR | SEL | SER |
| Lane Configurations | |  |  | |  | |
| Volume (vph) | 0 | 646 | 33 | 1 | 363 | 363 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | 0.996 | | 0.932 | |
| Flt Protected | | | | | 0.976 | |
| Satd. Flow (prot) | 0 | 1863 | 1855 | 0 | 1694 | 0 |
| Flt Permitted | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 1863 | 1855 | 0 | 1694 | 0 |
| Link Speed (k/h) | | 50 | 50 | | 50 | |
| Link Distance (m) | | 678.6 | 931.9 | | 225.5 | |
| Travel Time (s) | | 48.9 | 67.1 | | 16.2 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 702 | 36 | 1 | 395 | 395 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 702 | 37 | 0 | 790 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 0.0 | 0.0 | | 3.6 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | | | 15 | 25 | 15 |
| Sign Control | | Free | Free | | Stop | |
| Intersection Summary | | | | | | |
| Area Type: | Other | | | | | |
| Control Type: | Unsignalized | | | | | |
| Intersection Capacity Utilization | 83.0% | | | ICU Level of Service E | | |
| Analysis Period (min) | 15 | | | | | |



















Lanes, Volumes, Timings
300: Av. Vina del Mar/Alameda La Plata & Av. Meaípe

Cenário 02 Noite
28/07/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations | |  |  | |  | | |  | | |  | |
| Volume (vph) | 0 | 22 | 0 | 0 | 1021 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | | | | | | | |
| Flt Protected | | | | | | | | | | | | |
| Satd. Flow (prot) | 0 | 1863 | 1863 | 0 | 1863 | 0 | 0 | 1863 | 0 | 0 | 1863 | 0 |
| Flt Permitted | | | | | | | | | | | | |
| Satd. Flow (perm) | 0 | 1863 | 1863 | 0 | 1863 | 0 | 0 | 1863 | 0 | 0 | 1863 | 0 |
| Link Speed (k/h) | 50 | | | | 50 | | | | 50 | | | |
| Link Distance (m) | 139.2 | | | | 404.9 | | | | 40.0 | | | |
| Travel Time (s) | 10.0 | | | | 29.2 | | | | 2.9 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 24 | 0 | 0 | 1110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 24 | 0 | 0 | 1110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | 0.0 | | | | 0.0 | | | | 0.0 | | | |
| Link Offset(m) | 0.0 | | | | 0.0 | | | | 0.0 | | | |
| Crosswalk Width(m) | 4.8 | | | | 4.8 | | | | 4.8 | | | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Sign Control | Free | | | | Free | | | | Stop | | | |
| Intersection Summary | | | | | | | | | | | | |
| Area Type: | Other | | | | | | | | | | | |
| Control Type: | Unsignalized | | | | | | | | | | | |
| Intersection Capacity Utilization | 57.1% | | | | ICU Level of Service B | | | | | | | |
| Analysis Period (min) | 15 | | | | | | | | | | | |













Lanes, Volumes, Timings
400: Alameda LAs Palmas & Av. Meaípe

Cenário 02 Noite
28/07/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Lane Configurations |  |  | |  |  | | |  | | |  | |
| Volume (vph) | 0 | 25 | 0 | 0 | 1017 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | | | | | | | | |
| Flt Protected | | | | | | | | | | | 0.950 | |
| Satd. Flow (prot) | 1863 | 1863 | 0 | 1863 | 1863 | 0 | 0 | 1863 | 0 | 0 | 1770 | 0 |
| Flt Permitted | | | | | | | | | | | 0.757 | |
| Satd. Flow (perm) | 1863 | 1863 | 0 | 1863 | 1863 | 0 | 0 | 1863 | 0 | 0 | 1410 | 0 |
| Right Turn on Red | | | No | | | No | | | No | | | No |
| Satd. Flow (RTOR) | | | | | | | | | | | | |
| Link Speed (k/h) | | 50 | | | 50 | | | 50 | | | 50 | |
| Link Distance (m) | | 87.5 | | | 183.7 | | | 58.8 | | | 28.0 | |
| Travel Time (s) | | 6.3 | | | 13.2 | | | 4.2 | | | 2.0 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 27 | 0 | 0 | 1105 | 0 | 0 | 0 | 0 | 5 | 0 | 0 |
| Shared Lane Traffic (%) | | | | | | | | | | | | |
| Lane Group Flow (vph) | 0 | 27 | 0 | 0 | 1105 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Right | Left | Left | Right | Left | Left | Right | Left | Left | Right |
| Median Width(m) | | 3.6 | | | 3.6 | | | 0.0 | | | 0.0 | |
| Link Offset(m) | | 0.0 | | | 0.0 | | | 0.0 | | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | | | 4.8 | | | 4.8 | | | 4.8 | |
| Two way Left Turn Lane | | | | | | | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | | 15 | 25 | | 15 | 25 | | 15 | 25 | | 15 |
| Turn Type | Prot | NA | | Prot | NA | | Perm | | | Perm | NA | |
| Protected Phases | 1 | 6 | | 5 | 2 | | | 8 | | | 4 | |
| Permitted Phases | | | | | | | 8 | | | 4 | | |
| Minimum Split (s) | 15.0 | 45.0 | | 15.0 | 45.0 | | 15.0 | 15.0 | | 20.0 | 20.0 | |
| Total Split (s) | 20.0 | 50.0 | | 20.0 | 50.0 | | 20.0 | 20.0 | | 20.0 | 20.0 | |
| Total Split (%) | 22.2% | 55.6% | | 22.2% | 55.6% | | 22.2% | 22.2% | | 22.2% | 22.2% | |
| Maximum Green (s) | 16.0 | 46.0 | | 16.0 | 46.0 | | 16.0 | 16.0 | | 16.0 | 16.0 | |
| Yellow Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| All-Red Time (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | | 0.0 | 0.0 | |
| Lost Time Adjust (s) | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Lost Time (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | | 4.0 | | | 4.0 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Walk Time (s) | | | | | | | | | | 5.0 | 5.0 | |
| Flash Dont Walk (s) | | | | | | | | | | 11.0 | 11.0 | |
| Pedestrian Calls (#/hr) | | | | | | | | | | 0 | 0 | |
| Act Effct Green (s) | | 46.0 | | | 46.0 | | | | | | 16.0 | |
| Actuated g/C Ratio | | 0.51 | | | 0.51 | | | | | | 0.18 | |
| v/c Ratio | | 0.03 | | | 1.16 | | | | | | 0.02 | |
| Control Delay | | 11.1 | | | 107.9 | | | | | | 31.0 | |
| Queue Delay | | 0.0 | | | 0.0 | | | | | | 0.0 | |
| Total Delay | | 11.1 | | | 107.9 | | | | | | 31.0 | |
| LOS | | B | | | F | | | | | | C | |
| Approach Delay | | 11.1 | | | 107.9 | | | | | | 31.0 | |
| Approach LOS | | B | | | F | | | | | | C | |
| Queue Length 50th (m) | | 2.3 | | | ~240.5 | | | | | | 0.8 | |
| Queue Length 95th (m) | | 6.4 | | | #317.4 | | | | | | 3.8 | |

Lanes, Volumes, Timings
400: Alameda LAs Palmas & Av. Meaípe

Cenário 02 Noite
28/07/2023

| |  |  |  |  |  |  |  |  |  |  |  |  |
|------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| Internal Link Dist (m) | | 63.5 | | | 159.7 | | | 34.8 | | | 4.0 | |
| Turn Bay Length (m) | | | | | | | | | | | | |
| Base Capacity (vph) | | 952 | | | 952 | | | | | | 250 | |
| Starvation Cap Reductn | | 0 | | | 0 | | | | | | 0 | |
| Spillback Cap Reductn | | 0 | | | 0 | | | | | | 0 | |
| Storage Cap Reductn | | 0 | | | 0 | | | | | | 0 | |
| Reduced v/c Ratio | | 0.03 | | | 1.16 | | | | | | 0.02 | |

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:WBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 105.3

Intersection LOS: F

Intersection Capacity Utilization 63.5%

ICU Level of Service B

Analysis Period (min) 15







~ Volume exceeds capacity, queue is theoretically infinite.

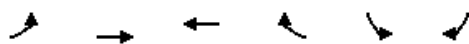
Queue shown is maximum after two cycles.

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

Queue shown is maximum after two cycles.

Splits and Phases: 400: Alameda LAs Palmas & Av. Meaípe

| | | |
|--|--|--|
|  ø1 |  ø2 (P) |  ø4 |
| 20 s | 50 s | 20 s |
|  ø5 |  ø6 |  ø8 |
| 20 s | 50 s | 20 s |



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|----------------------------|------|-------|-------|-------|-------|-------|
| Lane Configurations | | | | | | |
| Volume (vph) | 0 | 22 | 33 | 0 | 623 | 623 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Frt | | | | | 0.932 | |
| Flt Protected | | | | | 0.976 | |
| Satd. Flow (prot) | 0 | 1863 | 1863 | 0 | 1694 | 0 |
| Flt Permitted | | | | | 0.976 | |
| Satd. Flow (perm) | 0 | 1863 | 1863 | 0 | 1694 | 0 |
| Link Speed (k/h) | | 50 | 50 | | 50 | |
| Link Distance (m) | | 404.9 | 504.9 | | 68.0 | |
| Travel Time (s) | | 29.2 | 36.4 | | 4.9 | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Adj. Flow (vph) | 0 | 24 | 36 | 0 | 677 | 677 |
| Shared Lane Traffic (%) | | | | | | |
| Lane Group Flow (vph) | 0 | 24 | 36 | 0 | 1354 | 0 |
| Enter Blocked Intersection | No | No | No | No | No | No |
| Lane Alignment | Left | Left | Left | Right | Left | Right |
| Median Width(m) | | 0.0 | 0.0 | | 3.6 | |
| Link Offset(m) | | 0.0 | 0.0 | | 0.0 | |
| Crosswalk Width(m) | | 4.8 | 4.8 | | 4.8 | |
| Two way Left Turn Lane | | | | | | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Turning Speed (k/h) | 25 | | | 15 | 25 | 15 |
| Sign Control | | Free | Free | | Stop | |

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 82.7% ICU Level of Service E

Analysis Period (min) 15