# APPENDIX 1.1:

# TRAFFIC STUDY SCOPING AGREEMENT

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October 14, 2019

Ms. Mary Blais
City of Perris
135 N. D Street
Perris, CA 92570

**SUBJECT: IDI RIDER 2 AND 4 HIGH CUBE WAREHOUSE AND PERRIS VALLEY STORM DRAIN CHANNEL IMPROVEMENT PROJECT FOCUSED TRAFFIC ASSESSMENT SCOPING AGREEMENT**

Dear Ms. Mary Blais:

Urban Crossroads, Inc. is pleased to submit this scoping agreement to the City of Perris for the proposed IDI Rider 2 and 4 High Cube Warehouse and Perris Valley Storm Drain Channel Improvement Project development ("Project"), which is located on the northeast corner of Redlands Avenue and Rider Street, within the City of Perris' *Perris Valley Commerce Center Specific Plan* (PVCC SP). Specifically, the focused traffic assessment would evaluate the potential traffic impacts associated with changes to the Project trip distribution patterns with the proposed I-215 Freeway/Placentia Avenue interchange in place. It is our understanding that the interchange will be completed by end of 2021/early 2022. The Rider 2 and 4 Traffic Impact Analysis (October 2019) evaluates the "without I-215/Placentia Avenue interchange" alternative.

The purpose of this agreement is to obtain comments from City of Perris on the proposed scope of work in order to prepare a focused traffic assessment. The remainder of this agreement describes the proposed analysis methodology, trip generation, trip distribution, and traffic assignment/project trips on the surrounding roadway network, which have been used to establish the proposed project study area and analysis locations.

## STUDY AREA

Consistent with County of Riverside traffic study guidelines the study area limits have been set based upon a threshold of 50 peak hour project trips with input from City staff. In other words, the study area includes any intersection of Collector roadway or higher classification street with another Collector roadway or higher classification street, at which the proposed Project will add 50 or more peak hour trips, or as requested by City staff (if less than 50 peak hour trips). This methodology is also utilized in other near-by agencies, such as the City of Moreno Valley. The proposed intersection analysis locations have been identified on Exhibit 1.

## ANALYSIS SCENARIOS

Consistent with the latest traffic study, the following analysis scenarios will be analyzed for this focused traffic assessment:

- Existing (2019)
- Existing Plus Project (E+P)
- Existing plus Ambient Growth (EA) (2021)
- Existing Plus Ambient Growth Plus Project (E+A+P) (2021)
- Existing Plus Ambient Growth Plus Cumulative (E+A+C) (2021)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (E+A+P+C) (2021)

## METHODOLOGY

The methodology used to evaluate peak hour intersection performance is based on the Transportation Research Board's Highway Capacity Manual (HCM), 6th Edition. This methodology rates operations based on peak hour delay and associated level of service (LOS).

## LEVEL OF SERVICE (LOS) CRITERIA

Required LOS for roadway segments and intersections within the City of Perris is LOS D. An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway or at I-215 Freeway ramps. For the purposes of this traffic assessment, LOS D has also been considered the acceptable threshold for freeway facilities within the study area, consistent with Caltrans guidelines.

## PROJECT TRIP GENERATION

Trip generation for the proposed Project will be consistent with that used in the latest traffic study (October 2019). The Project is estimated to generate a net total of 2,880 passenger-car-equivalent (PCE) trip-ends per day on a typical weekday with approximately 165 AM PCE peak hour trips and 190 net PM PCE peak hour trips, as shown in Table 1.

## PROJECT TRIP DISTRIBUTIONS

Both the passenger car and truck trip distribution patterns from the traffic study have been revised to utilize the new I-215/Placentia Avenue interchange. Truck distribution patterns will be based on City truck routes. However, it is our understanding that the City desires to limit the amount of trucks along Perris Boulevard. Although Perris Boulevard is identified as a truck route per the City's General Plan and

the PVCC Specific Plan, the truck trip distributions for the Project are proposed to utilize Indian Street (also a truck route) to avoid distribution of trucks adjacent to residential uses along Perris Boulevard. The passenger car and truck trip distributions are illustrated on Exhibits 2 and 3, respectively.

## AMBIENT GROWTH RATE

Consistent with other City of Perris traffic studies performed by Urban Crossroads, an ambient growth rate of 3 percent per year will be used for this analysis.

## SPECIAL ISSUES

The following special issues will be addressed as part of the TIA:

- A truck turning template will be overlaid on the site plan for each project driveway anticipated to have heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turn maneuvers.
- Traffic signal warrant analyses will be conducted for all unsignalized study area intersections for all applicable analysis scenarios.

## CUMULATIVE DEVELOPMENT PROJECTS

The latest list of cumulative projects provided by the City will be utilized for the focused traffic assessment. The list of cumulative projects is provided on Table 2 and shown on Exhibit 4. The list is consistent with that utilized for the latest traffic study.

If you have any questions, please contact me directly at (949) 336-5982.

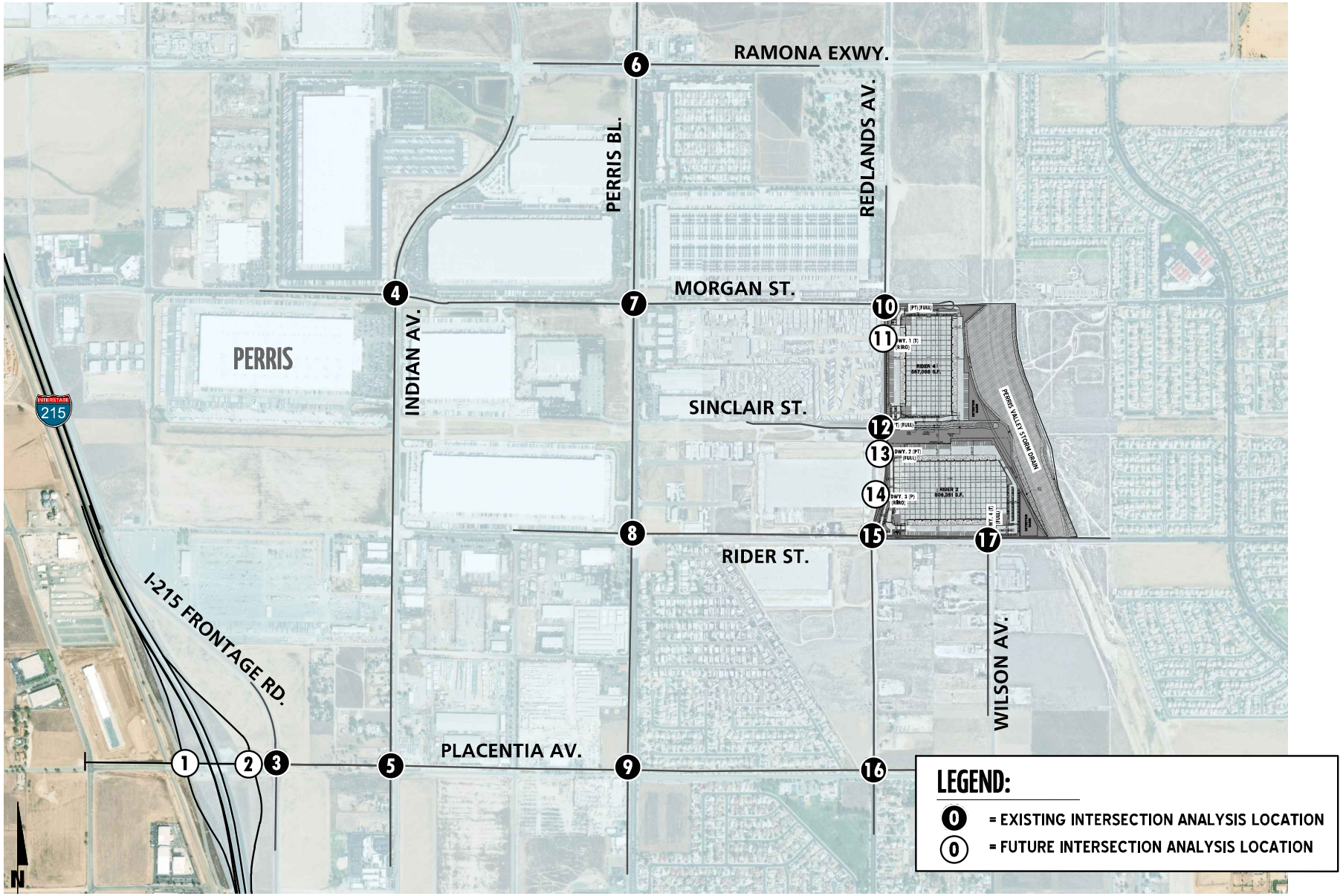
Respectfully submitted,

URBAN CROSSROADS, INC.

Charlene So

Charlene So, PE
Associate Principal

## EXHIBIT 1: LOCATION MAP



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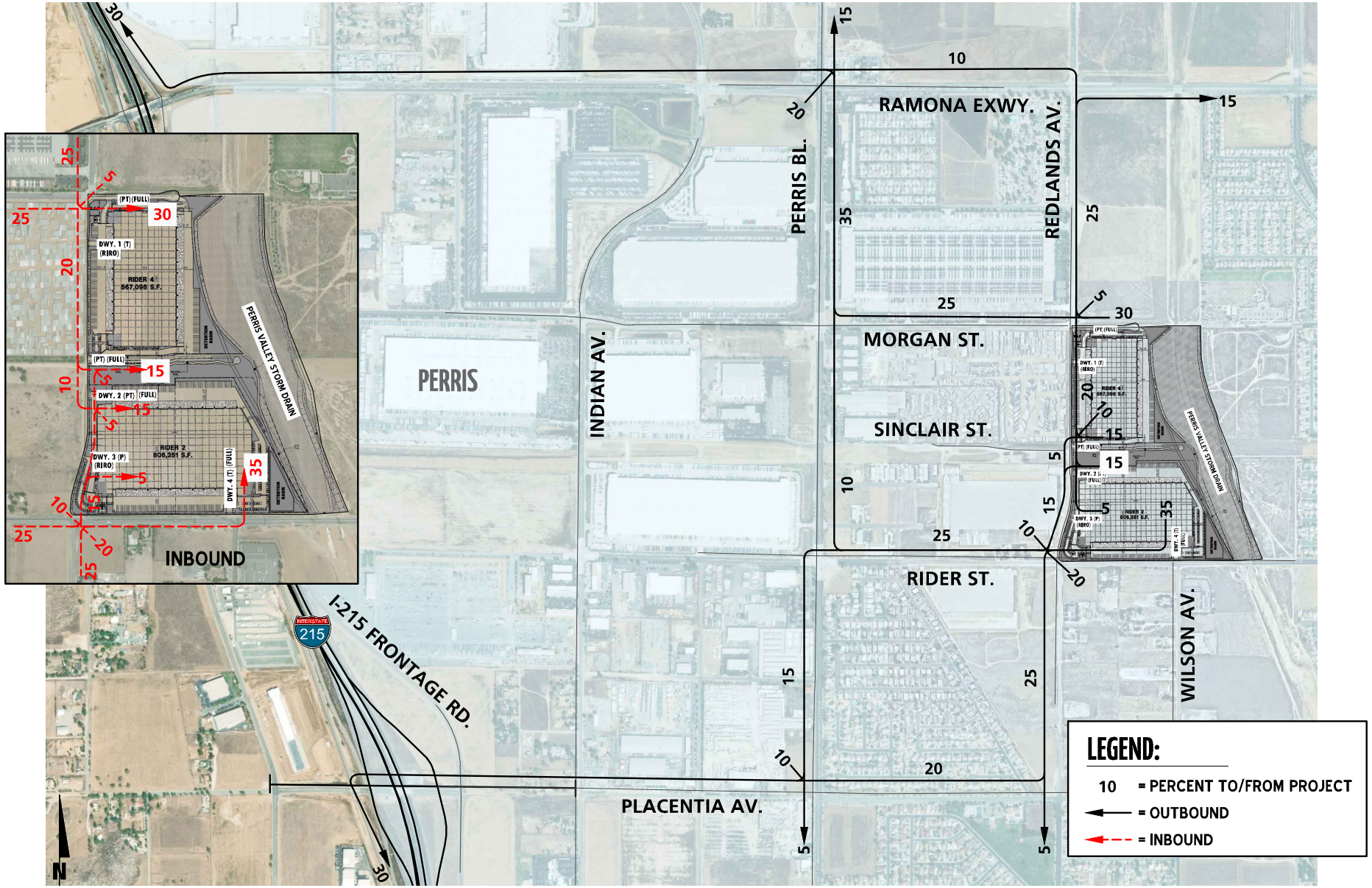
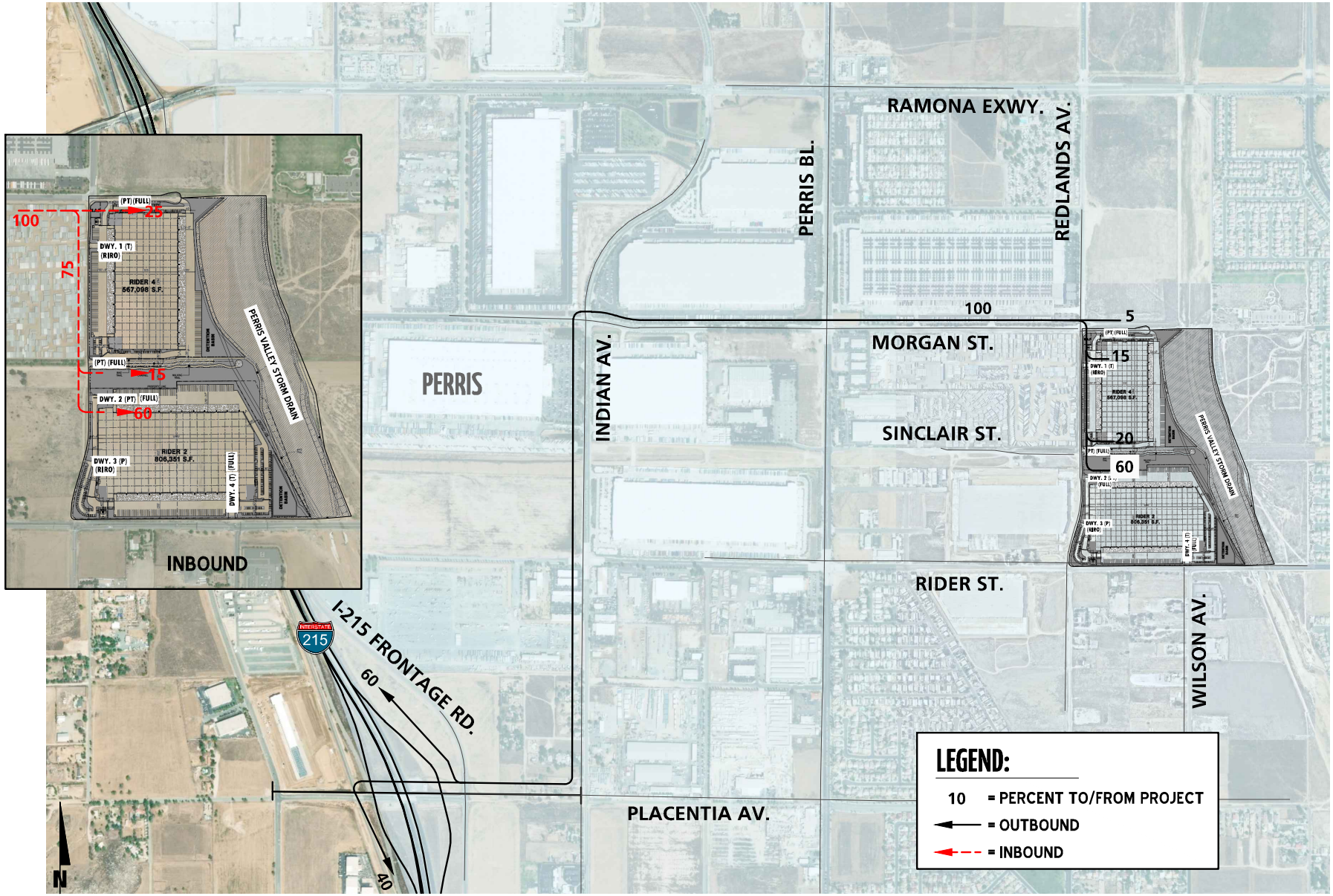
## EXHIBIT 2: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION



## EXHIBIT 3: PROJECT (TRUCK) TRIP DISTRIBUTION





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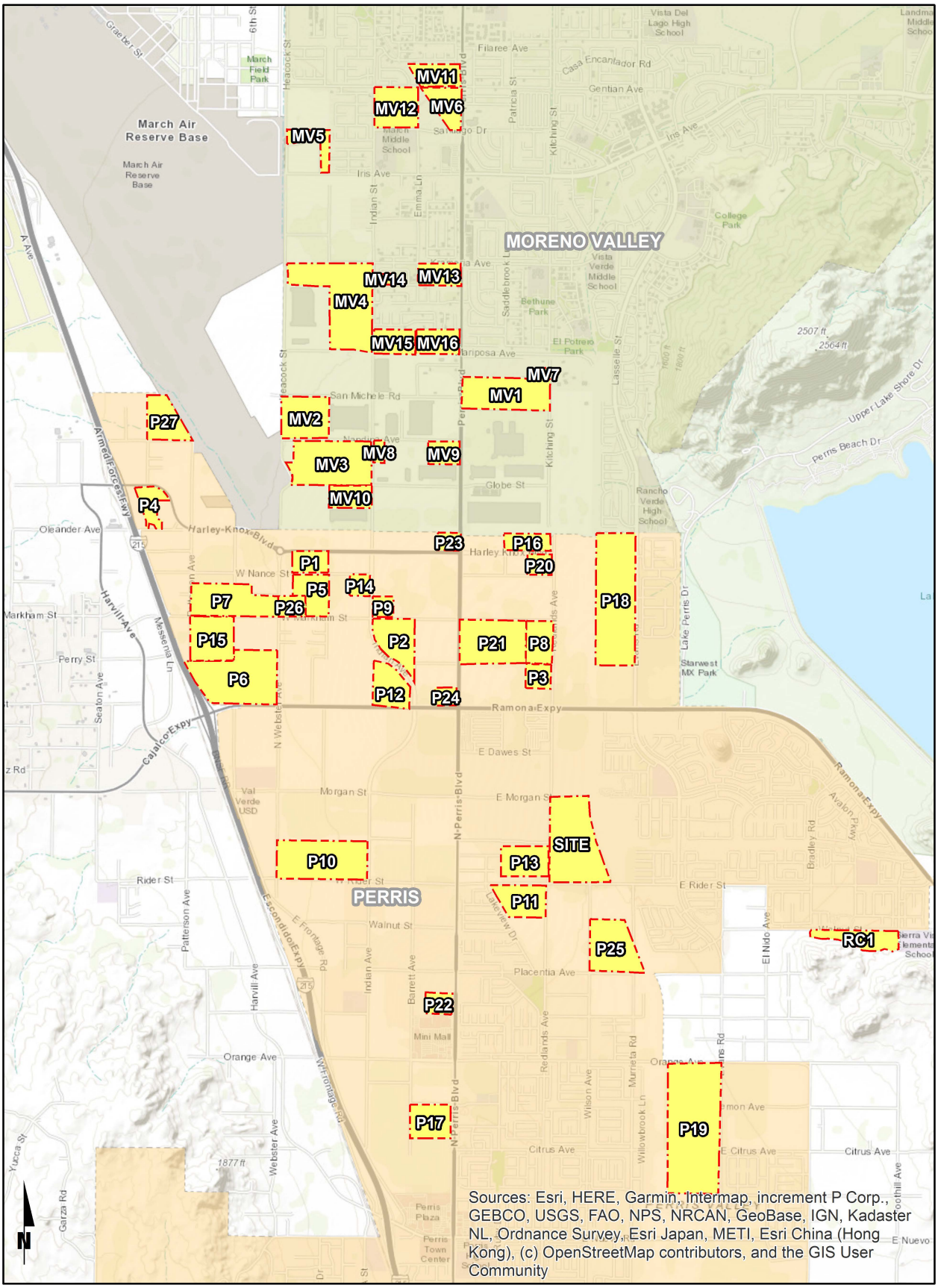
## EXHIBIT 4: CUMULATIVE DEVELOPMENT LOCATION MAP



## Table 1

### Project Trip Generation Summary (PCE)

| Project Trip Generation Rates | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use[1] | ITE LU Code | Units[2] | AM Peak Hour | | | PM Peak Hour | | | Daily |
| | | | In | Out | Total | In | Out | Total | |
| High-Cube Transload Short-Term Warehouse without Cold Storage[3,4] | 154 | TSF | 0.062 | 0.018 | 0.080 | 0.028 | 0.072 | 0.100 | 1.400 |
| Passenger Cars (69.2% AM, 78.3% PM, 67.8% Daily) | | | 0.043 | 0.013 | 0.056 | 0.022 | 0.056 | 0.078 | 0.949 |
| 2-Axle Trucks (5.14% AM, 3.62% PM, 5.38% Daily, PCE = 1.5)[5] | | | 0.005 | 0.002 | 0.007 | 0.002 | 0.005 | 0.007 | 0.114 |
| 3-Axle Trucks (6.38% AM, 4.49% PM, 6.66% Daily, PCE = 2.0)[5] | | | 0.008 | 0.002 | 0.010 | 0.002 | 0.006 | 0.008 | 0.186 |
| 4-Axle+ Trucks (19.28% AM, 13.59% PM, 20.16% Daily, PCE = 3.0)[5] | | | 0.036 | 0.009 | 0.045 | 0.012 | 0.030 | 0.042 | 0.846 |

| Project Trip Generation | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Project | Quantity | Units[2] | AM Peak Hour | | | PM Peak Hour | | | Daily |
| | | | In | Out | Total | In | Out | Total | |
| High-Cube Transload Short-Term Warehouse without Cold Storage | 1,373.449 | TSF | | | | | | | |
| Passenger Cars: | | | 60 | 18 | 78 | 31 | 77 | 108 | 1,304 |
| Truck Trips: | | | | | | | | | |
| *2-axle:* | | | 7 | 3 | 10 | 3 | 7 | 10 | 158 |
| *3-axle:* | | | 11 | 3 | 14 | 3 | 9 | 12 | 256 |
| *4+-axle:* | | | 50 | 13 | 63 | 17 | 42 | 59 | 1,162 |
| *- Net Truck Trips (PCE)* | | | *68* | *19* | *87* | *23* | *58* | *81* | *1,576* |
| ***TOTAL NET TRIPS (PCE)*** | | | ***128*** | ***37*** | ***165*** | ***54*** | ***135*** | ***189*** | ***2,880*** |

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition (2017).

[2] TSF = thousand square feet

[3] Vehicle Mix Source: Institute of Transportation Engineers (ITE), High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016).

[4] Truck Mix Source: SCAQMD Warehouse Truck Trip Study Data Results and Usage (2014).

Normalized % - Without Cold Storage:

16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks

[5] PCE rates are per San Bernardino County Transportation Authority (SBCTA).

**Table 2**



**Cumulative Development Land Use Summary**

| No. | Project Name / Case Number | Jurisdiction | Land Use[1] | Quantity | Units[2] | Location |
|---|---|---|---|---|---|---|
| P1 | Bargemann / DPR 07-09-0018 | Perris | Warehousing | 173.000 | TSF | NEC OF WEBSTER AVE. & NANCE AVE. |
| P2 | Duke 2 / DPR 16-00008 | Perris | High-Cube Warehouse | 669.000 | TSF | NEC OF INDIAN AVE. & MARKHAM ST. |
| P3 | First Perry / DPR 16-00013 | Perris | High-Cube Warehouse | 240.000 | TSF | SWC OF REDLANDS AVE. & PERRY ST. |
| P4 | Gateway / DPR 16-00003 | Perris | High-Cube Warehouse | 400.000 | TSF | SOUTH OF HARLEY KNOX BLVD. EAST OF HWY. 215 |
| P5 | Integra / DPR 14-02-0014 | Perris | High-Cube Warehouse | 864.000 | TSF | EAST OF WEBSTER AVE. SOUTH OF NANCE ST. |
| P6 | OLC 1 / DPR 12-10-0005 | Perris | High-Cube Warehouse | 1,455.000 | TSF | WEST OF WEBSTER AVE. NORTH OF RAMONA EXWY |
| P7 | OLC2 / DPR 14-01-0015 | Perris | High-Cube Warehouse | 1,037.000 | TSF | WEST OF WEBSTER AVE. NORTH OF MARKHAM ST. |
| P8 | Markham East / DPR 05-0477 | Perris | High-Cube Warehouse | 460.000 | TSF | SWC OF REDLANDS AVE. & MARKHAM ST. |
| P9 | Markham Industrial / DPR 16-00015 | Perris | Warehousing | 170.000 | TSF | NEC OF INDIAN AVE. & MARKHAM ST. |
| P10 | Rados / DPR 07-0119 | Perris | High-Cube Warehouse | 1,200.000 | TSF | NWC OF INDIAN AVE. & RIDER ST. |
| P11 | Rider 1 / DPR 16-0365 | Perris | High-Cube Warehouse | 350.000 | TSF | SWC OF REDLANDS AVE. & RIDER ST. |
| P12 | Indian/Ramona Warehouse / DPR 18-00002 | Perris | High-Cube Warehouse | 428.730 | TSF | NORTH OF RAMONA EXWY. WEST OF INDIAN AVE. |
| P13 | Rider 3 / DPR 06-0432 | Perris | High-Cube Warehouse | 640.000 | TSF | NORTH OF RIDER ST. WEST OF REDLANDS AVE. |
| P14 | Westcoast Textile / DPR 16-00001 | Perris | Warehousing | 180.000 | TSF | SWC OF INDIAN ST. & NANCE ST. |
| P15 | Duke at Patterson / DPR 17-00001 | Perris | High-Cube Warehouse | 811.000 | TSF | SEC OF PATTERSON AVE. & MARKHAM ST. |
| P16 | Harley Knox Commerce Park / DPR 16-004 | Perris | High-Cube Warehouse | 386.278 | TSF | NWC OF HARLEY KNOX BLVD. & REDLANDS AVE. |
| P17 | Perris Marketplace / DPR 05-0341 | Perris | Commercial Retail | 520.000 | TSF | WEST OF PERRIS BLVD. AT AVOCADO AVE. |
| P18 | Stratford Ranch Residential / TTM 36648 | Perris | SFDR | 270 | DU | WEST OF EVANS RD. AT MARKHAM ST. |
| P19 | Pulte Residential / TTM 30850 | Perris | SFDR | 496 | DU | WEST OF EVANS RD. AT CITRUS AVE. |
| P20 | Perris Circle 3 | Perris | Warehousing | 210.900 | TSF | NWC OF REDLANDS AVE. AND NANCE AVE. |
| P21 | Duke Realty - Perris & Markham | Perris | High-Cube Warehouse | 1,189.860 | TSF | SEC OF PERRIS BL. AND MARKHAM ST. |
| P22 | Weinerschnitzel / CUP 17-05083 | Perris | Fast-Food Restaurant | 2.000 | TSF | WEST OF PERRIS BL., SOUTH OF PLACENTIA AVE. |
| P23 | March Plaza / CUP16-05165 | Perris | Commercial Retail | 47.253 | TSF | NWC OF PERRIS BL. AND HARLEY KNOX BL. |
| P24 | Cali Express Carwash / CUP 16-05258 | Perris | Carwash | 5.600 | TSF | NWC OF PERRIS BL. AND RAMONA EXWY. |
| P25 | Wilson Industrial / DPR 19-00007 | Perris | High-Cube Warehouse | 303.000 | TSF | SEC OF WILSON AVE. AND RIDER ST. |
| P26 | Integra Expansion / MMOD 17-05075 | Perris | High-Cube Warehouse | 273.000 | TSF | NCE OF MARKHAM ST. AND WEBSTER AVE. |
| P27 | Western Industrial / DRP 19-00003 | Perris | High-Cube Warehouse | 250.000 | TSF | NEC or WESTERN WY. AND NANDINA AVE. |

**Table 2**



**Cumulative Development Land Use Summary**

| No. | Project Name / Case Number | Jurisdiction | Land Use[1] | Quantity | Units[2] | Location |
|---|---|---|---|---|---|---|
| MV1 | Kearney | Moreno Valley | High-Cube Warehouse | 1100.000 | TSF | EAST OF PERRIS BLVD. AT SAN MICHEL RD. |
| MV2 | IDS | Moreno Valley | High-Cube Warehouse | 701.000 | TSF | SEC OF HEACOCK ST. & SAN MICHELE RD. |
| MV3 | First Industrial | Moreno Valley | High-Cube Warehouse | 1380.000 | TSF | SWC OF INDIAN AVE. & NANDINA AVE. |
| MV4 | Prologis 1 | Moreno Valley | High-Cube Warehouse | 1000.000 | TSF | NEC OF INDIAN AVE. & MARIPOSA AVE. |
| MV5 | Moreno Valley Industrial Park | Moreno Valley | High-Cube Warehouse | 207.684 | TSF | NEC OF HEACOCK ST. & IRIS AVE. |
| MV6 | Moreno Valley Walmart | Moreno Valley | Retail | 193.000 | TSF | SWC OF PERRIS BLVD. & GENTIAN AVE. |
| MV7 | Moreno Valley Utility Substation | Moreno Valley | High-Cube Warehouse | PUBLIC | TSF | NWC OF EDWIN RD. & KITCHING ST. |
| MV8 | Phelan Development | Moreno Valley | High-Cube Warehouse | 98.210 | TSF | SEC OF INDIAN ST. & NANDINA AVE. |
| MV9 | Nandina Industrial Center | Moreno Valley | High-Cube Warehouse | 335.966 | TSF | SOUTH OF NANDINA AVE. WEST OF PERRIS BLVD. |
| MV10 | Indian Street Commerce Center | Moreno Valley | High-Cube Warehouse | 433.918 | TSF | SWC OF INDIAN ST. & GROVEVIEW RD. |
| MV11 | Tract 22180 | Moreno Valley | SFDR | 140 | DU | NORTH OF GENTIAN AVE. EAST OF INDIAN ST. |
| MV12 | Tract 36760 | Moreno Valley | SFDR | 221 | DU | SEC OF INDIAN ST. & GENTIAN AVE. |
| MV13 | PEN18-0042 | Moreno Valley | SFDR | 2 | DU | SEC OF INDIAN ST. & KRAMERIA AVE. |
| MV14 | Tract 33024 | Moreno Valley | SFDR | 8 | DU | SEC OF INDIAN ST. & KRAMERIA AVE. |
| MV15 | Tract 32716 | Moreno Valley | SFDR | 57 | DU | NEC OF INDIAN ST. & MARIPOSA AVE. |
| MV16 | Tract 31442 | Moreno Valley | SFDR | 63 | DU | NWC OF PERRIS BLVD. & MARIPOSA AVE. |
| RC1 | McCanna Hills / TTM 33978 | County of Riverside | SFDR | 63 | DU | SWC OF SHERMAN AVE. & WALNUT AVE. |

[1] SFDR = Single Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet

# APPENDIX 1.2:

# SITE ADJACENT QUEUING ANALYSIS

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## Intersection: 10: Redlands Av. & Morgan St.

| Movement | EB | EB | WB | NB |
|---|---|---|---|---|
| Directions Served | L | TR | LTR | L |
| Maximum Queue (ft) | 45 | 63 | 31 | 34 |
| Average Queue (ft) | 19 | 27 | 8 | 2 |
| 95th Queue (ft) | 40 | 48 | 30 | 17 |
| Link Distance (ft) | 622 | 622 | 799 | |
| Upstream Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |
| Storage Bay Dist (ft) | | | | 150 |
| Storage Blk Time (%) | | | | |
| Queuing Penalty (veh) | | | | |

## Intersection: 11: Redlands Av. & Driveway 1

| Movement | WB |
|---|---|
| Directions Served | R |
| Maximum Queue (ft) | 23 |
| Average Queue (ft) | 2 |
| 95th Queue (ft) | 14 |
| Link Distance (ft) | 234 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

## Intersection: 12: Redlands Av. & Sinclair St.

| Movement | EB | WB | SB |
|---|---|---|---|
| Directions Served | LTR | R | L |
| Maximum Queue (ft) | 33 | 31 | 18 |
| Average Queue (ft) | 12 | 6 | 1 |
| 95th Queue (ft) | 35 | 25 | 11 |
| Link Distance (ft) | 1324 | 459 | |
| Upstream Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |
| Storage Bay Dist (ft) | | | 150 |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

## Intersection: 13: Redlands Av. & Driveway 2

| Movement | EB | WB | NB | NB | NB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|
| Directions Served | LTR | LTR | L | T | TR | L | T | TR |
| Maximum Queue (ft) | 40 | 36 | 34 | 33 | 41 | 56 | 31 | 35 |
| Average Queue (ft) | 7 | 12 | 8 | 3 | 3 | 26 | 3 | 6 |
| 95th Queue (ft) | 29 | 37 | 31 | 17 | 18 | 53 | 17 | 25 |
| Link Distance (ft) | 513 | 1113 | | 412 | 412 | | 254 | 254 |
| Upstream Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |
| Storage Bay Dist (ft) | | | 150 | | | 150 | | |
| Storage Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |

## Intersection: 14: Redlands Av. & Driveway 3

| Movement | EB | WB |
|---|---|---|
| Directions Served | R | R |
| Maximum Queue (ft) | 31 | 11 |
| Average Queue (ft) | 6 | 0 |
| 95th Queue (ft) | 26 | 6 |
| Link Distance (ft) | 415 | 365 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 15: Redlands Av. & Rider St.

| Movement | EB | EB | EB | WB | WB | WB | NB | NB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | R | L | T | TR | L | TR | L | T | TR |
| Maximum Queue (ft) | 66 | 220 | 14 | 144 | 246 | 237 | 119 | 199 | 50 | 52 | 77 |
| Average Queue (ft) | 20 | 110 | 3 | 102 | 92 | 96 | 37 | 78 | 12 | 21 | 28 |
| 95th Queue (ft) | 51 | 196 | 11 | 162 | 203 | 194 | 88 | 155 | 40 | 47 | 59 |
| Link Distance (ft) | 1688 | 1688 | 1688 | | 1217 | 1217 | | 1502 | | 452 | 452 |
| Upstream Blk Time (%) | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | |
| Storage Bay Dist (ft) | | | | 120 | | | 150 | | 150 | | |
| Storage Blk Time (%) | | | | 9 | 2 | | | 2 | | | |
| Queuing Penalty (veh) | | | | 33 | 4 | | | 1 | | | |

## Intersection: 16: Redlands Av. & Placentia Av.

| Movement | EB | EB | EB | WB | WB | NB | NB | NB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | R | L | TR | L | T | TR | L | T | R |
| Maximum Queue (ft) | 96 | 141 | 82 | 124 | 190 | 158 | 194 | 151 | 64 | 203 | 85 |
| Average Queue (ft) | 27 | 67 | 37 | 29 | 82 | 94 | 54 | 35 | 9 | 99 | 48 |
| 95th Queue (ft) | 63 | 118 | 66 | 78 | 143 | 160 | 154 | 91 | 41 | 176 | 104 |
| Link Distance (ft) | | 1554 | 1554 | | 1628 | | 1140 | 1140 | | 1502 | |
| Upstream Blk Time (%) | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | |
| Storage Bay Dist (ft) | 135 | | | 100 | | 135 | | | 150 | | 60 |
| Storage Blk Time (%) | | 1 | | | 6 | 10 | | | | 23 | 1 |
| Queuing Penalty (veh) | | 0 | | | 3 | 12 | | | | 13 | 2 |

## Intersection: 17: Wilson Av./Driveway 4 & Rider St.

| Movement | EB | EB | EB | WB | WB | WB | NB | SB |
|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | R | L | T | TR | LTR | LTR |
| Maximum Queue (ft) | 125 | 416 | 74 | 208 | 342 | 265 | 260 | 31 |
| Average Queue (ft) | 45 | 198 | 16 | 154 | 135 | 88 | 113 | 4 |
| 95th Queue (ft) | 107 | 359 | 59 | 227 | 310 | 234 | 204 | 20 |
| Link Distance (ft) | | 1217 | | | 851 | 851 | 862 | 310 |
| Upstream Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |
| Storage Bay Dist (ft) | 100 | | 50 | 185 | | | | |
| Storage Blk Time (%) | 0 | 28 | 0 | 10 | 1 | | | |
| Queuing Penalty (veh) | 1 | 24 | 1 | 44 | 2 | | | |

## Network Summary

Network wide Queuing Penalty: 140

## Intersection: 10: Redlands Av. & Morgan St.

| Movement | EB | EB | WB | NB | SB |
|---|---|---|---|---|---|
| Directions Served | L | TR | LTR | L | R |
| Maximum Queue (ft) | 50 | 45 | 54 | 44 | 4 |
| Average Queue (ft) | 22 | 18 | 22 | 9 | 0 |
| 95th Queue (ft) | 42 | 37 | 49 | 33 | 3 |
| Link Distance (ft) | 622 | 622 | 799 | | 593 |
| Upstream Blk Time (%) | | | | | |
| Queuing Penalty (veh) | | | | | |
| Storage Bay Dist (ft) | | | | 150 | |
| Storage Blk Time (%) | | | | | |
| Queuing Penalty (veh) | | | | | |

## Intersection: 11: Redlands Av. & Driveway 1

| Movement | WB |
|---|---|
| Directions Served | R |
| Maximum Queue (ft) | 23 |
| Average Queue (ft) | 6 |
| 95th Queue (ft) | 23 |
| Link Distance (ft) | 234 |
| Upstream Blk Time (%) | |
| Queuing Penalty (veh) | |
| Storage Bay Dist (ft) | |
| Storage Blk Time (%) | |
| Queuing Penalty (veh) | |

## Intersection: 12: Redlands Av. & Sinclair St.

| Movement | EB | WB | SB |
|---|---|---|---|
| Directions Served | LTR | R | L |
| Maximum Queue (ft) | 28 | 36 | 17 |
| Average Queue (ft) | 18 | 15 | 1 |
| 95th Queue (ft) | 40 | 41 | 7 |
| Link Distance (ft) | 1324 | 427 | |
| Upstream Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |
| Storage Bay Dist (ft) | | | 150 |
| Storage Blk Time (%) | | | |
| Queuing Penalty (veh) | | | |

## Intersection: 13: Redlands Av. & Driveway 2

| Movement | EB | WB | NB | NB | NB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|
| Directions Served | LTR | LTR | L | T | TR | L | T | TR |
| Maximum Queue (ft) | 53 | 58 | 30 | 38 | 43 | 56 | 35 | 48 |
| Average Queue (ft) | 20 | 25 | 8 | 9 | 7 | 15 | 4 | 9 |
| 95th Queue (ft) | 51 | 53 | 28 | 31 | 29 | 43 | 22 | 34 |
| Link Distance (ft) | 479 | 1113 | | 412 | 412 | | 254 | 254 |
| Upstream Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |
| Storage Bay Dist (ft) | | | 150 | | | 150 | | |
| Storage Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |

## Intersection: 14: Redlands Av. & Driveway 3

| Movement | EB | WB |
|---|---|---|
| Directions Served | R | R |
| Maximum Queue (ft) | 31 | 31 |
| Average Queue (ft) | 5 | 3 |
| 95th Queue (ft) | 23 | 17 |
| Link Distance (ft) | 444 | 365 |
| Upstream Blk Time (%) | | |
| Queuing Penalty (veh) | | |
| Storage Bay Dist (ft) | | |
| Storage Blk Time (%) | | |
| Queuing Penalty (veh) | | |

## Intersection: 15: Redlands Av. & Rider St.

| Movement | EB | EB | EB | WB | WB | WB | NB | NB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | R | L | T | TR | L | TR | L | T | TR |
| Maximum Queue (ft) | 149 | 266 | 26 | 139 | 108 | 131 | 76 | 133 | 29 | 57 | 64 |
| Average Queue (ft) | 40 | 123 | 6 | 66 | 41 | 45 | 24 | 58 | 5 | 23 | 27 |
| 95th Queue (ft) | 94 | 232 | 19 | 117 | 90 | 99 | 56 | 113 | 21 | 48 | 55 |
| Link Distance (ft) | | 1688 | 1688 | | 1204 | 1204 | | 1591 | | 452 | 452 |
| Upstream Blk Time (%) | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | |
| Storage Bay Dist (ft) | 100 | | | 120 | | | 150 | | 150 | | |
| Storage Blk Time (%) | 0 | 10 | | 1 | 0 | | | 0 | | | |
| Queuing Penalty (veh) | 2 | 5 | | 2 | 0 | | | 0 | | | |

## Intersection: 16: Redlands Av. & Placentia Av.

| Movement | EB | EB | EB | WB | WB | NB | NB | NB | SB | SB | SB |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | R | L | TR | L | T | TR | L | T | R |
| Maximum Queue (ft) | 73 | 186 | 88 | 41 | 148 | 116 | 56 | 42 | 36 | 135 | 73 |
| Average Queue (ft) | 21 | 84 | 40 | 14 | 64 | 49 | 31 | 20 | 4 | 65 | 20 |
| 95th Queue (ft) | 53 | 152 | 71 | 36 | 116 | 87 | 51 | 36 | 21 | 113 | 52 |
| Link Distance (ft) | | 1703 | 1703 | | 1893 | | 1068 | 1068 | | 1591 | |
| Upstream Blk Time (%) | | | | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | | | | |
| Storage Bay Dist (ft) | 135 | | | 100 | | 135 | | | 150 | | 60 |
| Storage Blk Time (%) | | 3 | | | 2 | 0 | | | | 9 | 0 |
| Queuing Penalty (veh) | | 1 | | | 0 | 0 | | | | 3 | 0 |

## Intersection: 17: Wilson Av./Driveway 4 & Rider St.

| Movement | EB | EB | EB | WB | WB | WB | NB | SB |
|---|---|---|---|---|---|---|---|---|
| Directions Served | L | T | R | L | T | TR | LTR | LTR |
| Maximum Queue (ft) | 134 | 362 | 223 | 171 | 152 | 105 | 208 | 44 |
| Average Queue (ft) | 44 | 139 | 22 | 83 | 66 | 29 | 94 | 16 |
| 95th Queue (ft) | 103 | 290 | 99 | 145 | 128 | 76 | 168 | 42 |
| Link Distance (ft) | | 1204 | | | 851 | 851 | 862 | 515 |
| Upstream Blk Time (%) | | | | | | | | |
| Queuing Penalty (veh) | | | | | | | | |
| Storage Bay Dist (ft) | 100 | | 50 | 185 | | | | |
| Storage Blk Time (%) | 1 | 18 | 0 | 0 | 0 | | | |
| Queuing Penalty (veh) | 8 | 20 | 1 | 0 | 0 | | | |

## Network Summary

Network wide Queuing Penalty: 42

# APPENDIX 3.1:

# EXISTING TRAFFIC COUNTS – MAY 2018

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# INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| Tue, Oct 29, 19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1.5 | NR 0.5 | SL 1 | ST 2 | SR 1 | EL 1 | ET 2 | ER 1 | WL 1 | WT 1 | WR 1 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL | NRR 0 | SRR 0 | ERR 0 | WRR 0 |
| AM | 7:00 AM | 1 | 29 | 6 | 5 | 15 | 1 | 5 | 21 | 13 | 17 | 37 | 38 | 188 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 14 |
| AM | 7:15 AM | 3 | 29 | 9 | 8 | 10 | 1 | 10 | 28 | 5 | 15 | 26 | 32 | 176 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 1 | 11 |
| AM | 7:30 AM | 2 | 36 | 11 | 7 | 16 | 3 | 8 | 38 | 9 | 17 | 29 | 31 | 207 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 8 |
| AM | 7:45 AM | 5 | 30 | 15 | 10 | 18 | 1 | 7 | 35 | 4 | 34 | 40 | 39 | 238 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 1 | 9 |
| AM | 8:00 AM | 2 | 18 | 8 | 15 | 20 | 4 | 6 | 19 | 5 | 6 | 22 | 22 | 147 | 0 | 0 | 0 | 0 | 0 | 7 | 4 | 1 | 11 |
| AM | 8:15 AM | 2 | 4 | 2 | 6 | 12 | 2 | 1 | 17 | 9 | 10 | 9 | 14 | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 1 |
| AM | 8:30 AM | 1 | 13 | 3 | 8 | 17 | 0 | 2 | 13 | 7 | 7 | 11 | 12 | 94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 |
| AM | 8:45 AM | 0 | 20 | 2 | 3 | 12 | 0 | 2 | 17 | 1 | 3 | 8 | 17 | 85 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 7 |
| AM | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | VOLUMES | 16 | 179 | 56 | 62 | 120 | 12 | 41 | 188 | 53 | 109 | 182 | 205 | 1,223 | 0 | 0 | 0 | 0 | 0 | 23 | 8 | 15 | 67 |
| AM | APPROACH % | 6% | 71% | 22% | 32% | 62% | 6% | 15% | 67% | 19% | 22% | 37% | 41% | | | | | | | | | | |
| AM | APP/DEPART | 251 | / | 425 | 194 | / | 282 | 282 | / | 306 | 496 | / | 210 | 0 | | | | | | | | | |
| AM | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| AM | VOLUMES | 11 | 124 | 41 | 30 | 59 | 6 | 30 | 122 | 31 | 83 | 132 | 140 | 809 | | | | | | 15 | 3 | 10 | 42 |
| AM | APPROACH % | 6% | 70% | 23% | 32% | 62% | 6% | 16% | 67% | 17% | 23% | 37% | 39% | | | | | | | | | | |
| AM | PEAK HR FACTOR | | 0.880 | | | 0.819 | | | 0.832 | | | 0.785 | | 0.850 | | | | | | | | | |
| AM | APP/DEPART | 176 | / | 294 | 95 | / | 173 | 183 | / | 193 | 355 | / | 149 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:00 PM | 2 | 17 | 8 | 10 | 41 | 2 | 5 | 42 | 9 | 5 | 15 | 14 | 170 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 4 | 3 |
| PM | 4:15 PM | 5 | 23 | 3 | 12 | 31 | 3 | 3 | 37 | 5 | 14 | 20 | 15 | 171 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 9 |
| PM | 4:30 PM | 5 | 23 | 14 | 30 | 95 | 8 | 3 | 41 | 18 | 6 | 17 | 23 | 283 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 7 | 9 |
| PM | 4:45 PM | 4 | 13 | 3 | 15 | 53 | 4 | 2 | 40 | 10 | 7 | 16 | 4 | 171 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 6 | 2 |
| PM | 5:00 PM | 2 | 19 | 2 | 12 | 38 | 4 | 0 | 50 | 9 | 8 | 21 | 13 | 178 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 7 |
| PM | 5:15 PM | 1 | 14 | 8 | 13 | 42 | 3 | 5 | 41 | 8 | 5 | 16 | 14 | 170 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 3 | 6 |
| PM | 5:30 PM | 1 | 21 | 8 | 15 | 33 | 3 | 4 | 43 | 7 | 9 | 16 | 19 | 179 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 2 | 10 |
| PM | 5:45 PM | 1 | 27 | 1 | 9 | 30 | 6 | 2 | 62 | 12 | 4 | 17 | 18 | 189 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 3 | 9 |
| PM | VOLUMES | 21 | 157 | 47 | 116 | 363 | 33 | 24 | 356 | 78 | 58 | 138 | 120 | 1,511 | 0 | 0 | 0 | 0 | 0 | 21 | 20 | 34 | 55 |
| PM | APPROACH % | 9% | 70% | 21% | 23% | 71% | 6% | 5% | 78% | 17% | 18% | 44% | 38% | | | | | | | | | | |
| PM | APP/DEPART | 225 | / | 301 | 512 | / | 499 | 458 | / | 519 | 316 | / | 192 | 0 | | | | | | | | | |
| PM | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | | | | | |
| PM | VOLUMES | 16 | 78 | 22 | 69 | 217 | 19 | 8 | 168 | 42 | 35 | 74 | 55 | 803 | | | | | | 10 | 11 | 22 | 27 |
| PM | APPROACH % | 14% | 67% | 19% | 23% | 71% | 6% | 4% | 77% | 19% | 21% | 45% | 34% | | | | | | | | | | |
| PM | PEAK HR FACTOR | | 0.690 | | | 0.573 | | | 0.879 | | | 0.837 | | 0.709 | | | | | | | | | |
| PM | APP/DEPART | 116 | / | 141 | 305 | / | 294 | 218 | / | 259 | 164 | / | 109 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Rider** WEST SIDE

EAST SIDE **Rider**

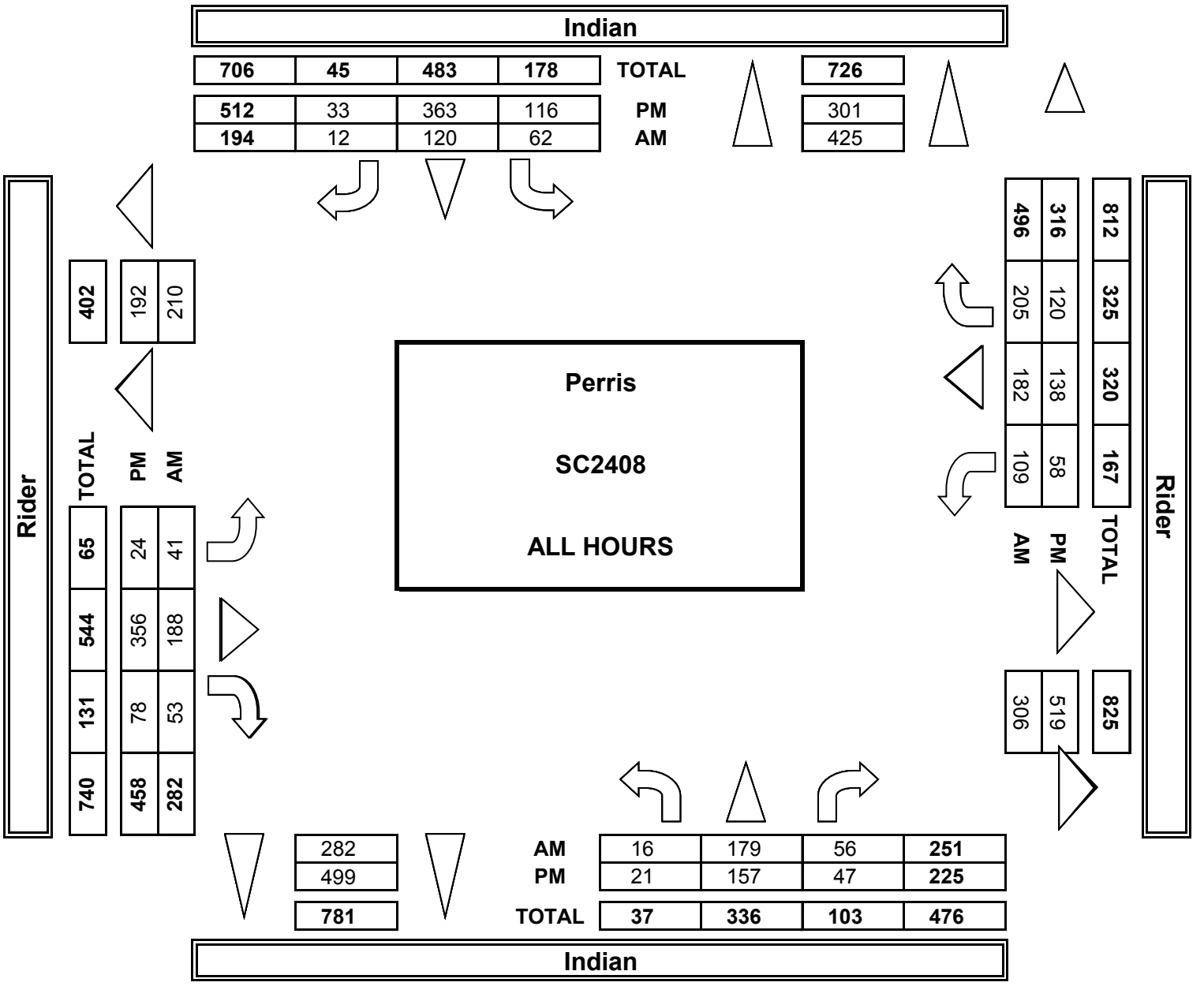
SOUTH SIDE

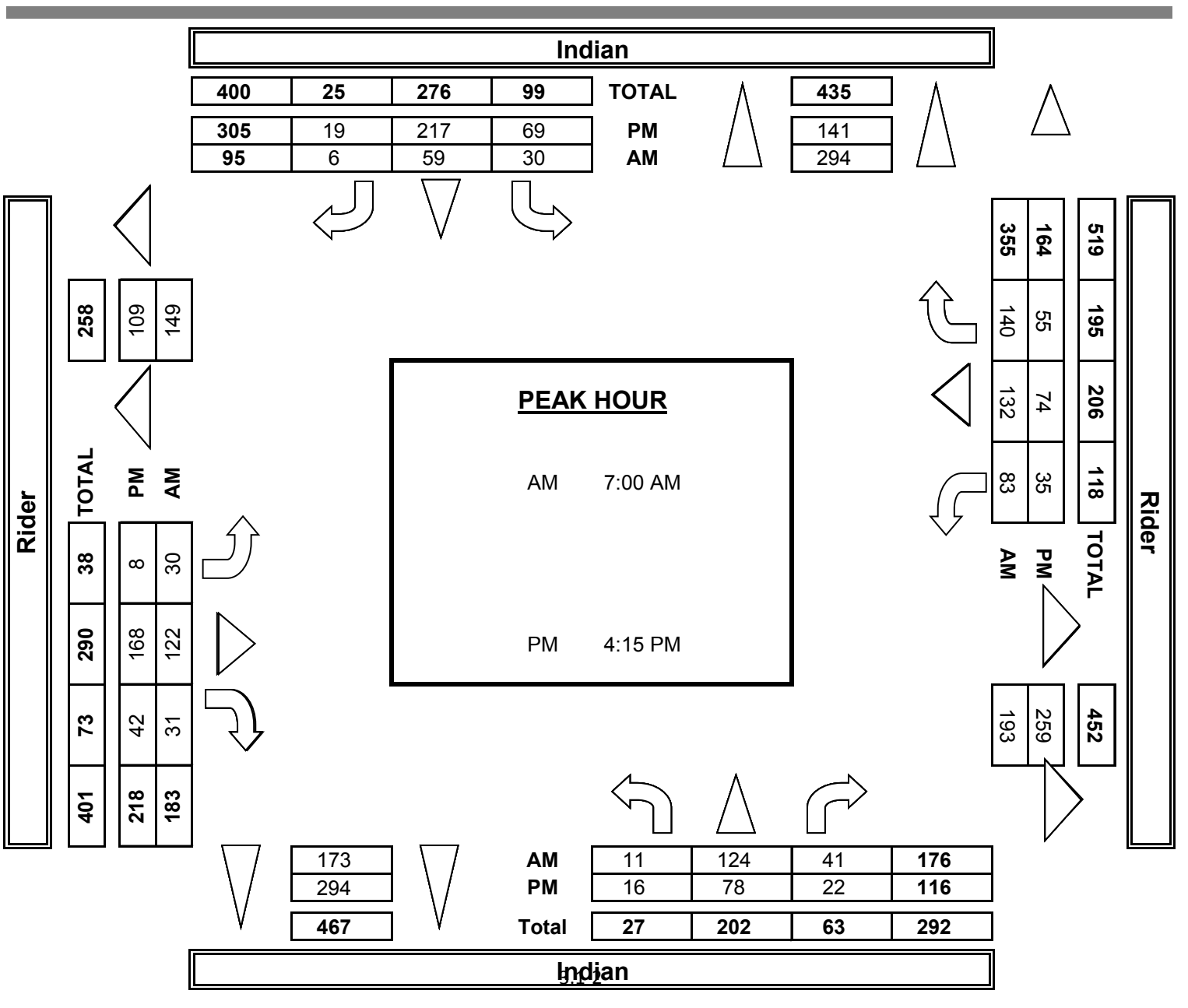
**Indian**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | ES | WS | SS | NS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AM | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
◄ W
E ►
S ▼

| | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 1 | 1.5 | 0.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 27 | 6 | 4 | 14 | 1 | 5 | 18 | 12 | 16 | 36 | 36 | 175 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 14 |
| 7:15 AM | 2 | 26 | 9 | 6 | 9 | 1 | 8 | 27 | 5 | 12 | 25 | 30 | 160 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 1 | 11 |
| 7:30 AM | 1 | 30 | 10 | 5 | 12 | 1 | 7 | 32 | 8 | 16 | 29 | 29 | 180 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 8 |
| 7:45 AM | 2 | 27 | 13 | 9 | 14 | 1 | 6 | 32 | 3 | 32 | 38 | 36 | 213 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 9 |
| 8:00 AM | 2 | 18 | 8 | 11 | 20 | 3 | 5 | 17 | 5 | 5 | 17 | 21 | 132 | 0 | 0 | 0 | 0 | 0 | 7 | 3 | 1 | 11 |
| 8:15 AM | 2 | 4 | 2 | 4 | 11 | 0 | 1 | 15 | 8 | 10 | 7 | 11 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:30 AM | 1 | 9 | 3 | 7 | 16 | 0 | 1 | 8 | 7 | 5 | 10 | 8 | 75 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| 8:45 AM | 0 | 10 | 2 | 3 | 11 | 0 | 1 | 12 | 1 | 1 | 5 | 13 | 59 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 5 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 10 | 151 | 53 | 49 | 107 | 7 | 34 | 161 | 49 | 97 | 167 | 184 | 1,069 | 0 | 0 | 0 | 0 | 0 | 23 | 6 | 12 | 63 |
| APPROACH % | 5% | 71% | 25% | 30% | 66% | 4% | 14% | 66% | 20% | 22% | 37% | 41% | | | | | | | | | | |
| APP/DEPART | 214 | / | 369 | 163 | / | 253 | 244 | / | 263 | 448 | / | 184 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 5 | 110 | 38 | 24 | 49 | 4 | 26 | 109 | 28 | 76 | 128 | 131 | 728 | | | | | | 15 | 3 | 8 | 42 |
| APPROACH % | 3% | 72% | 25% | 31% | 64% | 5% | 16% | 67% | 17% | 23% | 38% | 39% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.911 | | | 0.802 | | | 0.867 | | | 0.790 | | 0.854 | | | | | | | | | |
| APP/DEPART | 153 | / | 267 | 77 | / | 153 | 163 | / | 171 | 335 | / | 137 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 2 | 16 | 8 | 8 | 40 | 2 | 5 | 41 | 9 | 5 | 13 | 14 | 163 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 4 | 3 |
| 4:15 PM | 4 | 23 | 3 | 11 | 30 | 3 | 2 | 34 | 5 | 12 | 19 | 14 | 160 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 | 8 |
| 4:30 PM | 5 | 21 | 14 | 28 | 92 | 8 | 3 | 38 | 15 | 6 | 16 | 22 | 268 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 5 | 9 |
| 4:45 PM | 4 | 12 | 3 | 14 | 51 | 3 | 2 | 38 | 9 | 6 | 15 | 4 | 161 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 6 | 2 |
| 5:00 PM | 2 | 19 | 2 | 12 | 35 | 4 | 0 | 50 | 9 | 8 | 19 | 12 | 172 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 6 |
| 5:15 PM | 1 | 13 | 7 | 13 | 41 | 2 | 5 | 37 | 7 | 4 | 15 | 14 | 159 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 3 | 6 |
| 5:30 PM | 1 | 21 | 7 | 14 | 30 | 3 | 3 | 37 | 7 | 8 | 15 | 18 | 164 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 10 |
| 5:45 PM | 1 | 27 | 1 | 9 | 28 | 6 | 2 | 56 | 10 | 4 | 16 | 18 | 178 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 9 |
| VOLUMES | 20 | 152 | 45 | 109 | 347 | 31 | 22 | 331 | 71 | 53 | 128 | 116 | 1,425 | 0 | 0 | 0 | 0 | 0 | 20 | 20 | 31 | 53 |
| APPROACH % | 9% | 70% | 21% | 22% | 71% | 6% | 5% | 78% | 17% | 18% | 43% | 39% | | | | | | | | | | |
| APP/DEPART | 217 | / | 290 | 487 | / | 471 | 424 | / | 485 | 297 | / | 179 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 15 | 75 | 22 | 65 | 208 | 18 | 7 | 160 | 38 | 32 | 69 | 52 | 761 | | | | | | 10 | 11 | 20 | 25 |
| APPROACH % | 13% | 67% | 20% | 22% | 71% | 6% | 3% | 78% | 19% | 21% | 45% | 34% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.700 | | | 0.568 | | | 0.869 | | | 0.850 | | 0.710 | | | | | | | | | |
| APP/DEPART | 112 | / | 134 | 291 | / | 278 | 205 | / | 247 | 153 | / | 102 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Rider** WEST SIDE

EAST SIDE **Rider**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

| CLASS 2: | NOTES: | AM | | ▲ | |
|---|---|---|---|---|---|
| 2-AXLE | | PM | | N | |
| WORK | | MD | ◄ W | | E ► |
| VEHICLES/ | | OTHER | | S | |
| TRUCKS | | OTHER | | ▼ | |

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 1.5 | 0.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 6 | 1 | 0 | 4 | 2 | 1 | 4 | 1 | 1 | 0 | 2 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 7:45 AM | 1 | 3 | 2 | 1 | 3 | 0 | 1 | 3 | 1 | 0 | 2 | 2 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 1 | 0 | 1 | 4 | 1 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 8:30 AM | 0 | 4 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 2 | 0 | 2 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 8:45 AM | 0 | 9 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 2 | 1 | 4 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 26 | 3 | 9 | 11 | 2 | 4 | 16 | 3 | 10 | 10 | 11 | 108 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 |
| | APPROACH % | 9% | 81% | 9% | 41% | 50% | 9% | 17% | 70% | 13% | 32% | 32% | 35% | | | | | | | | | | |
| | APP/DEPART | 32 | / | 41 | 22 | / | 24 | 23 | / | 28 | 31 | / | 15 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 11 | 3 | 6 | 8 | 2 | 3 | 8 | 2 | 5 | 7 | 5 | 62 | | | | | | 0 | 0 | 2 | 0 |
| | APPROACH % | 13% | 69% | 19% | 38% | 50% | 13% | 23% | 62% | 15% | 29% | 41% | 29% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.667 | | | 0.542 | | | 0.708 | | 0.674 | | | | | | | | | |
| | APP/DEPART | 16 | / | 19 | 16 | / | 15 | 13 | / | 17 | 17 | / | 11 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 1 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 4:30 PM | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 2 | 3 | 0 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 1 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:15 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 10 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5 | 1 | 0 | 1 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | VOLUMES | 1 | 4 | 2 | 4 | 8 | 1 | 0 | 20 | 6 | 3 | 8 | 3 | 60 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 2 |
| | APPROACH % | 14% | 57% | 29% | 31% | 62% | 8% | 0% | 77% | 23% | 21% | 57% | 21% | | | | | | | | | | |
| | APP/DEPART | 7 | / | 7 | 13 | / | 17 | 26 | / | 26 | 14 | / | 10 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 5:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 2 | 1 | 5 | 0 | 0 | 14 | 2 | 0 | 4 | 2 | 31 | | | | | | 1 | 0 | 1 | 1 |
| | APPROACH % | 0% | 33% | 67% | 17% | 83% | 0% | 0% | 88% | 13% | 0% | 67% | 33% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.375 | | | 0.500 | | | 0.667 | | | 0.500 | | 0.775 | | | | | | | | | |
| | APP/DEPART | 3 | / | 3 | 6 | / | 7 | 16 | / | 17 | 6 | / | 4 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Rider** WEST SIDE

EAST SIDE **Rider**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

| CLASS 3: | NOTES: |
|---|---|
| 3-AXLE TRUCKS | |

AM / PM / MD / OTHER / OTHER

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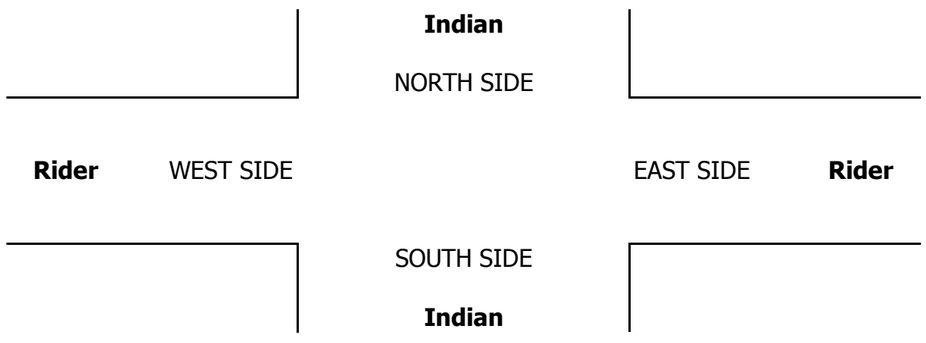
| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 1.5 | 0.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 2 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 1 | 1 | 5 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 33% | 33% | 33% | 0% | 100% | 0% | 14% | 14% | 71% | | | | | | | | | | |
| | APP/DEPART | 2 | / | 7 | 3 | / | 2 | 2 | / | 3 | 7 | / | 2 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 2 | 8 | | | | | | 0 | 1 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 50% | 0% | 50% | 0% | 100% | 0% | 33% | 0% | 67% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.500 | | | 0.500 | | | 0.375 | | 0.667 | | | | | | | | | |
| | APP/DEPART | 1 | / | 3 | 2 | / | 1 | 2 | / | 3 | 3 | / | 1 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 1 | 0 | 0 | 3 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 75% | 25% | 25% | 50% | 25% | 100% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 1 | / | 2 | 4 | / | 5 | 4 | / | 2 | 1 | / | 1 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 6 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 75% | 25% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.500 | | | 0.000 | | | 0.250 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 1 | / | 1 | 4 | / | 4 | 0 | / | 0 | 1 | / | 1 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

| CLASS 4: | NOTES: |
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| 4 OR MORE AXLE TRUCKS | |

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| | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 1 | 1.5 | 0.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 3 | 0 | 0 | 3 | 1 | 0 | 3 | 9 | 1 | 0 | 3 | 5 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 75% | 25% | 0% | 23% | 69% | 8% | 0% | 38% | 63% | | | | | | | | | | |
| APP/DEPART | 3 | / | 8 | 4 | / | 2 | 13 | / | 12 | 8 | / | 6 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 6 | 0 | 0 | 3 | 3 | 15 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 100% | 0% | 0% | 14% | 86% | 0% | 0% | 50% | 50% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.500 | | | 0.583 | | | 0.500 | | 0.750 | | | | | | | | | |
| APP/DEPART | 0 | / | 4 | 2 | / | 0 | 7 | / | 8 | 6 | / | 3 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 3 | 2 | 0 | 1 | 3 | 0 | 1 | 2 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 60% | 40% | 0% | 25% | 75% | 0% | 25% | 50% | 25% | | | | | | | | | | |
| APP/DEPART | 0 | / | 2 | 5 | / | 3 | 4 | / | 6 | 4 | / | 2 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:45 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 7 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 50% | 50% | 0% | 33% | 67% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.500 | | | 0.250 | | | 0.375 | | 0.438 | | | | | | | | | |
| APP/DEPART | 0 | / | 1 | 2 | / | 3 | 2 | / | 1 | 3 | / | 2 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Rider** WEST SIDE

EAST SIDE **Rider**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

| CLASS 5: | NOTES: |
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| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 1.5 | 0.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 3:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Rider** WEST SIDE

EAST SIDE **Rider**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

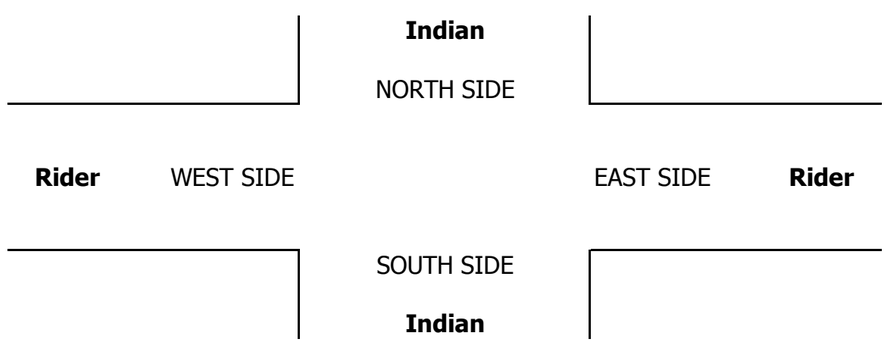
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 1 |
| | EAST & WEST: | Rider | CONTROL: | SIGNAL |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

| | | | |
|---|---|---|---|
| AM | | ▲ N | |
| PM | | | |
| MD | ◄ W | | E ► |
| OTHER | | S ▼ | |
| OTHER | | | |

| | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Rider | | | WESTBOUND Rider | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 1 | 1.5 | 0.5 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 50% | 50% | 0% | | | | | | | | | | |
| APP/DEPART | 0 | / | 0 | 2 | / | 1 | 0 | / | 0 | 2 | / | 3 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 7:45 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 4 | | | | | | 0 | 1 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 50% | 50% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.500 | | 0.500 | | | | | | | | | |
| APP/DEPART | 0 | / | 0 | 2 | / | 1 | 0 | / | 0 | 2 | / | 3 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| APP/DEPART | 0 | / | 0 | 3 | / | 3 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.375 | | | 0.000 | | | 0.000 | | 0.375 | | | | | | | | | |
| APP/DEPART | 0 | / | 0 | 3 | / | 3 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| Tue, Oct 29, 19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

| | | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR X | SL X | ST 1 | SR 1 | EL 1 | ET X | ER 1 | WL X | WT X | WR X | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL | NRR X | SRR X | ERR X | WRR X |
| AM | 7:00 AM | 63 | 38 | 0 | 0 | 20 | 41 | 29 | 0 | 24 | 0 | 0 | 0 | 215 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 47 | 43 | 0 | 0 | 13 | 24 | 58 | 0 | 29 | 0 | 0 | 0 | 214 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 50 | 36 | 0 | 0 | 32 | 25 | 55 | 0 | 53 | 0 | 0 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 45 | 42 | 0 | 0 | 20 | 40 | 57 | 0 | 55 | 0 | 0 | 0 | 259 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 31 | 11 | 0 | 0 | 24 | 19 | 22 | 0 | 43 | 0 | 0 | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 35 | 6 | 0 | 0 | 19 | 13 | 15 | 0 | 28 | 0 | 0 | 0 | 116 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 22 | 6 | 0 | 0 | 16 | 7 | 14 | 0 | 26 | 0 | 0 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 29 | 7 | 0 | 0 | 9 | 7 | 15 | 0 | 27 | 0 | 0 | 0 | 94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 322 | 189 | 0 | 0 | 153 | 176 | 265 | 0 | 285 | 0 | 0 | 0 | 1,390 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 63% | 37% | 0% | 0% | 47% | 53% | 48% | 0% | 52% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 511 | / | 454 | 329 | / | 438 | 550 | / | 0 | 0 | / | 498 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 205 | 159 | 0 | 0 | 85 | 130 | 199 | 0 | 161 | 0 | 0 | 0 | 939 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 56% | 44% | 0% | 0% | 40% | 60% | 55% | 0% | 45% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.901 | | | 0.881 | | | 0.804 | | | 0.000 | | 0.906 | | | | | | | | | |
| | APP/DEPART | 364 | / | 358 | 215 | / | 246 | 360 | / | 0 | 0 | / | 335 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 46 | 8 | 0 | 0 | 40 | 32 | 34 | 0 | 61 | 0 | 0 | 0 | 221 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 33 | 9 | 0 | 0 | 36 | 43 | 27 | 0 | 74 | 0 | 0 | 0 | 222 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 42 | 2 | 0 | 0 | 36 | 57 | 14 | 0 | 97 | 0 | 0 | 0 | 248 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 51 | 8 | 0 | 0 | 55 | 30 | 19 | 0 | 89 | 0 | 0 | 0 | 252 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 44 | 9 | 0 | 0 | 48 | 36 | 17 | 0 | 69 | 0 | 0 | 0 | 223 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 44 | 10 | 0 | 0 | 42 | 17 | 23 | 0 | 65 | 0 | 0 | 0 | 201 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 53 | 14 | 0 | 0 | 37 | 28 | 31 | 0 | 86 | 0 | 0 | 0 | 249 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 48 | 15 | 0 | 0 | 28 | 20 | 22 | 0 | 86 | 0 | 0 | 0 | 219 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 361 | 75 | 0 | 0 | 322 | 263 | 187 | 0 | 627 | 0 | 0 | 0 | 1,835 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 83% | 17% | 0% | 0% | 55% | 45% | 23% | 0% | 77% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 436 | / | 262 | 585 | / | 949 | 814 | / | 0 | 0 | / | 624 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 170 | 28 | 0 | 0 | 175 | 166 | 77 | 0 | 329 | 0 | 0 | 0 | 945 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 86% | 14% | 0% | 0% | 51% | 49% | 19% | 0% | 81% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.839 | | | 0.917 | | | 0.914 | | | 0.000 | | 0.938 | | | | | | | | | |
| | APP/DEPART | 198 | / | 105 | 341 | / | 504 | 406 | / | 0 | 0 | / | 336 | 0 | | | | | | | | | |

**I-215 Frontage**

NORTH SIDE

**Placentia** WEST SIDE EAST SIDE **Placentia**

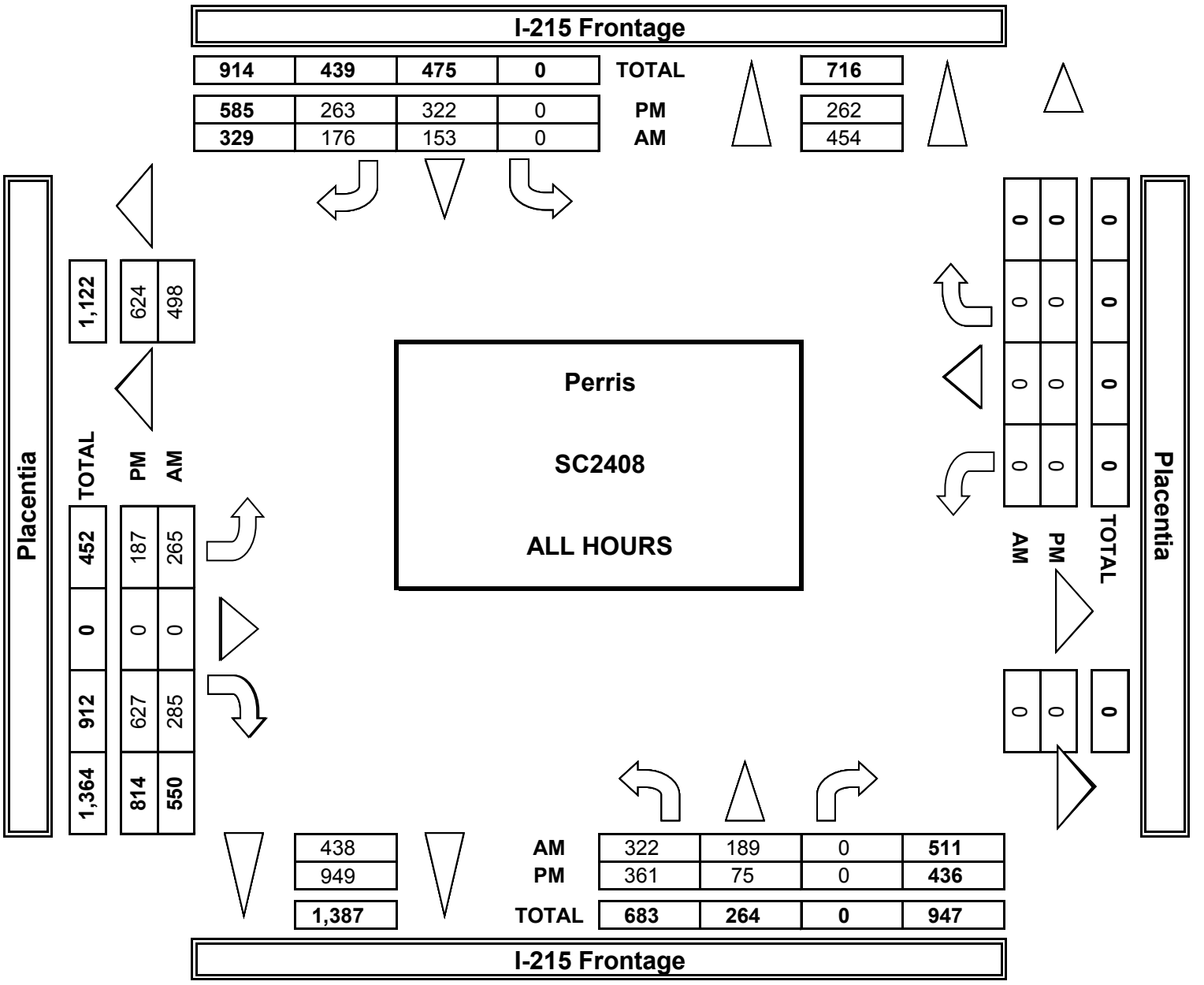
SOUTH SIDE

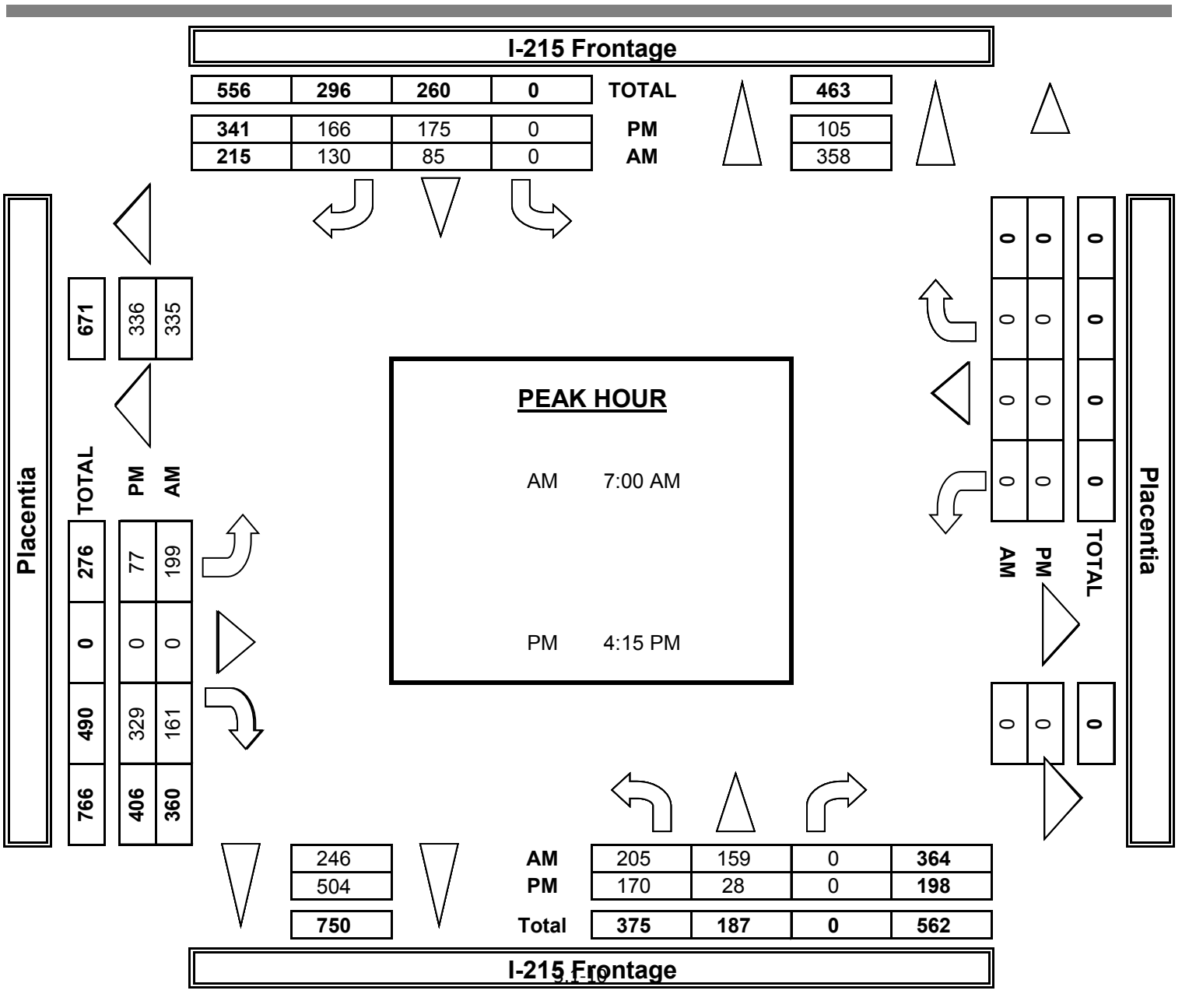
**I-215 Frontage**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | ES | WS | SS | NS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 1: | NOTES: |
|---|---|
| PASSENGER VEHICLES | |

AM
PM
MD
OTHER
OTHER

▲ N
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| | | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | X | X | 1 | 1 | 1 | X | 1 | X | X | X | | | | | | | X | X | X | X |
| AM | 7:00 AM | 59 | 36 | 0 | 0 | 18 | 37 | 23 | 0 | 24 | 0 | 0 | 0 | 197 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 44 | 42 | 0 | 0 | 12 | 20 | 55 | 0 | 27 | 0 | 0 | 0 | 200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 44 | 35 | 0 | 0 | 31 | 24 | 51 | 0 | 53 | 0 | 0 | 0 | 238 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 42 | 40 | 0 | 0 | 19 | 37 | 51 | 0 | 52 | 0 | 0 | 0 | 241 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 30 | 11 | 0 | 0 | 22 | 16 | 20 | 0 | 41 | 0 | 0 | 0 | 140 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 29 | 4 | 0 | 0 | 16 | 6 | 11 | 0 | 26 | 0 | 0 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 21 | 6 | 0 | 0 | 15 | 6 | 9 | 0 | 25 | 0 | 0 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 24 | 6 | 0 | 0 | 8 | 4 | 12 | 0 | 27 | 0 | 0 | 0 | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 293 | 180 | 0 | 0 | 141 | 150 | 232 | 0 | 275 | 0 | 0 | 0 | 1,271 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 62% | 38% | 0% | 0% | 48% | 52% | 46% | 0% | 54% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 473 | / | 412 | 291 | / | 416 | 507 | / | 0 | 0 | / | 443 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 189 | 153 | 0 | 0 | 80 | 118 | 180 | 0 | 156 | 0 | 0 | 0 | 876 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 55% | 45% | 0% | 0% | 40% | 60% | 54% | 0% | 46% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.900 | | | 0.884 | | | 0.808 | | | 0.000 | | 0.909 | | | | | | | | | |
| | APP/DEPART | 342 | / | 333 | 198 | / | 236 | 336 | / | 0 | 0 | / | 307 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 45 | 8 | 0 | 0 | 36 | 29 | 32 | 0 | 54 | 0 | 0 | 0 | 204 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 31 | 9 | 0 | 0 | 34 | 37 | 24 | 0 | 63 | 0 | 0 | 0 | 198 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 41 | 2 | 0 | 0 | 33 | 55 | 10 | 0 | 84 | 0 | 0 | 0 | 225 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 50 | 8 | 0 | 0 | 49 | 29 | 18 | 0 | 79 | 0 | 0 | 0 | 233 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 43 | 9 | 0 | 0 | 45 | 33 | 17 | 0 | 63 | 0 | 0 | 0 | 210 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 43 | 10 | 0 | 0 | 37 | 16 | 21 | 0 | 59 | 0 | 0 | 0 | 186 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 52 | 14 | 0 | 0 | 32 | 26 | 30 | 0 | 81 | 0 | 0 | 0 | 235 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 46 | 14 | 0 | 0 | 24 | 19 | 21 | 0 | 78 | 0 | 0 | 0 | 202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 351 | 74 | 0 | 0 | 290 | 244 | 173 | 0 | 561 | 0 | 0 | 0 | 1,693 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 83% | 17% | 0% | 0% | 54% | 46% | 24% | 0% | 76% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 425 | / | 247 | 534 | / | 851 | 734 | / | 0 | 0 | / | 595 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 165 | 28 | 0 | 0 | 161 | 154 | 69 | 0 | 289 | 0 | 0 | 0 | 866 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 85% | 15% | 0% | 0% | 51% | 49% | 19% | 0% | 81% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.832 | | | 0.895 | | | 0.923 | | | 0.000 | | 0.929 | | | | | | | | | |
| | APP/DEPART | 193 | / | 97 | 315 | / | 450 | 358 | / | 0 | 0 | / | 319 | 0 | | | | | | | | | |

**I-215 Frontage**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**I-215 Frontage**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 2: | NOTES: | AM | | ▲ | |
|---|---|---|---|---|---|
| 2-AXLE | | PM | | N | |
| WORK | | MD | ◄ W | | E ► |
| VEHICLES/ | | OTHER | | S | |
| TRUCKS | | OTHER | | ▼ | |

| | | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| | LANES: | 0 | 1 | X | X | 1 | 1 | 1 | X | 1 | X | X | X | |
| AM | 7:00 AM | 3 | 2 | 0 | 0 | 1 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 14 |
| | 7:15 AM | 3 | 1 | 0 | 0 | 1 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 12 |
| | 7:30 AM | 6 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 11 |
| | 7:45 AM | 2 | 2 | 0 | 0 | 1 | 3 | 5 | 0 | 3 | 0 | 0 | 0 | 16 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 6 |
| | 8:15 AM | 6 | 2 | 0 | 0 | 3 | 3 | 3 | 0 | 1 | 0 | 0 | 0 | 18 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 5 |
| | 8:45 AM | 3 | 1 | 0 | 0 | 1 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 9 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 23 | 9 | 0 | 0 | 11 | 15 | 25 | 0 | 8 | 0 | 0 | 0 | 91 |
| | APPROACH % | 72% | 28% | 0% | 0% | 42% | 58% | 76% | 0% | 24% | 0% | 0% | 0% | |
| | APP/DEPART | 32 | / | 34 | 26 | / | 19 | 33 | / | 0 | 0 | / | 38 | 0 |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| | VOLUMES | 14 | 6 | 0 | 0 | 4 | 9 | 15 | 0 | 5 | 0 | 0 | 0 | 53 |
| | APPROACH % | 70% | 30% | 0% | 0% | 31% | 69% | 75% | 0% | 25% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.714 | | | 0.650 | | | 0.625 | | | 0.000 | | 0.828 |
| | APP/DEPART | 20 | / | 21 | 13 | / | 9 | 20 | / | 0 | 0 | / | 23 | 0 |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 1 | 0 | 0 | 0 | 4 | 2 | 1 | 0 | 7 | 0 | 0 | 0 | 15 |
| | 4:15 PM | 1 | 0 | 0 | 0 | 2 | 5 | 1 | 0 | 9 | 0 | 0 | 0 | 18 |
| | 4:30 PM | 1 | 0 | 0 | 0 | 2 | 1 | 3 | 0 | 12 | 0 | 0 | 0 | 19 |
| | 4:45 PM | 1 | 0 | 0 | 0 | 6 | 0 | 1 | 0 | 10 | 0 | 0 | 0 | 18 |
| | 5:00 PM | 1 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 12 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 5 | 1 | 1 | 0 | 5 | 0 | 0 | 0 | 12 |
| | 5:30 PM | 1 | 0 | 0 | 0 | 5 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 11 |
| | 5:45 PM | 1 | 1 | 0 | 0 | 3 | 1 | 1 | 0 | 8 | 0 | 0 | 0 | 15 |
| | VOLUMES | 7 | 1 | 0 | 0 | 30 | 13 | 8 | 0 | 61 | 0 | 0 | 0 | 120 |
| | APPROACH % | 88% | 13% | 0% | 0% | 70% | 30% | 12% | 0% | 88% | 0% | 0% | 0% | |
| | APP/DEPART | 8 | / | 9 | 43 | / | 91 | 69 | / | 0 | 0 | / | 20 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 4 | 0 | 0 | 0 | 14 | 8 | 6 | 0 | 38 | 0 | 0 | 0 | 70 |
| | APPROACH % | 100% | 0% | 0% | 0% | 64% | 36% | 14% | 0% | 86% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 1.000 | | | 0.786 | | | 0.733 | | | 0.000 | | 0.921 |
| | APP/DEPART | 4 | / | 6 | 22 | / | 52 | 44 | / | 0 | 0 | / | 12 | 0 |

| U-TURNS | | | | |
|---|---|---|---|---|
| NB | SB | EB | WB | TTL |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

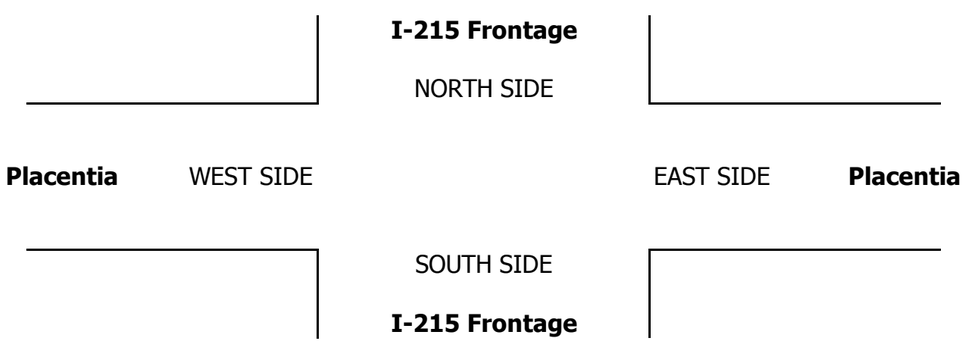
**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | X | X | 1 | 1 | 1 | X | 1 | X | X | X | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 50% | 0% | 50% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 1 | 3 | / | 1 | 2 | / | 0 | 0 | / | 3 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.250 | | | 0.000 | | 0.250 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 2 | / | 1 | 1 | / | 0 | 0 | / | 2 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 50% | 0% | 50% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 2 | 1 | / | 2 | 4 | / | 0 | 0 | / | 1 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 50% | 0% | 50% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.250 | | | 0.000 | | 0.375 | | | | | | | | | |
| | APP/DEPART | 0 | / | 1 | 1 | / | 1 | 2 | / | 0 | 0 | / | 1 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 4: | NOTES: |
|---|---|
| 4 OR MORE AXLE TRUCKS | |

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| | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 0 | 1 | X | X | 1 | 1 | 1 | X | 1 | X | X | X | | | | | | | X | X | X | X |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 5 | 0 | 0 | 0 | 1 | 4 | 6 | 0 | 1 | 0 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 0% | 20% | 80% | 86% | 0% | 14% | 0% | 0% | 0% | | | | | | | | | | |
| APP/DEPART | 5 | / | 6 | 5 | / | 2 | 7 | / | 0 | 0 | / | 9 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 3 | 0 | 0 | 0 | 0 | 3 | 4 | 0 | 1 | 0 | 0 | 0 | 11 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 0% | 0% | 100% | 80% | 0% | 20% | 0% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.375 | | | 0.375 | | | 0.625 | | | 0.000 | | 0.688 | | | | | | | | | |
| APP/DEPART | 3 | / | 4 | 3 | / | 1 | 5 | / | 0 | 0 | / | 6 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 2 | 0 | 0 | 0 | 1 | 2 | 4 | 0 | 3 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 0% | 33% | 67% | 57% | 0% | 43% | 0% | 0% | 0% | | | | | | | | | | |
| APP/DEPART | 2 | / | 4 | 3 | / | 4 | 7 | / | 0 | 0 | / | 4 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 2 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 6 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 100% | 0% | 0% | 0% | 50% | 50% | 50% | 0% | 50% | 0% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.500 | | | 0.500 | | | 0.167 | | | 0.000 | | 0.500 | | | | | | | | | |
| APP/DEPART | 2 | / | 1 | 2 | / | 2 | 2 | / | 0 | 0 | / | 3 | 0 | | | | | | | | | |

**I-215 Frontage**

NORTH SIDE

**Placentia** WEST SIDE EAST SIDE **Placentia**

SOUTH SIDE

**I-215 Frontage**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 5: | NOTES: |
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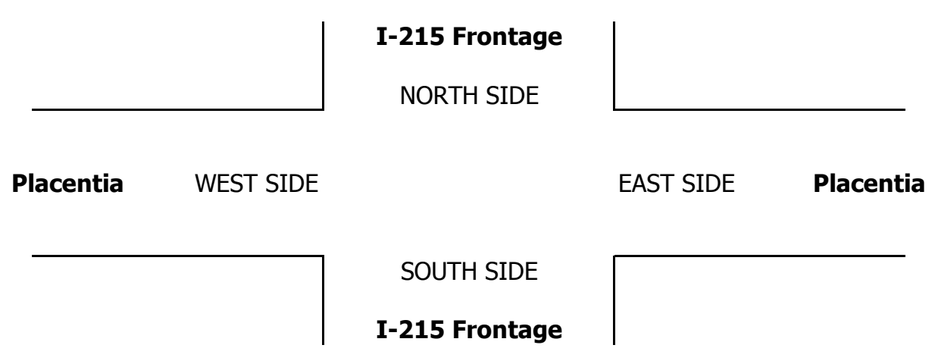
| | | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | X | X | 1 | 1 | 1 | X | 1 | X | X | X | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 1 | 0 | / | 0 | 1 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.250 | | | 0.000 | | 0.250 | | | | | | | | | |
| | APP/DEPART | 0 | / | 1 | 0 | / | 0 | 1 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 3:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | I-215 Frontage | LOCATION #: | 3 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 6: | NOTES: |
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| BUSES | |

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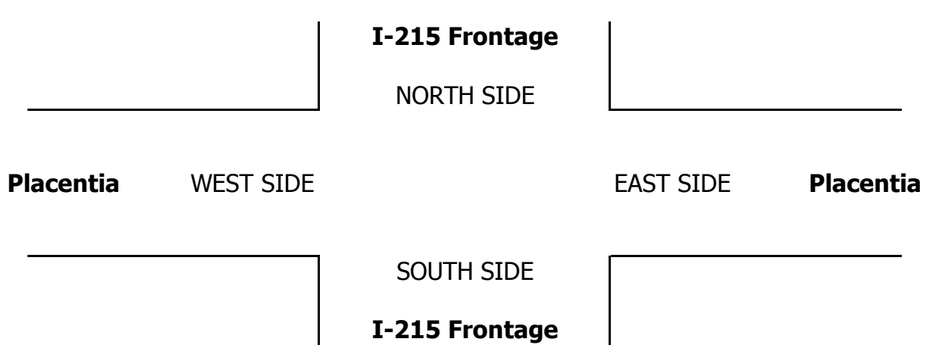
| | | NORTHBOUND I-215 Frontage | | | SOUTHBOUND I-215 Frontage | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | X | X | 1 | 1 | 1 | X | 1 | X | X | X | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 1 | / | 0 | 4 | / | 0 | 0 | / | 0 | 0 | / | 5 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.375 | | | 0.000 | | | 0.000 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 1 | / | 0 | 3 | / | 0 | 0 | / | 0 | 0 | / | 4 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 1 | / | 0 | 3 | / | 0 | 0 | / | 0 | 0 | / | 4 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 3:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.750 | | | 0.000 | | | 0.000 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 1 | / | 0 | 3 | / | 0 | 0 | / | 0 | 0 | / | 4 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | |
|---|---|---|---|
| Tue, Oct 29, 19 | LOCATION: | Perris | PROJECT #: SC2408 |
| | NORTH & SOUTH: | Indian | LOCATION #: 4 |
| | EAST & WEST: | Morgan | CONTROL: SIGNAL |

NOTES:

AM / PM / MD / OTHER / OTHER

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☑ Add U-Turns to Left Turns

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Morgan | | | WESTBOUND Morgan | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 2 | NR 0 | SL 1 | ST 2 | SR 0 | EL 1 | ET 2 | ER 0 | WL 1 | WT 2 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL | NRR 0 | SRR 0 | ERR 0 | WRR 0 |
| AM | 7:00 AM | 31 | 36 | 3 | 1 | 21 | 8 | 7 | 6 | 14 | 5 | 16 | 0 | 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 7:15 AM | 22 | 40 | 2 | 2 | 17 | 11 | 6 | 5 | 13 | 4 | 18 | 3 | 143 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 0 |
| | 7:30 AM | 20 | 52 | 1 | 0 | 18 | 10 | 6 | 19 | 11 | 3 | 30 | 1 | 171 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 |
| | 7:45 AM | 38 | 46 | 2 | 0 | 13 | 10 | 6 | 28 | 24 | 2 | 41 | 1 | 211 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 0 |
| | 8:00 AM | 26 | 24 | 2 | 1 | 29 | 11 | 8 | 19 | 18 | 6 | 25 | 0 | 169 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 5 | 0 |
| | 8:15 AM | 7 | 12 | 1 | 0 | 17 | 8 | 2 | 3 | 11 | 3 | 9 | 1 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 5 | 1 |
| | 8:30 AM | 8 | 22 | 1 | 0 | 24 | 2 | 1 | 5 | 9 | 1 | 4 | 1 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 |
| | 8:45 AM | 8 | 30 | 3 | 0 | 11 | 2 | 3 | 5 | 5 | 1 | 6 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 160 | 262 | 15 | 4 | 150 | 62 | 39 | 90 | 105 | 25 | 149 | 7 | 1,068 | 0 | 0 | 0 | 0 | 0 | 2 | 15 | 28 | 2 |
| | APPROACH % | 37% | 60% | 3% | 2% | 69% | 29% | 17% | 38% | 45% | 14% | 82% | 4% | | | | | | | | | | |
| | APP/DEPART | 437 | / | 308 | 216 | / | 280 | 234 | / | 109 | 181 | / | 371 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 106 | 162 | 7 | 3 | 77 | 42 | 26 | 71 | 66 | 15 | 114 | 5 | 694 | | | | | | 1 | 12 | 16 | 0 |
| | APPROACH % | 39% | 59% | 3% | 2% | 63% | 34% | 16% | 44% | 40% | 11% | 85% | 4% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.799 | | | 0.744 | | | 0.703 | | | 0.761 | | 0.822 | | | | | | | | | |
| | APP/DEPART | 275 | / | 193 | 122 | / | 158 | 163 | / | 81 | 134 | / | 262 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 19 | 33 | 3 | 1 | 33 | 6 | 8 | 11 | 19 | 3 | 5 | 0 | 141 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 |
| | 4:15 PM | 22 | 30 | 2 | 0 | 35 | 9 | 6 | 12 | 16 | 2 | 5 | 3 | 142 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 9 | 3 |
| | 4:30 PM | 21 | 39 | 3 | 3 | 121 | 12 | 14 | 17 | 15 | 1 | 5 | 0 | 251 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 6 | 0 |
| | 4:45 PM | 5 | 20 | 2 | 0 | 72 | 7 | 5 | 14 | 9 | 3 | 11 | 0 | 148 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 5 | 0 |
| | 5:00 PM | 15 | 34 | 3 | 1 | 33 | 4 | 4 | 5 | 15 | 0 | 6 | 1 | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 7 | 0 |
| | 5:15 PM | 15 | 21 | 3 | 0 | 46 | 3 | 5 | 3 | 12 | 5 | 5 | 4 | 122 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 7 | 1 |
| | 5:30 PM | 10 | 49 | 7 | 0 | 31 | 4 | 7 | 5 | 8 | 4 | 4 | 1 | 130 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 |
| | 5:45 PM | 19 | 44 | 1 | 1 | 46 | 6 | 6 | 6 | 4 | 1 | 8 | 4 | 146 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 |
| | VOLUMES | 126 | 270 | 24 | 6 | 417 | 51 | 55 | 73 | 98 | 19 | 49 | 13 | 1,201 | 0 | 0 | 0 | 0 | 0 | 7 | 11 | 50 | 5 |
| | APPROACH % | 30% | 64% | 6% | 1% | 88% | 11% | 24% | 32% | 43% | 23% | 60% | 16% | | | | | | | | | | |
| | APP/DEPART | 420 | / | 338 | 474 | / | 534 | 226 | / | 103 | 81 | / | 226 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 67 | 122 | 10 | 4 | 261 | 34 | 33 | 54 | 59 | 9 | 26 | 3 | 682 | | | | | | 2 | 7 | 29 | 3 |
| | APPROACH % | 34% | 61% | 5% | 1% | 87% | 11% | 23% | 37% | 40% | 24% | 68% | 8% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.790 | | | 0.550 | | | 0.793 | | | 0.679 | | 0.679 | | | | | | | | | |
| | APP/DEPART | 199 | / | 158 | 299 | / | 329 | 146 | / | 68 | 38 | / | 127 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Morgan** WEST SIDE EAST SIDE **Morgan**

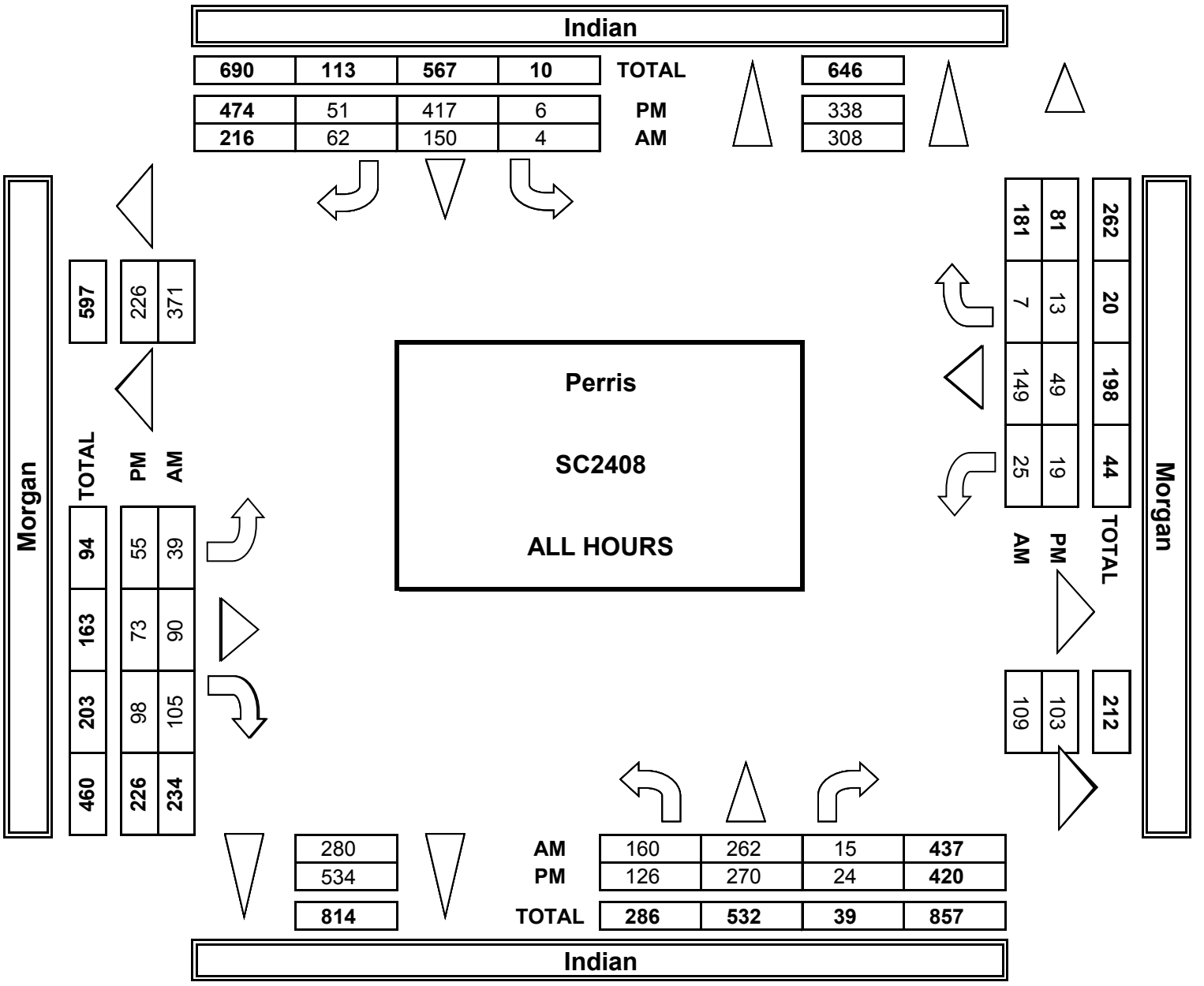
SOUTH SIDE

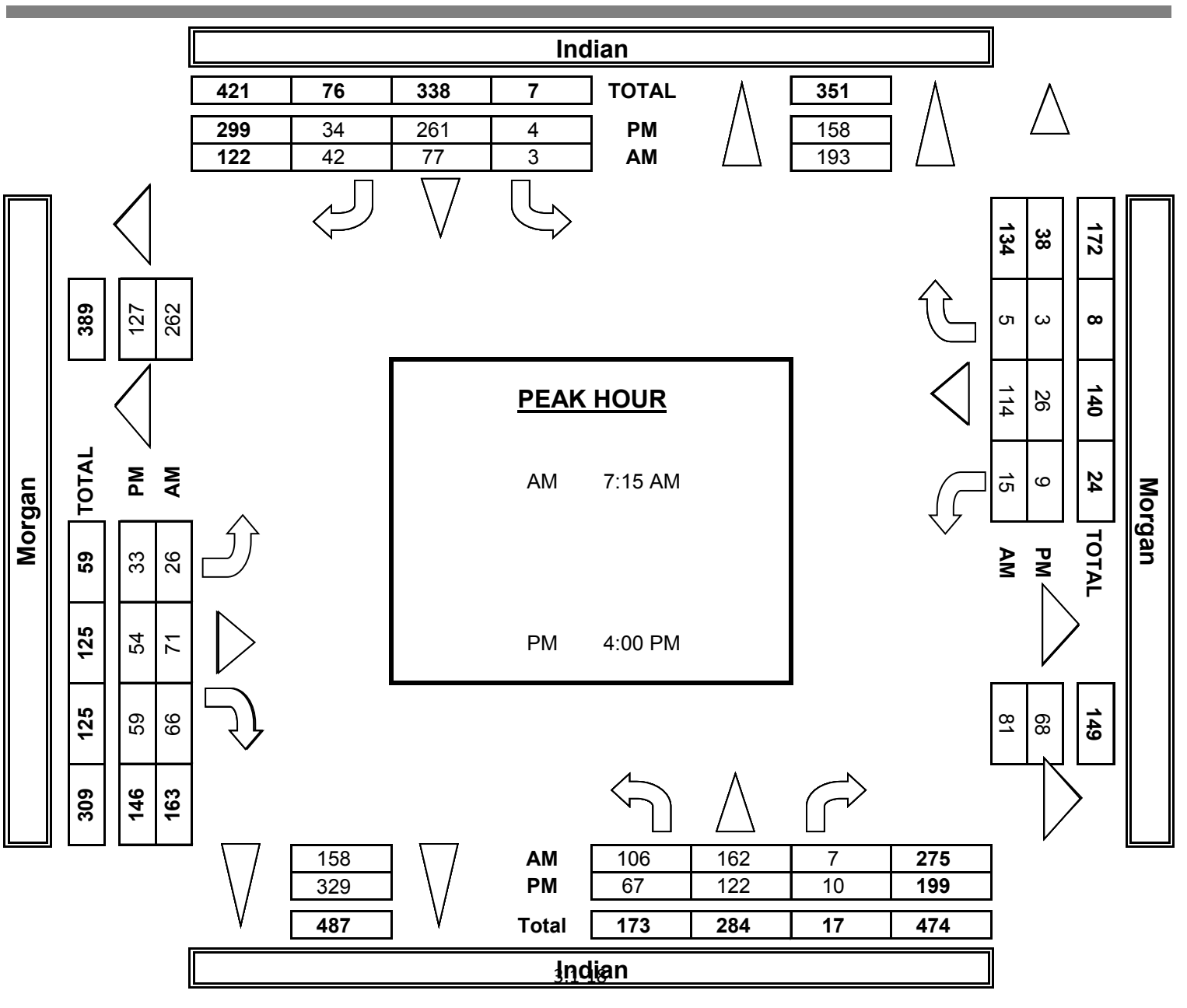
**Indian**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | ES | WS | SS | NS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 2 | 5 | 7 | 0 | 0 | 2 | 4 | 6 | 0 | 0 | 0 | 1 | 1 |
| PM | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 4 |
| | EAST & WEST: | Morgan | CONTROL: | SIGNAL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM / PM / MD / OTHER / OTHER

N ▲ ◄ W E ► S ▼

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Morgan | | | WESTBOUND Morgan | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | | | | | | | | | | |
| AM | 7:00 AM | 29 | 31 | 1 | 1 | 10 | 4 | 4 | 4 | 13 | 4 | 16 | 0 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 7:15 AM | 20 | 35 | 1 | 1 | 13 | 8 | 5 | 4 | 8 | 4 | 17 | 2 | 118 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 |
| | 7:30 AM | 19 | 40 | 1 | 0 | 14 | 8 | 3 | 17 | 8 | 2 | 30 | 0 | 142 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| | 7:45 AM | 37 | 30 | 1 | 0 | 10 | 7 | 5 | 25 | 20 | 2 | 38 | 1 | 176 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | 0 |
| | 8:00 AM | 24 | 18 | 2 | 0 | 24 | 6 | 7 | 18 | 17 | 5 | 25 | 0 | 146 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 5 | 0 |
| | 8:15 AM | 5 | 8 | 1 | 0 | 10 | 1 | 1 | 1 | 8 | 2 | 9 | 1 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 |
| | 8:30 AM | 7 | 13 | 1 | 0 | 18 | 1 | 0 | 4 | 8 | 1 | 3 | 1 | 57 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 1 |
| | 8:45 AM | 6 | 17 | 2 | 0 | 9 | 1 | 0 | 4 | 5 | 1 | 4 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 147 | 192 | 10 | 2 | 108 | 36 | 25 | 77 | 87 | 21 | 142 | 5 | 852 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 23 | 2 |
| | APPROACH % | 42% | 55% | 3% | 1% | 74% | 25% | 13% | 41% | 46% | 13% | 85% | 3% | | | | | | | | | | |
| | APP/DEPART | 349 | / | 222 | 146 | / | 216 | 189 | / | 89 | 168 | / | 325 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 100 | 123 | 5 | 1 | 61 | 29 | 20 | 64 | 53 | 13 | 110 | 3 | 582 | | | | | | 1 | 6 | 13 | 0 |
| | APPROACH % | 44% | 54% | 2% | 1% | 67% | 32% | 15% | 47% | 39% | 10% | 87% | 2% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.838 | | | 0.758 | | | 0.685 | | | 0.768 | | 0.827 | | | | | | | | | |
| | APP/DEPART | 228 | / | 146 | 91 | / | 127 | 137 | / | 70 | 126 | / | 239 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 18 | 21 | 0 | 0 | 23 | 2 | 5 | 11 | 18 | 3 | 4 | 0 | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
| | 4:15 PM | 22 | 24 | 2 | 0 | 30 | 1 | 4 | 11 | 15 | 1 | 4 | 3 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 3 |
| | 4:30 PM | 19 | 33 | 2 | 2 | 110 | 5 | 4 | 15 | 14 | 1 | 4 | 0 | 209 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 | 0 |
| | 4:45 PM | 4 | 16 | 2 | 0 | 55 | 5 | 1 | 14 | 8 | 3 | 11 | 0 | 119 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 4 | 0 |
| | 5:00 PM | 14 | 29 | 3 | 1 | 25 | 1 | 4 | 4 | 13 | 0 | 6 | 1 | 101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| | 5:15 PM | 15 | 18 | 3 | 0 | 41 | 0 | 2 | 3 | 11 | 5 | 3 | 2 | 103 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 7 | 1 |
| | 5:30 PM | 9 | 41 | 5 | 0 | 25 | 0 | 5 | 5 | 8 | 4 | 4 | 1 | 107 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 |
| | 5:45 PM | 18 | 39 | 0 | 1 | 41 | 0 | 1 | 5 | 4 | 1 | 6 | 4 | 120 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 |
| | VOLUMES | 119 | 221 | 17 | 4 | 350 | 14 | 26 | 68 | 91 | 18 | 42 | 11 | 981 | 0 | 0 | 0 | 0 | 0 | 6 | 3 | 47 | 5 |
| | APPROACH % | 33% | 62% | 5% | 1% | 95% | 4% | 14% | 37% | 49% | 25% | 59% | 15% | | | | | | | | | | |
| | APP/DEPART | 357 | / | 258 | 368 | / | 459 | 185 | / | 89 | 71 | / | 175 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 63 | 94 | 6 | 2 | 218 | 13 | 14 | 51 | 55 | 8 | 23 | 3 | 550 | | | | | | 2 | 3 | 28 | 3 |
| | APPROACH % | 39% | 58% | 4% | 1% | 94% | 6% | 12% | 43% | 46% | 24% | 68% | 9% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.755 | | | 0.498 | | | 0.882 | | | 0.607 | | 0.658 | | | | | | | | | |
| | APP/DEPART | 163 | / | 111 | 233 | / | 281 | 120 | / | 59 | 34 | / | 99 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Morgan** WEST SIDE

EAST SIDE **Morgan**

SOUTH SIDE

**Indian**

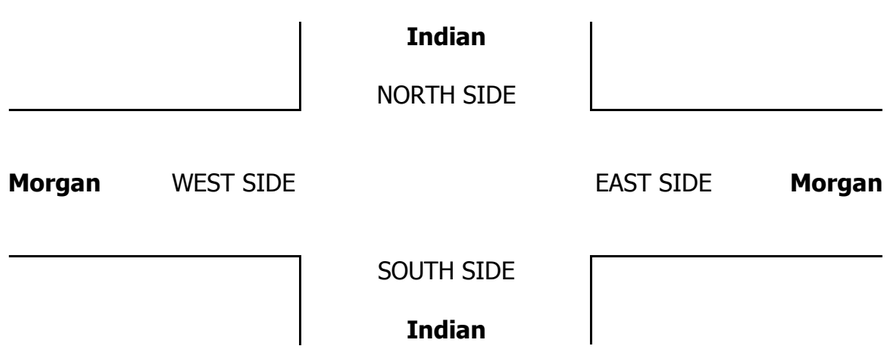
# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 4 |
| | EAST & WEST: | Morgan | CONTROL: | SIGNAL |

| CLASS 2: | NOTES: | AM | | ▲ | |
|---|---|---|---|---|---|
| 2-AXLE | | PM | | N | |
| WORK | | MD | ◄ W | | E ► |
| VEHICLES/ | | OTHER | | S | |
| TRUCKS | | OTHER | | ▼ | |

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Morgan | | | WESTBOUND Morgan | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 2 | 2 | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 2 | 0 | 1 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| | 7:30 AM | 0 | 5 | 0 | 0 | 4 | 0 | 2 | 2 | 1 | 1 | 0 | 1 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 7:45 AM | 0 | 10 | 1 | 0 | 1 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 2 | 3 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 5 | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 1 | 7 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 6 | 34 | 2 | 1 | 15 | 3 | 6 | 10 | 8 | 2 | 5 | 1 | 93 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| | APPROACH % | 14% | 81% | 5% | 5% | 79% | 16% | 25% | 42% | 33% | 25% | 63% | 13% | | | | | | | | | | |
| | APP/DEPART | 42 | / | 41 | 19 | / | 25 | 24 | / | 13 | 8 | / | 14 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 19 | 1 | 1 | 8 | 1 | 4 | 6 | 7 | 2 | 3 | 1 | 55 | | | | | | 0 | 1 | 2 | 0 |
| | APPROACH % | 9% | 86% | 5% | 10% | 80% | 10% | 24% | 35% | 41% | 33% | 50% | 17% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.625 | | | 0.708 | | | 0.500 | | 0.655 | | | | | | | | | |
| | APP/DEPART | 22 | / | 24 | 10 | / | 17 | 17 | / | 8 | 6 | / | 6 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 1 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 1 | 1 | 0 | 1 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 5:00 PM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 1 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 4 | 6 | 0 | 1 | 15 | 4 | 0 | 5 | 3 | 1 | 5 | 0 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 |
| | APPROACH % | 40% | 60% | 0% | 5% | 75% | 20% | 0% | 63% | 38% | 17% | 83% | 0% | | | | | | | | | | |
| | APP/DEPART | 10 | / | 6 | 20 | / | 19 | 8 | / | 6 | 6 | / | 13 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 3 | 0 | 1 | 6 | 4 | 0 | 4 | 3 | 1 | 1 | 0 | 24 | | | | | | 0 | 0 | 3 | 0 |
| | APPROACH % | 25% | 75% | 0% | 9% | 55% | 36% | 0% | 57% | 43% | 50% | 50% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.393 | | | 0.583 | | | 0.250 | | 0.545 | | | | | | | | | |
| | APP/DEPART | 4 | / | 3 | 11 | / | 10 | 7 | / | 5 | 2 | / | 6 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 4 |
| | EAST & WEST: | Morgan | CONTROL: | SIGNAL |

| CLASS 3: | NOTES: | AM | | ▲ | |
|---|---|---|---|---|---|
| 3-AXLE | | PM | | N | |
| TRUCKS | | MD | ◄ W | | E ► |
| | | OTHER | | S | |
| | | OTHER | | ▼ | |

| | | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Indian | | | Indian | | | Morgan | | | Morgan | | | | | | | | | | | | |
| | LANES: | NL 1 | NT 2 | NR 0 | SL 1 | ST 2 | SR 0 | EL 1 | ET 2 | ER 0 | WL 1 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL | NRR 0 | SRR 0 | ERR 0 | WRR 0 |
| AM | 7:00 AM | 0 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 2 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 9 | 2 | 0 | 4 | 1 | 2 | 2 | 1 | 0 | 1 | 1 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 21% | 64% | 14% | 0% | 80% | 20% | 40% | 40% | 20% | 0% | 50% | 50% | | | | | | | | | | |
| | APP/DEPART | 14 | / | 12 | 5 | / | 5 | 5 | / | 4 | 2 | / | 5 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 3 | 5 | 2 | 0 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 19 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 30% | 50% | 20% | 0% | 67% | 33% | 25% | 50% | 25% | 0% | 50% | 50% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.375 | | | 0.500 | | | 0.250 | | 0.594 | | | | | | | | | |
| | APP/DEPART | 10 | / | 7 | 3 | / | 3 | 4 | / | 4 | 2 | / | 5 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 2 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 2 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 4:30 PM | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 1 | 0 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 9 | 2 | 0 | 5 | 6 | 12 | 0 | 1 | 0 | 0 | 0 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | APPROACH % | 8% | 75% | 17% | 0% | 45% | 55% | 92% | 0% | 8% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 12 | / | 21 | 11 | / | 6 | 13 | / | 2 | 0 | / | 7 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 8 | 1 | 0 | 3 | 4 | 7 | 0 | 0 | 0 | 0 | 0 | 24 | | | | | | 0 | 1 | 0 | 0 |
| | APPROACH % | 10% | 80% | 10% | 0% | 43% | 57% | 100% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.833 | | | 0.583 | | | 0.583 | | | 0.000 | | 1.000 | | | | | | | | | |
| | APP/DEPART | 10 | / | 15 | 7 | / | 3 | 7 | / | 1 | 0 | / | 5 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Morgan** WEST SIDE

EAST SIDE **Morgan**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 4 |
| | EAST & WEST: | Morgan | CONTROL: | SIGNAL |

| CLASS 4: | NOTES: |
|---|---|
| 4 OR MORE AXLE TRUCKS | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Morgan | | | WESTBOUND Morgan | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | | | | | | | 0 | 0 | 0 | 0 |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 1 | 1 | 0 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 2 | 0 | 0 | 3 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 1 | 5 | 0 | 0 | 2 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| 8:00 AM | 0 | 2 | 0 | 1 | 4 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 8:15 AM | 1 | 3 | 0 | 0 | 2 | 4 | 0 | 0 | 3 | 1 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
| 8:30 AM | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 1 | 5 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 4 | 27 | 1 | 1 | 21 | 9 | 6 | 1 | 9 | 2 | 1 | 0 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 0 |
| APPROACH % | 13% | 84% | 3% | 3% | 68% | 29% | 38% | 6% | 56% | 67% | 33% | 0% | | | | | | | | | | |
| APP/DEPART | 32 | / | 33 | 31 | / | 32 | 16 | / | 3 | 3 | / | 14 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 2 | 16 | 0 | 1 | 8 | 9 | 2 | 0 | 6 | 2 | 0 | 0 | 46 | | | | | | 0 | 3 | 3 | 0 |
| APPROACH % | 11% | 89% | 0% | 6% | 44% | 50% | 25% | 0% | 75% | 100% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.750 | | | 0.643 | | | 0.667 | | | 0.500 | | 0.821 | | | | | | | | | |
| APP/DEPART | 18 | / | 18 | 18 | / | 16 | 8 | / | 1 | 2 | / | 11 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 9 | 3 | 1 | 7 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 4 | 0 | 0 | 4 | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 4:30 PM | 1 | 3 | 0 | 0 | 5 | 1 | 8 | 0 | 1 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 2 | 0 | 0 | 11 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 1 | 3 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 2 | 0 | 0 | 5 | 2 | 3 | 0 | 0 | 0 | 0 | 2 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 5:30 PM | 0 | 6 | 2 | 0 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 5:45 PM | 0 | 5 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| VOLUMES | 2 | 34 | 5 | 1 | 43 | 10 | 17 | 0 | 3 | 0 | 0 | 2 | 117 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 |
| APPROACH % | 5% | 83% | 12% | 2% | 80% | 19% | 85% | 0% | 15% | 0% | 0% | 100% | | | | | | | | | | |
| APP/DEPART | 41 | / | 53 | 54 | / | 46 | 20 | / | 6 | 2 | / | 12 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 1 | 18 | 3 | 1 | 27 | 4 | 12 | 0 | 3 | 0 | 0 | 0 | 69 | | | | | | 0 | 1 | 0 | 0 |
| APPROACH % | 5% | 82% | 14% | 3% | 84% | 13% | 80% | 0% | 20% | 0% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.458 | | | 0.727 | | | 0.417 | | | 0.000 | | 0.784 | | | | | | | | | |
| APP/DEPART | 22 | / | 30 | 32 | / | 30 | 15 | / | 4 | 0 | / | 5 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Morgan** WEST SIDE

EAST SIDE **Morgan**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

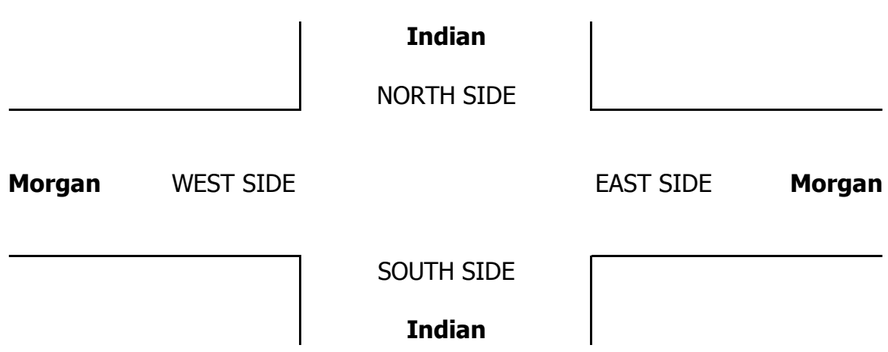
| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 4 |
| | EAST & WEST: | Morgan | CONTROL: | SIGNAL |

| CLASS 5: | NOTES: |
|---|---|
| RV | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Morgan | | | WESTBOUND Morgan | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 3:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

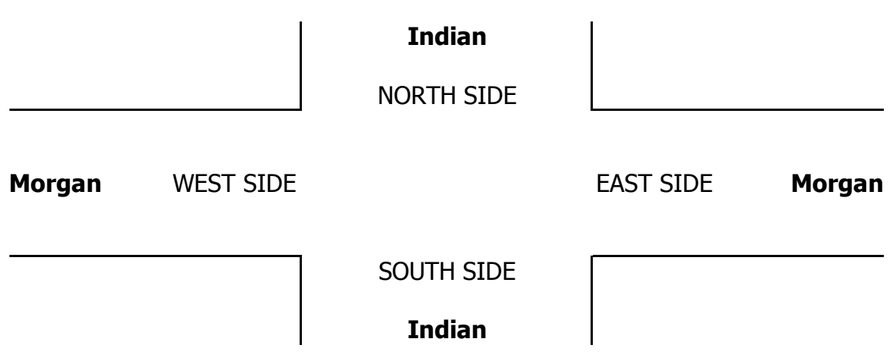
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 4 |
| | EAST & WEST: | Morgan | CONTROL: | SIGNAL |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

| | | | |
|---|---|---|---|
| AM | | ▲ N | |
| PM | | | |
| MD | ◄ W | | E ► |
| OTHER | | S ▼ | |
| OTHER | | | |

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Morgan | | | WESTBOUND Morgan | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 2 | NR 0 | SL 1 | ST 2 | SR 0 | EL 1 | ET 2 | ER 0 | WL 1 | WT 2 | WR 0 | TOTAL | NB | SB | EB | WB | TTL | NRR 0 | SRR 0 | ERR 0 | WRR 0 |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 2 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 13% | 87% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 15 | / | 2 | 0 | / | 0 | 0 | / | 13 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:45 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | | | | | | 0 | 3 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 22% | 78% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.563 | | | 0.000 | | | 0.000 | | 0.563 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 9 | / | 2 | 0 | / | 0 | 0 | / | 7 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 4 | 17 | 0 | 0 | 0 | 0 | 2 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 19% | 81% | 0% | 0% | 0% | 0% | 100% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 21 | / | 4 | 0 | / | 0 | 2 | / | 19 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 4 | 9 | 0 | 0 | 0 | 0 | 2 | 0 | 15 | | | | | | 0 | 2 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 31% | 69% | 0% | 0% | 0% | 0% | 100% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.650 | | | 0.000 | | | 0.500 | | 0.625 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 13 | / | 4 | 0 | / | 0 | 2 | / | 11 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | LOCATION: | Perris | PROJECT #: | SC2408 |
|---|---|---|---|---|
| Tue, Oct 29, 19 | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 0 | NT 1 | NR 1 | SL 1 | ST 1 | SR 0 | EL 0 | ET 1 | ER 0 | WL 1 | WT 0.5 | WR 0.5 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL | NRR X | SRR X | ERR X | WRR X |
| AM | 7:00 AM | 0 | 19 | 4 | 7 | 25 | 0 | 0 | 0 | 0 | 8 | 0 | 13 | 76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 39 | 17 | 6 | 21 | 0 | 0 | 0 | 0 | 16 | 0 | 7 | 106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 38 | 25 | 7 | 25 | 0 | 0 | 0 | 0 | 49 | 0 | 5 | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 42 | 32 | 9 | 40 | 0 | 0 | 0 | 0 | 67 | 0 | 6 | 196 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 25 | 18 | 10 | 17 | 0 | 0 | 0 | 0 | 10 | 0 | 10 | 90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 10 | 5 | 4 | 19 | 0 | 0 | 0 | 0 | 8 | 0 | 5 | 51 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 17 | 3 | 3 | 16 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 46 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 14 | 4 | 4 | 8 | 0 | 0 | 0 | 0 | 4 | 0 | 6 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 204 | 108 | 50 | 171 | 0 | 0 | 0 | 0 | 164 | 0 | 57 | 754 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 65% | 35% | 23% | 77% | 0% | 0% | 0% | 0% | 74% | 0% | 26% | | | | | | | | | | |
| | APP/DEPART | 312 | / | 261 | 221 | / | 335 | 0 | / | 158 | 221 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 144 | 92 | 32 | 103 | 0 | 0 | 0 | 0 | 142 | 0 | 28 | 541 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 61% | 39% | 24% | 76% | 0% | 0% | 0% | 0% | 84% | 0% | 16% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.797 | | | 0.689 | | | 0.000 | | | 0.582 | | 0.690 | | | | | | | | | |
| | APP/DEPART | 236 | / | 172 | 135 | / | 245 | 0 | / | 124 | 170 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 10 | 1 | 19 | 35 | 0 | 0 | 0 | 0 | 8 | 0 | 4 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 22 | 2 | 13 | 38 | 0 | 0 | 0 | 0 | 3 | 0 | 8 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 14 | 5 | 28 | 70 | 0 | 0 | 0 | 0 | 8 | 0 | 6 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 16 | 7 | 25 | 73 | 1 | 0 | 0 | 0 | 3 | 0 | 4 | 129 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 9 | 3 | 12 | 54 | 0 | 0 | 0 | 0 | 4 | 0 | 9 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 15 | 4 | 19 | 37 | 0 | 0 | 0 | 0 | 3 | 0 | 10 | 88 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 16 | 4 | 20 | 41 | 1 | 1 | 0 | 0 | 8 | 0 | 7 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 17 | 6 | 12 | 32 | 0 | 0 | 0 | 0 | 8 | 0 | 9 | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 119 | 32 | 148 | 380 | 2 | 1 | 0 | 0 | 45 | 0 | 57 | 784 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 79% | 21% | 28% | 72% | 0% | 100% | 0% | 0% | 44% | 0% | 56% | | | | | | | | | | |
| | APP/DEPART | 151 | / | 178 | 530 | / | 425 | 1 | / | 179 | 102 | / | 2 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 54 | 19 | 84 | 234 | 1 | 0 | 0 | 0 | 18 | 0 | 29 | 439 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 74% | 26% | 26% | 73% | 0% | 0% | 0% | 0% | 38% | 0% | 62% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.793 | | | 0.806 | | | 0.000 | | | 0.839 | | 0.838 | | | | | | | | | |
| | APP/DEPART | 73 | / | 84 | 319 | / | 252 | 0 | / | 102 | 47 | / | 1 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

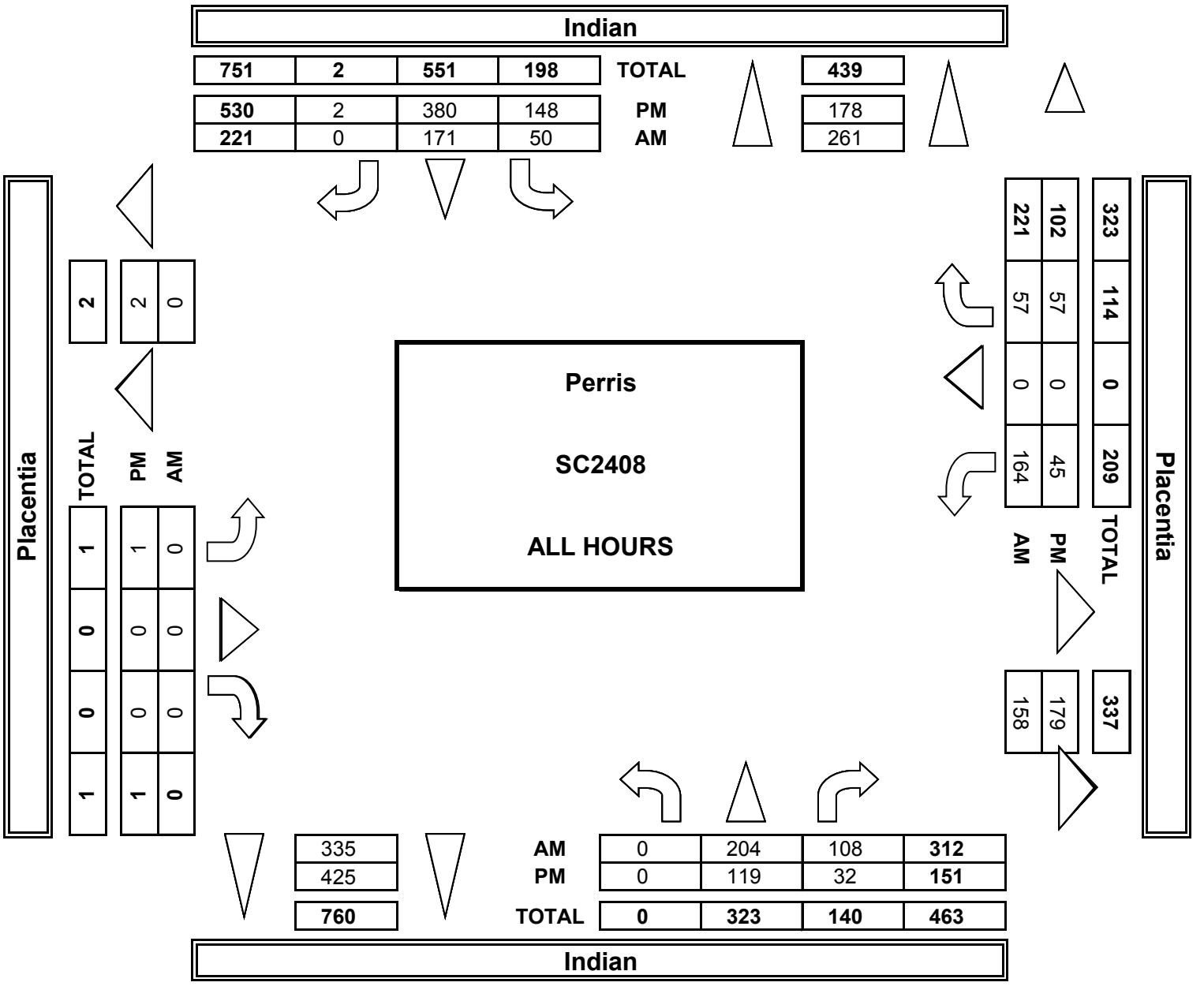
SOUTH SIDE

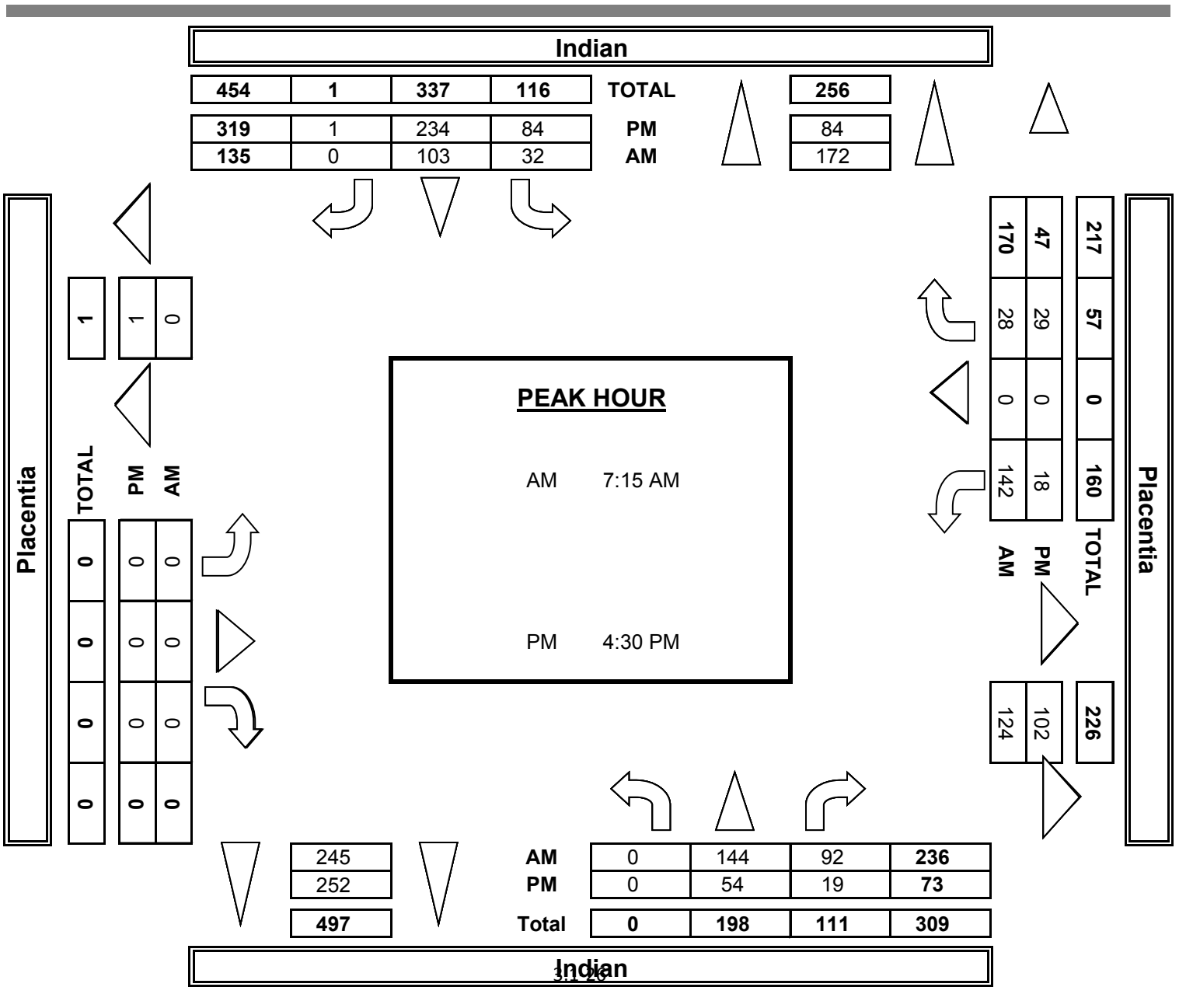
**Indian**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | ES | WS | SS | NS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| PM | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| | TOTAL | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
MD
OTHER
OTHER

▲ N
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S ▼

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.5 | 0.5 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 19 | 4 | 7 | 25 | 0 | 0 | 0 | 0 | 8 | 0 | 11 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 36 | 17 | 6 | 19 | 0 | 0 | 0 | 0 | 16 | 0 | 6 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 37 | 25 | 6 | 24 | 0 | 0 | 0 | 0 | 48 | 0 | 5 | 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 38 | 32 | 8 | 37 | 0 | 0 | 0 | 0 | 67 | 0 | 5 | 187 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 23 | 16 | 10 | 14 | 0 | 0 | 0 | 0 | 10 | 0 | 10 | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 9 | 5 | 4 | 17 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 16 | 3 | 3 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 5 | 4 | 4 | 8 | 0 | 0 | 0 | 0 | 2 | 0 | 5 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 183 | 106 | 48 | 157 | 0 | 0 | 0 | 0 | 156 | 0 | 50 | 700 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 63% | 37% | 23% | 77% | 0% | 0% | 0% | 0% | 76% | 0% | 24% | | | | | | | | | | |
| | APP/DEPART | 289 | / | 233 | 205 | / | 313 | 0 | / | 154 | 206 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 134 | 90 | 30 | 94 | 0 | 0 | 0 | 0 | 141 | 0 | 26 | 515 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 60% | 40% | 24% | 76% | 0% | 0% | 0% | 0% | 84% | 0% | 16% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.800 | | | 0.689 | | | 0.000 | | | 0.580 | | 0.689 | | | | | | | | | |
| | APP/DEPART | 224 | / | 160 | 124 | / | 235 | 0 | / | 120 | 167 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 9 | 1 | 19 | 33 | 0 | 0 | 0 | 0 | 8 | 0 | 4 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 21 | 2 | 13 | 36 | 0 | 0 | 0 | 0 | 3 | 0 | 8 | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 14 | 4 | 28 | 66 | 0 | 0 | 0 | 0 | 8 | 0 | 6 | 126 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 15 | 7 | 25 | 68 | 1 | 0 | 0 | 0 | 3 | 0 | 4 | 123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 9 | 3 | 12 | 49 | 0 | 0 | 0 | 0 | 4 | 0 | 9 | 86 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 15 | 3 | 19 | 37 | 0 | 0 | 0 | 0 | 3 | 0 | 8 | 85 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 16 | 4 | 20 | 38 | 1 | 1 | 0 | 0 | 8 | 0 | 6 | 94 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 16 | 6 | 11 | 29 | 0 | 0 | 0 | 0 | 7 | 0 | 9 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 115 | 30 | 147 | 356 | 2 | 1 | 0 | 0 | 44 | 0 | 54 | 749 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 79% | 21% | 29% | 70% | 0% | 100% | 0% | 0% | 45% | 0% | 55% | | | | | | | | | | |
| | APP/DEPART | 145 | / | 171 | 505 | / | 400 | 1 | / | 176 | 98 | / | 2 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 53 | 17 | 83 | 220 | 1 | 0 | 0 | 0 | 18 | 0 | 27 | 420 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 76% | 24% | 27% | 72% | 0% | 0% | 0% | 0% | 40% | 0% | 60% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.795 | | | 0.811 | | | 0.000 | | | 0.804 | | 0.833 | | | | | | | | | |
| | APP/DEPART | 70 | / | 81 | 305 | / | 238 | 0 | / | 100 | 45 | / | 1 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 2: | NOTES: | AM | | ▲ N | |
|---|---|---|---|---|---|
| 2-AXLE WORK VEHICLES/ TRUCKS | | PM | | | |
| | | MD | ◄ W | | E ► |
| | | OTHER | | S | |
| | | OTHER | | ▼ | |

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.5 | 0.5 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 4 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 19 | 1 | 2 | 11 | 0 | 0 | 0 | 0 | 5 | 0 | 6 | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 95% | 5% | 15% | 85% | 0% | 0% | 0% | 0% | 45% | 0% | 55% | | | | | | | | | | |
| | APP/DEPART | 20 | / | 25 | 13 | / | 16 | 0 | / | 3 | 11 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 11 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 26 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 92% | 8% | 0% | 100% | 0% | 0% | 0% | 0% | 57% | 0% | 43% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.375 | | | 0.583 | | | 0.000 | | | 0.583 | | 0.722 | | | | | | | | | |
| | APP/DEPART | 12 | / | 14 | 7 | / | 11 | 0 | / | 1 | 7 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 3 | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 75% | 25% | 6% | 94% | 0% | 0% | 0% | 0% | 25% | 0% | 75% | | | | | | | | | | |
| | APP/DEPART | 4 | / | 6 | 16 | / | 16 | 0 | / | 2 | 4 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 5:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 1 | 1 | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 13 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 50% | 50% | 14% | 86% | 0% | 0% | 0% | 0% | 25% | 0% | 75% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.583 | | | 0.000 | | | 0.500 | | 0.650 | | | | | | | | | |
| | APP/DEPART | 2 | / | 4 | 7 | / | 7 | 0 | / | 2 | 4 | / | 0 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

**CLASS 3:** 3-AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.5 | 0.5 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 50% | 50% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | | | | | |
| | APP/DEPART | 2 | / | 2 | 2 | / | 2 | 0 | / | 1 | 1 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 50% | 50% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.500 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.750 | | | | | | | | | |
| | APP/DEPART | 2 | / | 1 | 1 | / | 1 | 0 | / | 1 | 0 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 50% | 50% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 2 | / | 1 | 4 | / | 4 | 0 | / | 1 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.750 | | | 0.000 | | | 0.000 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 1 | / | 1 | 3 | / | 3 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 4: | NOTES: |
|---|---|
| 4 OR MORE AXLE TRUCKS | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.5 | 0.5 | | | | | | | X | X | X | X |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | | | | | |
| APP/DEPART | 1 | / | 1 | 0 | / | 2 | 0 | / | 0 | 2 | / | 0 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 3 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.250 | | | 0.000 | | | 0.000 | | | 0.250 | | 0.375 | | | | | | | | | |
| APP/DEPART | 1 | / | 1 | 0 | / | 2 | 0 | / | 0 | 2 | / | 0 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| APP/DEPART | 0 | / | 0 | 2 | / | 2 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 5:00 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 | | | | | | | | | |
| APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |

**Indian**

NORTH SIDE

**Placentia** WEST SIDE EAST SIDE **Placentia**

SOUTH SIDE

**Indian**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 5: | NOTES: |
|---|---|
| RV | |

AM / PM / MD / OTHER / OTHER

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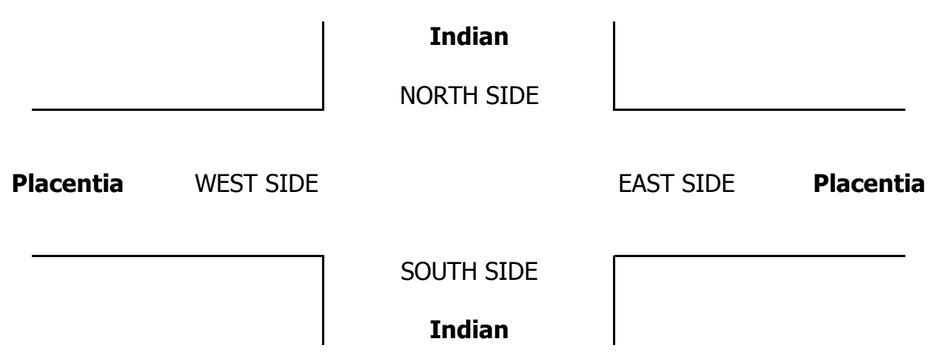
| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.5 | 0.5 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 3:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Indian | LOCATION #: | 5 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Indian | | | SOUTHBOUND Indian | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | |
| | LANES: | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0.5 | 0.5 | |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 2 | 0 | / | 0 | 1 | / | 0 | 0 |
| | BEGIN PEAK HR | | 7:45 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 2 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.250 | | 0.500 |
| | APP/DEPART | 0 | / | 0 | 1 | / | 2 | 0 | / | 0 | 1 | / | 0 | 0 |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | APP/DEPART | 0 | / | 0 | 3 | / | 3 | 0 | / | 0 | 0 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.000 | | | 0.750 | | | 0.000 | | | 0.000 | | 0.750 |
| | APP/DEPART | 0 | / | 0 | 3 | / | 3 | 0 | / | 0 | 0 | / | 0 | 0 |

| U-TURNS | | | | |
|---|---|---|---|---|
| NB | SB | EB | WB | TTL |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 

# INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| Tue, Oct 29, 19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

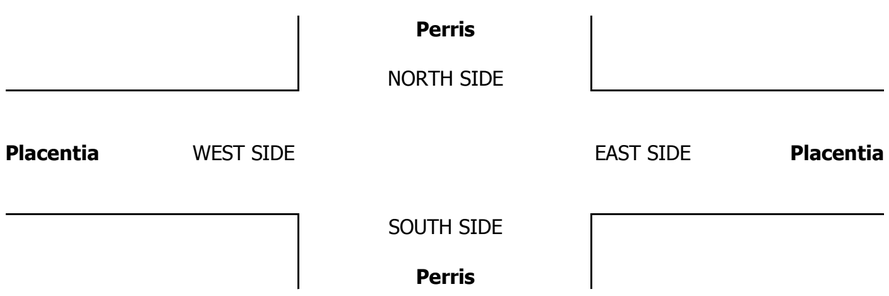
NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

☑ Add U-Turns to Left Turns

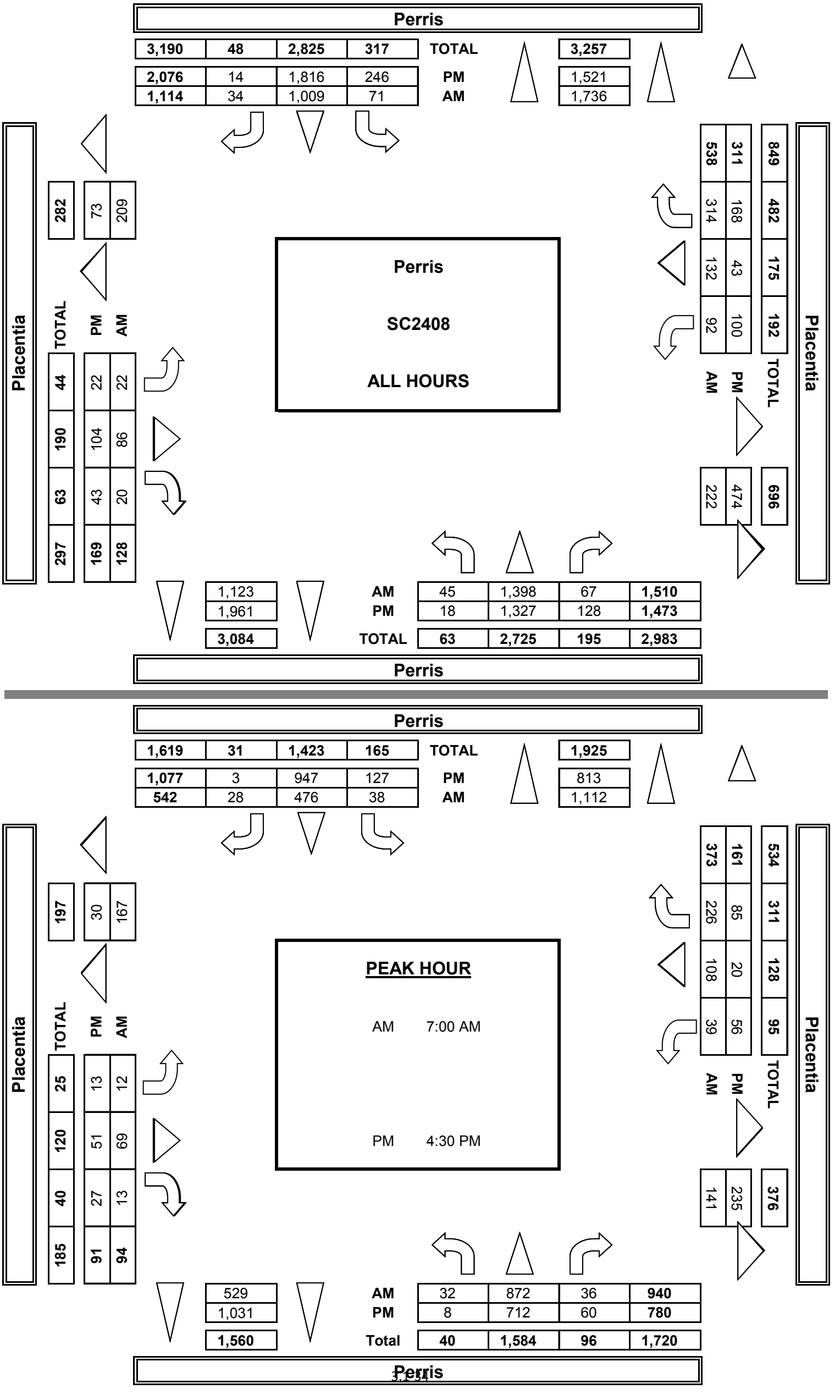
| | | NORTHBOUND Perris | | | SOUTHBOUND Perris | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 2 | NR 0 | SL 1 | ST 2 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 1 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL | NRR 0 | SRR 0 | ERR 0 | WRR 0 |
| AM | 7:00 AM | 6 | 236 | 7 | 6 | 87 | 3 | 4 | 2 | 1 | 9 | 16 | 58 | 435 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 25 |
| | 7:15 AM | 8 | 233 | 5 | 14 | 125 | 7 | 1 | 17 | 1 | 8 | 18 | 58 | 495 | 0 | 1 | 0 | 0 | 1 | 1 | 4 | 1 | 27 |
| | 7:30 AM | 8 | 212 | 11 | 9 | 124 | 9 | 2 | 25 | 3 | 11 | 41 | 56 | 511 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 2 | 21 |
| | 7:45 AM | 10 | 191 | 13 | 9 | 140 | 9 | 5 | 25 | 8 | 11 | 33 | 54 | 508 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 24 |
| | 8:00 AM | 4 | 140 | 11 | 11 | 146 | 1 | 5 | 12 | 5 | 18 | 11 | 34 | 398 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 23 |
| | 8:15 AM | 3 | 131 | 4 | 11 | 146 | 0 | 3 | 3 | 1 | 9 | 6 | 27 | 344 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 18 |
| | 8:30 AM | 4 | 128 | 8 | 5 | 128 | 3 | 1 | 0 | 0 | 10 | 6 | 16 | 309 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 12 |
| | 8:45 AM | 2 | 127 | 8 | 6 | 113 | 2 | 1 | 2 | 1 | 16 | 1 | 11 | 290 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 8 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 45 | 1,398 | 67 | 71 | 1,009 | 34 | 22 | 86 | 20 | 92 | 132 | 314 | 3,290 | 2 | 2 | 0 | 0 | 4 | 11 | 10 | 8 | 158 |
| | APPROACH % | 3% | 93% | 4% | 6% | 91% | 3% | 17% | 67% | 16% | 17% | 25% | 58% | | | | | | | | | | |
| | APP/DEPART | 1,510 | / | 1,736 | 1,114 | / | 1,123 | 128 | / | 222 | 538 | / | 209 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 32 | 872 | 36 | 38 | 476 | 28 | 12 | 69 | 13 | 39 | 108 | 226 | 1,949 | | | | | | 7 | 9 | 5 | 97 |
| | APPROACH % | 3% | 93% | 4% | 7% | 88% | 5% | 13% | 73% | 14% | 10% | 29% | 61% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.944 | | | 0.858 | | | 0.618 | | | 0.863 | | 0.954 | | | | | | | | | |
| | APP/DEPART | 940 | / | 1,112 | 542 | / | 529 | 94 | / | 141 | 373 | / | 167 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 1 | 154 | 19 | 26 | 230 | 2 | 3 | 16 | 3 | 4 | 4 | 19 | 481 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 13 |
| | 4:15 PM | 2 | 148 | 17 | 36 | 252 | 0 | 0 | 5 | 4 | 14 | 6 | 16 | 500 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 3 | 14 |
| | 4:30 PM | 2 | 175 | 16 | 28 | 236 | 0 | 4 | 15 | 7 | 9 | 8 | 24 | 524 | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 4 | 13 |
| | 4:45 PM | 3 | 177 | 14 | 30 | 251 | 1 | 4 | 17 | 12 | 17 | 4 | 21 | 551 | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 3 | 15 |
| | 5:00 PM | 2 | 183 | 12 | 40 | 214 | 1 | 5 | 8 | 1 | 13 | 3 | 20 | 502 | 0 | 1 | 0 | 0 | 1 | 7 | 0 | 1 | 13 |
| | 5:15 PM | 1 | 177 | 18 | 29 | 246 | 1 | 0 | 11 | 7 | 17 | 5 | 20 | 532 | 0 | 1 | 0 | 0 | 1 | 6 | 0 | 1 | 14 |
| | 5:30 PM | 3 | 159 | 20 | 29 | 203 | 6 | 1 | 15 | 6 | 15 | 6 | 25 | 488 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 3 | 13 |
| | 5:45 PM | 4 | 154 | 12 | 28 | 184 | 3 | 5 | 17 | 3 | 11 | 7 | 23 | 451 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 3 | 12 |
| | VOLUMES | 18 | 1,327 | 128 | 246 | 1,816 | 14 | 22 | 104 | 43 | 100 | 43 | 168 | 4,029 | 2 | 4 | 0 | 0 | 6 | 32 | 3 | 19 | 107 |
| | APPROACH % | 1% | 90% | 9% | 12% | 87% | 1% | 13% | 62% | 25% | 32% | 14% | 54% | | | | | | | | | | |
| | APP/DEPART | 1,473 | / | 1,521 | 2,076 | / | 1,961 | 169 | / | 474 | 311 | / | 73 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 8 | 712 | 60 | 127 | 947 | 3 | 13 | 51 | 27 | 56 | 20 | 85 | 2,109 | | | | | | 21 | 0 | 9 | 55 |
| | APPROACH % | 1% | 91% | 8% | 12% | 88% | 0% | 14% | 56% | 30% | 35% | 12% | 53% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.990 | | | 0.955 | | | 0.689 | | | 0.958 | | 0.957 | | | | | | | | | |
| | APP/DEPART | 780 | / | 813 | 1,077 | / | 1,031 | 91 | / | 235 | 161 | / | 30 | 0 | | | | | | | | | |




| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | ES | WS | SS | NS | TOTAL |
| AM | 7:00 AM | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| | 7:15 AM | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 2 | 0 | 1 | 3 | 0 | 2 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 3 | 2 | 0 | 4 | 9 | 1 | 2 | 0 | 4 | 7 | 2 | 0 | 0 | 0 | 2 |
| PM | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 8 | 0 | 4 | 12 | 0 | 8 | 0 | 4 | 12 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 2 | 0 | 0 | 2 | 4 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 0 | 0 | 2 |
| | 4:30 PM | 3 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 |
| | 4:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 |
| | TOTAL | 5 | 12 | 0 | 6 | 23 | 2 | 11 | 0 | 6 | 19 | 3 | 1 | 0 | 0 | 4 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM
PM
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| | | NORTHBOUND Perris | | | SOUTHBOUND Perris | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 6 | 211 | 7 | 6 | 78 | 3 | 4 | 2 | 1 | 8 | 16 | 54 | 396 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 1 | 23 |
| | 7:15 AM | 5 | 214 | 5 | 13 | 116 | 7 | 1 | 17 | 1 | 7 | 17 | 58 | 461 | 0 | 1 | 0 | 0 | 1 | 1 | 4 | 1 | 27 |
| | 7:30 AM | 8 | 202 | 10 | 9 | 117 | 9 | 1 | 25 | 1 | 11 | 40 | 55 | 488 | 0 | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 21 |
| | 7:45 AM | 10 | 166 | 13 | 9 | 135 | 9 | 4 | 25 | 7 | 10 | 33 | 54 | 475 | 1 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 24 |
| | 8:00 AM | 4 | 123 | 11 | 10 | 133 | 1 | 5 | 11 | 4 | 18 | 11 | 34 | 365 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 23 |
| | 8:15 AM | 2 | 120 | 4 | 11 | 131 | 0 | 3 | 2 | 1 | 8 | 6 | 26 | 314 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 18 |
| | 8:30 AM | 2 | 119 | 8 | 5 | 116 | 1 | 1 | 0 | 0 | 10 | 4 | 16 | 282 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| | 8:45 AM | 2 | 110 | 8 | 5 | 97 | 2 | 0 | 2 | 1 | 15 | 1 | 10 | 253 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 7 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 39 | 1,265 | 66 | 68 | 923 | 32 | 19 | 84 | 16 | 87 | 128 | 307 | 3,034 | 1 | 2 | 0 | 0 | 3 | 11 | 10 | 6 | 155 |
| | APPROACH % | 3% | 92% | 5% | 7% | 90% | 3% | 16% | 71% | 13% | 17% | 25% | 59% | | | | | | | | | | |
| | APP/DEPART | 1,370 | / | 1,593 | 1,023 | / | 1,027 | 119 | / | 216 | 522 | / | 198 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 28 | 793 | 35 | 35 | 446 | 28 | 10 | 69 | 10 | 36 | 106 | 221 | 1,820 | | | | | | 7 | 9 | 3 | 95 |
| | APPROACH % | 3% | 93% | 4% | 7% | 87% | 5% | 11% | 78% | 11% | 10% | 29% | 61% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.956 | | | 0.835 | | | 0.618 | | | 0.856 | | 0.932 | | | | | | | | | |
| | APP/DEPART | 857 | / | 1,026 | 511 | / | 493 | 89 | / | 139 | 363 | / | 162 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 1 | 148 | 18 | 23 | 217 | 2 | 3 | 16 | 3 | 4 | 4 | 18 | 457 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 12 |
| | 4:15 PM | 2 | 144 | 16 | 35 | 238 | 0 | 0 | 5 | 4 | 13 | 6 | 16 | 479 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 3 | 14 |
| | 4:30 PM | 2 | 163 | 16 | 27 | 217 | 0 | 4 | 15 | 6 | 9 | 8 | 24 | 491 | 0 | 1 | 0 | 0 | 1 | 4 | 0 | 3 | 13 |
| | 4:45 PM | 3 | 170 | 14 | 29 | 239 | 1 | 4 | 17 | 12 | 16 | 4 | 20 | 529 | 1 | 0 | 0 | 0 | 1 | 4 | 0 | 3 | 14 |
| | 5:00 PM | 2 | 177 | 12 | 36 | 207 | 0 | 5 | 8 | 1 | 13 | 3 | 20 | 484 | 0 | 1 | 0 | 0 | 1 | 7 | 0 | 1 | 13 |
| | 5:15 PM | 1 | 171 | 17 | 26 | 232 | 1 | 0 | 10 | 7 | 16 | 5 | 19 | 505 | 0 | 1 | 0 | 0 | 1 | 6 | 0 | 1 | 13 |
| | 5:30 PM | 3 | 154 | 17 | 27 | 194 | 5 | 1 | 15 | 6 | 14 | 6 | 25 | 467 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 3 | 13 |
| | 5:45 PM | 4 | 148 | 11 | 27 | 173 | 3 | 5 | 17 | 2 | 10 | 7 | 23 | 430 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 2 | 12 |
| | VOLUMES | 18 | 1,275 | 121 | 230 | 1,717 | 12 | 22 | 103 | 41 | 95 | 43 | 165 | 3,842 | 2 | 4 | 0 | 0 | 6 | 30 | 3 | 17 | 104 |
| | APPROACH % | 1% | 90% | 9% | 12% | 88% | 1% | 13% | 62% | 25% | 31% | 14% | 54% | | | | | | | | | | |
| | APP/DEPART | 1,414 | / | 1,466 | 1,959 | / | 1,855 | 166 | / | 450 | 303 | / | 71 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 7 | 681 | 59 | 115 | 895 | 2 | 13 | 50 | 26 | 54 | 20 | 83 | 2,009 | | | | | | 21 | 0 | 8 | 53 |
| | APPROACH % | 1% | 91% | 8% | 11% | 88% | 0% | 15% | 56% | 29% | 34% | 13% | 53% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.979 | | | 0.943 | | | 0.674 | | | 0.957 | | 0.949 | | | | | | | | | |
| | APP/DEPART | 748 | / | 780 | 1,015 | / | 976 | 89 | / | 224 | 157 | / | 29 | 0 | | | | | | | | | |

**Perris**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**Perris**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

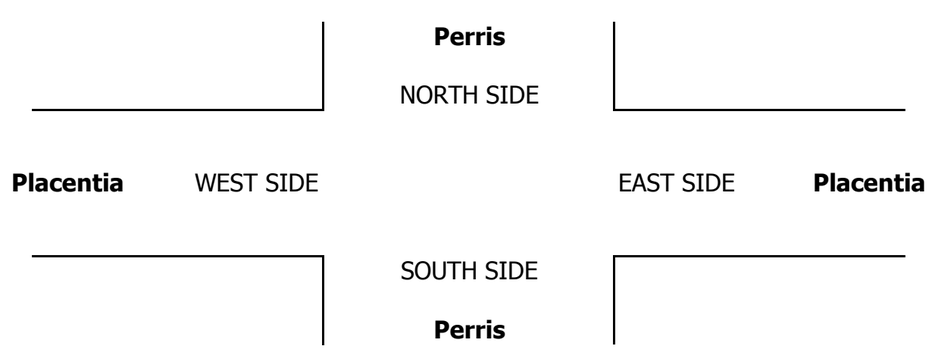
| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

| CLASS 2: | NOTES: |
|---|---|
| 2-AXLE WORK VEHICLES/ TRUCKS | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Perris | | | SOUTHBOUND Perris | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 0 | 16 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:15 AM | 1 | 14 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 7 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 7:45 AM | 0 | 18 | 0 | 0 | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 11 | 0 | 1 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 1 | 7 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 7 | 0 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 15 | 0 | 1 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 3 | 95 | 0 | 2 | 54 | 1 | 1 | 0 | 2 | 3 | 4 | 4 | 169 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| | APPROACH % | 3% | 97% | 0% | 4% | 95% | 2% | 33% | 0% | 67% | 27% | 36% | 36% | | | | | | | | | | |
| | APP/DEPART | 98 | / | 100 | 57 | / | 59 | 3 | / | 2 | 11 | / | 8 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 55 | 0 | 0 | 19 | 0 | 0 | 0 | 2 | 3 | 2 | 3 | 85 | | | | | | 0 | 0 | 1 | 1 |
| | APPROACH % | 2% | 98% | 0% | 0% | 100% | 0% | 0% | 0% | 100% | 38% | 25% | 38% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.778 | | | 0.950 | | | 0.500 | | | 0.667 | | 0.850 | | | | | | | | | |
| | APP/DEPART | 56 | / | 58 | 19 | / | 24 | 2 | / | 0 | 8 | / | 3 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 3 | 0 | 2 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 4:15 PM | 0 | 2 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 7 | 0 | 1 | 14 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 4:45 PM | 0 | 5 | 0 | 1 | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 5 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 4 | 1 | 3 | 10 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 5:30 PM | 0 | 4 | 3 | 2 | 7 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 17 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 6 | 1 | 1 | 8 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | VOLUMES | 0 | 36 | 5 | 12 | 68 | 0 | 0 | 1 | 2 | 4 | 0 | 2 | 130 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 | 2 |
| | APPROACH % | 0% | 88% | 12% | 15% | 85% | 0% | 0% | 33% | 67% | 67% | 0% | 33% | | | | | | | | | | |
| | APP/DEPART | 41 | / | 38 | 80 | / | 74 | 3 | / | 18 | 6 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 21 | 1 | 7 | 37 | 0 | 0 | 1 | 1 | 2 | 0 | 1 | 71 | | | | | | 0 | 0 | 1 | 1 |
| | APPROACH % | 0% | 95% | 5% | 16% | 84% | 0% | 0% | 50% | 50% | 67% | 0% | 33% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.786 | | | 0.733 | | | 0.500 | | | 0.375 | | 0.772 | | | | | | | | | |
| | APP/DEPART | 22 | / | 22 | 44 | / | 40 | 2 | / | 9 | 3 | / | 0 | 0 | | | | | | | | | |



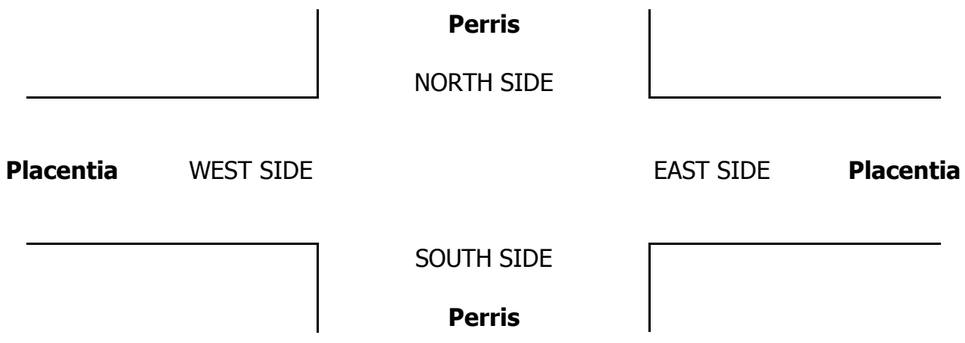
# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

| CLASS 3: | NOTES: | AM | | ▲ | |
|---|---|---|---|---|---|
| 3-AXLE | | PM | | N | |
| TRUCKS | | MD | ◄ W | | E ► |
| | | OTHER | | S | |
| | | OTHER | | ▼ | |

| | | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Perris | | | Perris | | | Placentia | | | Placentia | | | | | | | | | | | | |
| | LANES: | NL 1 | NT 2 | NR 0 | SL 1 | ST 2 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 1 | TOTAL | NB | SB | EB | WB | TTL | NRR 0 | SRR 0 | ERR 0 | WRR 0 |
| AM | 7:00 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 7:15 AM | 2 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 2 | 6 | 0 | 0 | 5 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | APPROACH % | 25% | 75% | 0% | 0% | 100% | 0% | 0% | 50% | 50% | 0% | 0% | 100% | | | | | | | | | | |
| | APP/DEPART | 8 | / | 7 | 5 | / | 6 | 2 | / | 1 | 1 | / | 2 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 3 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 9 | | | | | | 0 | 0 | 1 | 0 |
| | APPROACH % | 40% | 60% | 0% | 0% | 100% | 0% | 0% | 50% | 50% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.313 | | | 0.500 | | | 0.500 | | | 0.000 | | 0.450 | | | | | | | | | |
| | APP/DEPART | 5 | / | 3 | 2 | / | 3 | 2 | / | 1 | 0 | / | 2 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 6 | 0 | 2 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 22% | 67% | 11% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 6 | / | 6 | 9 | / | 6 | 0 | / | 2 | 0 | / | 1 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 5 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 100% | 0% | 33% | 67% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.625 | | | 0.375 | | | 0.000 | | | 0.000 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 5 | / | 5 | 3 | / | 2 | 0 | / | 1 | 0 | / | 0 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

**CLASS 4:** 4 OR MORE AXLE TRUCKS

**NOTES:**

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND Perris | | | SOUTHBOUND Perris | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 0 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 16 | 1 | 1 | 11 | 0 | 2 | 1 | 1 | 2 | 0 | 1 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 94% | 6% | 8% | 92% | 0% | 50% | 25% | 25% | 67% | 0% | 33% | | | | | | | | | | |
| APP/DEPART | 17 | / | 19 | 12 | / | 14 | 4 | / | 3 | 3 | / | 0 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 7:30 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 11 | 1 | 0 | 3 | 0 | 2 | 1 | 1 | 1 | 0 | 1 | 21 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 92% | 8% | 0% | 100% | 0% | 50% | 25% | 25% | 50% | 0% | 50% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.600 | | | 0.250 | | | 1.000 | | | 0.250 | | 0.875 | | | | | | | | | |
| APP/DEPART | 12 | / | 14 | 3 | / | 5 | 4 | / | 2 | 2 | / | 0 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4:30 PM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:00 PM | 0 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 4 | 1 | 2 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 17 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| APPROACH % | 0% | 80% | 20% | 18% | 73% | 9% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | | | | | |
| APP/DEPART | 5 | / | 5 | 11 | / | 8 | 0 | / | 3 | 1 | / | 1 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:15 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 0 | 3 | 1 | 2 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 13 | | | | | | 1 | 0 | 0 | 1 |
| APPROACH % | 0% | 75% | 25% | 25% | 63% | 13% | 0% | 0% | 0% | 0% | 0% | 100% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.500 | | | 0.500 | | | 0.000 | | | 0.250 | | 0.813 | | | | | | | | | |
| APP/DEPART | 4 | / | 4 | 8 | / | 5 | 0 | / | 3 | 1 | / | 1 | 0 | | | | | | | | | |

**Perris**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**Perris**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

| CLASS 5: | NOTES: |
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| | | NORTHBOUND Perris | | | SOUTHBOUND Perris | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | | | | | | | 0 | 0 | 0 | 0 |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 3:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |

**Perris**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

SOUTH SIDE

**Perris**

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Perris | LOCATION #: | 9 |
| | EAST & WEST: | Placentia | CONTROL: | SIGNAL |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

AM / PM / MD / OTHER / OTHER

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| | | NORTHBOUND Perris | | | SOUTHBOUND Perris | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 2 | NR 0 | SL 1 | ST 2 | SR 0 | EL 1 | ET 1 | ER 0 | WL 1 | WT 1 | WR 1 | |
| AM | 7:00 AM | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 |
| | 7:15 AM | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 7:30 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| | 7:45 AM | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 8:00 AM | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 8:15 AM | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | 8:30 AM | 0 | 2 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 8:45 AM | 0 | 1 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 16 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 34 |
| | APPROACH % | 0% | 100% | 0% | 0% | 94% | 6% | 0% | 0% | 0% | 0% | 0% | 100% | |
| | APP/DEPART | 16 | / | 17 | 17 | / | 16 | 0 | / | 0 | 1 | / | 1 | 0 |
| | BEGIN PEAK HR | | 8:00 AM | | | | | | | | | | | |
| | VOLUMES | 0 | 7 | 0 | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| | APPROACH % | 0% | 100% | 0% | 0% | 92% | 8% | 0% | 0% | 0% | 0% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.583 | | | 0.600 | | | 0.000 | | | 0.000 | | 0.792 |
| | APP/DEPART | 7 | / | 7 | 12 | / | 11 | 0 | / | 0 | 0 | / | 1 | 0 |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | 4:15 PM | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| | 4:30 PM | 0 | 1 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| | 4:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:00 PM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | VOLUMES | 0 | 6 | 1 | 0 | 17 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 25 |
| | APPROACH % | 0% | 86% | 14% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | |
| | APP/DEPART | 7 | / | 6 | 17 | / | 18 | 0 | / | 1 | 1 | / | 0 | 0 |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| | VOLUMES | 0 | 4 | 1 | 0 | 11 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 17 |
| | APPROACH % | 0% | 80% | 20% | 0% | 100% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | |
| | PEAK HR FACTOR | | 0.625 | | | 0.688 | | | 0.000 | | | 0.250 | | 0.708 |
| | APP/DEPART | 5 | / | 4 | 11 | / | 12 | 0 | / | 1 | 1 | / | 0 | 0 |

| U-TURNS | | | | |
|---|---|---|---|---|
| NB | SB | EB | WB | TTL |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 

# INTERSECTION TURNING MOVEMENT COUNTS

T1218

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| Tue, Oct 29, 19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

NOTES:

AM / PM / MD / OTHER / OTHER

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☑ Add U-Turns to Left Turns

| | | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LANES: | NL 1 | NT 1.5 | NR 0.5 | SL 1 | ST 1 | SR 1 | EL 1 | ET 1 | ER 1 | WL 1 | WT 1 | WR 0 | TOTAL | NB 0 | SB 0 | EB 0 | WB 0 | TTL | NRR X | SRR X | ERR X | WRR X |
| AM | 7:00 AM | 38 | 37 | 5 | 1 | 15 | 1 | 8 | 25 | 6 | 6 | 30 | 1 | 173 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 44 | 45 | 4 | 1 | 21 | 7 | 9 | 44 | 16 | 14 | 43 | 0 | 248 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 50 | 75 | 8 | 0 | 36 | 6 | 9 | 49 | 17 | 8 | 53 | 2 | 313 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 39 | 44 | 10 | 1 | 45 | 20 | 4 | 19 | 13 | 8 | 33 | 1 | 237 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 32 | 25 | 1 | 1 | 37 | 10 | 6 | 7 | 16 | 15 | 28 | 1 | 179 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 21 | 13 | 2 | 1 | 14 | 0 | 1 | 5 | 16 | 6 | 13 | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 8 | 17 | 5 | 0 | 14 | 2 | 2 | 6 | 8 | 5 | 11 | 0 | 78 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 12 | 17 | 2 | 0 | 12 | 1 | 6 | 5 | 8 | 7 | 7 | 0 | 77 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 244 | 273 | 37 | 5 | 194 | 47 | 45 | 160 | 100 | 69 | 218 | 5 | 1,397 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 44% | 49% | 7% | 2% | 79% | 19% | 15% | 52% | 33% | 24% | 75% | 2% | | | | | | | | | | |
| | APP/DEPART | 554 | / | 323 | 246 | / | 363 | 305 | / | 202 | 292 | / | 509 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 165 | 189 | 23 | 3 | 139 | 43 | 28 | 119 | 62 | 45 | 157 | 4 | 977 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 44% | 50% | 6% | 2% | 75% | 23% | 13% | 57% | 30% | 22% | 76% | 2% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.709 | | | 0.701 | | | 0.697 | | | 0.817 | | 0.780 | | | | | | | | | |
| | APP/DEPART | 377 | / | 221 | 185 | / | 246 | 209 | / | 145 | 206 | / | 365 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 14 | 26 | 6 | 1 | 25 | 1 | 10 | 19 | 19 | 7 | 21 | 0 | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 16 | 21 | 4 | 0 | 20 | 2 | 6 | 26 | 19 | 5 | 12 | 0 | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 18 | 30 | 4 | 2 | 19 | 5 | 10 | 21 | 19 | 5 | 17 | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 17 | 29 | 7 | 0 | 32 | 3 | 4 | 26 | 16 | 2 | 13 | 0 | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 12 | 26 | 3 | 0 | 19 | 2 | 6 | 14 | 19 | 5 | 12 | 0 | 118 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 17 | 28 | 3 | 0 | 18 | 3 | 5 | 18 | 22 | 3 | 14 | 1 | 132 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 21 | 46 | 7 | 2 | 21 | 7 | 7 | 26 | 22 | 3 | 15 | 0 | 177 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 18 | 24 | 3 | 0 | 26 | 6 | 7 | 14 | 31 | 2 | 12 | 0 | 143 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 133 | 230 | 37 | 5 | 180 | 29 | 55 | 164 | 167 | 32 | 116 | 1 | 1,149 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 33% | 58% | 9% | 2% | 84% | 14% | 14% | 42% | 43% | 21% | 78% | 1% | | | | | | | | | | |
| | APP/DEPART | 400 | / | 286 | 214 | / | 379 | 386 | / | 206 | 149 | / | 278 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 65 | 106 | 21 | 3 | 96 | 11 | 30 | 92 | 73 | 19 | 63 | 0 | 579 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 34% | 55% | 11% | 3% | 87% | 10% | 15% | 47% | 37% | 23% | 77% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.906 | | | 0.786 | | | 0.956 | | | 0.732 | | 0.965 | | | | | | | | | |
| | APP/DEPART | 192 | / | 136 | 110 | / | 188 | 195 | / | 116 | 82 | / | 139 | 0 | | | | | | | | | |

**Redlands**

NORTH SIDE

**Placentia** WEST SIDE

EAST SIDE **Placentia**

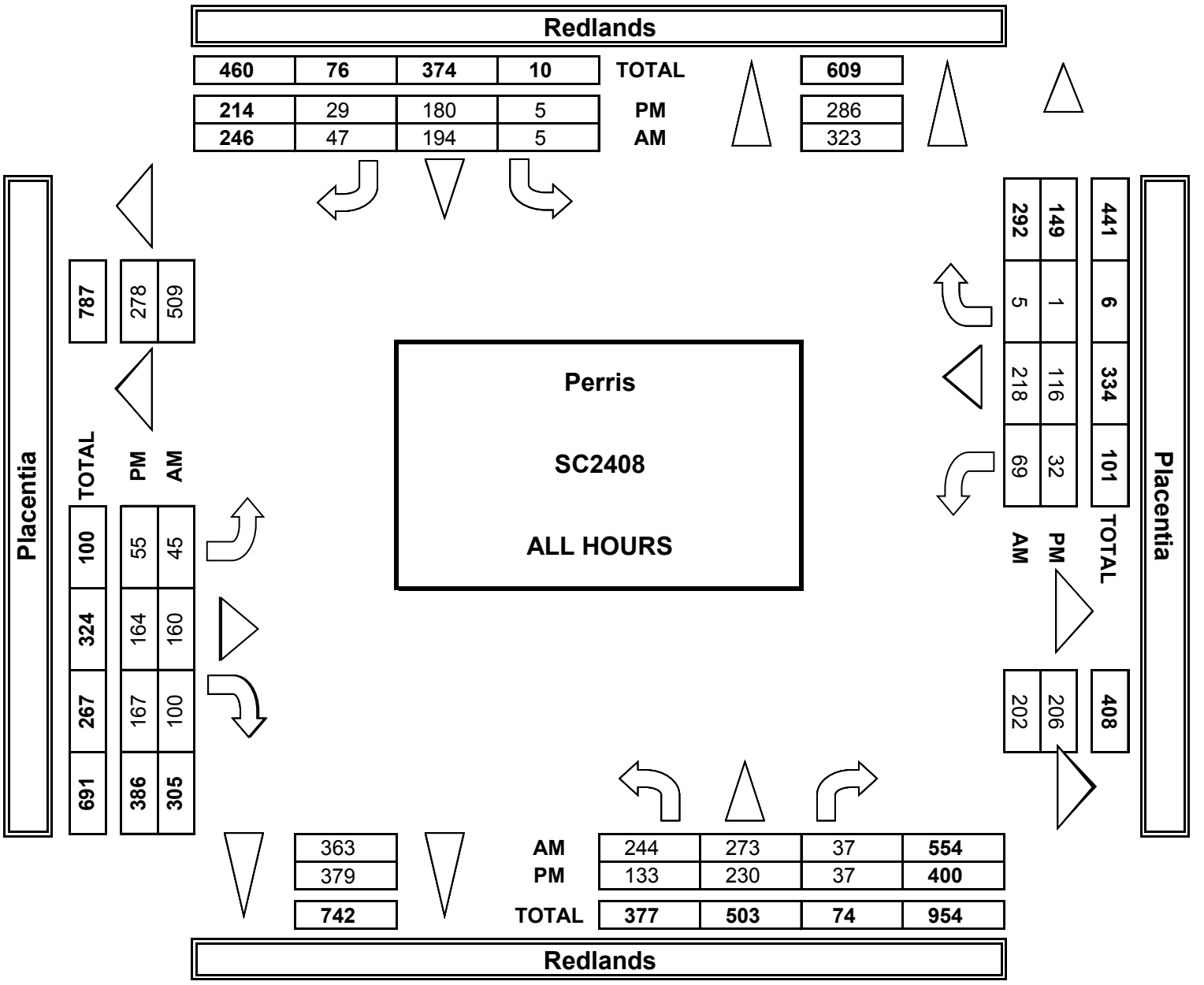
SOUTH SIDE

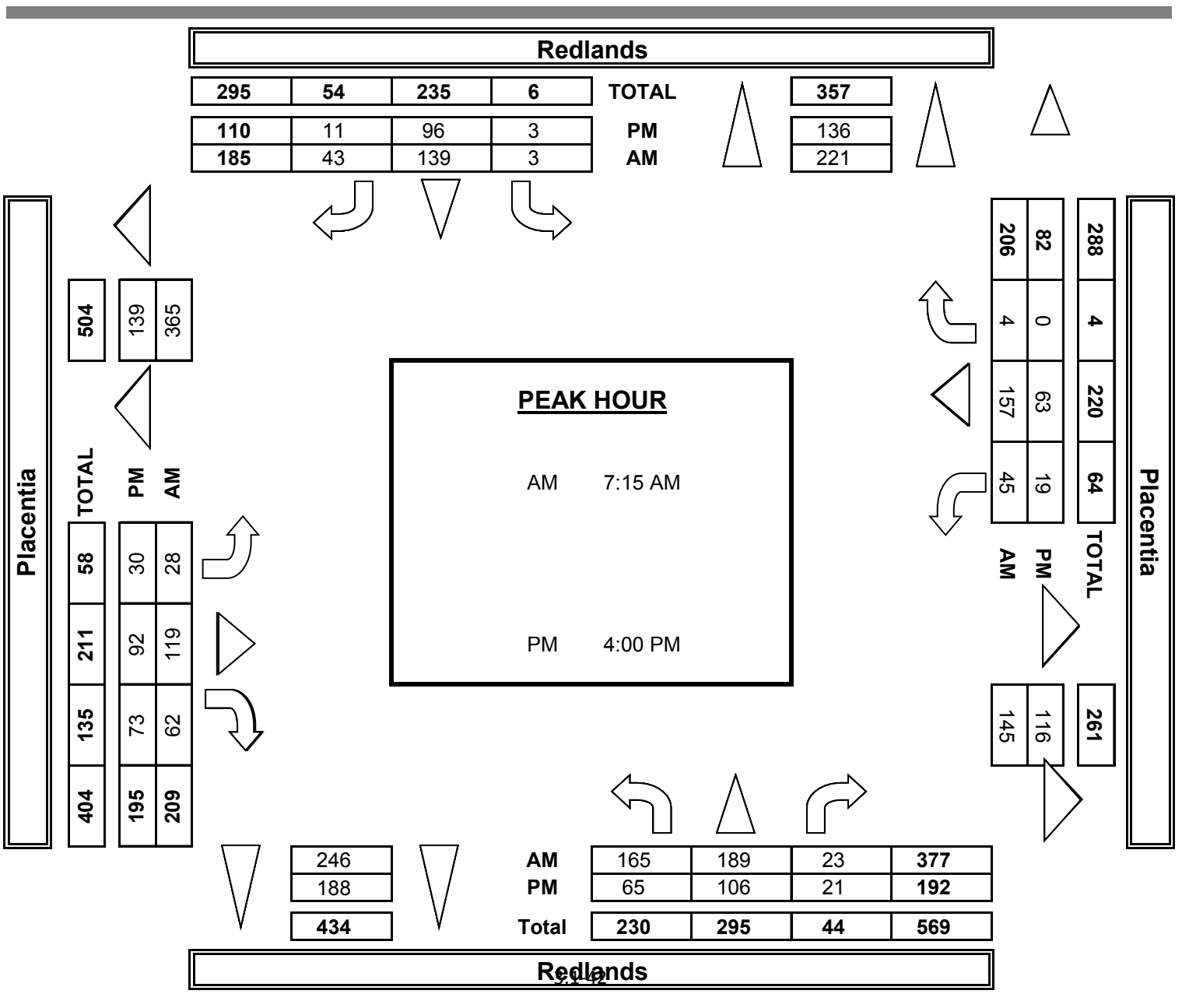
**Redlands**

| | | ALL PED AND BIKE | | | | | PEDESTRIAN CROSSINGS | | | | | BICYCLE CROSSINGS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | E SIDE | W SIDE | S SIDE | N SIDE | TOTAL | ES | WS | SS | NS | TOTAL |
| AM | 7:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 2 | 1 | 0 | 3 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TOTAL | 2 | 8 | 3 | 0 | 13 | 2 | 8 | 2 | 0 | 12 | 0 | 0 | 1 | 0 | 1 |
| PM | 3:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| | 5:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| | TOTAL | 0 | 1 | 6 | 2 | 9 | 0 | 1 | 5 | 0 | 6 | 0 | 0 | 1 | 2 | 3 |

**AimTD LLC**

TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

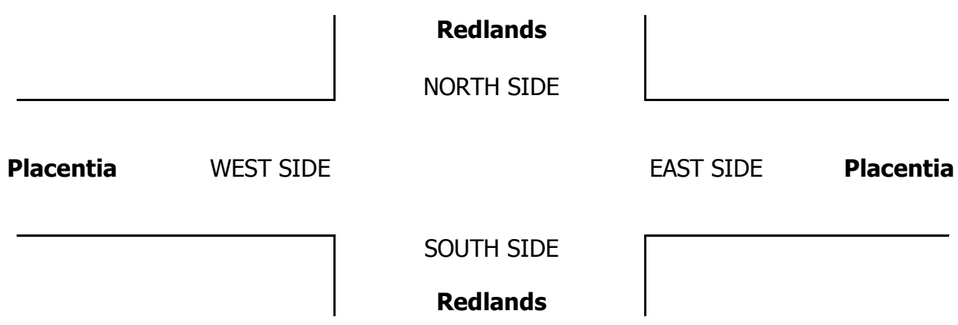
**CLASS 1:** PASSENGER VEHICLES

**NOTES:**

AM / PM / MD / OTHER / OTHER

N ▲ / ◄ W / E ► / S ▼

| | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| LANES: | 1 | 1.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | | | | | | | X | X | X | X |
| **AM** | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | 38 | 37 | 5 | 1 | 13 | 1 | 8 | 24 | 5 | 6 | 28 | 1 | 167 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 43 | 44 | 4 | 0 | 20 | 6 | 8 | 44 | 16 | 14 | 43 | 0 | 242 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 48 | 73 | 8 | 0 | 35 | 6 | 8 | 49 | 17 | 8 | 53 | 2 | 307 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 39 | 43 | 10 | 1 | 42 | 20 | 4 | 18 | 13 | 8 | 31 | 1 | 230 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 30 | 25 | 1 | 0 | 37 | 10 | 5 | 7 | 14 | 14 | 28 | 1 | 172 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 21 | 13 | 2 | 1 | 14 | 0 | 1 | 5 | 14 | 6 | 11 | 0 | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 8 | 16 | 5 | 0 | 12 | 1 | 2 | 6 | 7 | 5 | 10 | 0 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 12 | 16 | 2 | 0 | 12 | 1 | 6 | 5 | 7 | 7 | 6 | 0 | 74 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 239 | 267 | 37 | 3 | 185 | 45 | 42 | 158 | 93 | 68 | 210 | 5 | 1,352 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 44% | 49% | 7% | 1% | 79% | 19% | 14% | 54% | 32% | 24% | 74% | 2% | | | | | | | | | | |
| APP/DEPART | 543 | / | 314 | 233 | / | 346 | 293 | / | 198 | 283 | / | 494 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 160 | 185 | 23 | 1 | 134 | 42 | 25 | 118 | 60 | 44 | 155 | 4 | 951 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 43% | 50% | 6% | 1% | 76% | 24% | 12% | 58% | 30% | 22% | 76% | 2% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.713 | | | 0.702 | | | 0.686 | | | 0.806 | | 0.774 | | | | | | | | | |
| APP/DEPART | 368 | / | 214 | 177 | / | 238 | 203 | / | 142 | 203 | / | 357 | 0 | | | | | | | | | |
| **PM** | | | | | | | | | | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 14 | 24 | 6 | 1 | 23 | 1 | 10 | 16 | 19 | 7 | 20 | 0 | 141 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 16 | 21 | 4 | 0 | 18 | 2 | 6 | 26 | 17 | 5 | 12 | 0 | 127 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 16 | 28 | 4 | 1 | 19 | 4 | 9 | 19 | 19 | 4 | 16 | 0 | 139 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 16 | 28 | 6 | 0 | 29 | 2 | 4 | 25 | 16 | 1 | 12 | 0 | 139 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 11 | 26 | 3 | 0 | 17 | 2 | 6 | 14 | 19 | 4 | 12 | 0 | 114 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 17 | 27 | 3 | 0 | 17 | 3 | 5 | 15 | 20 | 3 | 14 | 0 | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 21 | 44 | 7 | 2 | 19 | 6 | 7 | 24 | 22 | 3 | 15 | 0 | 170 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 18 | 23 | 3 | 0 | 23 | 5 | 7 | 14 | 30 | 2 | 12 | 0 | 137 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 129 | 221 | 36 | 4 | 165 | 25 | 54 | 153 | 162 | 29 | 113 | 0 | 1,091 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 33% | 57% | 9% | 2% | 85% | 13% | 15% | 41% | 44% | 20% | 80% | 0% | | | | | | | | | | |
| APP/DEPART | 386 | / | 275 | 194 | / | 356 | 369 | / | 193 | 142 | / | 267 | 0 | | | | | | | | | |
| BEGIN PEAK HR | | 4:45 PM | | | | | | | | | | | | | | | | | | | | |
| VOLUMES | 65 | 125 | 19 | 2 | 82 | 13 | 22 | 78 | 77 | 11 | 53 | 0 | 547 | | | | | | 0 | 0 | 0 | 0 |
| APPROACH % | 31% | 60% | 9% | 2% | 85% | 13% | 12% | 44% | 44% | 17% | 83% | 0% | | | | | | | | | | |
| PEAK HR FACTOR | | 0.726 | | | 0.782 | | | 0.835 | | | 0.889 | | 0.804 | | | | | | | | | |
| APP/DEPART | 209 | / | 147 | 97 | / | 170 | 177 | / | 99 | 64 | / | 131 | 0 | | | | | | | | | |



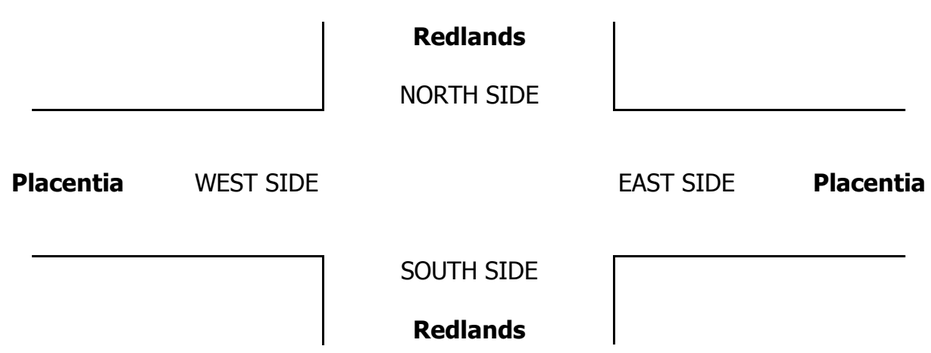
# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 2: | NOTES: | AM | | ▲ N | |
|---|---|---|---|---|---|
| 2-AXLE WORK VEHICLES/ TRUCKS | | PM | | | |
| | | MD | ◄ W | | E ► |
| | | OTHER | | S | |
| | | OTHER | | ▼ | |

| | | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 1.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 4 | 4 | 0 | 1 | 5 | 0 | 1 | 1 | 6 | 0 | 6 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 50% | 50% | 0% | 17% | 83% | 0% | 13% | 13% | 75% | 0% | 100% | 0% | | | | | | | | | | |
| | APP/DEPART | 8 | / | 5 | 6 | / | 11 | 8 | / | 2 | 6 | / | 10 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:45 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 2 | 1 | 0 | 1 | 4 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 16 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 67% | 33% | 0% | 20% | 80% | 0% | 0% | 0% | 100% | 0% | 100% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.375 | | | 0.625 | | | 0.500 | | | 0.500 | | 0.800 | | | | | | | | | |
| | APP/DEPART | 3 | / | 1 | 5 | / | 8 | 4 | / | 1 | 4 | / | 6 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 2 | 1 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 1 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 2 | 0 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 4 | 7 | 0 | 1 | 12 | 4 | 1 | 9 | 4 | 1 | 3 | 1 | 47 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 36% | 64% | 0% | 6% | 71% | 24% | 7% | 64% | 29% | 20% | 60% | 20% | | | | | | | | | | |
| | APP/DEPART | 11 | / | 9 | 17 | / | 17 | 14 | / | 10 | 5 | / | 11 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:30 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 4 | 3 | 0 | 1 | 5 | 2 | 1 | 6 | 2 | 1 | 2 | 1 | 28 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 57% | 43% | 0% | 13% | 63% | 25% | 11% | 67% | 22% | 25% | 50% | 25% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.583 | | | 0.667 | | | 0.450 | | | 0.500 | | 0.700 | | | | | | | | | |
| | APP/DEPART | 7 | / | 5 | 8 | / | 8 | 9 | / | 7 | 4 | / | 8 | 0 | | | | | | | | | |



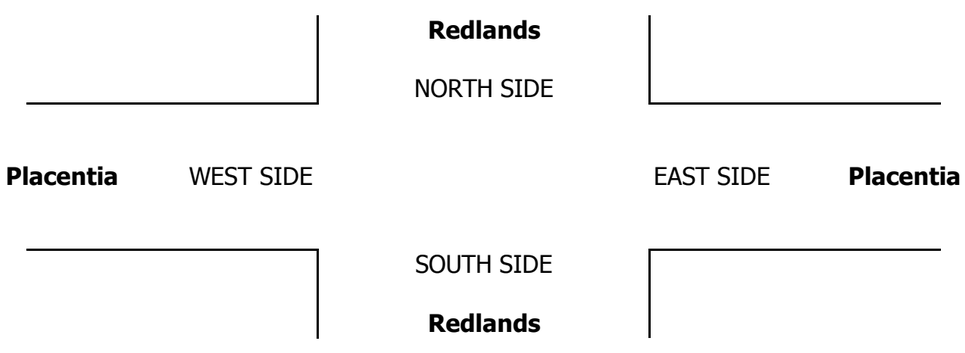
# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 3: | NOTES: | AM | | ▲ | |
|---|---|---|---|---|---|
| 3-AXLE | | PM | | N | |
| TRUCKS | | MD | ◄ W | | E ► |
| | | OTHER | | S | |
| | | OTHER | | ▼ | |

| | | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 1.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 1 | / | 1 | 0 | / | 1 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:45 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.250 | | | 0.000 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 0 | 1 | / | 1 | 0 | / | 1 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 1 | / | 1 | 0 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 5:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 | | | | | | | | | |



# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 4: | NOTES: |
|---|---|
| 4 OR MORE AXLE TRUCKS | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| **AM** | | | | | | | | | | | | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 2 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 1 | 0 | 1 | 2 | 0 | 2 | 0 | 1 | 1 | 2 | 0 | 10 |
| APPROACH % | 0% | 100% | 0% | 33% | 67% | 0% | 67% | 0% | 33% | 33% | 67% | 0% | |
| APP/DEPART | 1 | / | 3 | 3 | / | 4 | 3 | / | 1 | 3 | / | 2 | 0 |
| BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | |
| VOLUMES | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 0 | 6 |
| APPROACH % | 0% | 100% | 0% | 50% | 50% | 0% | 100% | 0% | 0% | 100% | 0% | 0% | |
| PEAK HR FACTOR | | 0.250 | | | 0.250 | | | 0.500 | | | 0.250 | | 0.500 |
| APP/DEPART | 1 | / | 3 | 2 | / | 2 | 2 | / | 1 | 1 | / | 0 | 0 |
| **PM** | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 4:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:45 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 6 |
| APPROACH % | 0% | 67% | 33% | 0% | 100% | 0% | 0% | 50% | 50% | 0% | 0% | 0% | |
| APP/DEPART | 3 | / | 2 | 1 | / | 2 | 2 | / | 2 | 0 | / | 0 | 0 |
| BEGIN PEAK HR | | 4:00 PM | | | | | | | | | | | |
| VOLUMES | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 5 |
| APPROACH % | 0% | 50% | 50% | 0% | 100% | 0% | 0% | 50% | 50% | 0% | 0% | 0% | |
| PEAK HR FACTOR | | 0.500 | | | 0.250 | | | 0.500 | | | 0.000 | | 0.625 |
| APP/DEPART | 2 | / | 1 | 1 | / | 2 | 2 | / | 2 | 0 | / | 0 | 0 |

| U-TURNS | | | | |
|---|---|---|---|---|
| NB | SB | EB | WB | TTL |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 5: | NOTES: |
|---|---|
| RV | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| LANES: | 1 | 1.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | |
| **AM** | | | | | | | | | | | | | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| BEGIN PEAK HR | | 7:00 AM | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | 0.000 |
| APP/DEPART | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 | / | 0 | 0 |
| **PM** | | | | | | | | | | | | | |
| 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 |
| BEGIN PEAK HR | | 3:15 PM | | | | | | | | | | | |
| VOLUMES | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| APPROACH % | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| PEAK HR FACTOR | | 0.000 | | | 0.250 | | | 0.000 | | | 0.000 | | 0.250 |
| APP/DEPART | 0 | / | 0 | 1 | / | 1 | 0 | / | 0 | 0 | / | 0 | 0 |

| U-TURNS | | | | |
|---|---|---|---|---|
| NB | SB | EB | WB | TTL |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 0 

# INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

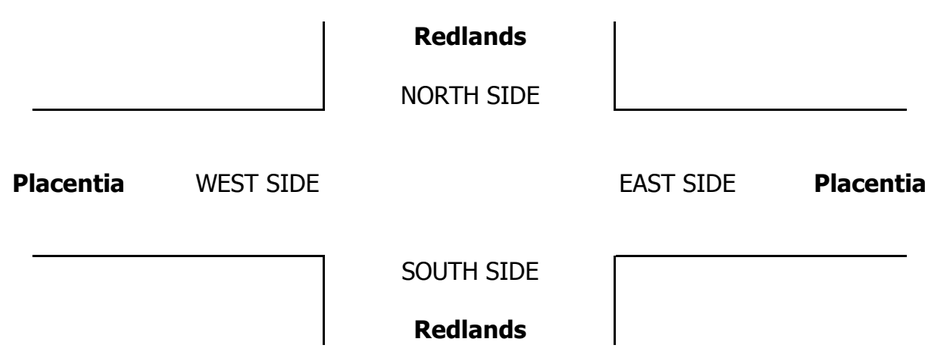
| DATE: | | | | |
|---|---|---|---|---|
| 10/29/19 | LOCATION: | Perris | PROJECT #: | SC2408 |
| TUESDAY | NORTH & SOUTH: | Redlands | LOCATION #: | 16 |
| | EAST & WEST: | Placentia | CONTROL: | STOP ALL |

| CLASS 6: | NOTES: |
|---|---|
| BUSES | |

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

| | | NORTHBOUND Redlands | | | SOUTHBOUND Redlands | | | EASTBOUND Placentia | | | WESTBOUND Placentia | | | | U-TURNS | | | | | RTOR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | NB | SB | EB | WB | TTL | NRR | SRR | ERR | WRR |
| | LANES: | 1 | 1.5 | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | | | | | | | X | X | X | X |
| AM | 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:30 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7:45 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 8:45 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 9:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 50% | 50% | 0% | 0% | 67% | 33% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 2 | / | 1 | 3 | / | 2 | 0 | / | 0 | 0 | / | 2 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 7:15 AM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 1 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 100% | 0% | 0% | 0% | 67% | 33% | 0% | 0% | 0% | 0% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.250 | | | 0.750 | | | 0.000 | | | 0.000 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 1 | / | 0 | 3 | / | 2 | 0 | / | 0 | 0 | / | 2 | 0 | | | | | | | | | |
| PM | 03:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 2 | 0 | / | 0 | 2 | / | 0 | 0 | | | | | | | | | |
| | BEGIN PEAK HR | | 4:45 PM | | | | | | | | | | | | | | | | | | | | |
| | VOLUMES | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | | | | | | 0 | 0 | 0 | 0 |
| | APPROACH % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 100% | 0% | 0% | | | | | | | | | | |
| | PEAK HR FACTOR | | 0.000 | | | 0.000 | | | 0.000 | | | 0.500 | | 0.500 | | | | | | | | | |
| | APP/DEPART | 0 | / | 0 | 0 | / | 2 | 0 | / | 0 | 2 | / | 0 | 0 | | | | | | | | | |



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 25 | 66 | 31 | 5 | 122 | 20 | 244 | 45 | 7 | 309 | 70 | 181 | 21 | 6 | 272 | 82 | 118 | 13 | 6 | 213 | 24 | 916 | 940 |
| 07:15 AM | 27 | 67 | 33 | 7 | 127 | 28 | 264 | 54 | 7 | 346 | 52 | 197 | 12 | 3 | 261 | 80 | 138 | 16 | 3 | 234 | 20 | 968 | 988 |
| 07:30 AM | 32 | 87 | 32 | 9 | 151 | 17 | 276 | 47 | 3 | 340 | 70 | 181 | 12 | 11 | 263 | 88 | 141 | 21 | 12 | 250 | 35 | 1004 | 1039 |
| 07:45 AM | 28 | 94 | 27 | 8 | 149 | 35 | 286 | 45 | 9 | 366 | 57 | 150 | 12 | 9 | 219 | 92 | 128 | 17 | 4 | 237 | 30 | 971 | 1001 |
| Total | 112 | 314 | 123 | 29 | 549 | 100 | 1070 | 191 | 26 | 1361 | 249 | 709 | 57 | 29 | 1015 | 342 | 525 | 67 | 25 | 934 | 109 | 3859 | 3968 |
| 08:00 AM | 33 | 65 | 41 | 7 | 139 | 28 | 207 | 25 | 2 | 260 | 64 | 114 | 14 | 7 | 192 | 92 | 124 | 22 | 6 | 238 | 22 | 829 | 851 |
| 08:15 AM | 24 | 76 | 29 | 11 | 129 | 29 | 231 | 25 | 1 | 285 | 43 | 70 | 18 | 6 | 131 | 76 | 114 | 12 | 2 | 202 | 20 | 747 | 767 |
| 08:30 AM | 19 | 51 | 21 | 2 | 91 | 25 | 215 | 25 | 2 | 265 | 60 | 80 | 8 | 3 | 148 | 59 | 123 | 24 | 4 | 206 | 11 | 710 | 721 |
| 08:45 AM | 31 | 64 | 24 | 6 | 119 | 23 | 199 | 29 | 2 | 251 | 58 | 90 | 9 | 3 | 157 | 42 | 98 | 16 | 5 | 156 | 16 | 683 | 699 |
| Total | 107 | 256 | 115 | 26 | 478 | 105 | 852 | 104 | 7 | 1061 | 225 | 354 | 49 | 19 | 628 | 269 | 459 | 74 | 17 | 802 | 69 | 2969 | 3038 |
| Grand Total | 219 | 570 | 238 | 55 | 1027 | 205 | 1922 | 295 | 33 | 2422 | 474 | 1063 | 106 | 48 | 1643 | 611 | 984 | 141 | 42 | 1736 | 178 | 6828 | 7006 |
| Apprch % | 21.3 | 55.5 | 23.2 | | | 8.5 | 79.4 | 12.2 | | | 28.8 | 64.7 | 6.5 | | | 35.2 | 56.7 | 8.1 | | | | | |
| Total % | 3.2 | 8.3 | 3.5 | | 15 | 3 | 28.1 | 4.3 | | 35.5 | 6.9 | 15.6 | 1.6 | | 24.1 | 8.9 | 14.4 | 2.1 | | 25.4 | 2.5 | 97.5 | |
| Passenger Vehicles | 203 | 522 | 208 | | 982 | 199 | 1854 | 288 | | 2372 | 435 | 1022 | 100 | | 1601 | 561 | 924 | 118 | | 1641 | 0 | 0 | 6596 |
| % Passenger Vehicles | 92.7 | 91.6 | 87.4 | 89.1 | 90.8 | 97.1 | 96.5 | 97.6 | 93.9 | 96.6 | 91.8 | 96.1 | 94.3 | 91.7 | 94.7 | 91.8 | 93.9 | 83.7 | 90.5 | 92.3 | 0 | 0 | 94.1 |
| Large 2 Axle Vehicles | 11 | 23 | 21 | | 59 | 4 | 40 | 6 | | 51 | 23 | 29 | 6 | | 61 | 32 | 33 | 14 | | 80 | 0 | 0 | 251 |
| % Large 2 Axle Vehicles | 5 | 4 | 8.8 | 7.3 | 5.5 | 2 | 2.1 | 2 | 3 | 2.1 | 4.9 | 2.7 | 5.7 | 6.2 | 3.6 | 5.2 | 3.4 | 9.9 | 2.4 | 4.5 | 0 | 0 | 3.6 |
| 3 Axle Vehicles | 0 | 5 | 0 | | 5 | 1 | 9 | 0 | | 11 | 3 | 9 | 0 | | 13 | 3 | 10 | 2 | | 17 | 0 | 0 | 46 |
| % 3 Axle Vehicles | 0 | 0.9 | 0 | 0 | 0.5 | 0.5 | 0.5 | 0 | 3 | 0.4 | 0.6 | 0.8 | 0 | 2.1 | 0.8 | 0.5 | 1 | 1.4 | 4.8 | 1 | 0 | 0 | 0.7 |
| 4+ Axle Trucks | 5 | 20 | 9 | | 36 | 1 | 19 | 1 | | 21 | 13 | 3 | 0 | | 16 | 15 | 17 | 7 | | 40 | 0 | 0 | 113 |
| % 4+ Axle Trucks | 2.3 | 3.5 | 3.8 | 3.6 | 3.3 | 0.5 | 1 | 0.3 | 0 | 0.9 | 2.7 | 0.3 | 0 | 0 | 0.9 | 2.5 | 1.7 | 5 | 2.4 | 2.2 | 0 | 0 | 1.6 |

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 25 | 66 | 31 | 122 | 20 | 244 | 45 | 309 | **70** | 181 | **21** | **272** | 82 | 118 | 13 | 213 | 916 |
| 07:15 AM | 27 | 67 | **33** | 127 | 28 | 264 | **54** | 346 | 52 | **197** | 12 | 261 | 80 | 138 | 16 | 234 | 968 |
| 07:30 AM | **32** | 87 | 32 | **151** | 17 | 276 | 47 | 340 | 70 | 181 | 12 | 263 | 88 | **141** | **21** | **250** | **1004** |
| 07:45 AM | 28 | **94** | 27 | 149 | **35** | **286** | 45 | **366** | 57 | 150 | 12 | 219 | **92** | 128 | 17 | 237 | 971 |
| Total Volume | 112 | 314 | 123 | 549 | 100 | 1070 | 191 | 1361 | 249 | 709 | 57 | 1015 | 342 | 525 | 67 | 934 | 3859 |
| % App. Total | 20.4 | 57.2 | 22.4 | | 7.3 | 78.6 | 14 | | 24.5 | 69.9 | 5.6 | | 36.6 | 56.2 | 7.2 | | |
| PHF | .875 | .835 | .932 | .909 | .714 | .935 | .884 | .930 | .889 | .900 | .679 | .933 | .929 | .931 | .798 | .934 | .961 |

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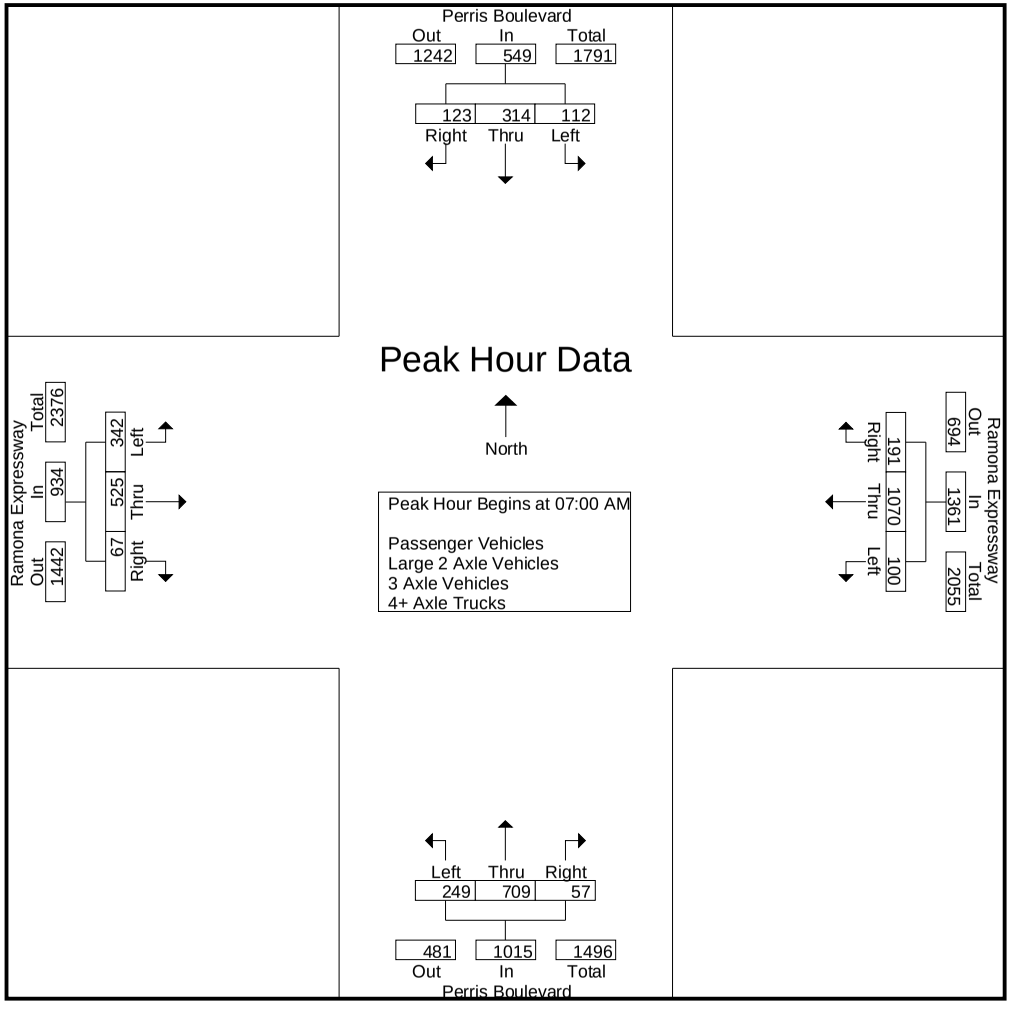
City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:30 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:15 AM | | | | |
| +0 mins. | 32 | 87 | 32 | **151** | 20 | 244 | 45 | 309 | **70** | 181 | **21** | **272** | 80 | 138 | 16 | 234 | |
| +15 mins. | 28 | **94** | 27 | 149 | 28 | 264 | **54** | 346 | 52 | **197** | 12 | 261 | 88 | **141** | 21 | **250** | |
| +30 mins. | **33** | 65 | **41** | 139 | 17 | 276 | 47 | 340 | 70 | 181 | 12 | 263 | **92** | 128 | 17 | 237 | |
| +45 mins. | 24 | 76 | 29 | 129 | **35** | **286** | 45 | **366** | 57 | 150 | 12 | 219 | 92 | 124 | **22** | 238 | |
| Total Volume | 117 | 322 | 129 | 568 | 100 | 1070 | 191 | 1361 | 249 | 709 | 57 | 1015 | 352 | 531 | 76 | 959 | |
| % App. Total | 20.6 | 56.7 | 22.7 | | 7.3 | 78.6 | 14 | | 24.5 | 69.9 | 5.6 | | 36.7 | 55.4 | 7.9 | | |
| PHF | .886 | .856 | .787 | .940 | .714 | .935 | .884 | .930 | .889 | .900 | .679 | .933 | .957 | .941 | .864 | .959 | |

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City of Perris
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Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 23 | 63 | 31 | 5 | 117 | 20 | 233 | 45 | 6 | 298 | 62 | 173 | 21 | 6 | 256 | 78 | 115 | 11 | 6 | 204 | 23 | 875 | 898 |
| 07:15 AM | 25 | 62 | 28 | 7 | 115 | 28 | 254 | 54 | 7 | 336 | 49 | 194 | 11 | 3 | 254 | 73 | 130 | 14 | 3 | 217 | 20 | 922 | 942 |
| 07:30 AM | 28 | 82 | 28 | 8 | 138 | 16 | 268 | 46 | 3 | 330 | 67 | 176 | 11 | 9 | 254 | 83 | 136 | 16 | 11 | 235 | 31 | 957 | 988 |
| 07:45 AM | 28 | 83 | 25 | 8 | 136 | 34 | 276 | 44 | 8 | 354 | 53 | 148 | 12 | 9 | 213 | 84 | 116 | 13 | 3 | 213 | 28 | 916 | 944 |
| Total | 104 | 290 | 112 | 28 | 506 | 98 | 1031 | 189 | 24 | 1318 | 231 | 691 | 55 | 27 | 977 | 318 | 497 | 54 | 23 | 869 | 102 | 3670 | 3772 |
| 08:00 AM | 32 | 63 | 33 | 5 | 128 | 28 | 203 | 23 | 2 | 254 | 58 | 108 | 14 | 7 | 180 | 87 | 120 | 20 | 6 | 227 | 20 | 789 | 809 |
| 08:15 AM | 22 | 68 | 24 | 8 | 114 | 28 | 223 | 24 | 1 | 275 | 41 | 65 | 16 | 5 | 122 | 66 | 105 | 10 | 1 | 181 | 15 | 692 | 707 |
| 08:30 AM | 17 | 41 | 20 | 2 | 78 | 23 | 202 | 24 | 2 | 249 | 50 | 75 | 7 | 3 | 132 | 53 | 111 | 21 | 4 | 185 | 11 | 644 | 655 |
| 08:45 AM | 28 | 60 | 19 | 6 | 107 | 22 | 195 | 28 | 2 | 245 | 55 | 83 | 8 | 2 | 146 | 37 | 91 | 13 | 4 | 141 | 14 | 639 | 653 |
| Total | 99 | 232 | 96 | 21 | 427 | 101 | 823 | 99 | 7 | 1023 | 204 | 331 | 45 | 17 | 580 | 243 | 427 | 64 | 15 | 734 | 60 | 2764 | 2824 |
| Grand Total | 203 | 522 | 208 | 49 | 933 | 199 | 1854 | 288 | 31 | 2341 | 435 | 1022 | 100 | 44 | 1557 | 561 | 924 | 118 | 38 | 1603 | 162 | 6434 | 6596 |
| Apprch % | 21.8 | 55.9 | 22.3 | | | 8.5 | 79.2 | 12.3 | | | 27.9 | 65.6 | 6.4 | | | 35 | 57.6 | 7.4 | | | | | |
| Total % | 3.2 | 8.1 | 3.2 | | 14.5 | 3.1 | 28.8 | 4.5 | | 36.4 | 6.8 | 15.9 | 1.6 | | 24.2 | 8.7 | 14.4 | 1.8 | | 24.9 | 2.5 | 97.5 | |

3.1-52

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 23 | 63 | **31** | 117 | 20 | 233 | 45 | 298 | 62 | 173 | **21** | **256** | 78 | 115 | 11 | 204 | 875 |
| 07:15 AM | 25 | 62 | 28 | 115 | 28 | 254 | **54** | 336 | 49 | **194** | 11 | 254 | 73 | 130 | 14 | 217 | 922 |
| 07:30 AM | **28** | 82 | 28 | **138** | 16 | 268 | 46 | 330 | **67** | 176 | 11 | 254 | 83 | **136** | **16** | **235** | **957** |
| 07:45 AM | 28 | **83** | 25 | 136 | **34** | **276** | 44 | **354** | 53 | 148 | 12 | 213 | **84** | 116 | 13 | 213 | 916 |
| Total Volume | 104 | 290 | 112 | 506 | 98 | 1031 | 189 | 1318 | 231 | 691 | 55 | 977 | 318 | 497 | 54 | 869 | 3670 |
| % App. Total | 20.6 | 57.3 | 22.1 | | 7.4 | 78.2 | 14.3 | | 23.6 | 70.7 | 5.6 | | 36.6 | 57.2 | 6.2 | | |
| PHF | .929 | .873 | .903 | .917 | .721 | .934 | .875 | .931 | .862 | .890 | .655 | .954 | .946 | .914 | .844 | .924 | .959 |

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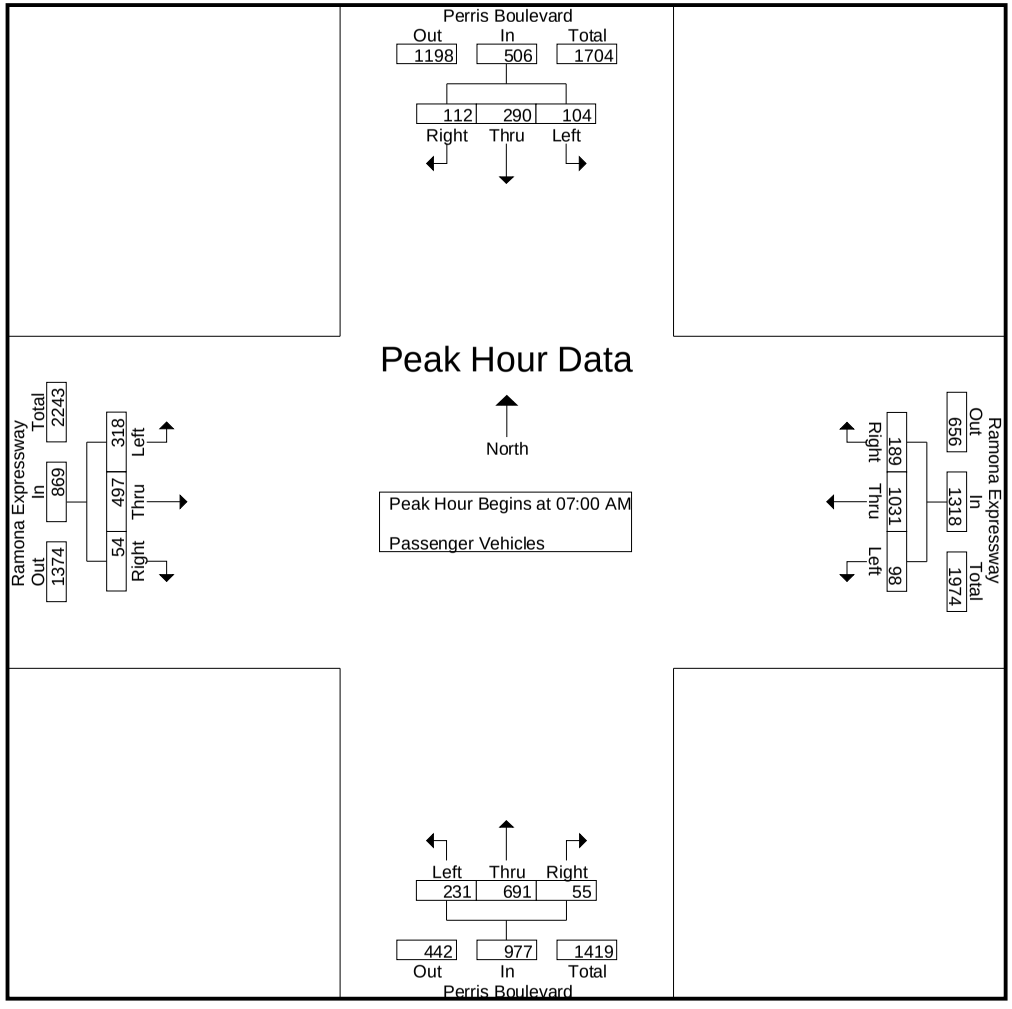
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 23 | 63 | **31** | 117 | 20 | 233 | 45 | 298 | 62 | 173 | **21** | **256** | 78 | 115 | 11 | 204 | |
| +15 mins. | 25 | 62 | 28 | 115 | 28 | 254 | **54** | 336 | 49 | **194** | 11 | 254 | 73 | 130 | 14 | 217 | |
| +30 mins. | **28** | 82 | 28 | **138** | 16 | 268 | 46 | 330 | **67** | 176 | 11 | 254 | 83 | **136** | **16** | **235** | |
| +45 mins. | 28 | **83** | 25 | 136 | **34** | **276** | 44 | **354** | 53 | 148 | 12 | 213 | **84** | 116 | 13 | 213 | |
| Total Volume | 104 | 290 | 112 | 506 | 98 | 1031 | 189 | 1318 | 231 | 691 | 55 | 977 | 318 | 497 | 54 | 869 | |
| % App. Total | 20.6 | 57.3 | 22.1 | | 7.4 | 78.2 | 14.3 | | 23.6 | 70.7 | 5.6 | | 36.6 | 57.2 | 6.2 | | |
| PHF | .929 | .873 | .903 | .917 | .721 | .934 | .875 | .931 | .862 | .890 | .655 | .954 | .946 | .914 | .844 | .924 | |

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City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 1 | 1 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 3 | 5 | 5 | 0 | 0 | 10 | 3 | 2 | 1 | 0 | 6 | 0 | 21 | 21 |
| 07:15 AM | 1 | 1 | 4 | 0 | 6 | 0 | 5 | 0 | 0 | 5 | 3 | 2 | 1 | 0 | 6 | 6 | 4 | 1 | 0 | 11 | 0 | 28 | 28 |
| 07:30 AM | 3 | 1 | 1 | 0 | 5 | 0 | 6 | 1 | 0 | 7 | 2 | 5 | 1 | 1 | 8 | 4 | 1 | 2 | 1 | 7 | 2 | 27 | 29 |
| 07:45 AM | 0 | 3 | 2 | 0 | 5 | 1 | 6 | 1 | 1 | 8 | 2 | 2 | 0 | 0 | 4 | 5 | 8 | 2 | 0 | 15 | 1 | 32 | 33 |
| Total | 5 | 6 | 7 | 0 | 18 | 1 | 20 | 2 | 1 | 23 | 12 | 14 | 2 | 1 | 28 | 18 | 15 | 6 | 1 | 39 | 3 | 108 | 111 |
| 08:00 AM | 1 | 1 | 7 | 1 | 9 | 0 | 4 | 2 | 0 | 6 | 4 | 3 | 0 | 0 | 7 | 2 | 2 | 1 | 0 | 5 | 1 | 27 | 28 |
| 08:15 AM | 2 | 4 | 3 | 3 | 9 | 1 | 4 | 1 | 0 | 6 | 0 | 4 | 2 | 1 | 6 | 8 | 7 | 2 | 0 | 17 | 4 | 38 | 42 |
| 08:30 AM | 2 | 9 | 1 | 0 | 12 | 2 | 10 | 1 | 0 | 13 | 5 | 3 | 1 | 0 | 9 | 2 | 6 | 2 | 0 | 10 | 0 | 44 | 44 |
| 08:45 AM | 1 | 3 | 3 | 0 | 7 | 0 | 2 | 0 | 0 | 2 | 2 | 5 | 1 | 1 | 8 | 2 | 3 | 3 | 0 | 8 | 1 | 25 | 26 |
| Total | 6 | 17 | 14 | 4 | 37 | 3 | 20 | 4 | 0 | 27 | 11 | 15 | 4 | 2 | 30 | 14 | 18 | 8 | 0 | 40 | 6 | 134 | 140 |
| Grand Total | 11 | 23 | 21 | 4 | 55 | 4 | 40 | 6 | 1 | 50 | 23 | 29 | 6 | 3 | 58 | 32 | 33 | 14 | 1 | 79 | 9 | 242 | 251 |
| Apprch % | 20 | 41.8 | 38.2 | | | 8 | 80 | 12 | | | 39.7 | 50 | 10.3 | | | 40.5 | 41.8 | 17.7 | | | | | |
| Total % | 4.5 | 9.5 | 8.7 | | 22.7 | 1.7 | 16.5 | 2.5 | | 20.7 | 9.5 | 12 | 2.5 | | 24 | 13.2 | 13.6 | 5.8 | | 32.6 | 3.6 | 96.4 | |

3.1-55

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 1 | 1 | 0 | 2 | 0 | 3 | 0 | 3 | **5** | **5** | 0 | **10** | 3 | 2 | 1 | 6 | 21 |
| 07:15 AM | 1 | 1 | **4** | **6** | 0 | 5 | 0 | 5 | 3 | 2 | **1** | 6 | **6** | 4 | 1 | 11 | 28 |
| 07:30 AM | **3** | 1 | 1 | 5 | 0 | **6** | **1** | 7 | 2 | 5 | 1 | 8 | 4 | 1 | **2** | 7 | 27 |
| 07:45 AM | 0 | **3** | 2 | 5 | **1** | 6 | 1 | **8** | 2 | 2 | 0 | 4 | 5 | **8** | 2 | **15** | **32** |
| Total Volume | 5 | 6 | 7 | 18 | 1 | 20 | 2 | 23 | 12 | 14 | 2 | 28 | 18 | 15 | 6 | 39 | 108 |
| % App. Total | 27.8 | 33.3 | 38.9 | | 4.3 | 87 | 8.7 | | 42.9 | 50 | 7.1 | | 46.2 | 38.5 | 15.4 | | |
| PHF | .417 | .500 | .438 | .750 | .250 | .833 | .500 | .719 | .600 | .700 | .500 | .700 | .750 | .469 | .750 | .650 | .844 |

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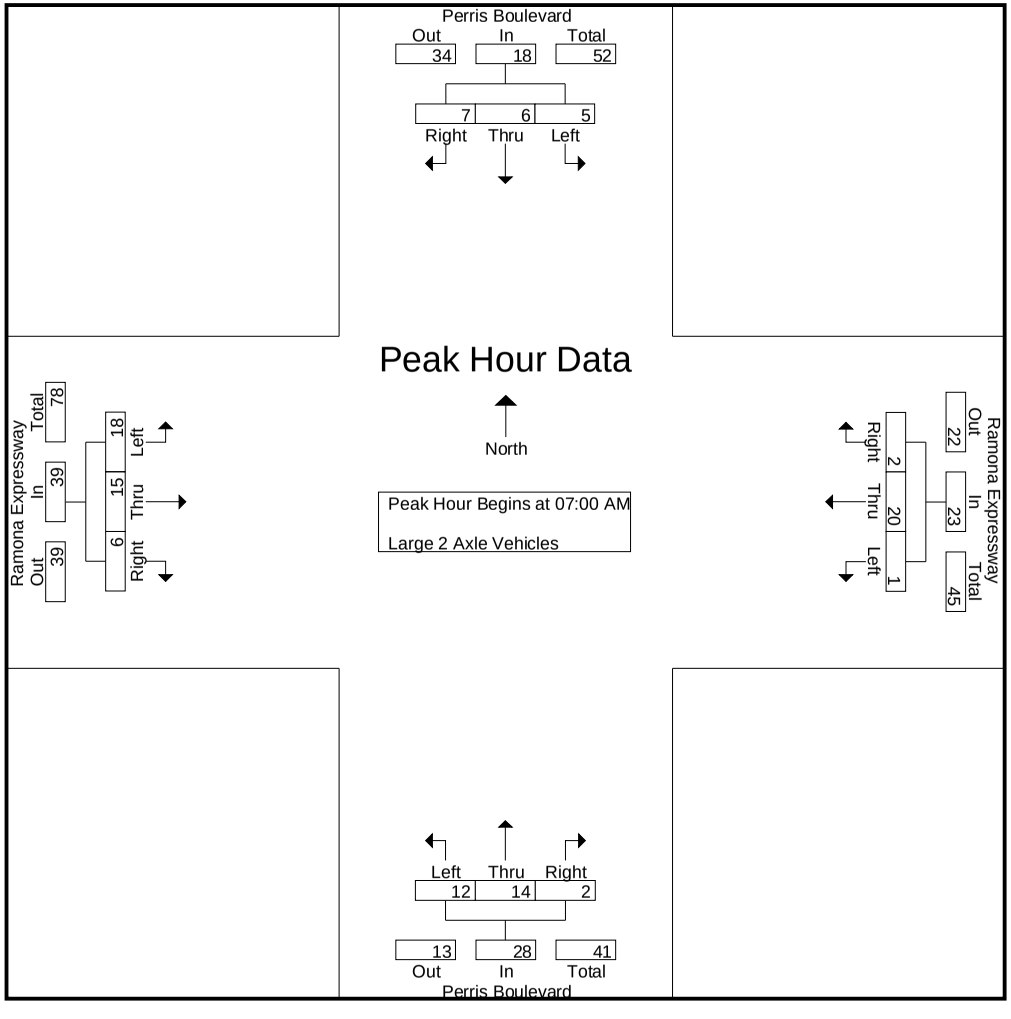
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 1 | 1 | 0 | 2 | 0 | 3 | 0 | 3 | **5** | **5** | 0 | **10** | 3 | 2 | 1 | 6 | |
| +15 mins. | 1 | 1 | **4** | **6** | 0 | 5 | 0 | 5 | 3 | 2 | **1** | 6 | **6** | 4 | 1 | 11 | |
| +30 mins. | **3** | 1 | 1 | 5 | 0 | **6** | **1** | 7 | 2 | 5 | 1 | 8 | 4 | 1 | **2** | 7 | |
| +45 mins. | 0 | **3** | 2 | 5 | **1** | 6 | 1 | **8** | 2 | 2 | 0 | 4 | 5 | **8** | 2 | **15** | |
| Total Volume | 5 | 6 | 7 | 18 | 1 | 20 | 2 | 23 | 12 | 14 | 2 | 28 | 18 | 15 | 6 | 39 | |
| % App. Total | 27.8 | 33.3 | 38.9 | | 4.3 | 87 | 8.7 | | 42.9 | 50 | 7.1 | | 46.2 | 38.5 | 15.4 | | |
| PHF | .417 | .500 | .438 | .750 | .250 | .833 | .500 | .719 | .600 | .700 | .500 | .700 | .750 | .469 | .750 | .650 | |

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City of Perris
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E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 1 | 2 | 2 | 3 | 0 | 0 | 5 | 0 | 0 | 1 | 0 | 1 | 1 | 8 | 9 |
| 07:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 3 |
| 07:30 AM | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 3 | 4 |
| 07:45 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 5 | 5 |
| Total | 0 | 5 | 0 | 0 | 5 | 1 | 3 | 0 | 1 | 4 | 2 | 3 | 0 | 1 | 5 | 0 | 3 | 2 | 0 | 5 | 2 | 19 | 21 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 0 | 6 | 6 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 4 | 5 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 7 | 7 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 1 | 2 | 0 | 1 | 3 | 1 | 6 | 7 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 1 | 6 | 0 | 0 | 7 | 3 | 7 | 0 | 2 | 10 | 2 | 23 | 25 |
| Grand Total | 0 | 5 | 0 | 0 | 5 | 1 | 9 | 0 | 1 | 10 | 3 | 9 | 0 | 1 | 12 | 3 | 10 | 2 | 2 | 15 | 4 | 42 | 46 |
| Apprch % | 0 | 100 | 0 | | | 10 | 90 | 0 | | | 25 | 75 | 0 | | | 20 | 66.7 | 13.3 | | | | | |
| Total % | 0 | 11.9 | 0 | | 11.9 | 2.4 | 21.4 | 0 | | 23.8 | 7.1 | 21.4 | 0 | | 28.6 | 7.1 | 23.8 | 4.8 | | 35.7 | 8.7 | 91.3 | |

3.1-58

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | **2** | **3** | 0 | **5** | 0 | 0 | **1** | 1 | **8** |
| 07:15 AM | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 3 |
| 07:30 AM | 0 | 1 | 0 | 1 | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 3 |
| 07:45 AM | 0 | **3** | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | **2** | 5 |
| Total Volume | 0 | 5 | 0 | 5 | 1 | 3 | 0 | 4 | 2 | 3 | 0 | 5 | 0 | 3 | 2 | 5 | 19 |
| % App. Total | 0 | 100 | 0 | | 25 | 75 | 0 | | 40 | 60 | 0 | | 0 | 60 | 40 | | |
| PHF | .000 | .417 | .000 | .417 | .250 | .375 | .000 | .500 | .250 | .250 | .000 | .250 | .000 | .750 | .500 | .625 | .594 |

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City of Perris
N/S: Perris Boulevard
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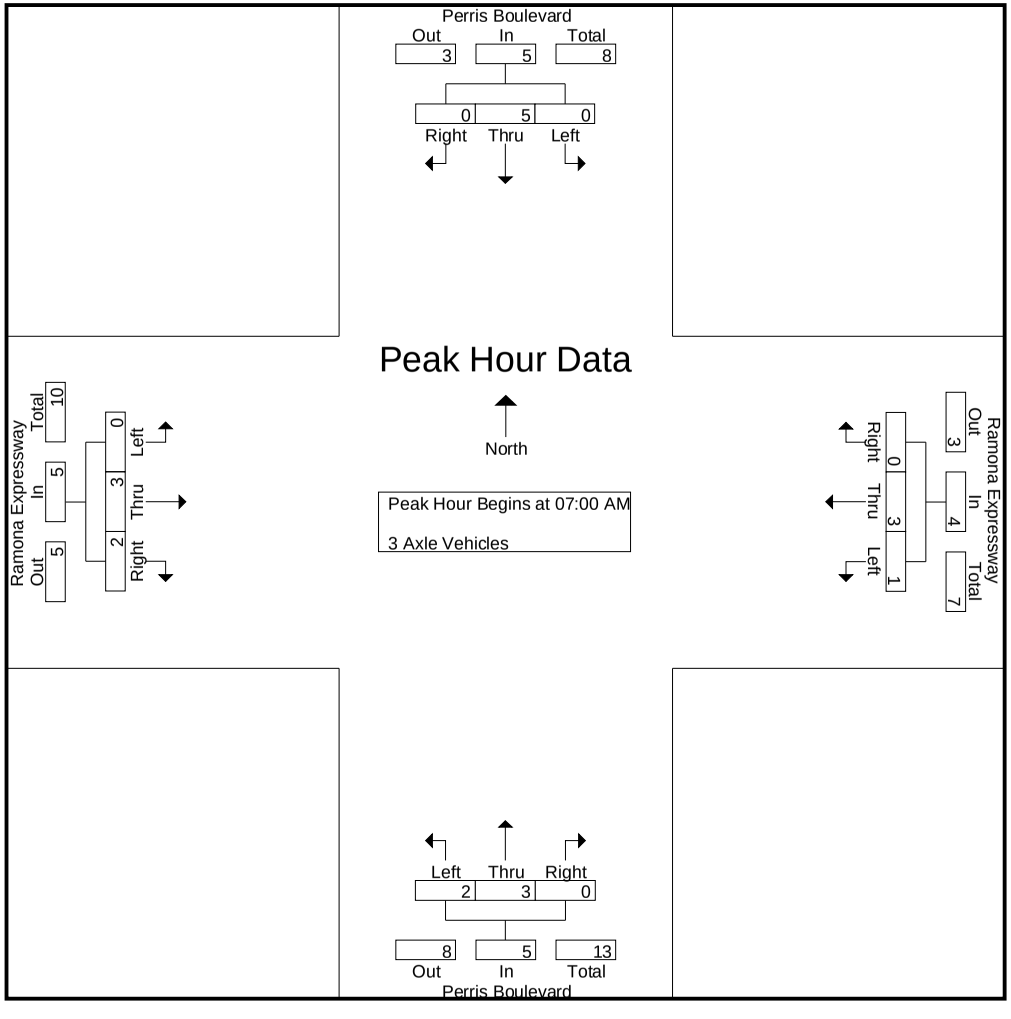
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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(951) 268-6268

City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | **2** | **3** | 0 | **5** | 0 | 0 | **1** | 1 | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | |
| +30 mins. | 0 | 1 | 0 | 1 | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | |
| +45 mins. | 0 | **3** | 0 | **3** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | **2** | |
| Total Volume | 0 | 5 | 0 | 5 | 1 | 3 | 0 | 4 | 2 | 3 | 0 | 5 | 0 | 3 | 2 | 5 | |
| % App. Total | 0 | 100 | 0 | | 25 | 75 | 0 | | 40 | 60 | 0 | | 0 | 60 | 40 | | |
| PHF | .000 | .417 | .000 | .417 | .250 | .375 | .000 | .500 | .250 | .250 | .000 | .250 | .000 | .750 | .500 | .625 | |

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Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 1 | 2 | 0 | 0 | 3 | 0 | 6 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 12 | 12 |
| 07:15 AM | 1 | 3 | 1 | 0 | 5 | 0 | 4 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 1 | 3 | 1 | 0 | 5 | 0 | 15 | 15 |
| 07:30 AM | 1 | 3 | 3 | 1 | 7 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 3 | 3 | 0 | 7 | 1 | 17 | 18 |
| 07:45 AM | 0 | 5 | 0 | 0 | 5 | 0 | 4 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 3 | 3 | 1 | 1 | 7 | 1 | 18 | 19 |
| Total | 3 | 13 | 4 | 1 | 20 | 0 | 16 | 0 | 0 | 16 | 4 | 1 | 0 | 0 | 5 | 6 | 10 | 5 | 1 | 21 | 2 | 62 | 64 |
| 08:00 AM | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 4 | 1 | 7 | 8 |
| 08:15 AM | 0 | 4 | 2 | 0 | 6 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 3 | 0 | 13 | 13 |
| 08:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 7 | 4 | 2 | 1 | 0 | 7 | 0 | 15 | 15 |
| 08:45 AM | 2 | 1 | 2 | 0 | 5 | 1 | 1 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 2 | 2 | 0 | 0 | 4 | 0 | 13 | 13 |
| Total | 2 | 7 | 5 | 1 | 14 | 1 | 3 | 1 | 0 | 5 | 9 | 2 | 0 | 0 | 11 | 9 | 7 | 2 | 0 | 18 | 1 | 48 | 49 |
| Grand Total | 5 | 20 | 9 | 2 | 34 | 1 | 19 | 1 | 0 | 21 | 13 | 3 | 0 | 0 | 16 | 15 | 17 | 7 | 1 | 39 | 3 | 110 | 113 |
| Apprch % | 14.7 | 58.8 | 26.5 | | | 4.8 | 90.5 | 4.8 | | | 81.2 | 18.8 | 0 | | | 38.5 | 43.6 | 17.9 | | | | | |
| Total % | 4.5 | 18.2 | 8.2 | | 30.9 | 0.9 | 17.3 | 0.9 | | 19.1 | 11.8 | 2.7 | 0 | | 14.5 | 13.6 | 15.5 | 6.4 | | 35.5 | 2.7 | 97.3 | |

3.1-61

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | **1** | 2 | 0 | 3 | 0 | **6** | 0 | **6** | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 12 |
| 07:15 AM | 1 | 3 | 1 | 5 | 0 | 4 | 0 | 4 | 0 | **1** | 0 | 1 | 1 | **3** | 1 | 5 | 15 |
| 07:30 AM | 1 | 3 | **3** | **7** | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 3 | **3** | **7** | 17 |
| 07:45 AM | 0 | **5** | 0 | 5 | 0 | 4 | 0 | 4 | **2** | 0 | 0 | **2** | **3** | 3 | 1 | 7 | **18** |
| Total Volume | 3 | 13 | 4 | 20 | 0 | 16 | 0 | 16 | 4 | 1 | 0 | 5 | 6 | 10 | 5 | 21 | 62 |
| % App. Total | 15 | 65 | 20 | | 0 | 100 | 0 | | 80 | 20 | 0 | | 28.6 | 47.6 | 23.8 | | |
| PHF | .750 | .650 | .333 | .714 | .000 | .667 | .000 | .667 | .500 | .250 | .000 | .625 | .500 | .833 | .417 | .750 | .861 |

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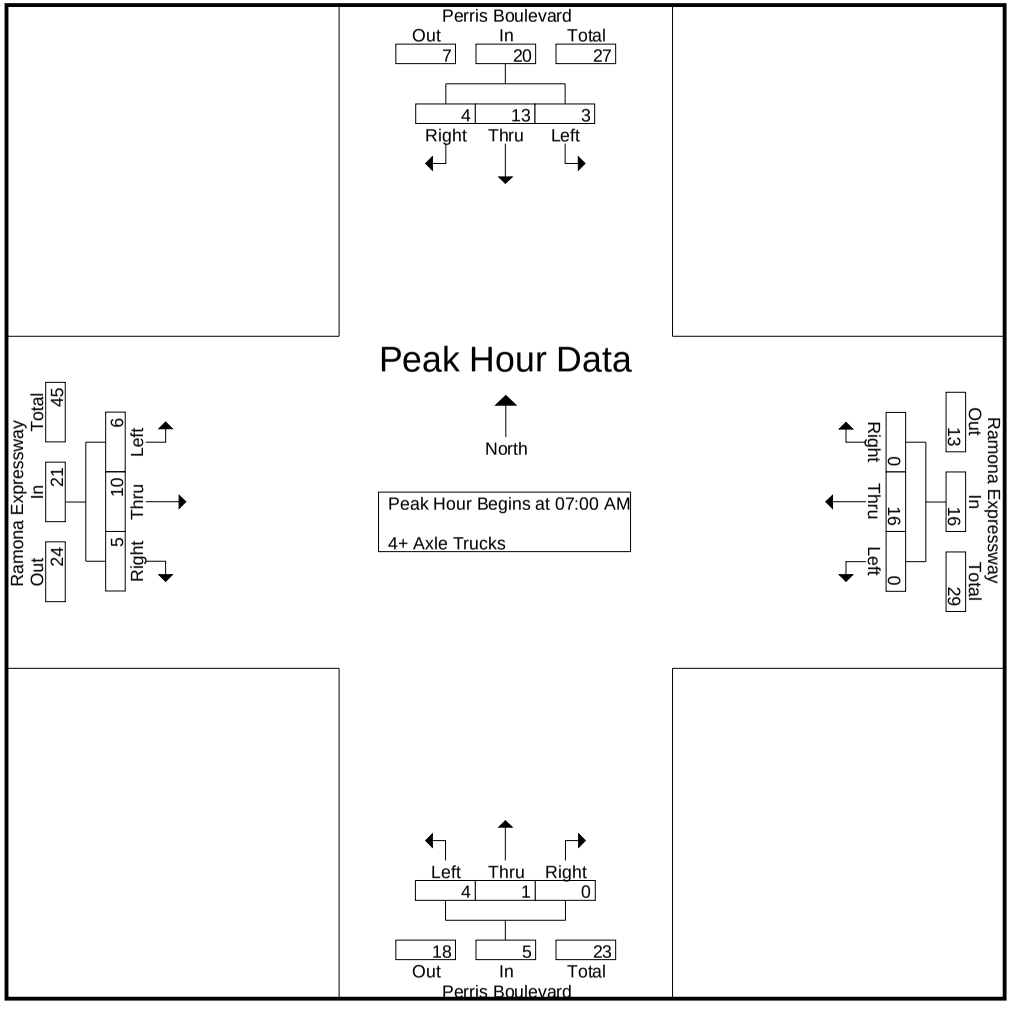
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | **1** | 2 | 0 | 3 | 0 | **6** | 0 | **6** | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | |
| +15 mins. | 1 | 3 | 1 | 5 | 0 | 4 | 0 | 4 | 0 | **1** | 0 | 1 | 1 | **3** | 1 | 5 | |
| +30 mins. | 1 | 3 | **3** | **7** | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 1 | 3 | **3** | **7** | |
| +45 mins. | 0 | **5** | 0 | 5 | 0 | 4 | 0 | 4 | **2** | 0 | 0 | **2** | **3** | 3 | 1 | 7 | |
| Total Volume | 3 | 13 | 4 | 20 | 0 | 16 | 0 | 16 | 4 | 1 | 0 | 5 | 6 | 10 | 5 | 21 | |
| % App. Total | 15 | 65 | 20 | | 0 | 100 | 0 | | 80 | 20 | 0 | | 28.6 | 47.6 | 23.8 | | |
| PHF | .750 | .650 | .333 | .714 | .000 | .667 | .000 | .667 | .500 | .250 | .000 | .625 | .500 | .833 | .417 | .750 | |

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City of Perris
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E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 65 | 127 | 49 | 13 | 241 | 35 | 178 | 22 | 1 | 235 | 52 | 109 | 21 | 12 | 182 | 78 | 208 | 33 | 9 | 319 | 35 | 977 | 1012 |
| 04:15 PM | 75 | 140 | 60 | 16 | 275 | 34 | 192 | 32 | 3 | 258 | 61 | 85 | 25 | 8 | 171 | 67 | 225 | 42 | 10 | 334 | 37 | 1038 | 1075 |
| 04:30 PM | 89 | 157 | 41 | 13 | 287 | 25 | 183 | 33 | 6 | 241 | 67 | 108 | 26 | 6 | 201 | 64 | 235 | 28 | 6 | 327 | 31 | 1056 | 1087 |
| 04:45 PM | 89 | 153 | 40 | 15 | 282 | 40 | 200 | 27 | 5 | 267 | 53 | 107 | 17 | 4 | 177 | 72 | 221 | 39 | 8 | 332 | 32 | 1058 | 1090 |
| Total | 318 | 577 | 190 | 57 | 1085 | 134 | 753 | 114 | 15 | 1001 | 233 | 409 | 89 | 30 | 731 | 281 | 889 | 142 | 33 | 1312 | 135 | 4129 | 4264 |
| 05:00 PM | 87 | 138 | 46 | 12 | 271 | 15 | 123 | 16 | 3 | 154 | 66 | 100 | 17 | 6 | 183 | 66 | 198 | 31 | 10 | 295 | 31 | 903 | 934 |
| 05:15 PM | 81 | 163 | 54 | 15 | 298 | 26 | 201 | 19 | 1 | 246 | 48 | 113 | 24 | 9 | 185 | 60 | 234 | 37 | 12 | 331 | 37 | 1060 | 1097 |
| 05:30 PM | 69 | 148 | 71 | 14 | 288 | 29 | 171 | 28 | 3 | 228 | 80 | 101 | 32 | 15 | 213 | 54 | 266 | 32 | 11 | 352 | 43 | 1081 | 1124 |
| 05:45 PM | 79 | 134 | 59 | 14 | 272 | 23 | 195 | 22 | 6 | 240 | 44 | 97 | 19 | 10 | 160 | 40 | 251 | 25 | 7 | 316 | 37 | 988 | 1025 |
| Total | 316 | 583 | 230 | 55 | 1129 | 93 | 690 | 85 | 13 | 868 | 238 | 411 | 92 | 40 | 741 | 220 | 949 | 125 | 40 | 1294 | 148 | 4032 | 4180 |
| Grand Total | 634 | 1160 | 420 | 112 | 2214 | 227 | 1443 | 199 | 28 | 1869 | 471 | 820 | 181 | 70 | 1472 | 501 | 1838 | 267 | 73 | 2606 | 283 | 8161 | 8444 |
| Apprch % | 28.6 | 52.4 | 19 | | | 12.1 | 77.2 | 10.6 | | | 32 | 55.7 | 12.3 | | | 19.2 | 70.5 | 10.2 | | | | | |
| Total % | 7.8 | 14.2 | 5.1 | | 27.1 | 2.8 | 17.7 | 2.4 | | 22.9 | 5.8 | 10 | 2.2 | | 18 | 6.1 | 22.5 | 3.3 | | 31.9 | 3.4 | 96.6 | |
| Passenger Vehicles | 622 | 1130 | 393 | | 2248 | 222 | 1372 | 185 | | 1805 | 449 | 802 | 179 | | 1500 | 473 | 1779 | 244 | | 2565 | 0 | 0 | 8118 |
| % Passenger Vehicles | 98.1 | 97.4 | 93.6 | 92 | 96.6 | 97.8 | 95.1 | 93 | 92.9 | 95.2 | 95.3 | 97.8 | 98.9 | 100 | 97.3 | 94.4 | 96.8 | 91.4 | 94.5 | 95.7 | 0 | 0 | 96.1 |
| Large 2 Axle Vehicles | 11 | 27 | 15 | | 58 | 4 | 27 | 3 | | 35 | 11 | 11 | 0 | | 22 | 15 | 29 | 12 | | 59 | 0 | 0 | 174 |
| % Large 2 Axle Vehicles | 1.7 | 2.3 | 3.6 | 4.5 | 2.5 | 1.8 | 1.9 | 1.5 | 3.6 | 1.8 | 2.3 | 1.3 | 0 | 0 | 1.4 | 3 | 1.6 | 4.5 | 4.1 | 2.2 | 0 | 0 | 2.1 |
| 3 Axle Vehicles | 0 | 3 | 1 | | 5 | 0 | 13 | 6 | | 19 | 2 | 1 | 0 | | 3 | 2 | 10 | 2 | | 15 | 0 | 0 | 42 |
| % 3 Axle Vehicles | 0 | 0.3 | 0.2 | 0.9 | 0.2 | 0 | 0.9 | 3 | 0 | 1 | 0.4 | 0.1 | 0 | 0 | 0.2 | 0.4 | 0.5 | 0.7 | 1.4 | 0.6 | 0 | 0 | 0.5 |
| 4+ Axle Trucks | 1 | 0 | 11 | | 15 | 1 | 31 | 5 | | 38 | 9 | 6 | 2 | | 17 | 11 | 20 | 9 | | 40 | 0 | 0 | 110 |
| % 4+ Axle Trucks | 0.2 | 0 | 2.6 | 2.7 | 0.6 | 0.4 | 2.1 | 2.5 | 3.6 | 2 | 1.9 | 0.7 | 1.1 | 0 | 1.1 | 2.2 | 1.1 | 3.4 | 0 | 1.5 | 0 | 0 | 1.3 |

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 65 | 127 | 49 | 241 | 35 | 178 | 22 | 235 | 52 | **109** | 21 | 182 | **78** | 208 | 33 | 319 | 977 |
| 04:15 PM | 75 | 140 | **60** | 275 | 34 | 192 | 32 | 258 | 61 | 85 | 25 | 171 | 67 | 225 | **42** | **334** | 1038 |
| 04:30 PM | **89** | **157** | 41 | **287** | 25 | 183 | **33** | 241 | **67** | 108 | **26** | **201** | 64 | **235** | 28 | 327 | 1056 |
| 04:45 PM | 89 | 153 | 40 | 282 | **40** | **200** | 27 | **267** | 53 | 107 | 17 | 177 | 72 | 221 | 39 | 332 | **1058** |
| Total Volume | 318 | 577 | 190 | 1085 | 134 | 753 | 114 | 1001 | 233 | 409 | 89 | 731 | 281 | 889 | 142 | 1312 | 4129 |
| % App. Total | 29.3 | 53.2 | 17.5 | | 13.4 | 75.2 | 11.4 | | 31.9 | 56 | 12.2 | | 21.4 | 67.8 | 10.8 | | |
| PHF | .893 | .919 | .792 | .945 | .838 | .941 | .864 | .937 | .869 | .938 | .856 | .909 | .901 | .946 | .845 | .982 | .976 |

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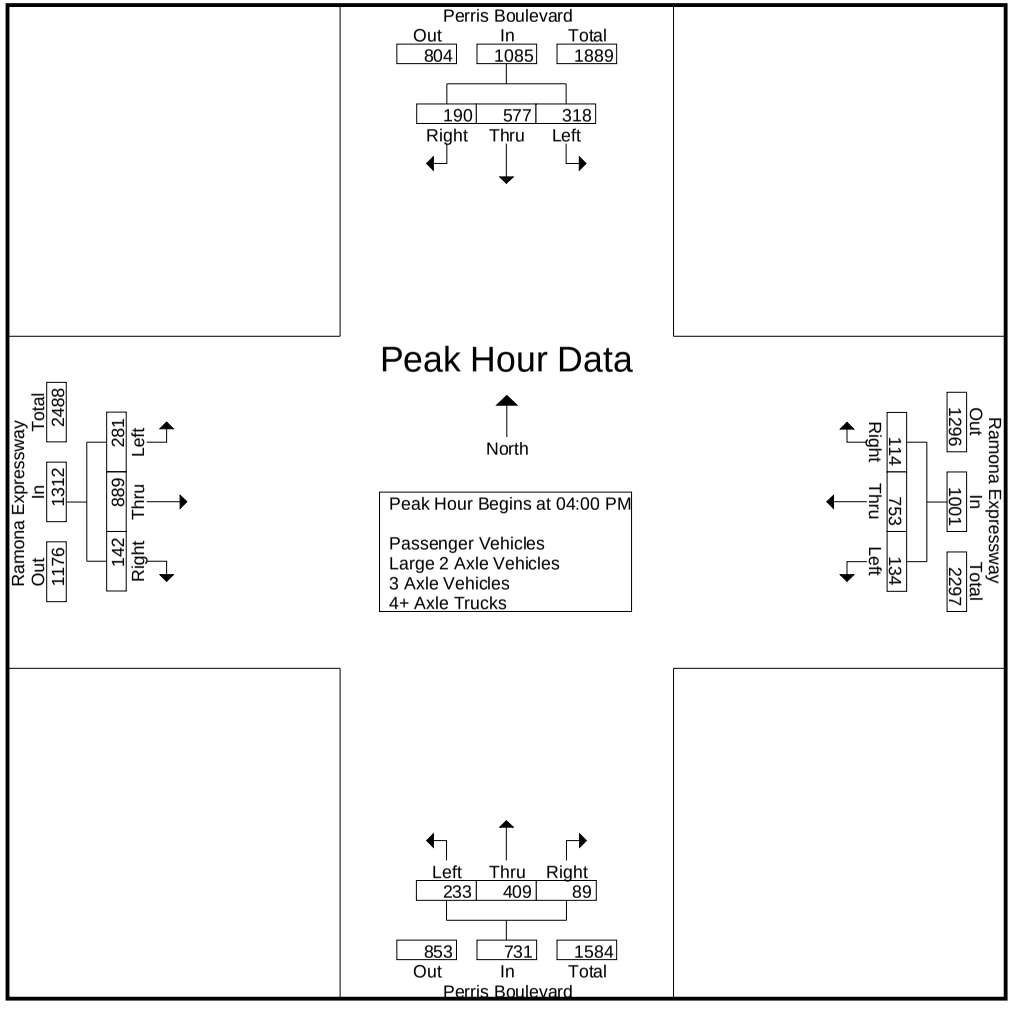
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
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Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:00 PM | | | | 04:45 PM | | | | 04:00 PM | | | | |
| +0 mins. | **89** | 153 | 40 | 282 | 35 | 178 | 22 | 235 | 53 | 107 | 17 | 177 | **78** | 208 | 33 | 319 | |
| +15 mins. | 87 | 138 | 46 | 271 | 34 | 192 | 32 | 258 | 66 | 100 | 17 | 183 | 67 | 225 | **42** | **334** | |
| +30 mins. | 81 | **163** | 54 | **298** | 25 | 183 | **33** | 241 | 48 | **113** | 24 | 185 | 64 | **235** | 28 | 327 | |
| +45 mins. | 69 | 148 | **71** | 288 | **40** | **200** | 27 | **267** | **80** | 101 | **32** | **213** | 72 | 221 | 39 | 332 | |
| Total Volume | 326 | 602 | 211 | 1139 | 134 | 753 | 114 | 1001 | 247 | 421 | 90 | 758 | 281 | 889 | 142 | 1312 | |
| % App. Total | 28.6 | 52.9 | 18.5 | | 13.4 | 75.2 | 11.4 | | 32.6 | 55.5 | 11.9 | | 21.4 | 67.8 | 10.8 | | |
| PHF | .916 | .923 | .743 | .956 | .838 | .941 | .864 | .937 | .772 | .931 | .703 | .890 | .901 | .946 | .845 | .982 | |

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File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 62 | 119 | 43 | 12 | 224 | 34 | 167 | 21 | 1 | 222 | 49 | 106 | 21 | 12 | 176 | 74 | 200 | 30 | 7 | 304 | 32 | 926 | 958 |
| 04:15 PM | 75 | 136 | 57 | 15 | 268 | 34 | 182 | 30 | 2 | 246 | 58 | 82 | 25 | 8 | 165 | 61 | 217 | 37 | 10 | 315 | 35 | 994 | 1029 |
| 04:30 PM | 89 | 152 | 40 | 13 | 281 | 24 | 169 | 32 | 6 | 225 | 63 | 104 | 26 | 6 | 193 | 61 | 225 | 25 | 5 | 311 | 30 | 1010 | 1040 |
| 04:45 PM | 84 | 152 | 37 | 13 | 273 | 39 | 188 | 25 | 4 | 252 | 51 | 102 | 16 | 4 | 169 | 66 | 216 | 36 | 8 | 318 | 29 | 1012 | 1041 |
| Total | 310 | 559 | 177 | 53 | 1046 | 131 | 706 | 108 | 13 | 945 | 221 | 394 | 88 | 30 | 703 | 262 | 858 | 128 | 30 | 1248 | 126 | 3942 | 4068 |
| 05:00 PM | 86 | 135 | 44 | 11 | 265 | 15 | 118 | 14 | 3 | 147 | 65 | 100 | 17 | 6 | 182 | 64 | 192 | 28 | 10 | 284 | 30 | 878 | 908 |
| 05:15 PM | 80 | 160 | 50 | 14 | 290 | 25 | 196 | 14 | 1 | 235 | 44 | 113 | 24 | 9 | 181 | 60 | 226 | 36 | 12 | 322 | 36 | 1028 | 1064 |
| 05:30 PM | 68 | 145 | 67 | 13 | 280 | 28 | 164 | 27 | 3 | 219 | 77 | 98 | 31 | 15 | 206 | 50 | 260 | 29 | 11 | 339 | 42 | 1044 | 1086 |
| 05:45 PM | 78 | 131 | 55 | 12 | 264 | 23 | 188 | 22 | 6 | 233 | 42 | 97 | 19 | 10 | 158 | 37 | 243 | 23 | 6 | 303 | 34 | 958 | 992 |
| Total | 312 | 571 | 216 | 50 | 1099 | 91 | 666 | 77 | 13 | 834 | 228 | 408 | 91 | 40 | 727 | 211 | 921 | 116 | 39 | 1248 | 142 | 3908 | 4050 |
| Grand Total | 622 | 1130 | 393 | 103 | 2145 | 222 | 1372 | 185 | 26 | 1779 | 449 | 802 | 179 | 70 | 1430 | 473 | 1779 | 244 | 69 | 2496 | 268 | 7850 | 8118 |
| Apprch % | 29 | 52.7 | 18.3 | | | 12.5 | 77.1 | 10.4 | | | 31.4 | 56.1 | 12.5 | | | 19 | 71.3 | 9.8 | | | | | |
| Total % | 7.9 | 14.4 | 5 | | 27.3 | 2.8 | 17.5 | 2.4 | | 22.7 | 5.7 | 10.2 | 2.3 | | 18.2 | 6 | 22.7 | 3.1 | | 31.8 | 3.3 | 96.7 | |



| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 62 | 119 | 43 | 224 | 34 | 167 | 21 | 222 | 49 | **106** | 21 | 176 | **74** | 200 | 30 | 304 | 926 |
| 04:15 PM | 75 | 136 | **57** | 268 | 34 | 182 | 30 | 246 | 58 | 82 | 25 | 165 | 61 | 217 | **37** | 315 | 994 |
| 04:30 PM | **89** | **152** | 40 | **281** | 24 | 169 | **32** | 225 | **63** | 104 | **26** | **193** | 61 | **225** | 25 | 311 | 1010 |
| 04:45 PM | 84 | 152 | 37 | 273 | **39** | **188** | 25 | **252** | 51 | 102 | 16 | 169 | 66 | 216 | 36 | **318** | **1012** |
| Total Volume | 310 | 559 | 177 | 1046 | 131 | 706 | 108 | 945 | 221 | 394 | 88 | 703 | 262 | 858 | 128 | 1248 | 3942 |
| % App. Total | 29.6 | 53.4 | 16.9 | | 13.9 | 74.7 | 11.4 | | 31.4 | 56 | 12.5 | | 21 | 68.8 | 10.3 | | |
| PHF | .871 | .919 | .776 | .931 | .840 | .939 | .844 | .938 | .877 | .929 | .846 | .911 | .885 | .953 | .865 | .981 | .974 |

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City of Perris
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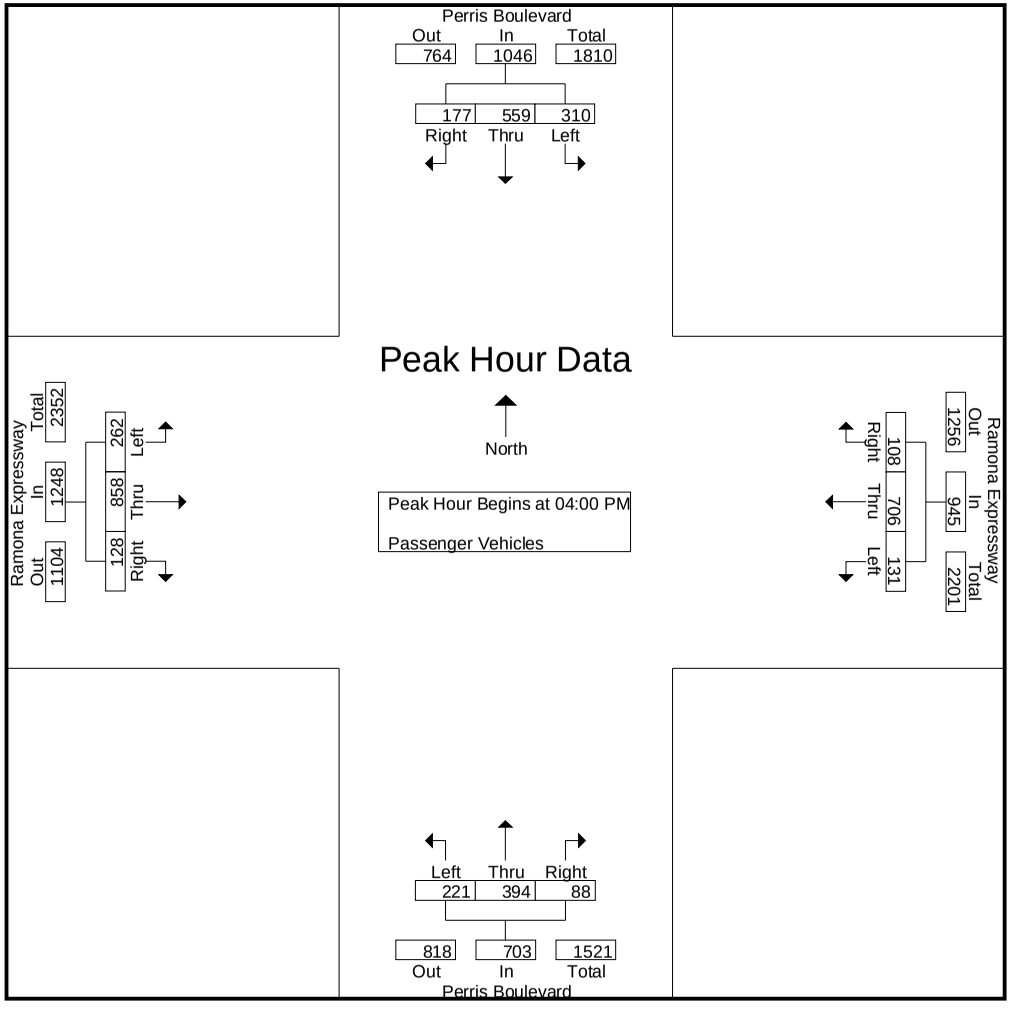
Start Date : 5/24/2018
Page No : 2



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(951) 268-6268

City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | |
| +0 mins. | 62 | 119 | 43 | 224 | 34 | 167 | 21 | 222 | 49 | **106** | 21 | 176 | **74** | 200 | 30 | 304 | |
| +15 mins. | 75 | 136 | **57** | 268 | 34 | 182 | 30 | 246 | 58 | 82 | 25 | 165 | 61 | 217 | **37** | 315 | |
| +30 mins. | **89** | **152** | 40 | **281** | 24 | 169 | **32** | 225 | **63** | 104 | **26** | **193** | 61 | **225** | 25 | 311 | |
| +45 mins. | 84 | 152 | 37 | 273 | **39** | **188** | 25 | **252** | 51 | 102 | 16 | 169 | 66 | 216 | 36 | **318** | |
| Total Volume | 310 | 559 | 177 | 1046 | 131 | 706 | 108 | 945 | 221 | 394 | 88 | 703 | 262 | 858 | 128 | 1248 | |
| % App. Total | 29.6 | 53.4 | 16.9 | | 13.9 | 74.7 | 11.4 | | 31.4 | 56 | 12.5 | | 21 | 68.8 | 10.3 | | |
| PHF | .871 | .919 | .776 | .931 | .840 | .939 | .844 | .938 | .877 | .929 | .846 | .911 | .885 | .953 | .865 | .981 | |

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City of Perris
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Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 3 | 6 | 4 | 1 | 13 | 1 | 4 | 1 | 0 | 6 | 1 | 3 | 0 | 0 | 4 | 3 | 6 | 2 | 2 | 11 | 3 | 34 | 37 |
| 04:15 PM | 0 | 4 | 1 | 0 | 5 | 0 | 4 | 0 | 0 | 4 | 1 | 3 | 0 | 0 | 4 | 3 | 5 | 1 | 0 | 9 | 0 | 22 | 22 |
| 04:30 PM | 0 | 5 | 1 | 0 | 6 | 1 | 7 | 0 | 0 | 8 | 3 | 1 | 0 | 0 | 4 | 1 | 5 | 1 | 0 | 7 | 0 | 25 | 25 |
| 04:45 PM | 5 | 1 | 2 | 2 | 8 | 0 | 3 | 1 | 1 | 4 | 2 | 4 | 0 | 0 | 6 | 3 | 2 | 2 | 0 | 7 | 3 | 25 | 28 |
| Total | 8 | 16 | 8 | 3 | 32 | 2 | 18 | 2 | 1 | 22 | 7 | 11 | 0 | 0 | 18 | 10 | 18 | 6 | 2 | 34 | 6 | 106 | 112 |
| 05:00 PM | 1 | 3 | 1 | 0 | 5 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 2 | 0 | 7 | 0 | 15 | 15 |
| 05:15 PM | 0 | 2 | 3 | 1 | 5 | 1 | 2 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 1 | 13 | 14 |
| 05:30 PM | 1 | 3 | 1 | 0 | 5 | 1 | 2 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 0 | 6 | 0 | 16 | 16 |
| 05:45 PM | 1 | 3 | 2 | 1 | 6 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 2 | 2 | 1 | 1 | 5 | 2 | 15 | 17 |
| Total | 3 | 11 | 7 | 2 | 21 | 2 | 9 | 1 | 0 | 12 | 4 | 0 | 0 | 0 | 4 | 5 | 11 | 6 | 1 | 22 | 3 | 59 | 62 |
| Grand Total | 11 | 27 | 15 | 5 | 53 | 4 | 27 | 3 | 1 | 34 | 11 | 11 | 0 | 0 | 22 | 15 | 29 | 12 | 3 | 56 | 9 | 165 | 174 |
| Apprch % | 20.8 | 50.9 | 28.3 | | | 11.8 | 79.4 | 8.8 | | | 50 | 50 | 0 | | | 26.8 | 51.8 | 21.4 | | | | | |
| Total % | 6.7 | 16.4 | 9.1 | | 32.1 | 2.4 | 16.4 | 1.8 | | 20.6 | 6.7 | 6.7 | 0 | | 13.3 | 9.1 | 17.6 | 7.3 | | 33.9 | 5.2 | 94.8 | |



| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 3 | **6** | **4** | **13** | **1** | 4 | **1** | 6 | 1 | 3 | 0 | 4 | **3** | **6** | **2** | **11** | **34** |
| 04:15 PM | 0 | 4 | 1 | 5 | 0 | 4 | 0 | 4 | 1 | 3 | 0 | 4 | 3 | 5 | 1 | 9 | 22 |
| 04:30 PM | 0 | 5 | 1 | 6 | 1 | **7** | 0 | **8** | **3** | 1 | 0 | 4 | 1 | 5 | 1 | 7 | 25 |
| 04:45 PM | **5** | 1 | 2 | 8 | 0 | 3 | 1 | 4 | 2 | **4** | 0 | **6** | 3 | 2 | 2 | 7 | 25 |
| Total Volume | 8 | 16 | 8 | 32 | 2 | 18 | 2 | 22 | 7 | 11 | 0 | 18 | 10 | 18 | 6 | 34 | 106 |
| % App. Total | 25 | 50 | 25 | | 9.1 | 81.8 | 9.1 | | 38.9 | 61.1 | 0 | | 29.4 | 52.9 | 17.6 | | |
| PHF | .400 | .667 | .500 | .615 | .500 | .643 | .500 | .688 | .583 | .688 | .000 | .750 | .833 | .750 | .750 | .773 | .779 |

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City of Perris
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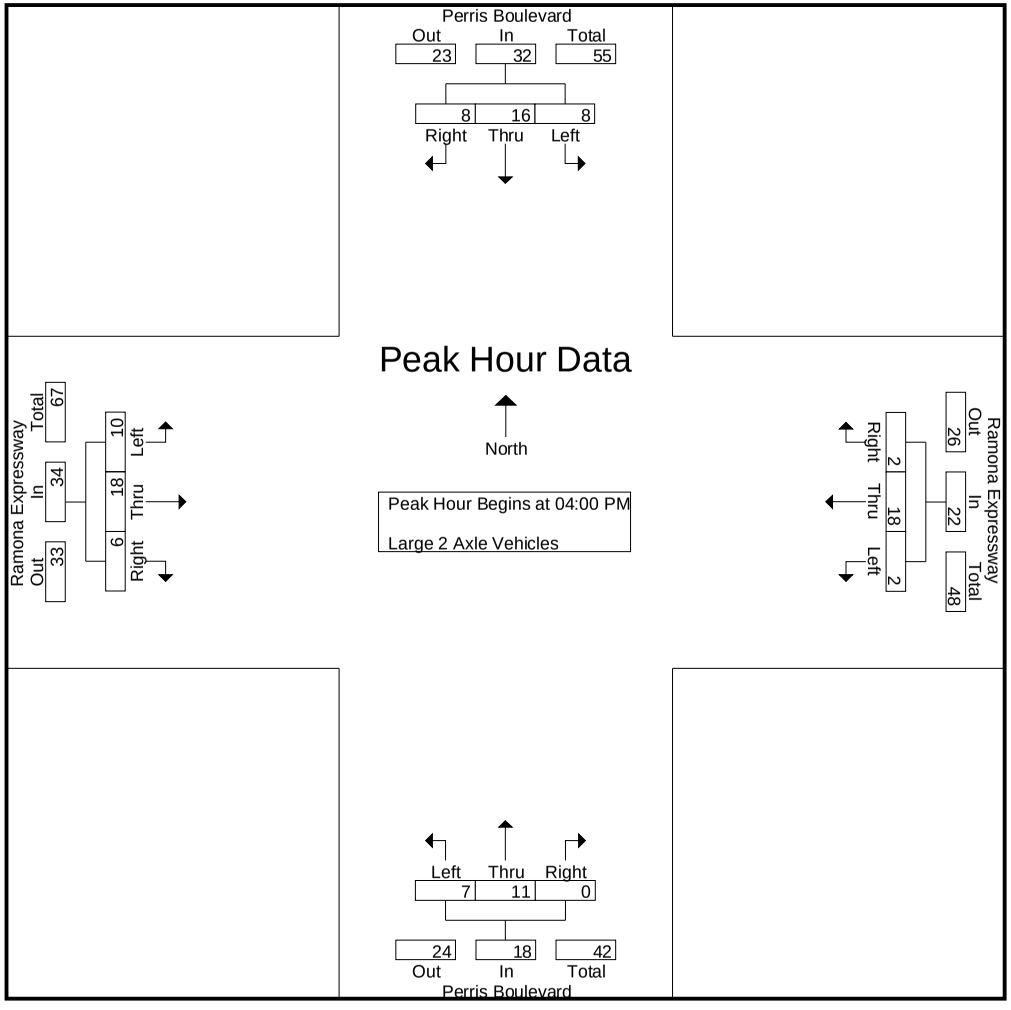
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | |
| +0 mins. | 3 | **6** | **4** | **13** | **1** | 4 | **1** | 6 | 1 | 3 | 0 | 4 | **3** | **6** | **2** | **11** | |
| +15 mins. | 0 | 4 | 1 | 5 | 0 | 4 | 0 | 4 | 1 | 3 | 0 | 4 | 3 | 5 | 1 | 9 | |
| +30 mins. | 0 | 5 | 1 | 6 | 1 | **7** | 0 | **8** | **3** | 1 | 0 | 4 | 1 | 5 | 1 | 7 | |
| +45 mins. | **5** | 1 | 2 | 8 | 0 | 3 | 1 | 4 | 2 | **4** | 0 | **6** | 3 | 2 | 2 | 7 | |
| Total Volume | 8 | 16 | 8 | 32 | 2 | 18 | 2 | 22 | 7 | 11 | 0 | 18 | 10 | 18 | 6 | 34 | |
| % App. Total | 25 | 50 | 25 | | 9.1 | 81.8 | 9.1 | | 38.9 | 61.1 | 0 | | 29.4 | 52.9 | 17.6 | | |
| PHF | .400 | .667 | .500 | .615 | .500 | .643 | .500 | .688 | .583 | .688 | .000 | .750 | .833 | .750 | .750 | .773 | |

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City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 4 | 4 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 6 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 1 | 7 | 8 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Total | 0 | 2 | 0 | 0 | 2 | 0 | 8 | 3 | 0 | 11 | 0 | 1 | 0 | 0 | 1 | 2 | 3 | 1 | 1 | 6 | 1 | 20 | 21 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 05:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 3 | 0 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 9 | 9 |
| 05:30 PM | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 1 | 5 | 6 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 5 | 5 |
| Total | 0 | 1 | 1 | 1 | 2 | 0 | 5 | 3 | 0 | 8 | 2 | 0 | 0 | 0 | 2 | 0 | 7 | 1 | 0 | 8 | 1 | 20 | 21 |
| Grand Total | 0 | 3 | 1 | 1 | 4 | 0 | 13 | 6 | 0 | 19 | 2 | 1 | 0 | 0 | 3 | 2 | 10 | 2 | 1 | 14 | 2 | 40 | 42 |
| Apprch % | 0 | 75 | 25 | | | 0 | 68.4 | 31.6 | | | 66.7 | 33.3 | 0 | | | 14.3 | 71.4 | 14.3 | | | | | |
| Total % | 0 | 7.5 | 2.5 | | 10 | 0 | 32.5 | 15 | | 47.5 | 5 | 2.5 | 0 | | 7.5 | 5 | 25 | 5 | | 35 | 4.8 | 95.2 | |

3.1-73

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 2 | 4 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | **4** | **1** | **5** | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 1 | 6 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 0 | **1** | 0 | **1** | 1 | 1 | **1** | **3** | **7** |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 2 | 0 | 2 | 0 | 8 | 3 | 11 | 0 | 1 | 0 | 1 | 2 | 3 | 1 | 6 | 20 |
| % App. Total | 0 | 100 | 0 | | 0 | 72.7 | 27.3 | | 0 | 100 | 0 | | 33.3 | 50 | 16.7 | | |
| PHF | .000 | .250 | .000 | .250 | .000 | .500 | .750 | .550 | .000 | .250 | .000 | .250 | .500 | .375 | .250 | .500 | .714 |

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City of Perris
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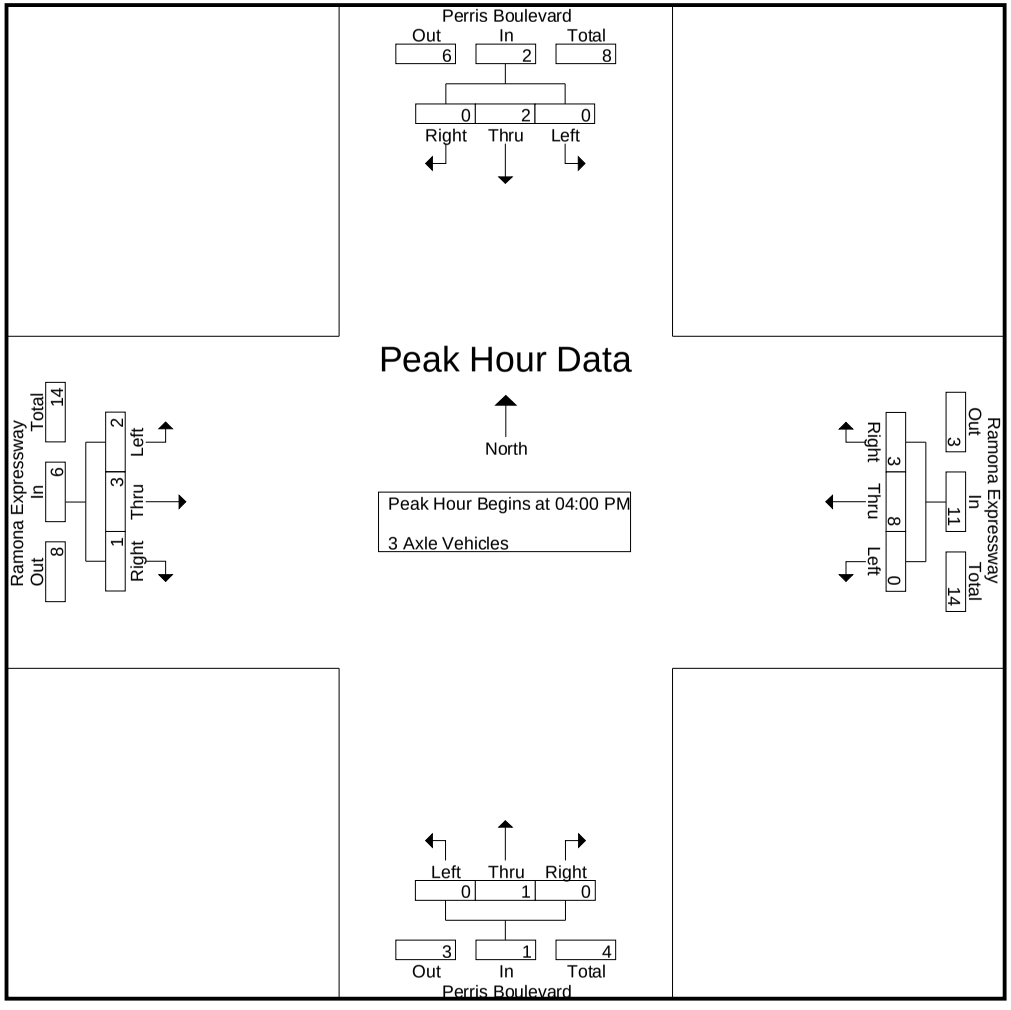
Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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Weather: Clear

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Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | |
| +0 mins. | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | 2 | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | **4** | **1** | **5** | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 1 | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 0 | **1** | 0 | **1** | 1 | 1 | **1** | **3** | |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 2 | 0 | 2 | 0 | 8 | 3 | 11 | 0 | 1 | 0 | 1 | 2 | 3 | 1 | 6 | |
| % App. Total | 0 | 100 | 0 | | 0 | 72.7 | 27.3 | | 0 | 100 | 0 | | 33.3 | 50 | 16.7 | | |
| PHF | .000 | .250 | .000 | .250 | .000 | .500 | .750 | .550 | .000 | .250 | .000 | .250 | .500 | .375 | .250 | .500 | |

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City of Perris
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Weather: Clear

File Name : 13_PER_Perris Blvd_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Ramona Expressway Westbound | | | | | Perris Boulevard Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 2 | 0 | 2 | 0 | 7 | 0 | 0 | 7 | 2 | 0 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 13 | 13 |
| 04:15 PM | 0 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | 1 | 3 | 2 | 0 | 0 | 0 | 2 | 2 | 3 | 4 | 0 | 9 | 2 | 16 | 18 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 1 | 2 | 0 | 0 | 3 | 1 | 4 | 1 | 0 | 6 | 0 | 14 | 14 |
| 04:45 PM | 0 | 0 | 1 | 0 | 1 | 1 | 7 | 0 | 0 | 8 | 0 | 1 | 1 | 0 | 2 | 3 | 3 | 1 | 0 | 7 | 0 | 18 | 18 |
| Total | 0 | 0 | 5 | 1 | 5 | 1 | 21 | 1 | 1 | 23 | 5 | 3 | 1 | 0 | 9 | 7 | 10 | 7 | 0 | 24 | 2 | 61 | 63 |
| 05:00 PM | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 2 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 3 | 1 | 9 | 10 |
| 05:15 PM | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 1 | 0 | 2 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 | 10 | 10 |
| 05:30 PM | 0 | 0 | 2 | 0 | 2 | 0 | 4 | 1 | 0 | 5 | 0 | 3 | 1 | 0 | 4 | 2 | 2 | 1 | 0 | 5 | 0 | 16 | 16 |
| 05:45 PM | 0 | 0 | 2 | 1 | 2 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 1 | 0 | 5 | 1 | 10 | 11 |
| Total | 1 | 0 | 6 | 2 | 7 | 0 | 10 | 4 | 0 | 14 | 4 | 3 | 1 | 0 | 8 | 4 | 10 | 2 | 0 | 16 | 2 | 45 | 47 |
| Grand Total | 1 | 0 | 11 | 3 | 12 | 1 | 31 | 5 | 1 | 37 | 9 | 6 | 2 | 0 | 17 | 11 | 20 | 9 | 0 | 40 | 4 | 106 | 110 |
| Apprch % | 8.3 | 0 | 91.7 | | | 2.7 | 83.8 | 13.5 | | | 52.9 | 35.3 | 11.8 | | | 27.5 | 50 | 22.5 | | | | | |
| Total % | 0.9 | 0 | 10.4 | | 11.3 | 0.9 | 29.2 | 4.7 | | 34.9 | 8.5 | 5.7 | 1.9 | | 16 | 10.4 | 18.9 | 8.5 | | 37.7 | 3.6 | 96.4 | |



| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | | | | | | | | |
| 04:00 PM | 0 | 0 | **2** | **2** | 0 | **7** | 0 | 7 | **2** | 0 | 0 | 2 | 1 | 0 | 1 | 2 | 13 |
| 04:15 PM | 0 | 0 | 2 | 2 | 0 | 2 | **1** | 3 | 2 | 0 | 0 | 2 | 2 | 3 | **4** | **9** | 16 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 1 | **2** | 0 | **3** | 1 | **4** | 1 | 6 | 14 |
| 04:45 PM | 0 | 0 | 1 | 1 | **1** | 7 | 0 | **8** | 0 | 1 | **1** | 2 | **3** | 3 | 1 | 7 | **18** |
| Total Volume | 0 | 0 | 5 | 5 | 1 | 21 | 1 | 23 | 5 | 3 | 1 | 9 | 7 | 10 | 7 | 24 | 61 |
| % App. Total | 0 | 0 | 100 | | 4.3 | 91.3 | 4.3 | | 55.6 | 33.3 | 11.1 | | 29.2 | 41.7 | 29.2 | | |
| PHF | .000 | .000 | .625 | .625 | .250 | .750 | .250 | .719 | .625 | .375 | .250 | .750 | .583 | .625 | .438 | .667 | .847 |

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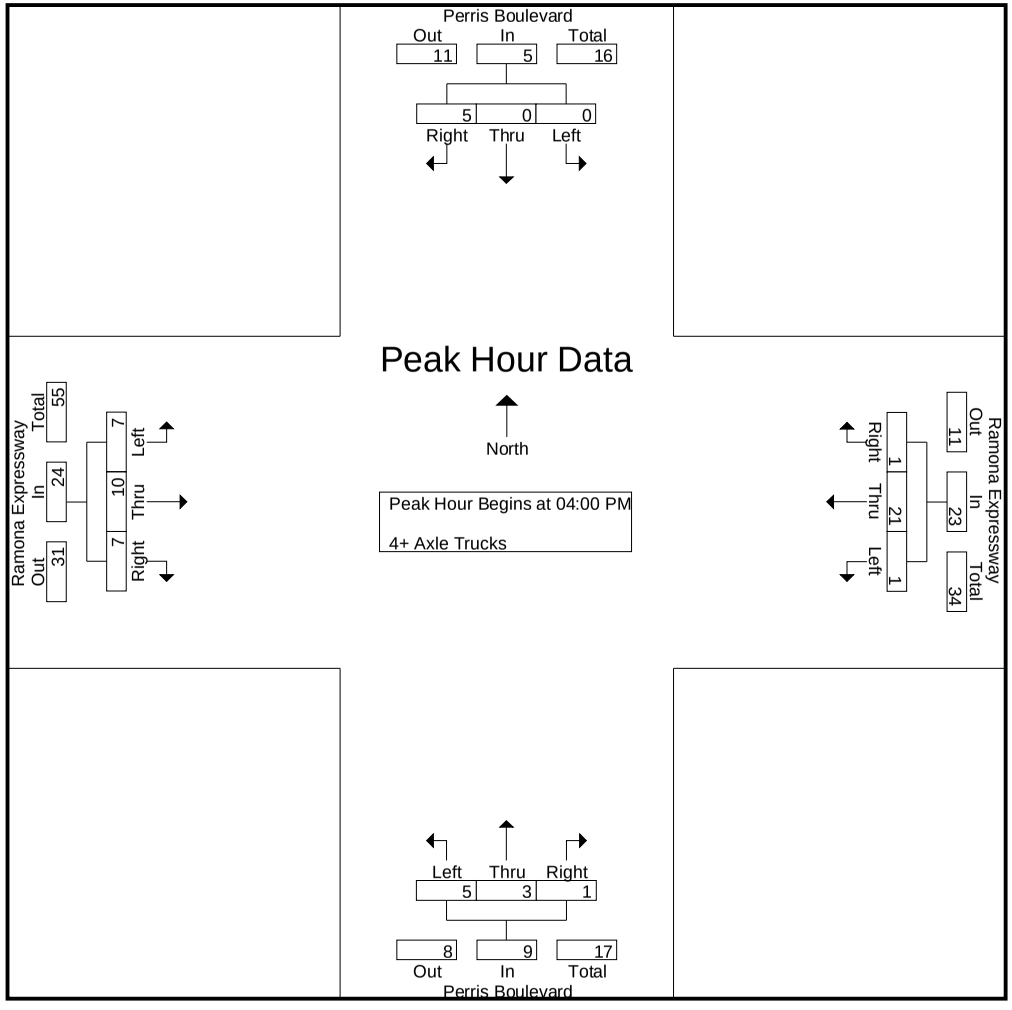

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Site Code : 05118431
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Page No : 3

| | Perris Boulevard Southbound | | | | Ramona Expressway Westbound | | | | Perris Boulevard Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | 04:00 PM | | | | |
| +0 mins. | 0 | 0 | **2** | **2** | 0 | **7** | 0 | 7 | **2** | 0 | 0 | 2 | 1 | 0 | 1 | 2 | |
| +15 mins. | 0 | 0 | 2 | 2 | 0 | 2 | **1** | 3 | 2 | 0 | 0 | 2 | 2 | 3 | **4** | **9** | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 1 | **2** | 0 | **3** | 1 | **4** | 1 | 6 | |
| +45 mins. | 0 | 0 | 1 | 1 | **1** | 7 | 0 | **8** | 0 | 1 | **1** | 2 | **3** | 3 | 1 | 7 | |
| Total Volume | 0 | 0 | 5 | 5 | 1 | 21 | 1 | 23 | 5 | 3 | 1 | 9 | 7 | 10 | 7 | 24 | |
| % App. Total | 0 | 0 | 100 | | 4.3 | 91.3 | 4.3 | | 55.6 | 33.3 | 11.1 | | 29.2 | 41.7 | 29.2 | | |
| PHF | .000 | .000 | .625 | .625 | .250 | .750 | .250 | .719 | .625 | .375 | .250 | .750 | .583 | .625 | .438 | .667 | |

Location: City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway

Date: 5/24/2018
Day: Thursday

**PEDESTRIANS**

| | North Leg<br>Perris Boulevard | East Leg<br>Ramona Expressway | South Leg<br>Perris Boulevard | West Leg<br>Ramona Expressway | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 1 | 1 |
| 7:30 AM | 0 | 1 | 0 | 0 | 1 |
| 7:45 AM | 1 | 2 | 0 | 0 | 3 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 2 | 0 | 0 | 2 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 1 | 5 | 0 | 1 | 7 |

| | North Leg<br>Perris Boulevard | East Leg<br>Ramona Expressway | South Leg<br>Perris Boulevard | West Leg<br>Ramona Expressway | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 4:00 PM | 1 | 2 | 0 | 0 | 3 |
| 4:15 PM | 0 | 1 | 0 | 2 | 3 |
| 4:30 PM | 1 | 0 | 0 | 2 | 3 |
| 4:45 PM | 6 | 0 | 0 | 0 | 6 |
| 5:00 PM | 0 | 1 | 0 | 3 | 4 |
| 5:15 PM | 0 | 0 | 0 | 1 | 1 |
| 5:30 PM | 1 | 1 | 1 | 1 | 4 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 9 | 5 | 1 | 9 | 24 |



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Corona, CA 92878
951-268-6268

Location: City of Perris
N/S: Perris Boulevard
E/W: Ramona Expressway

Date: 5/24/2018
Day: Thursday

**BICYCLES**

| | Southbound Perris Boulevard | | | Westbound Ramona Expressway | | | Northbound Perris Boulevard | | | Eastbound Ramona Expressway | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |

| | Southbound Perris Boulevard | | | Westbound Ramona Expressway | | | Northbound Perris Boulevard | | | Eastbound Ramona Expressway | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 4:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 3 | 0 | 8 |



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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 1 | 88 | 11 | 1 | 100 | 3 | 1 | 1 | 0 | 5 | 8 | 240 | 6 | 0 | 254 | 4 | 2 | 3 | 2 | 9 | 3 | 368 | 371 |
| 07:15 AM | 0 | 101 | 17 | 2 | 118 | 3 | 4 | 1 | 1 | 8 | 8 | 230 | 5 | 1 | 243 | 2 | 1 | 2 | 1 | 5 | 5 | 374 | 379 |
| 07:30 AM | 1 | 108 | 21 | 2 | 130 | 4 | 6 | 0 | 0 | 10 | 3 | 242 | 1 | 0 | 246 | 8 | 1 | 2 | 2 | 11 | 4 | 397 | 401 |
| 07:45 AM | 3 | 135 | 24 | 5 | 162 | 6 | 14 | 1 | 1 | 21 | 12 | 215 | 5 | 1 | 232 | 16 | 11 | 10 | 9 | 37 | 16 | 452 | 468 |
| Total | 5 | 432 | 73 | 10 | 510 | 16 | 25 | 3 | 2 | 44 | 31 | 927 | 17 | 2 | 975 | 30 | 15 | 17 | 14 | 62 | 28 | 1591 | 1619 |
| 08:00 AM | 1 | 81 | 10 | 2 | 92 | 3 | 1 | 1 | 1 | 5 | 6 | 146 | 1 | 0 | 153 | 6 | 0 | 3 | 2 | 9 | 5 | 259 | 264 |
| 08:15 AM | 0 | 106 | 20 | 3 | 126 | 1 | 2 | 1 | 0 | 4 | 5 | 132 | 4 | 0 | 141 | 5 | 4 | 2 | 2 | 11 | 5 | 282 | 287 |
| 08:30 AM | 2 | 84 | 11 | 1 | 97 | 2 | 2 | 1 | 0 | 5 | 7 | 144 | 2 | 0 | 153 | 10 | 3 | 4 | 4 | 17 | 5 | 272 | 277 |
| 08:45 AM | 3 | 99 | 9 | 1 | 111 | 4 | 1 | 1 | 1 | 6 | 16 | 134 | 1 | 0 | 151 | 7 | 1 | 11 | 10 | 19 | 12 | 287 | 299 |
| Total | 6 | 370 | 50 | 7 | 426 | 10 | 6 | 4 | 2 | 20 | 34 | 556 | 8 | 0 | 598 | 28 | 8 | 20 | 18 | 56 | 27 | 1100 | 1127 |
| Grand Total | 11 | 802 | 123 | 17 | 936 | 26 | 31 | 7 | 4 | 64 | 65 | 1483 | 25 | 2 | 1573 | 58 | 23 | 37 | 32 | 118 | 55 | 2691 | 2746 |
| Apprch % | 1.2 | 85.7 | 13.1 | | | 40.6 | 48.4 | 10.9 | | | 4.1 | 94.3 | 1.6 | | | 49.2 | 19.5 | 31.4 | | | | | |
| Total % | 0.4 | 29.8 | 4.6 | | 34.8 | 1 | 1.2 | 0.3 | | 2.4 | 2.4 | 55.1 | 0.9 | | 58.5 | 2.2 | 0.9 | 1.4 | | 4.4 | 2 | 98 | |
| Passenger Vehicles | 10 | 746 | 100 | | 869 | 26 | 30 | 5 | | 65 | 62 | 1415 | 24 | | 1503 | 47 | 22 | 32 | | 130 | 0 | 0 | 2567 |
| % Passenger Vehicles | 90.9 | 93 | 81.3 | 76.5 | 91.2 | 100 | 96.8 | 71.4 | 100 | 95.6 | 95.4 | 95.4 | 96 | 100 | 95.4 | 81 | 95.7 | 86.5 | 90.6 | 86.7 | 0 | 0 | 93.5 |
| Large 2 Axle Vehicles | 1 | 35 | 2 | | 39 | 0 | 1 | 0 | | 1 | 2 | 45 | 1 | | 48 | 3 | 1 | 2 | | 8 | 0 | 0 | 96 |
| % Large 2 Axle Vehicles | 9.1 | 4.4 | 1.6 | 5.9 | 4.1 | 0 | 3.2 | 0 | 0 | 1.5 | 3.1 | 3 | 4 | 0 | 3 | 5.2 | 4.3 | 5.4 | 6.2 | 5.3 | 0 | 0 | 3.5 |
| 3 Axle Vehicles | 0 | 11 | 2 | | 14 | 0 | 0 | 0 | | 0 | 0 | 12 | 0 | | 12 | 4 | 0 | 1 | | 5 | 0 | 0 | 31 |
| % 3 Axle Vehicles | 0 | 1.4 | 1.6 | 5.9 | 1.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0.8 | 0 | 0 | 0.8 | 6.9 | 0 | 2.7 | 0 | 3.3 | 0 | 0 | 1.1 |
| 4+ Axle Trucks | 0 | 10 | 19 | | 31 | 0 | 0 | 2 | | 2 | 1 | 11 | 0 | | 12 | 4 | 0 | 2 | | 7 | 0 | 0 | 52 |
| % 4+ Axle Trucks | 0 | 1.2 | 15.4 | 11.8 | 3.3 | 0 | 0 | 28.6 | 0 | 2.9 | 1.5 | 0.7 | 0 | 0 | 0.8 | 6.9 | 0 | 5.4 | 3.1 | 4.7 | 0 | 0 | 1.9 |

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 1 | 88 | 11 | 100 | 3 | 1 | **1** | 5 | 8 | 240 | **6** | **254** | 4 | 2 | 3 | 9 | 368 |
| 07:15 AM | 0 | 101 | 17 | 118 | 3 | 4 | 1 | 8 | 8 | 230 | 5 | 243 | 2 | 1 | 2 | 5 | 374 |
| 07:30 AM | 1 | 108 | 21 | 130 | 4 | 6 | 0 | 10 | 3 | **242** | 1 | 246 | 8 | 1 | 2 | 11 | 397 |
| 07:45 AM | **3** | **135** | **24** | **162** | **6** | **14** | 1 | **21** | **12** | 215 | 5 | 232 | **16** | **11** | **10** | **37** | **452** |
| Total Volume | 5 | 432 | 73 | 510 | 16 | 25 | 3 | 44 | 31 | 927 | 17 | 975 | 30 | 15 | 17 | 62 | 1591 |
| % App. Total | 1 | 84.7 | 14.3 | | 36.4 | 56.8 | 6.8 | | 3.2 | 95.1 | 1.7 | | 48.4 | 24.2 | 27.4 | | |
| PHF | .417 | .800 | .760 | .787 | .667 | .446 | .750 | .524 | .646 | .958 | .708 | .960 | .469 | .341 | .425 | .419 | .880 |

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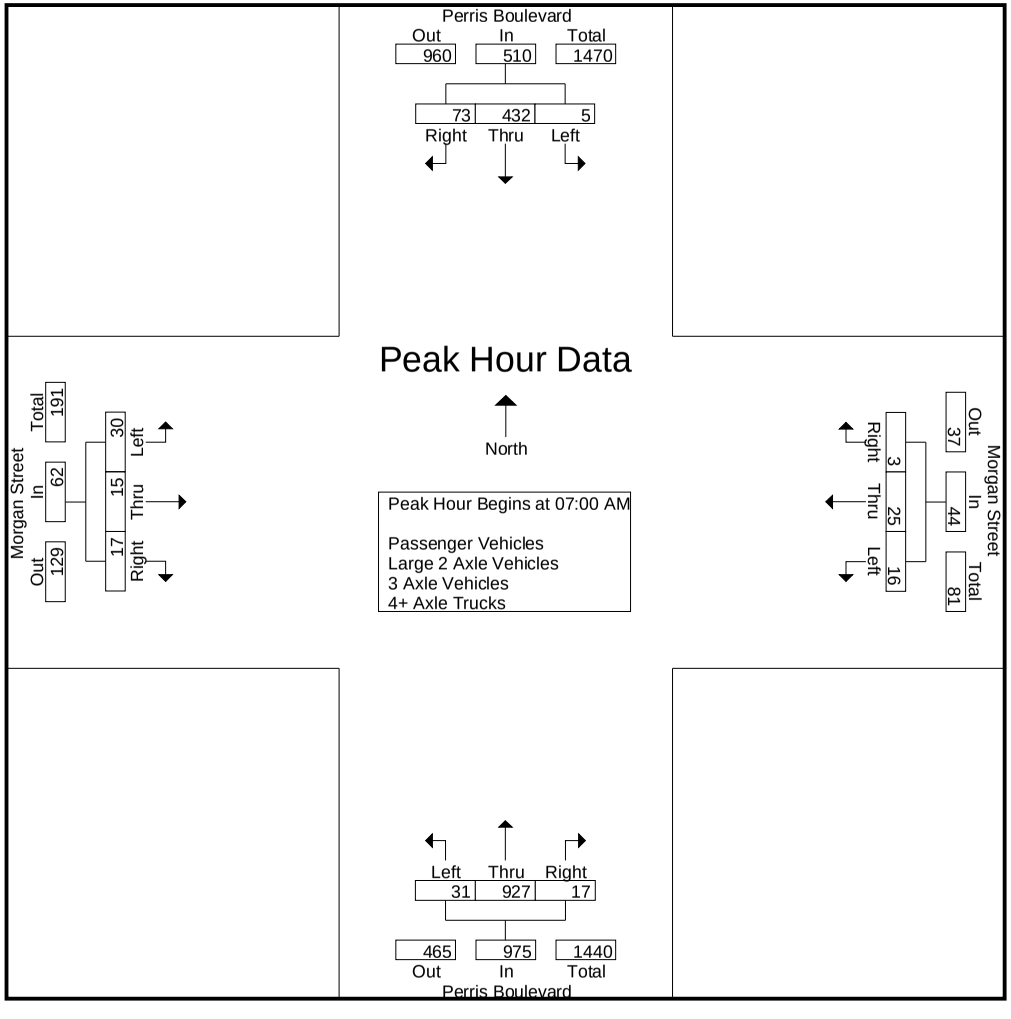
City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:45 AM | | | | |
| +0 mins. | 1 | 88 | 11 | 100 | 3 | 1 | **1** | 5 | 8 | 240 | **6** | **254** | **16** | **11** | **10** | **37** | |
| +15 mins. | 0 | 101 | 17 | 118 | 3 | 4 | 1 | 8 | 8 | 230 | 5 | 243 | 6 | 0 | 3 | 9 | |
| +30 mins. | 1 | 108 | 21 | 130 | 4 | 6 | 0 | 10 | 3 | **242** | 1 | 246 | 5 | 4 | 2 | 11 | |
| +45 mins. | **3** | **135** | **24** | **162** | **6** | **14** | 1 | **21** | **12** | 215 | 5 | 232 | 10 | 3 | 4 | 17 | |
| Total Volume | 5 | 432 | 73 | 510 | 16 | 25 | 3 | 44 | 31 | 927 | 17 | 975 | 37 | 18 | 19 | 74 | |
| % App. Total | 1 | 84.7 | 14.3 | | 36.4 | 56.8 | 6.8 | | 3.2 | 95.1 | 1.7 | | 50 | 24.3 | 25.7 | | |
| PHF | .417 | .800 | .760 | .787 | .667 | .446 | .750 | .524 | .646 | .958 | .708 | .960 | .578 | .409 | .475 | .500 | |

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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 1 | 86 | 10 | 1 | 97 | 3 | 1 | 1 | 0 | 5 | 8 | 226 | 6 | 0 | 240 | 3 | 2 | 3 | 2 | 8 | 3 | 350 | 353 |
| 07:15 AM | 0 | 98 | 14 | 2 | 112 | 3 | 4 | 1 | 1 | 8 | 8 | 226 | 4 | 1 | 238 | 2 | 1 | 1 | 1 | 4 | 5 | 362 | 367 |
| 07:30 AM | 1 | 97 | 18 | 2 | 116 | 4 | 6 | 0 | 0 | 10 | 2 | 233 | 1 | 0 | 236 | 8 | 1 | 2 | 2 | 11 | 4 | 373 | 377 |
| 07:45 AM | 3 | 123 | 19 | 4 | 145 | 6 | 14 | 1 | 1 | 21 | 11 | 207 | 5 | 1 | 223 | 13 | 11 | 10 | 9 | 34 | 15 | 423 | 438 |
| Total | 5 | 404 | 61 | 9 | 470 | 16 | 25 | 3 | 2 | 44 | 29 | 892 | 16 | 2 | 937 | 26 | 15 | 16 | 14 | 57 | 27 | 1508 | 1535 |
| 08:00 AM | 1 | 78 | 9 | 1 | 88 | 3 | 1 | 1 | 1 | 5 | 6 | 140 | 1 | 0 | 147 | 4 | 0 | 2 | 2 | 6 | 4 | 246 | 250 |
| 08:15 AM | 0 | 99 | 13 | 2 | 112 | 1 | 2 | 0 | 0 | 3 | 5 | 124 | 4 | 0 | 133 | 4 | 3 | 2 | 2 | 9 | 4 | 257 | 261 |
| 08:30 AM | 2 | 74 | 9 | 0 | 85 | 2 | 1 | 0 | 0 | 3 | 7 | 132 | 2 | 0 | 141 | 8 | 3 | 3 | 3 | 14 | 3 | 243 | 246 |
| 08:45 AM | 2 | 91 | 8 | 1 | 101 | 4 | 1 | 1 | 1 | 6 | 15 | 127 | 1 | 0 | 143 | 5 | 1 | 9 | 8 | 15 | 10 | 265 | 275 |
| Total | 5 | 342 | 39 | 4 | 386 | 10 | 5 | 2 | 2 | 17 | 33 | 523 | 8 | 0 | 564 | 21 | 7 | 16 | 15 | 44 | 21 | 1011 | 1032 |
| Grand Total | 10 | 746 | 100 | 13 | 856 | 26 | 30 | 5 | 4 | 61 | 62 | 1415 | 24 | 2 | 1501 | 47 | 22 | 32 | 29 | 101 | 48 | 2519 | 2567 |
| Apprch % | 1.2 | 87.1 | 11.7 | | | 42.6 | 49.2 | 8.2 | | | 4.1 | 94.3 | 1.6 | | | 46.5 | 21.8 | 31.7 | | | | | |
| Total % | 0.4 | 29.6 | 4 | | 34 | 1 | 1.2 | 0.2 | | 2.4 | 2.5 | 56.2 | 1 | | 59.6 | 1.9 | 0.9 | 1.3 | | 4 | 1.9 | 98.1 | |



| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 1 | 86 | 10 | 97 | 3 | 1 | **1** | 5 | 8 | 226 | **6** | **240** | 3 | 2 | 3 | 8 | 350 |
| 07:15 AM | 0 | 98 | 14 | 112 | 3 | 4 | 1 | 8 | 8 | 226 | 4 | 238 | 2 | 1 | 1 | 4 | 362 |
| 07:30 AM | 1 | 97 | 18 | 116 | 4 | 6 | 0 | 10 | 2 | **233** | 1 | 236 | 8 | 1 | 2 | 11 | 373 |
| 07:45 AM | **3** | **123** | **19** | **145** | **6** | **14** | 1 | **21** | **11** | 207 | 5 | 223 | **13** | **11** | **10** | **34** | **423** |
| Total Volume | 5 | 404 | 61 | 470 | 16 | 25 | 3 | 44 | 29 | 892 | 16 | 937 | 26 | 15 | 16 | 57 | 1508 |
| % App. Total | 1.1 | 86 | 13 | | 36.4 | 56.8 | 6.8 | | 3.1 | 95.2 | 1.7 | | 45.6 | 26.3 | 28.1 | | |
| PHF | .417 | .821 | .803 | .810 | .667 | .446 | .750 | .524 | .659 | .957 | .667 | .976 | .500 | .341 | .400 | .419 | .891 |

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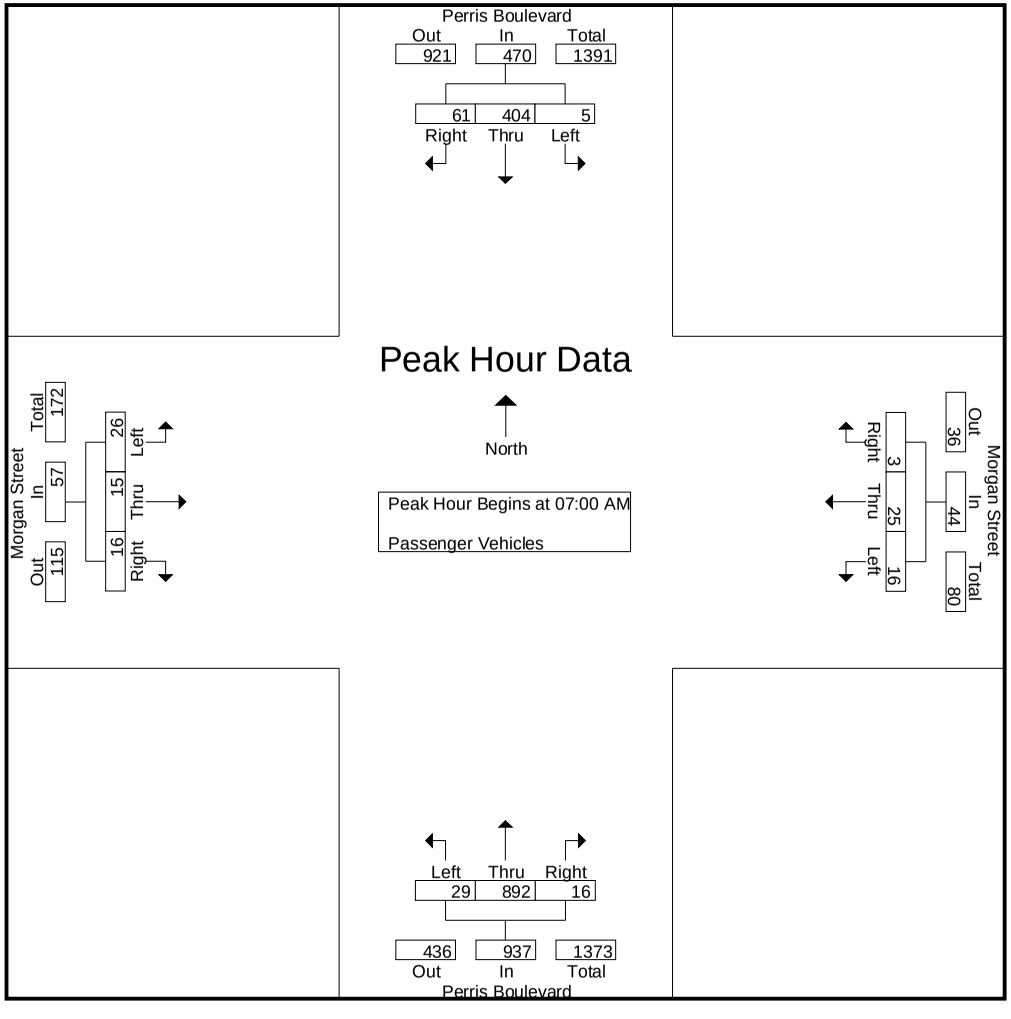
City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 1 | 86 | 10 | 97 | 3 | 1 | **1** | 5 | 8 | 226 | **6** | **240** | 3 | 2 | 3 | 8 | |
| +15 mins. | 0 | 98 | 14 | 112 | 3 | 4 | 1 | 8 | 8 | 226 | 4 | 238 | 2 | 1 | 1 | 4 | |
| +30 mins. | 1 | 97 | 18 | 116 | 4 | 6 | 0 | 10 | 2 | **233** | 1 | 236 | 8 | 1 | 2 | 11 | |
| +45 mins. | **3** | **123** | **19** | **145** | **6** | **14** | 1 | **21** | **11** | 207 | 5 | 223 | **13** | **11** | **10** | **34** | |
| Total Volume | 5 | 404 | 61 | 470 | 16 | 25 | 3 | 44 | 29 | 892 | 16 | 937 | 26 | 15 | 16 | 57 | |
| % App. Total | 1.1 | 86 | 13 | | 36.4 | 56.8 | 6.8 | | 3.1 | 95.2 | 1.7 | | 45.6 | 26.3 | 28.1 | | |
| PHF | .417 | .821 | .803 | .810 | .667 | .446 | .750 | .524 | .659 | .957 | .667 | .976 | .500 | .341 | .400 | .419 | |

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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 |
| 07:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| 07:30 AM | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 11 |
| 07:45 AM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 0 | 14 | 14 |
| Total | 0 | 11 | 0 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 1 | 25 | 1 | 0 | 27 | 1 | 0 | 0 | 0 | 1 | 0 | 39 | 39 |
| 08:00 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 6 |
| 08:15 AM | 0 | 7 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 0 | 13 | 13 |
| 08:30 AM | 0 | 9 | 1 | 1 | 10 | 0 | 1 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 18 | 19 |
| 08:45 AM | 1 | 6 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 7 | 1 | 0 | 2 | 2 | 3 | 2 | 17 | 19 |
| Total | 1 | 24 | 2 | 1 | 27 | 0 | 1 | 0 | 0 | 1 | 1 | 20 | 0 | 0 | 21 | 2 | 1 | 2 | 2 | 5 | 3 | 54 | 57 |
| Grand Total | 1 | 35 | 2 | 1 | 38 | 0 | 1 | 0 | 0 | 1 | 2 | 45 | 1 | 0 | 48 | 3 | 1 | 2 | 2 | 6 | 3 | 93 | 96 |
| Apprch % | 2.6 | 92.1 | 5.3 | | | 0 | 100 | 0 | | | 4.2 | 93.8 | 2.1 | | | 50 | 16.7 | 33.3 | | | | | |
| Total % | 1.1 | 37.6 | 2.2 | | 40.9 | 0 | 1.1 | 0 | | 1.1 | 2.2 | 48.4 | 1.1 | | 51.6 | 3.2 | 1.1 | 2.2 | | 6.5 | 3.1 | 96.9 | |



| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **9** | 0 | **9** | 0 | 0 | 0 | 0 | 9 |
| 07:15 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 4 | 0 | 0 | 0 | 0 | 5 |
| 07:30 AM | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | 11 |
| 07:45 AM | 0 | **6** | 0 | **6** | 0 | 0 | 0 | 0 | **1** | 6 | 0 | 7 | **1** | 0 | 0 | **1** | **14** |
| Total Volume | 0 | 11 | 0 | 11 | 0 | 0 | 0 | 0 | 1 | 25 | 1 | 27 | 1 | 0 | 0 | 1 | 39 |
| % App. Total | 0 | 100 | 0 | | 0 | 0 | 0 | | 3.7 | 92.6 | 3.7 | | 100 | 0 | 0 | | |
| PHF | .000 | .458 | .000 | .458 | .000 | .000 | .000 | .000 | .250 | .694 | .250 | .750 | .250 | .000 | .000 | .250 | .696 |

Counts Unlimited
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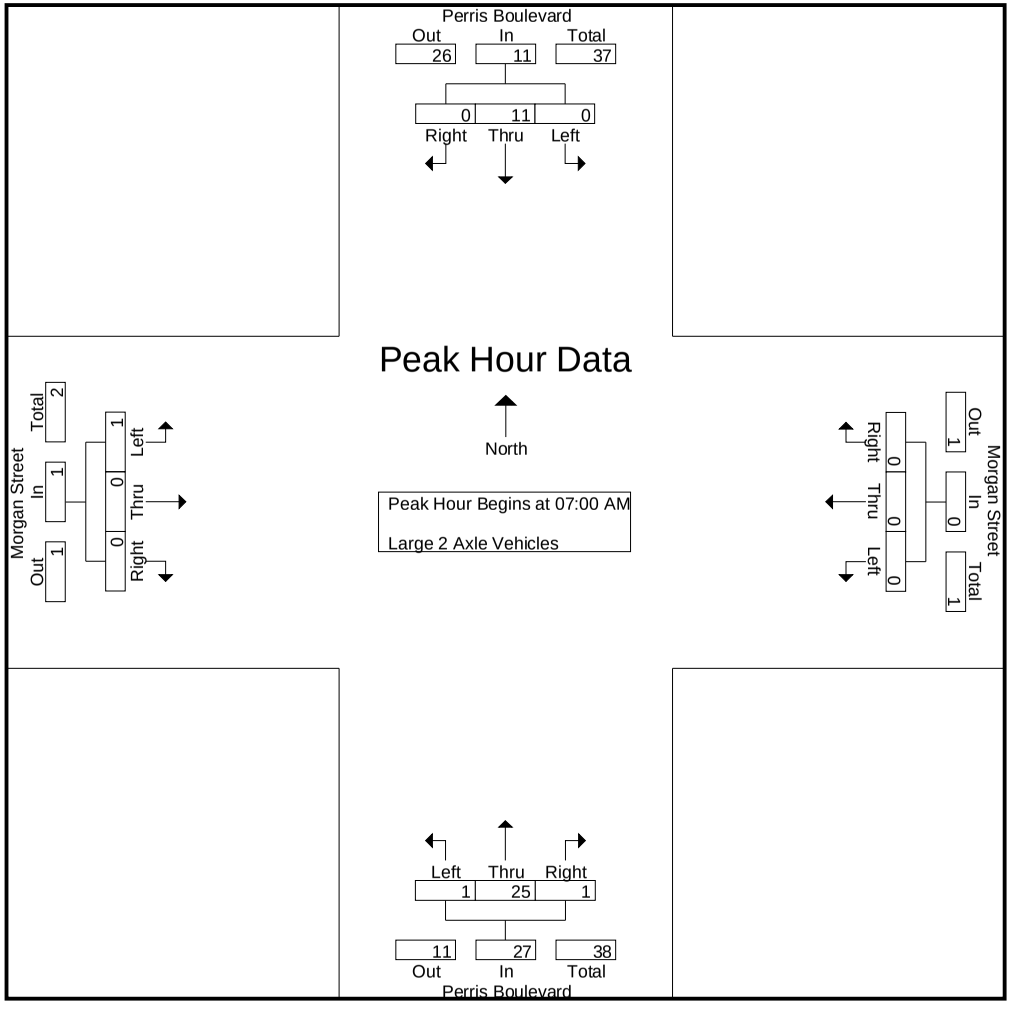
City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
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| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **9** | 0 | **9** | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 4 | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | **6** | 0 | **6** | 0 | 0 | 0 | 0 | **1** | 6 | 0 | 7 | **1** | 0 | 0 | **1** | |
| Total Volume | 0 | 11 | 0 | 11 | 0 | 0 | 0 | 0 | 1 | 25 | 1 | 27 | 1 | 0 | 0 | 1 | |
| % App. Total | 0 | 100 | 0 | | 0 | 0 | 0 | | 3.7 | 92.6 | 3.7 | | 100 | 0 | 0 | | |
| PHF | .000 | .458 | .000 | .458 | .000 | .000 | .000 | .000 | .250 | .694 | .250 | .750 | .250 | .000 | .000 | .250 | |

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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 6 |
| 07:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 07:30 AM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 07:45 AM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Total | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 1 | 0 | 17 | 17 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 2 | 0 | 4 | 4 |
| 08:15 AM | 0 | 0 | 2 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 5 | 6 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 08:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 3 |
| Total | 0 | 1 | 2 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 6 | 3 | 0 | 1 | 0 | 4 | 1 | 13 | 14 |
| Grand Total | 0 | 11 | 2 | 1 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 12 | 4 | 0 | 1 | 0 | 5 | 1 | 30 | 31 |
| Apprch % | 0 | 84.6 | 15.4 | | | 0 | 0 | 0 | | | 0 | 100 | 0 | | | 80 | 0 | 20 | | | | | |
| Total % | 0 | 36.7 | 6.7 | | 43.3 | 0 | 0 | 0 | | 0 | 0 | 40 | 0 | | 40 | 13.3 | 0 | 3.3 | | 16.7 | 3.2 | 96.8 | |

3.1-90

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **4** | **1** | 0 | 0 | **1** | **6** |
| 07:15 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:30 AM | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 07:45 AM | 0 | **5** | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 6 |
| Total Volume | 0 | 10 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 1 | 0 | 0 | 1 | 17 |
| % App. Total | 0 | 100 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | 100 | 0 | 0 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .375 | .250 | .000 | .000 | .250 | .708 |

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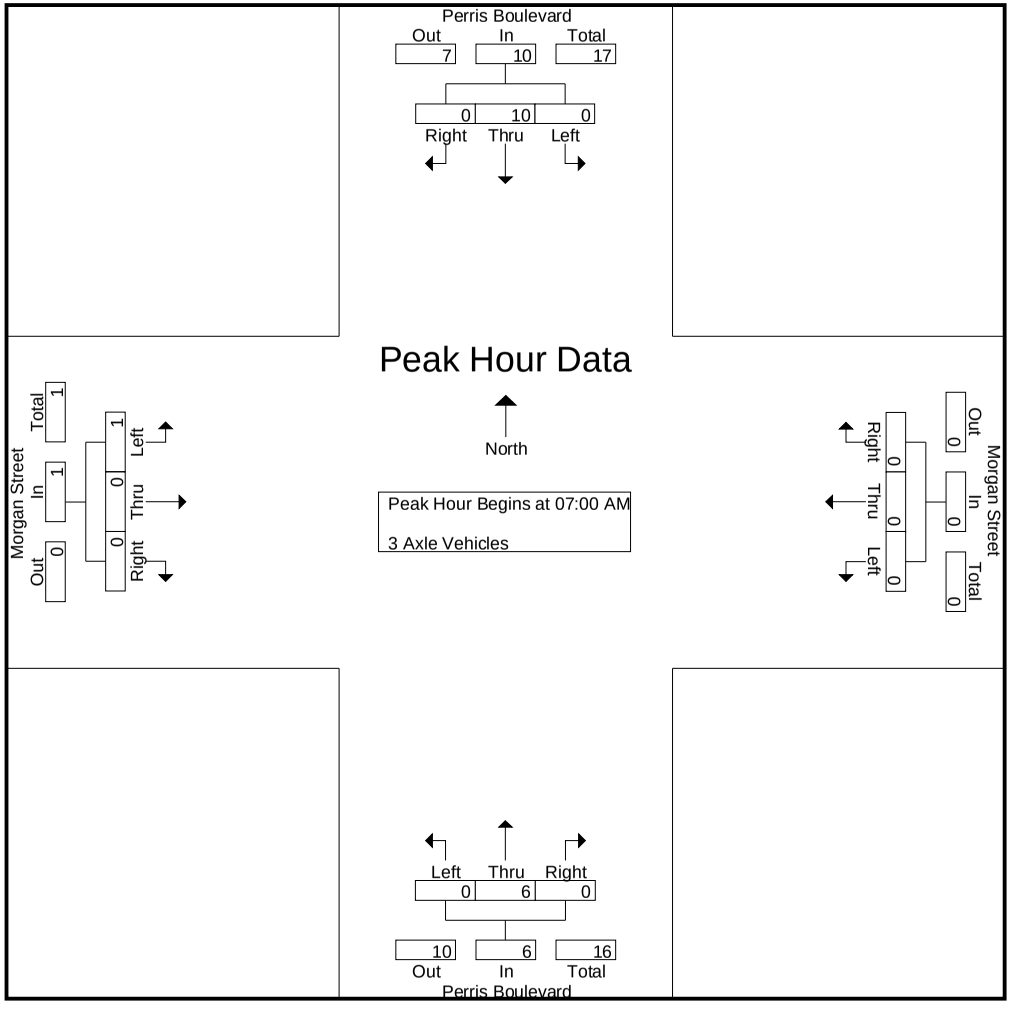
City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **4** | 0 | **4** | **1** | 0 | 0 | **1** | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | **5** | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 10 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 6 | 1 | 0 | 0 | 1 | |
| % App. Total | 0 | 100 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | 100 | 0 | 0 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .375 | .000 | .375 | .250 | .000 | .000 | .250 | |

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E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 07:15 AM | 0 | 1 | 3 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 6 | 6 |
| 07:30 AM | 0 | 4 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 |
| 07:45 AM | 0 | 1 | 5 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 2 | 1 | 9 | 10 |
| Total | 0 | 7 | 12 | 1 | 19 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 5 | 2 | 0 | 1 | 0 | 3 | 1 | 27 | 28 |
| 08:00 AM | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| 08:15 AM | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| 08:30 AM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 0 | 0 | 4 | 2 | 0 | 1 | 1 | 3 | 1 | 10 | 11 |
| 08:45 AM | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Total | 0 | 3 | 7 | 1 | 10 | 0 | 0 | 2 | 0 | 2 | 0 | 7 | 0 | 0 | 7 | 2 | 0 | 1 | 1 | 3 | 2 | 22 | 24 |
| Grand Total | 0 | 10 | 19 | 2 | 29 | 0 | 0 | 2 | 0 | 2 | 1 | 11 | 0 | 0 | 12 | 4 | 0 | 2 | 1 | 6 | 3 | 49 | 52 |
| Apprch % | 0 | 34.5 | 65.5 | | | 0 | 0 | 100 | | | 8.3 | 91.7 | 0 | | | 66.7 | 0 | 33.3 | | | | | |
| Total % | 0 | 20.4 | 38.8 | | 59.2 | 0 | 0 | 4.1 | | 4.1 | 2 | 22.4 | 0 | | 24.5 | 8.2 | 0 | 4.1 | | 12.2 | 5.8 | 94.2 | |



| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| 07:15 AM | 0 | 1 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | **1** | 1 | 6 |
| 07:30 AM | 0 | **4** | 3 | **7** | 0 | 0 | 0 | 0 | **1** | 1 | 0 | **2** | 0 | 0 | 0 | 0 | **9** |
| 07:45 AM | 0 | 1 | **5** | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | **2** | 0 | 0 | **2** | 9 |
| Total Volume | 0 | 7 | 12 | 19 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 5 | 2 | 0 | 1 | 3 | 27 |
| % App. Total | 0 | 36.8 | 63.2 | | 0 | 0 | 0 | | 20 | 80 | 0 | | 66.7 | 0 | 33.3 | | |
| PHF | .000 | .438 | .600 | .679 | .000 | .000 | .000 | .000 | .250 | 1.00 | .000 | .625 | .250 | .000 | .250 | .375 | .750 |

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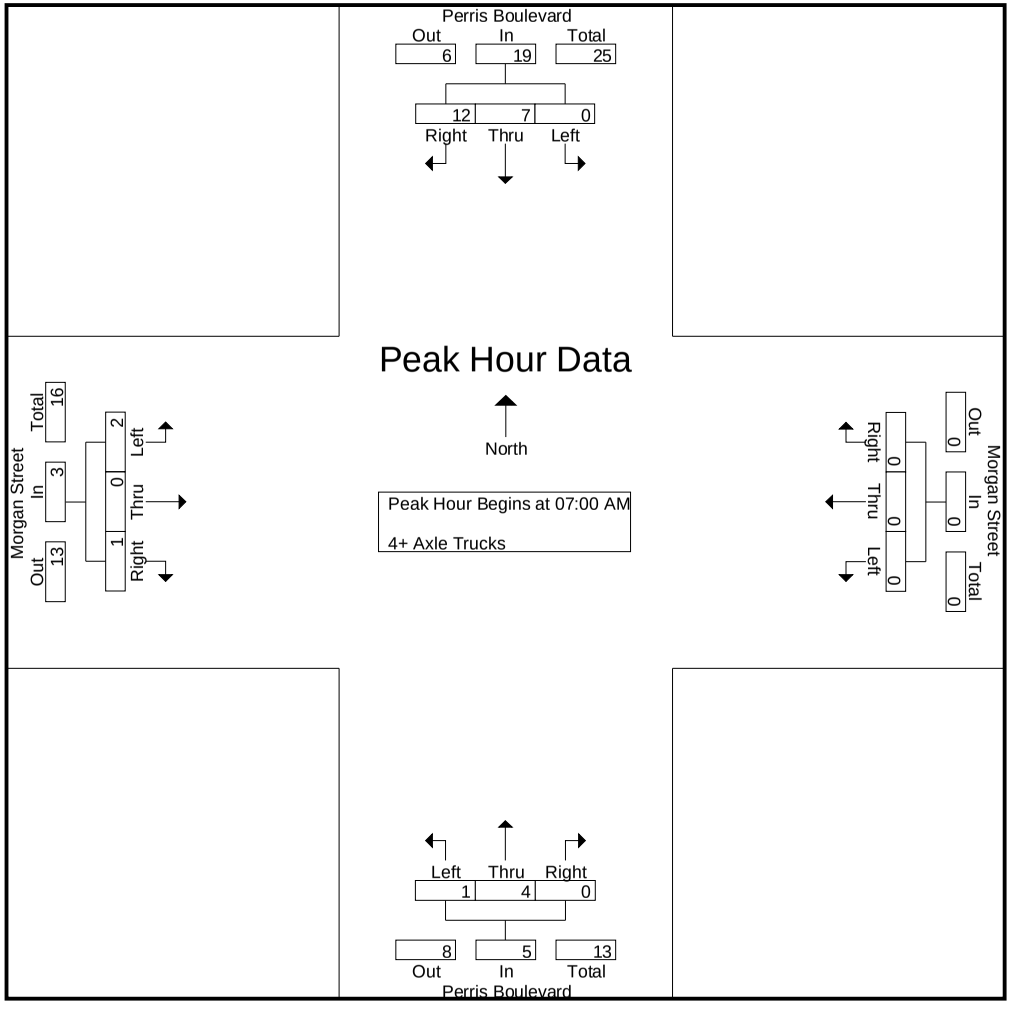
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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File Name : 15_PER_Perris Blvd_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 1 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | **1** | 1 | |
| +30 mins. | 0 | **4** | 3 | **7** | 0 | 0 | 0 | 0 | **1** | 1 | 0 | **2** | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | 1 | **5** | 6 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | **2** | 0 | 0 | **2** | |
| Total Volume | 0 | 7 | 12 | 19 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 5 | 2 | 0 | 1 | 3 | |
| % App. Total | 0 | 36.8 | 63.2 | | 0 | 0 | 0 | | 20 | 80 | 0 | | 66.7 | 0 | 33.3 | | |
| PHF | .000 | .438 | .600 | .679 | .000 | .000 | .000 | .000 | .250 | 1.000 | .000 | .625 | .250 | .000 | .250 | .375 | |

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E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 6 | 182 | 10 | 2 | 198 | 7 | 4 | 5 | 4 | 16 | 3 | 175 | 2 | 0 | 180 | 9 | 3 | 7 | 7 | 19 | 13 | 413 | 426 |
| 04:15 PM | 5 | 191 | 4 | 0 | 200 | 3 | 3 | 0 | 0 | 6 | 5 | 164 | 1 | 0 | 170 | 4 | 6 | 4 | 2 | 14 | 2 | 390 | 392 |
| 04:30 PM | 2 | 208 | 4 | 0 | 214 | 9 | 4 | 2 | 1 | 15 | 3 | 176 | 4 | 0 | 183 | 12 | 8 | 10 | 3 | 30 | 4 | 442 | 446 |
| 04:45 PM | 3 | 259 | 2 | 0 | 264 | 11 | 1 | 0 | 0 | 12 | 2 | 176 | 1 | 0 | 179 | 8 | 8 | 7 | 6 | 23 | 6 | 478 | 484 |
| Total | 16 | 840 | 20 | 2 | 876 | 30 | 12 | 7 | 5 | 49 | 13 | 691 | 8 | 0 | 712 | 33 | 25 | 28 | 18 | 86 | 25 | 1723 | 1748 |
| 05:00 PM | 2 | 198 | 4 | 0 | 204 | 7 | 0 | 3 | 2 | 10 | 8 | 189 | 4 | 0 | 201 | 4 | 2 | 9 | 4 | 15 | 6 | 430 | 436 |
| 05:15 PM | 0 | 209 | 3 | 1 | 212 | 5 | 0 | 5 | 0 | 10 | 0 | 163 | 2 | 0 | 165 | 2 | 2 | 2 | 2 | 6 | 3 | 393 | 396 |
| 05:30 PM | 3 | 210 | 3 | 0 | 216 | 7 | 0 | 6 | 5 | 13 | 10 | 183 | 4 | 0 | 197 | 9 | 0 | 0 | 0 | 9 | 5 | 435 | 440 |
| 05:45 PM | 3 | 186 | 5 | 1 | 194 | 10 | 1 | 0 | 0 | 11 | 5 | 161 | 4 | 2 | 170 | 5 | 2 | 2 | 2 | 9 | 5 | 384 | 389 |
| Total | 8 | 803 | 15 | 2 | 826 | 29 | 1 | 14 | 7 | 44 | 23 | 696 | 14 | 2 | 733 | 20 | 6 | 13 | 8 | 39 | 19 | 1642 | 1661 |
| Grand Total | 24 | 1643 | 35 | 4 | 1702 | 59 | 13 | 21 | 12 | 93 | 36 | 1387 | 22 | 2 | 1445 | 53 | 31 | 41 | 26 | 125 | 44 | 3365 | 3409 |
| Apprch % | 1.4 | 96.5 | 2.1 | | | 63.4 | 14 | 22.6 | | | 2.5 | 96 | 1.5 | | | 42.4 | 24.8 | 32.8 | | | | | |
| Total % | 0.7 | 48.8 | 1 | | 50.6 | 1.8 | 0.4 | 0.6 | | 2.8 | 1.1 | 41.2 | 0.7 | | 42.9 | 1.6 | 0.9 | 1.2 | | 3.7 | 1.3 | 98.7 | |
| Passenger Vehicles | 20 | 1602 | 24 | | 1648 | 57 | 11 | 17 | | 97 | 35 | 1360 | 21 | | 1418 | 45 | 28 | 39 | | 136 | 0 | 0 | 3299 |
| % Passenger Vehicles | 83.3 | 97.5 | 68.6 | 50 | 96.6 | 96.6 | 84.6 | 81 | 100 | 92.4 | 97.2 | 98.1 | 95.5 | 100 | 98 | 84.9 | 90.3 | 95.1 | 92.3 | 90.1 | 0 | 0 | 96.8 |
| Large 2 Axle Vehicles | 0 | 33 | 9 | | 43 | 1 | 1 | 0 | | 2 | 1 | 22 | 1 | | 24 | 0 | 0 | 2 | | 4 | 0 | 0 | 73 |
| % Large 2 Axle Vehicles | 0 | 2 | 25.7 | 25 | 2.5 | 1.7 | 7.7 | 0 | 0 | 1.9 | 2.8 | 1.6 | 4.5 | 0 | 1.7 | 0 | 0 | 4.9 | 7.7 | 2.6 | 0 | 0 | 2.1 |
| 3 Axle Vehicles | 0 | 5 | 2 | | 8 | 1 | 0 | 1 | | 2 | 0 | 0 | 0 | | 0 | 1 | 2 | 0 | | 3 | 0 | 0 | 13 |
| % 3 Axle Vehicles | 0 | 0.3 | 5.7 | 25 | 0.5 | 1.7 | 0 | 4.8 | 0 | 1.9 | 0 | 0 | 0 | 0 | 0 | 1.9 | 6.5 | 0 | 0 | 2 | 0 | 0 | 0.4 |
| 4+ Axle Trucks | 4 | 3 | 0 | | 7 | 0 | 1 | 3 | | 4 | 0 | 5 | 0 | | 5 | 7 | 1 | 0 | | 8 | 0 | 0 | 24 |
| % 4+ Axle Trucks | 16.7 | 0.2 | 0 | 0 | 0.4 | 0 | 7.7 | 14.3 | 0 | 3.8 | 0 | 0.4 | 0 | 0 | 0.3 | 13.2 | 3.2 | 0 | 0 | 5.3 | 0 | 0 | 0.7 |

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 2 | 208 | **4** | 214 | 9 | **4** | 2 | **15** | 3 | 176 | **4** | 183 | **12** | **8** | **10** | **30** | 442 |
| 04:45 PM | **3** | **259** | 2 | **264** | **11** | 1 | 0 | 12 | 2 | 176 | 1 | 179 | 8 | 8 | 7 | 23 | **478** |
| 05:00 PM | 2 | 198 | 4 | 204 | 7 | 0 | 3 | 10 | **8** | **189** | 4 | **201** | 4 | 2 | 9 | 15 | 430 |
| 05:15 PM | 0 | 209 | 3 | 212 | 5 | 0 | **5** | 10 | 0 | 163 | 2 | 165 | 2 | 2 | 2 | 6 | 393 |
| Total Volume | 7 | 874 | 13 | 894 | 32 | 5 | 10 | 47 | 13 | 704 | 11 | 728 | 26 | 20 | 28 | 74 | 1743 |
| % App. Total | 0.8 | 97.8 | 1.5 | | 68.1 | 10.6 | 21.3 | | 1.8 | 96.7 | 1.5 | | 35.1 | 27 | 37.8 | | |
| PHF | .583 | .844 | .813 | .847 | .727 | .313 | .500 | .783 | .406 | .931 | .688 | .905 | .542 | .625 | .700 | .617 | .912 |

Counts Unlimited
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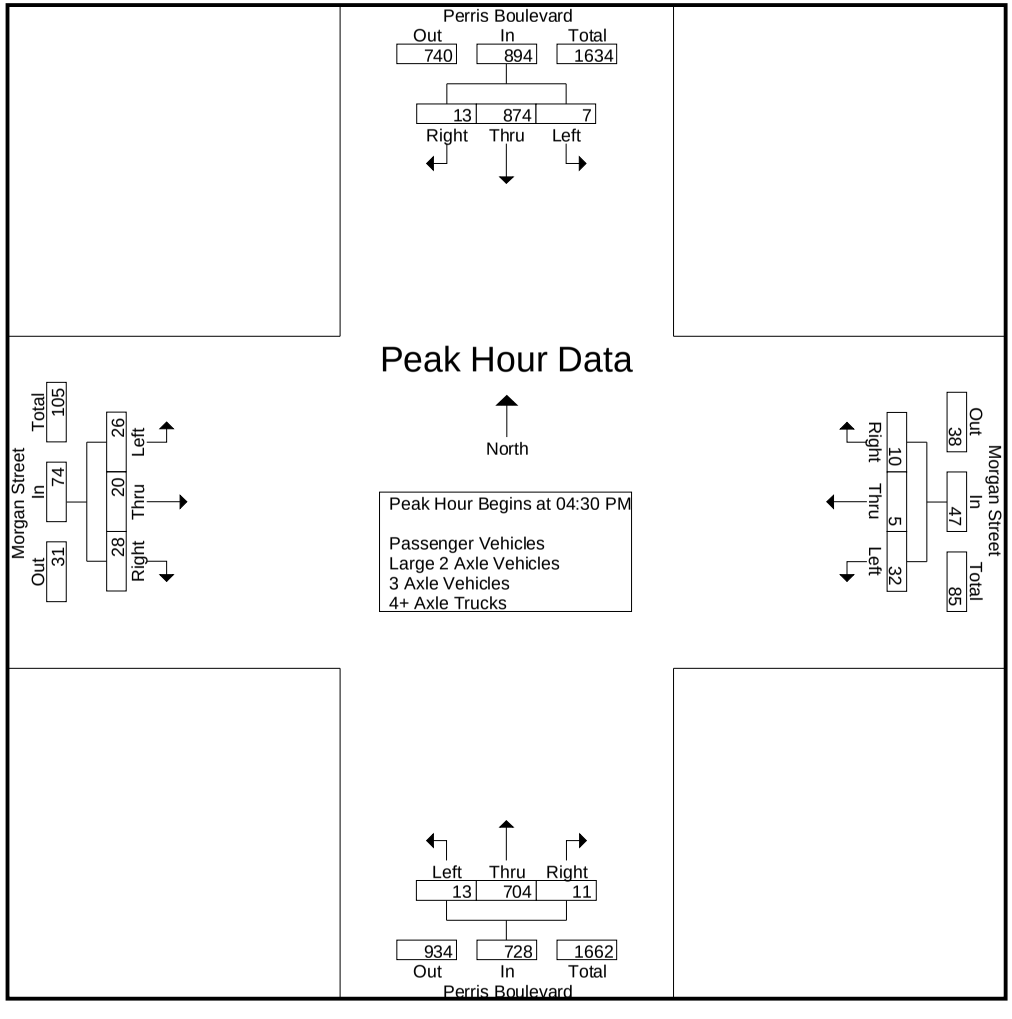
City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:00 PM | | | | 04:45 PM | | | | 04:00 PM | | | | |
| +0 mins. | **3** | **259** | 2 | **264** | 7 | **4** | **5** | **16** | 2 | 176 | 1 | 179 | 9 | 3 | 7 | 19 | |
| +15 mins. | 2 | 198 | **4** | 204 | 3 | 3 | 0 | 6 | 8 | **189** | **4** | **201** | 4 | 6 | 4 | 14 | |
| +30 mins. | 0 | 209 | 3 | 212 | 9 | 4 | 2 | 15 | 0 | 163 | 2 | 165 | **12** | **8** | **10** | **30** | |
| +45 mins. | 3 | 210 | 3 | 216 | **11** | 1 | 0 | 12 | **10** | 183 | 4 | 197 | 8 | 8 | 7 | 23 | |
| Total Volume | 8 | 876 | 12 | 896 | 30 | 12 | 7 | 49 | 20 | 711 | 11 | 742 | 33 | 25 | 28 | 86 | |
| % App. Total | 0.9 | 97.8 | 1.3 | | 61.2 | 24.5 | 14.3 | | 2.7 | 95.8 | 1.5 | | 38.4 | 29.1 | 32.6 | | |
| PHF | .667 | .846 | .750 | .848 | .682 | .750 | .350 | .766 | .500 | .940 | .688 | .923 | .688 | .781 | .700 | .717 | |

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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 6 | 178 | 5 | 1 | 189 | 7 | 4 | 5 | 4 | 16 | 3 | 169 | 2 | 0 | 174 | 9 | 3 | 6 | 6 | 18 | 11 | 397 | 408 |
| 04:15 PM | 1 | 185 | 4 | 0 | 190 | 3 | 3 | 0 | 0 | 6 | 4 | 158 | 0 | 0 | 162 | 4 | 5 | 4 | 2 | 13 | 2 | 371 | 373 |
| 04:30 PM | 2 | 200 | 4 | 0 | 206 | 9 | 4 | 2 | 1 | 15 | 3 | 174 | 4 | 0 | 181 | 8 | 8 | 10 | 3 | 26 | 4 | 428 | 432 |
| 04:45 PM | 3 | 253 | 2 | 0 | 258 | 10 | 0 | 0 | 0 | 10 | 2 | 169 | 1 | 0 | 172 | 7 | 7 | 7 | 6 | 21 | 6 | 461 | 467 |
| Total | 12 | 816 | 15 | 1 | 843 | 29 | 11 | 7 | 5 | 47 | 12 | 670 | 7 | 0 | 689 | 28 | 23 | 27 | 17 | 78 | 23 | 1657 | 1680 |
| 05:00 PM | 2 | 194 | 3 | 0 | 199 | 7 | 0 | 3 | 2 | 10 | 8 | 188 | 4 | 0 | 200 | 4 | 2 | 8 | 3 | 14 | 5 | 423 | 428 |
| 05:15 PM | 0 | 204 | 1 | 0 | 205 | 5 | 0 | 1 | 0 | 6 | 0 | 161 | 2 | 0 | 163 | 2 | 1 | 2 | 2 | 5 | 2 | 379 | 381 |
| 05:30 PM | 3 | 206 | 1 | 0 | 210 | 6 | 0 | 6 | 5 | 12 | 10 | 182 | 4 | 0 | 196 | 6 | 0 | 0 | 0 | 6 | 5 | 424 | 429 |
| 05:45 PM | 3 | 182 | 4 | 1 | 189 | 10 | 0 | 0 | 0 | 10 | 5 | 159 | 4 | 2 | 168 | 5 | 2 | 2 | 2 | 9 | 5 | 376 | 381 |
| Total | 8 | 786 | 9 | 1 | 803 | 28 | 0 | 10 | 7 | 38 | 23 | 690 | 14 | 2 | 727 | 17 | 5 | 12 | 7 | 34 | 17 | 1602 | 1619 |
| Grand Total | 20 | 1602 | 24 | 2 | 1646 | 57 | 11 | 17 | 12 | 85 | 35 | 1360 | 21 | 2 | 1416 | 45 | 28 | 39 | 24 | 112 | 40 | 3259 | 3299 |
| Apprch % | 1.2 | 97.3 | 1.5 | | | 67.1 | 12.9 | 20 | | | 2.5 | 96 | 1.5 | | | 40.2 | 25 | 34.8 | | | | | |
| Total % | 0.6 | 49.2 | 0.7 | | 50.5 | 1.7 | 0.3 | 0.5 | | 2.6 | 1.1 | 41.7 | 0.6 | | 43.4 | 1.4 | 0.9 | 1.2 | | 3.4 | 1.2 | 98.8 | |

3.1-99

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 2 | 200 | **4** | 206 | 9 | **4** | 2 | **15** | 3 | 174 | **4** | 181 | **8** | **8** | **10** | **26** | 428 |
| 04:45 PM | **3** | **253** | 2 | **258** | **10** | 0 | 0 | 10 | 2 | 169 | 1 | 172 | 7 | 7 | 7 | 21 | **461** |
| 05:00 PM | 2 | 194 | 3 | 199 | 7 | 0 | **3** | 10 | **8** | **188** | 4 | **200** | 4 | 2 | 8 | 14 | 423 |
| 05:15 PM | 0 | 204 | 1 | 205 | 5 | 0 | 1 | 6 | 0 | 161 | 2 | 163 | 2 | 1 | 2 | 5 | 379 |
| Total Volume | 7 | 851 | 10 | 868 | 31 | 4 | 6 | 41 | 13 | 692 | 11 | 716 | 21 | 18 | 27 | 66 | 1691 |
| % App. Total | 0.8 | 98 | 1.2 | | 75.6 | 9.8 | 14.6 | | 1.8 | 96.6 | 1.5 | | 31.8 | 27.3 | 40.9 | | |
| PHF | .583 | .841 | .625 | .841 | .775 | .250 | .500 | .683 | .406 | .920 | .688 | .895 | .656 | .563 | .675 | .635 | .917 |

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N/S: Perris Boulevard
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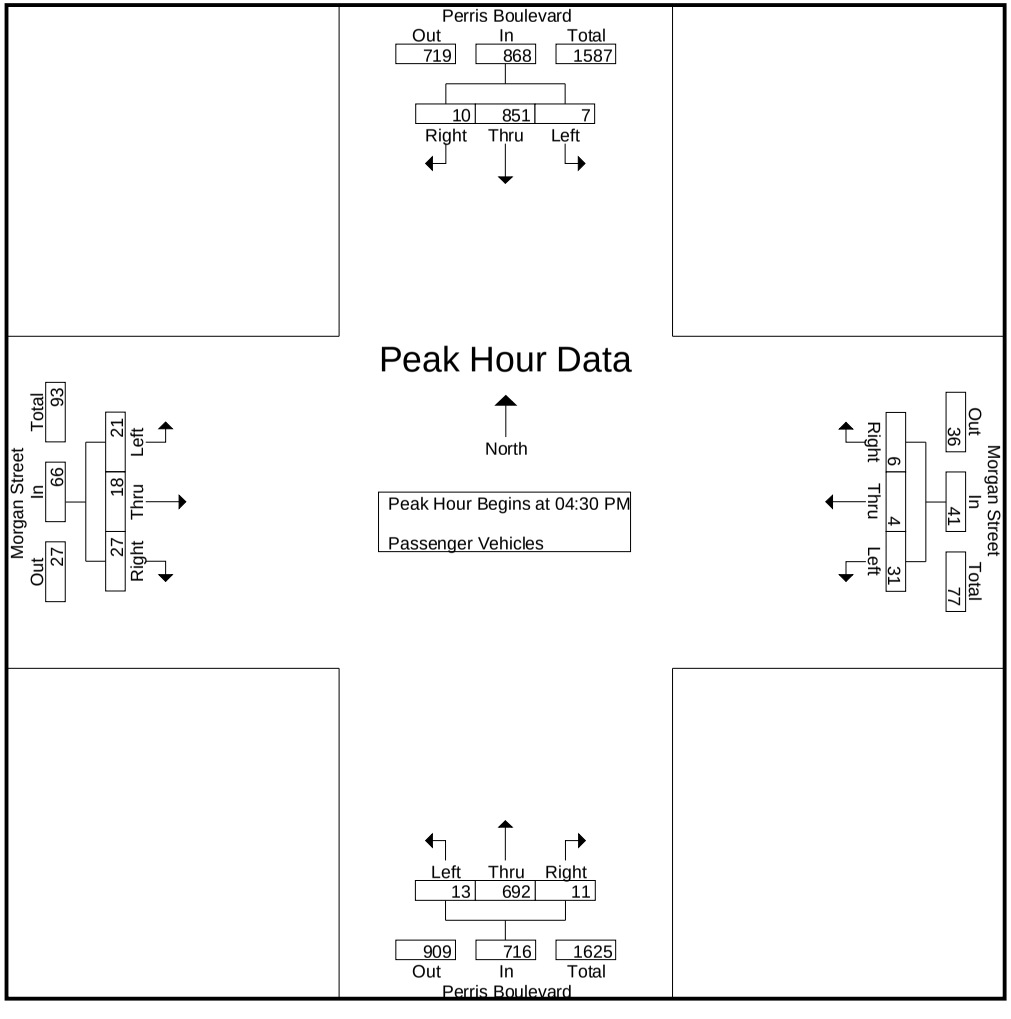
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | |
| +0 mins. | 2 | 200 | **4** | 206 | 9 | **4** | 2 | **15** | 3 | 174 | **4** | 181 | **8** | **8** | **10** | **26** | |
| +15 mins. | **3** | **253** | 2 | **258** | **10** | 0 | 0 | 10 | 2 | 169 | 1 | 172 | 7 | 7 | 7 | 21 | |
| +30 mins. | 2 | 194 | 3 | 199 | 7 | 0 | **3** | 10 | **8** | **188** | 4 | **200** | 4 | 2 | 8 | 14 | |
| +45 mins. | 0 | 204 | 1 | 205 | 5 | 0 | 1 | 6 | 0 | 161 | 2 | 163 | 2 | 1 | 2 | 5 | |
| Total Volume | 7 | 851 | 10 | 868 | 31 | 4 | 6 | 41 | 13 | 692 | 11 | 716 | 21 | 18 | 27 | 66 | |
| % App. Total | 0.8 | 98 | 1.2 | | 75.6 | 9.8 | 14.6 | | 1.8 | 96.6 | 1.5 | | 31.8 | 27.3 | 40.9 | | |
| PHF | .583 | .841 | .625 | .841 | .775 | .250 | .500 | .683 | .406 | .920 | .688 | .895 | .656 | .563 | .675 | .635 | |

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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 4 | 4 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 1 | 1 | 1 | 2 | 13 | 15 |
| 04:15 PM | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 1 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 13 |
| 04:30 PM | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 |
| 04:45 PM | 0 | 5 | 0 | 0 | 5 | 1 | 1 | 0 | 0 | 2 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 |
| Total | 0 | 20 | 4 | 1 | 24 | 1 | 1 | 0 | 0 | 2 | 1 | 17 | 1 | 0 | 19 | 0 | 0 | 1 | 1 | 1 | 2 | 46 | 48 |
| 05:00 PM | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 6 |
| 05:15 PM | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| 05:30 PM | 0 | 4 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 7 |
| 05:45 PM | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| Total | 0 | 13 | 5 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 1 | 1 | 1 | 1 | 24 | 25 |
| Grand Total | 0 | 33 | 9 | 1 | 42 | 1 | 1 | 0 | 0 | 2 | 1 | 22 | 1 | 0 | 24 | 0 | 0 | 2 | 2 | 2 | 3 | 70 | 73 |
| Apprch % | 0 | 78.6 | 21.4 | | | 50 | 50 | 0 | | | 4.2 | 91.7 | 4.2 | | | 0 | 0 | 100 | | | | | |
| Total % | 0 | 47.1 | 12.9 | | 60 | 1.4 | 1.4 | 0 | | 2.9 | 1.4 | 31.4 | 1.4 | | 34.3 | 0 | 0 | 2.9 | | 2.9 | 4.1 | 95.9 | |



| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | **6** | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 8 |
| 04:45 PM | 0 | 5 | 0 | 5 | **1** | **1** | 0 | **2** | 0 | **5** | 0 | **5** | 0 | 0 | 0 | 0 | **12** |
| 05:00 PM | 0 | 3 | **1** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 5 |
| 05:15 PM | 0 | 4 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 7 |
| Total Volume | 0 | 18 | 2 | 20 | 1 | 1 | 0 | 2 | 0 | 9 | 0 | 9 | 0 | 0 | 1 | 1 | 32 |
| % App. Total | 0 | 90 | 10 | | 50 | 50 | 0 | | 0 | 100 | 0 | | 0 | 0 | 100 | | |
| PHF | .000 | .750 | .500 | .833 | .250 | .250 | .000 | .250 | .000 | .450 | .000 | .450 | .000 | .000 | .250 | .250 | .667 |

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N/S: Perris Boulevard
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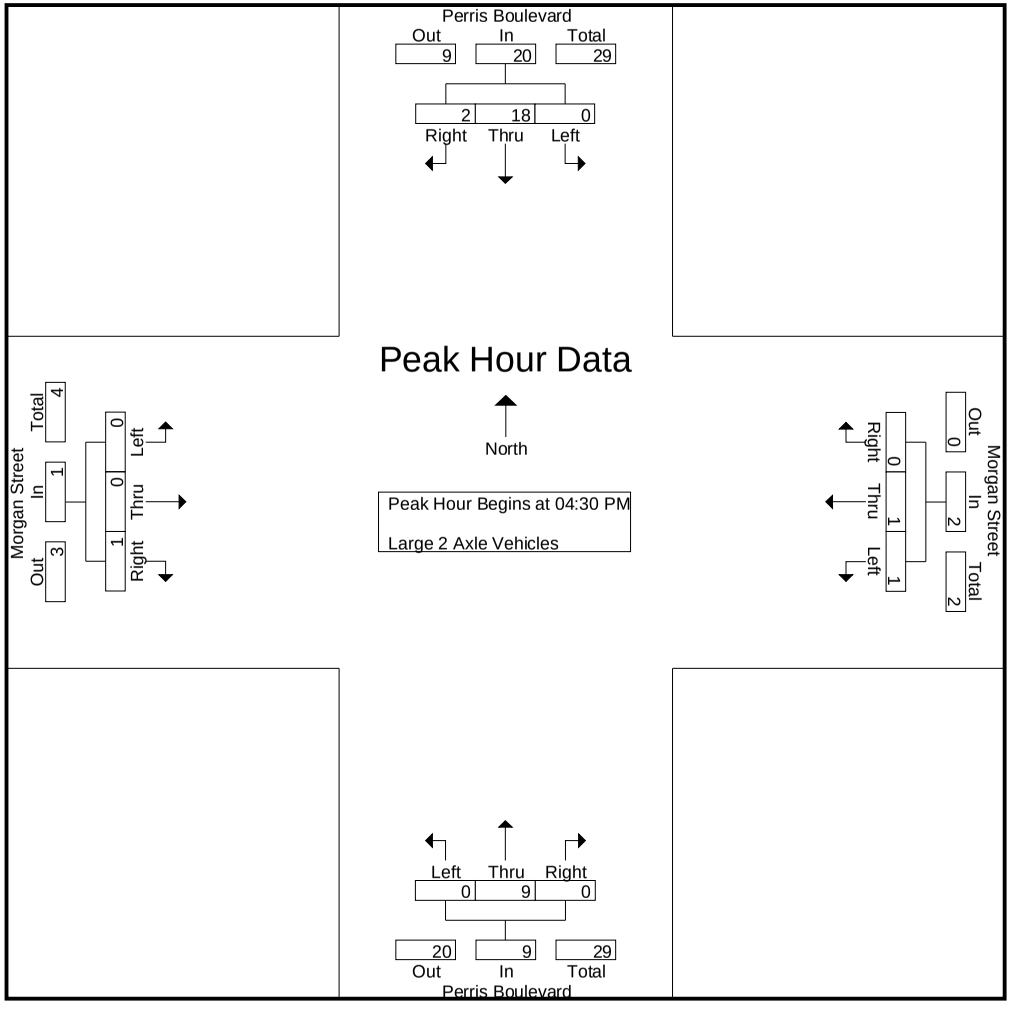
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | |
| +0 mins. | 0 | **6** | 0 | **6** | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 5 | 0 | 5 | **1** | **1** | 0 | **2** | 0 | **5** | 0 | **5** | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 3 | **1** | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | |
| +45 mins. | 0 | 4 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 18 | 2 | 20 | 1 | 1 | 0 | 2 | 0 | 9 | 0 | 9 | 0 | 0 | 1 | 1 | |
| % App. Total | 0 | 90 | 10 | | 50 | 50 | 0 | | 0 | 100 | 0 | | 0 | 0 | 100 | | |
| PHF | .000 | .750 | .500 | .833 | .250 | .250 | .000 | .250 | .000 | .450 | .000 | .450 | .000 | .000 | .250 | .250 | |

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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 04:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| 04:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 0 | 6 | 6 |
| 05:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:15 PM | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 0 | 3 | 1 | 1 | 4 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 7 |
| Grand Total | 0 | 5 | 2 | 1 | 7 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 1 | 12 | 13 |
| Apprch % | 0 | 71.4 | 28.6 | | | 50 | 0 | 50 | | | 0 | 0 | 0 | | | 33.3 | 66.7 | 0 | | | | | |
| Total % | 0 | 41.7 | 16.7 | | 58.3 | 8.3 | 0 | 8.3 | | 16.7 | 0 | 0 | 0 | | 0 | 8.3 | 16.7 | 0 | | 25 | 7.7 | 92.3 | |



| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | **1** | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 1 |
| 05:00 PM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:15 PM | 0 | 1 | **1** | **2** | 0 | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** |
| Total Volume | 0 | 3 | 1 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 7 |
| % App. Total | 0 | 75 | 25 | | 0 | 0 | 100 | | 0 | 0 | 0 | | 50 | 50 | 0 | | |
| PHF | .000 | .750 | .250 | .500 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .500 | .583 |

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City of Perris
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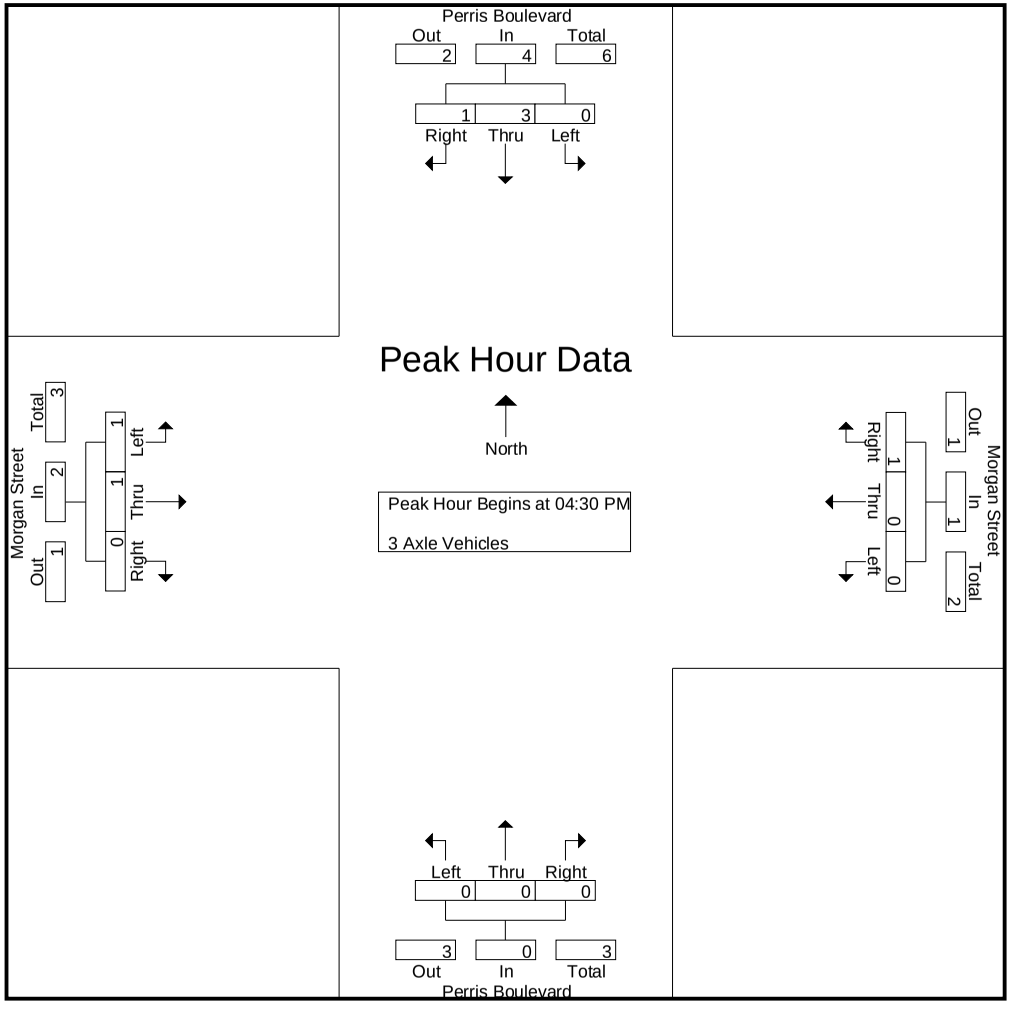
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
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Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | |
| +0 mins. | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | **1** | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | |
| +30 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | 1 | **1** | **2** | 0 | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 3 | 1 | 4 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | |
| % App. Total | 0 | 75 | 25 | | 0 | 0 | 100 | | 0 | 0 | 0 | | 50 | 50 | 0 | | |
| PHF | .000 | .750 | .250 | .500 | .000 | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .250 | .250 | .000 | .500 | |

Counts Unlimited
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(951) 268-6268

City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Morgan Street Westbound | | | | | Perris Boulevard Northbound | | | | | Morgan Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 04:15 PM | 4 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 04:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 4 | 4 |
| 04:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 4 |
| Total | 4 | 2 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 4 | 0 | 0 | 0 | 4 | 0 | 14 | 14 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 4 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 3 |
| 05:45 PM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Total | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 3 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 4 | 0 | 10 | 10 |
| Grand Total | 4 | 3 | 0 | 0 | 7 | 0 | 1 | 3 | 0 | 4 | 0 | 5 | 0 | 0 | 5 | 7 | 1 | 0 | 0 | 8 | 0 | 24 | 24 |
| Apprch % | 57.1 | 42.9 | 0 | | | 0 | 25 | 75 | | | 0 | 100 | 0 | | | 87.5 | 12.5 | 0 | | | | | |
| Total % | 16.7 | 12.5 | 0 | | 29.2 | 0 | 4.2 | 12.5 | | 16.7 | 0 | 20.8 | 0 | | 20.8 | 29.2 | 4.2 | 0 | | 33.3 | 0 | 100 | |



| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:30 PM | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | **3** | **4** |
| 04:45 PM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 1 | 0 | 0 | 1 | 4 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | **3** | **3** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 4 |
| Total Volume | 0 | 2 | 0 | 2 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 3 | 4 | 1 | 0 | 5 | 13 |
| % App. Total | 0 | 100 | 0 | | 0 | 0 | 100 | | 0 | 100 | 0 | | 80 | 20 | 0 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .000 | .250 | .250 | .000 | .375 | .000 | .375 | .333 | .250 | .000 | .417 | .813 |

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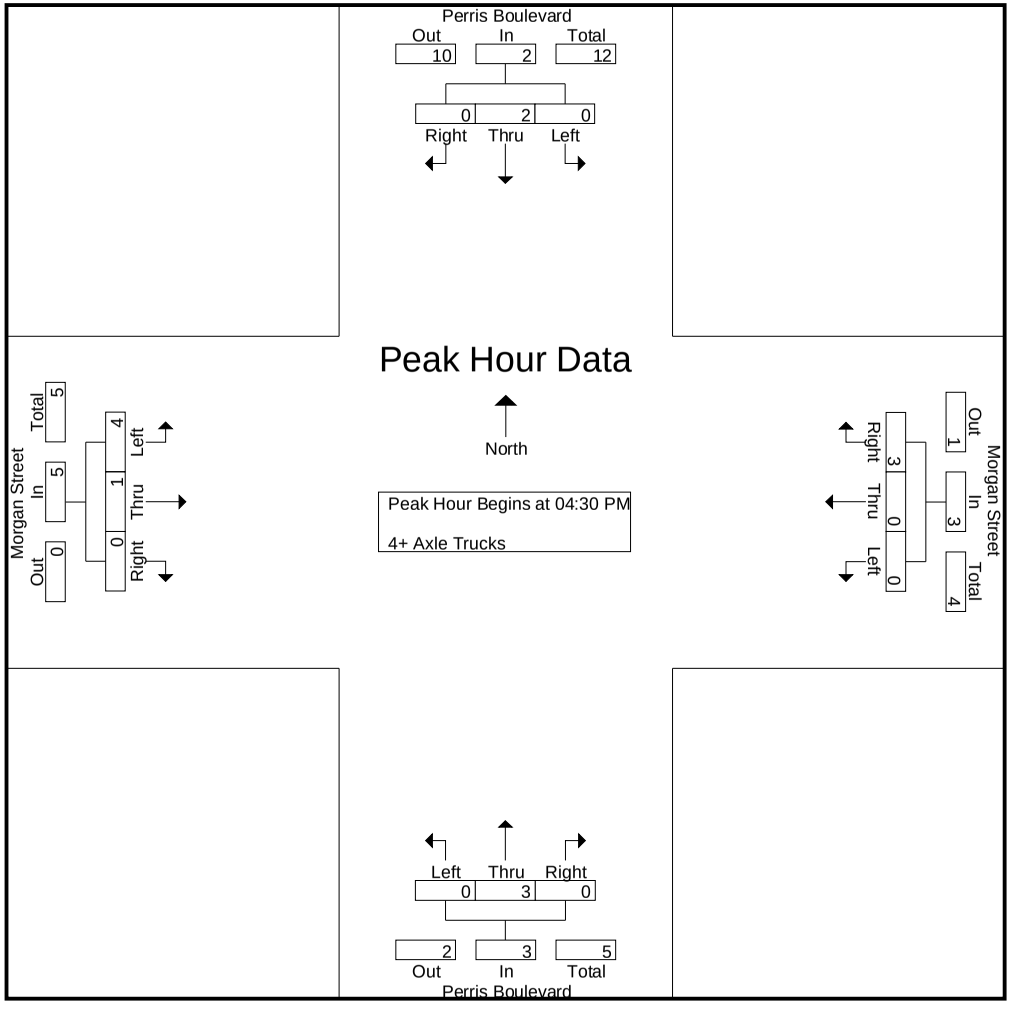
City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Morgan Street
Weather: Clear

File Name : 15_PER_Perris Blvd_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Morgan Street Westbound | | | | Perris Boulevard Northbound | | | | Morgan Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | 04:30 PM | | | | |
| +0 mins. | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | 0 | 0 | **3** | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 1 | 0 | 0 | 1 | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **3** | **3** | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | |
| Total Volume | 0 | 2 | 0 | 2 | 0 | 0 | 3 | 3 | 0 | 3 | 0 | 3 | 4 | 1 | 0 | 5 | |
| % App. Total | 0 | 100 | 0 | | 0 | 0 | 100 | | 0 | 100 | 0 | | 80 | 20 | 0 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .000 | .250 | .250 | .000 | .375 | .000 | .375 | .333 | .250 | .000 | .417 | |

Location: City of Perris
N/S: Perris Boulevard
E/W: Morgan Street

Date: 5/24/2018
Day: Thursday

**PEDESTRIANS**

| | North Leg Perris Boulevard | East Leg Morgan Street | South Leg Perris Boulevard | West Leg Morgan Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 1 | 0 | 0 | 1 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 1 | 0 | 0 | 0 | 1 |
| TOTAL VOLUMES: | 1 | 1 | 0 | 0 | 2 |

| | North Leg Perris Boulevard | East Leg Morgan Street | South Leg Perris Boulevard | West Leg Morgan Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 1 | 0 | 0 | 1 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 1 | 0 | 0 | 1 |

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Location: City of Perris
N/S: Perris Boulevard
E/W: Morgan Street

Date: 5/24/2018
Day: Thursday

**BICYCLES**

| | Southbound Perris Boulevard | | | Westbound Morgan Street | | | Northbound Perris Boulevard | | | Eastbound Morgan Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

| | Southbound Perris Boulevard | | | Westbound Morgan Street | | | Northbound Perris Boulevard | | | Eastbound Morgan Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 16 | 91 | 5 | 1 | 112 | 33 | 68 | 64 | 36 | 165 | 9 | 219 | 11 | 4 | 239 | 7 | 19 | 4 | 4 | 30 | 45 | 546 | 591 |
| 07:15 AM | 24 | 89 | 8 | 3 | 121 | 34 | 74 | 65 | 29 | 173 | 8 | 200 | 20 | 10 | 228 | 1 | 30 | 2 | 2 | 33 | 44 | 555 | 599 |
| 07:30 AM | 17 | 82 | 12 | 6 | 111 | 39 | 70 | 63 | 38 | 172 | 13 | 183 | 17 | 7 | 213 | 8 | 47 | 5 | 3 | 60 | 54 | 556 | 610 |
| 07:45 AM | 13 | 93 | 12 | 5 | 118 | 43 | 75 | 56 | 31 | 174 | 7 | 151 | 23 | 11 | 181 | 16 | 46 | 5 | 3 | 67 | 50 | 540 | 590 |
| Total | 70 | 355 | 37 | 15 | 462 | 149 | 287 | 248 | 134 | 684 | 37 | 753 | 71 | 32 | 861 | 32 | 142 | 16 | 12 | 190 | 193 | 2197 | 2390 |
| 08:00 AM | 12 | 89 | 3 | 1 | 104 | 34 | 41 | 44 | 23 | 119 | 7 | 137 | 12 | 5 | 156 | 6 | 24 | 8 | 4 | 38 | 33 | 417 | 450 |
| 08:15 AM | 5 | 85 | 7 | 2 | 97 | 22 | 22 | 35 | 22 | 79 | 6 | 114 | 15 | 3 | 135 | 3 | 15 | 6 | 3 | 24 | 30 | 335 | 365 |
| 08:30 AM | 7 | 77 | 10 | 1 | 94 | 17 | 11 | 37 | 28 | 65 | 6 | 119 | 21 | 2 | 146 | 7 | 7 | 3 | 3 | 17 | 34 | 322 | 356 |
| 08:45 AM | 11 | 77 | 7 | 2 | 95 | 20 | 15 | 31 | 27 | 66 | 6 | 109 | 15 | 8 | 130 | 5 | 6 | 4 | 2 | 15 | 39 | 306 | 345 |
| Total | 35 | 328 | 27 | 6 | 390 | 93 | 89 | 147 | 100 | 329 | 25 | 479 | 63 | 18 | 567 | 21 | 52 | 21 | 12 | 94 | 136 | 1380 | 1516 |
| Grand Total | 105 | 683 | 64 | 21 | 852 | 242 | 376 | 395 | 234 | 1013 | 62 | 1232 | 134 | 50 | 1428 | 53 | 194 | 37 | 24 | 284 | 329 | 3577 | 3906 |
| Apprch % | 12.3 | 80.2 | 7.5 | | | 23.9 | 37.1 | 39 | | | 4.3 | 86.3 | 9.4 | | | 18.7 | 68.3 | 13 | | | | | |
| Total % | 2.9 | 19.1 | 1.8 | | 23.8 | 6.8 | 10.5 | 11 | | 28.3 | 1.7 | 34.4 | 3.7 | | 39.9 | 1.5 | 5.4 | 1 | | 7.9 | 8.4 | 91.6 | |
| Passenger Vehicles | 97 | 650 | 54 | | 820 | 238 | 370 | 390 | | 1227 | 56 | 1174 | 131 | | 1410 | 46 | 189 | 35 | | 293 | 0 | 0 | 3750 |
| % Passenger Vehicles | 92.4 | 95.2 | 84.4 | 90.5 | 93.9 | 98.3 | 98.4 | 98.7 | 97.9 | 98.4 | 90.3 | 95.3 | 97.8 | 98 | 95.4 | 86.8 | 97.4 | 94.6 | 95.8 | 95.1 | 0 | 0 | 96 |
| Large 2 Axle Vehicles | 5 | 21 | 7 | | 34 | 4 | 4 | 4 | | 16 | 2 | 44 | 2 | | 49 | 2 | 4 | 1 | | 8 | 0 | 0 | 107 |
| % Large 2 Axle Vehicles | 4.8 | 3.1 | 10.9 | 4.8 | 3.9 | 1.7 | 1.1 | 1 | 1.7 | 1.3 | 3.2 | 3.6 | 1.5 | 2 | 3.3 | 3.8 | 2.1 | 2.7 | 4.2 | 2.6 | 0 | 0 | 2.7 |
| 3 Axle Vehicles | 3 | 7 | 1 | | 12 | 0 | 2 | 1 | | 4 | 2 | 7 | 1 | | 10 | 2 | 0 | 0 | | 2 | 0 | 0 | 28 |
| % 3 Axle Vehicles | 2.9 | 1 | 1.6 | 4.8 | 1.4 | 0 | 0.5 | 0.3 | 0.4 | 0.3 | 3.2 | 0.6 | 0.7 | 0 | 0.7 | 3.8 | 0 | 0 | 0 | 0.6 | 0 | 0 | 0.7 |
| 4+ Axle Trucks | 0 | 5 | 2 | | 7 | 0 | 0 | 0 | | 0 | 2 | 7 | 0 | | 9 | 3 | 1 | 1 | | 5 | 0 | 0 | 21 |
| % 4+ Axle Trucks | 0 | 0.7 | 3.1 | 0 | 0.8 | 0 | 0 | 0 | 0 | 0 | 3.2 | 0.6 | 0 | 0 | 0.6 | 5.7 | 0.5 | 2.7 | 0 | 1.6 | 0 | 0 | 0.5 |

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 16 | 91 | 5 | 112 | 33 | 68 | 64 | 165 | 9 | **219** | 11 | **239** | 7 | 19 | 4 | 30 | 546 |
| 07:15 AM | **24** | 89 | 8 | **121** | 34 | 74 | **65** | 173 | 8 | 200 | 20 | 228 | 1 | 30 | 2 | 33 | 555 |
| 07:30 AM | 17 | 82 | **12** | 111 | 39 | 70 | 63 | 172 | **13** | 183 | 17 | 213 | 8 | **47** | **5** | 60 | **556** |
| 07:45 AM | 13 | **93** | 12 | 118 | **43** | **75** | 56 | **174** | 7 | 151 | **23** | 181 | **16** | 46 | 5 | **67** | 540 |
| Total Volume | 70 | 355 | 37 | 462 | 149 | 287 | 248 | 684 | 37 | 753 | 71 | 861 | 32 | 142 | 16 | 190 | 2197 |
| % App. Total | 15.2 | 76.8 | 8 | | 21.8 | 42 | 36.3 | | 4.3 | 87.5 | 8.2 | | 16.8 | 74.7 | 8.4 | | |
| PHF | .729 | .954 | .771 | .955 | .866 | .957 | .954 | .983 | .712 | .860 | .772 | .901 | .500 | .755 | .800 | .709 | .988 |

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City of Perris
N/S: Perris Boulevard
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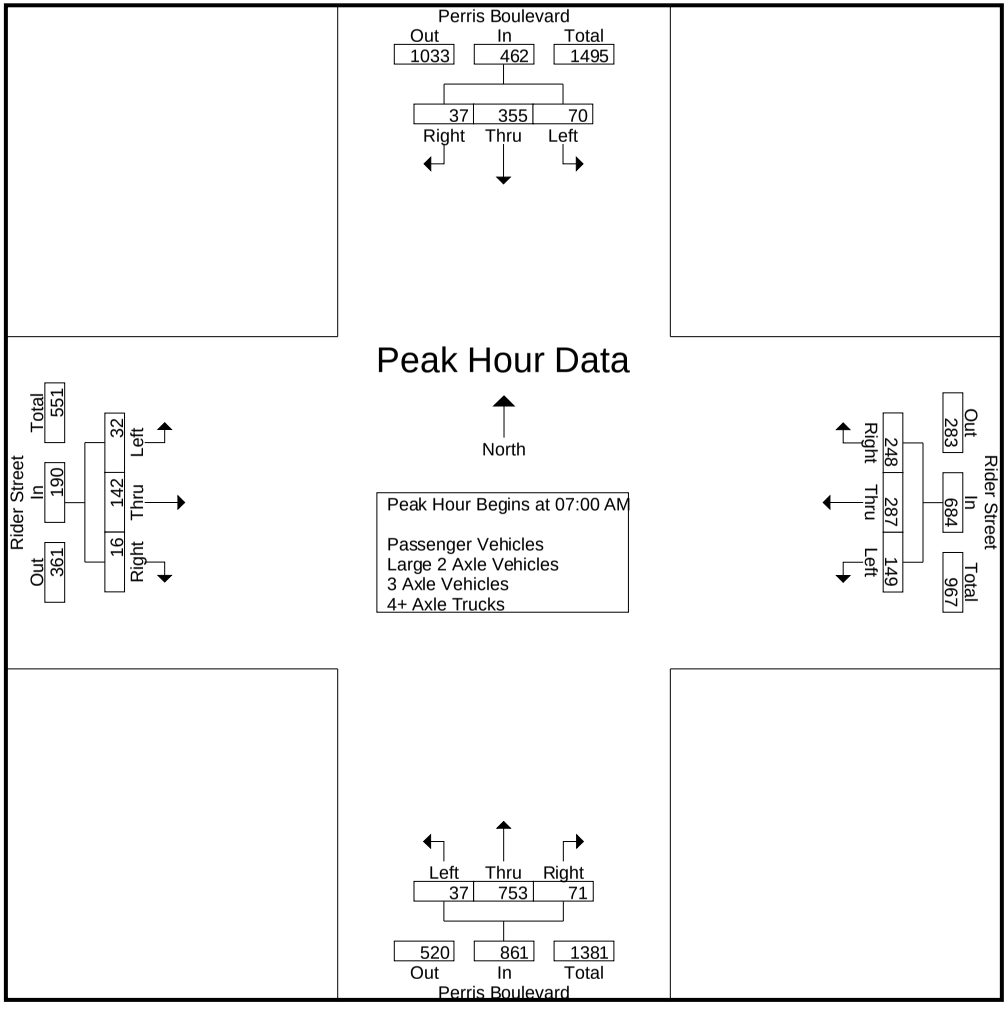
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:15 AM | | | | |
| +0 mins. | 16 | 91 | 5 | 112 | 33 | 68 | 64 | 165 | 9 | **219** | 11 | **239** | 1 | 30 | 2 | 33 | |
| +15 mins. | **24** | 89 | 8 | **121** | 34 | 74 | **65** | 173 | 8 | 200 | 20 | 228 | 8 | **47** | 5 | 60 | |
| +30 mins. | 17 | 82 | **12** | 111 | 39 | 70 | 63 | 172 | **13** | 183 | 17 | 213 | **16** | 46 | 5 | **67** | |
| +45 mins. | 13 | **93** | 12 | 118 | **43** | **75** | 56 | **174** | 7 | 151 | **23** | 181 | 6 | 24 | **8** | 38 | |
| Total Volume | 70 | 355 | 37 | 462 | 149 | 287 | 248 | 684 | 37 | 753 | 71 | 861 | 31 | 147 | 20 | 198 | |
| % App. Total | 15.2 | 76.8 | 8 | | 21.8 | 42 | 36.3 | | 4.3 | 87.5 | 8.2 | | 15.7 | 74.2 | 10.1 | | |
| PHF | .729 | .954 | .771 | .955 | .866 | .957 | .954 | .983 | .712 | .860 | .772 | .901 | .484 | .782 | .625 | .739 | |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 15 | 91 | 4 | 1 | 110 | 33 | 67 | 64 | 36 | 164 | 9 | 206 | 11 | 4 | 226 | 6 | 18 | 4 | 4 | 28 | 45 | 528 | 573 |
| 07:15 AM | 23 | 88 | 8 | 3 | 119 | 33 | 74 | 64 | 28 | 171 | 7 | 194 | 20 | 10 | 221 | 1 | 29 | 2 | 2 | 32 | 43 | 543 | 586 |
| 07:30 AM | 16 | 75 | 12 | 6 | 103 | 38 | 70 | 62 | 37 | 170 | 10 | 175 | 16 | 7 | 201 | 7 | 47 | 5 | 3 | 59 | 53 | 533 | 586 |
| 07:45 AM | 12 | 84 | 12 | 5 | 108 | 43 | 73 | 56 | 31 | 172 | 7 | 145 | 23 | 11 | 175 | 16 | 46 | 5 | 3 | 67 | 50 | 522 | 572 |
| Total | 66 | 338 | 36 | 15 | 440 | 147 | 284 | 246 | 132 | 677 | 33 | 720 | 70 | 32 | 823 | 30 | 140 | 16 | 12 | 186 | 191 | 2126 | 2317 |
| 08:00 AM | 11 | 85 | 3 | 1 | 99 | 34 | 39 | 43 | 22 | 116 | 6 | 130 | 11 | 4 | 147 | 5 | 23 | 7 | 3 | 35 | 30 | 397 | 427 |
| 08:15 AM | 4 | 83 | 5 | 1 | 92 | 22 | 22 | 34 | 21 | 78 | 6 | 109 | 15 | 3 | 130 | 1 | 15 | 5 | 3 | 21 | 28 | 321 | 349 |
| 08:30 AM | 6 | 70 | 4 | 1 | 80 | 15 | 11 | 37 | 28 | 63 | 5 | 110 | 20 | 2 | 135 | 7 | 6 | 3 | 3 | 16 | 34 | 294 | 328 |
| 08:45 AM | 10 | 74 | 6 | 1 | 90 | 20 | 14 | 30 | 26 | 64 | 6 | 105 | 15 | 8 | 126 | 3 | 5 | 4 | 2 | 12 | 37 | 292 | 329 |
| Total | 31 | 312 | 18 | 4 | 361 | 91 | 86 | 144 | 97 | 321 | 23 | 454 | 61 | 17 | 538 | 16 | 49 | 19 | 11 | 84 | 129 | 1304 | 1433 |
| Grand Total | 97 | 650 | 54 | 19 | 801 | 238 | 370 | 390 | 229 | 998 | 56 | 1174 | 131 | 49 | 1361 | 46 | 189 | 35 | 23 | 270 | 320 | 3430 | 3750 |
| Apprch % | 12.1 | 81.1 | 6.7 | | | 23.8 | 37.1 | 39.1 | | | 4.1 | 86.3 | 9.6 | | | 17 | 70 | 13 | | | | | |
| Total % | 2.8 | 19 | 1.6 | | 23.4 | 6.9 | 10.8 | 11.4 | | 29.1 | 1.6 | 34.2 | 3.8 | | 39.7 | 1.3 | 5.5 | 1 | | 7.9 | 8.5 | 91.5 | |



| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 15 | **91** | 4 | 110 | 33 | 67 | **64** | 164 | 9 | **206** | 11 | **226** | 6 | 18 | 4 | 28 | 528 |
| 07:15 AM | **23** | 88 | 8 | **119** | 33 | **74** | 64 | 171 | 7 | 194 | 20 | 221 | 1 | 29 | 2 | 32 | **543** |
| 07:30 AM | 16 | 75 | **12** | 103 | 38 | 70 | 62 | 170 | **10** | 175 | 16 | 201 | 7 | **47** | **5** | 59 | 533 |
| 07:45 AM | 12 | 84 | 12 | 108 | **43** | 73 | 56 | **172** | 7 | 145 | **23** | 175 | **16** | 46 | 5 | **67** | 522 |
| Total Volume | 66 | 338 | 36 | 440 | 147 | 284 | 246 | 677 | 33 | 720 | 70 | 823 | 30 | 140 | 16 | 186 | 2126 |
| % App. Total | 15 | 76.8 | 8.2 | | 21.7 | 41.9 | 36.3 | | 4 | 87.5 | 8.5 | | 16.1 | 75.3 | 8.6 | | |
| PHF | .717 | .929 | .750 | .924 | .855 | .959 | .961 | .984 | .825 | .874 | .761 | .910 | .469 | .745 | .800 | .694 | .979 |

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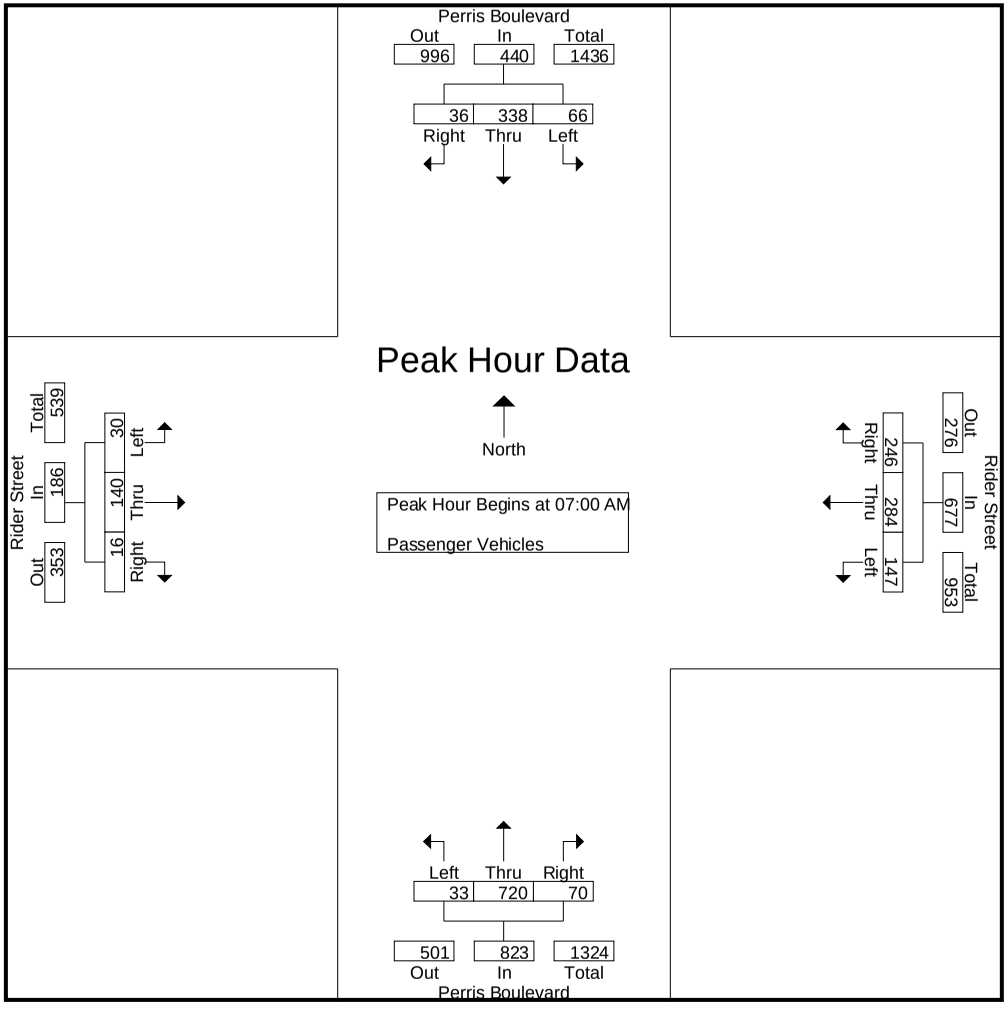
City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 15 | **91** | 4 | 110 | 33 | 67 | **64** | 164 | 9 | **206** | 11 | **226** | 6 | 18 | 4 | 28 | |
| +15 mins. | **23** | 88 | 8 | **119** | 33 | **74** | 64 | 171 | 7 | 194 | 20 | 221 | 1 | 29 | 2 | 32 | |
| +30 mins. | 16 | 75 | **12** | 103 | 38 | 70 | 62 | 170 | **10** | 175 | 16 | 201 | 7 | **47** | **5** | 59 | |
| +45 mins. | 12 | 84 | 12 | 108 | **43** | 73 | 56 | **172** | 7 | 145 | **23** | 175 | **16** | 46 | 5 | **67** | |
| Total Volume | 66 | 338 | 36 | 440 | 147 | 284 | 246 | 677 | 33 | 720 | 70 | 823 | 30 | 140 | 16 | 186 | |
| % App. Total | 15 | 76.8 | 8.2 | | 21.7 | 41.9 | 36.3 | | 4 | 87.5 | 8.5 | | 16.1 | 75.3 | 8.6 | | |
| PHF | .717 | .929 | .750 | .924 | .855 | .959 | .961 | .984 | .825 | .874 | .761 | .910 | .469 | .745 | .800 | .694 | |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 1 | 0 | 0 | 1 | 0 | 11 | 11 |
| 07:15 AM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 2 | 0 | 4 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 1 | 8 | 9 |
| 07:30 AM | 1 | 4 | 0 | 0 | 5 | 1 | 0 | 1 | 1 | 2 | 2 | 6 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 15 | 16 |
| 07:45 AM | 0 | 4 | 0 | 0 | 4 | 0 | 2 | 0 | 0 | 2 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 12 |
| Total | 3 | 8 | 0 | 0 | 11 | 2 | 2 | 2 | 2 | 6 | 2 | 25 | 0 | 0 | 27 | 0 | 2 | 0 | 0 | 2 | 2 | 46 | 48 |
| 08:00 AM | 0 | 3 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 2 | 0 | 4 | 1 | 1 | 5 | 0 | 0 | 1 | 1 | 1 | 2 | 11 | 13 |
| 08:15 AM | 1 | 1 | 1 | 0 | 3 | 0 | 0 | 1 | 1 | 1 | 0 | 5 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 1 | 1 | 10 | 11 |
| 08:30 AM | 1 | 7 | 5 | 0 | 13 | 2 | 0 | 0 | 0 | 2 | 0 | 6 | 1 | 0 | 7 | 0 | 1 | 0 | 0 | 1 | 0 | 23 | 23 |
| 08:45 AM | 0 | 2 | 1 | 1 | 3 | 0 | 0 | 1 | 1 | 1 | 0 | 4 | 0 | 0 | 4 | 1 | 1 | 0 | 0 | 2 | 2 | 10 | 12 |
| Total | 2 | 13 | 7 | 1 | 22 | 2 | 2 | 2 | 2 | 6 | 0 | 19 | 2 | 1 | 21 | 2 | 2 | 1 | 1 | 5 | 5 | 54 | 59 |
| Grand Total | 5 | 21 | 7 | 1 | 33 | 4 | 4 | 4 | 4 | 12 | 2 | 44 | 2 | 1 | 48 | 2 | 4 | 1 | 1 | 7 | 7 | 100 | 107 |
| Apprch % | 15.2 | 63.6 | 21.2 | | | 33.3 | 33.3 | 33.3 | | | 4.2 | 91.7 | 4.2 | | | 28.6 | 57.1 | 14.3 | | | | | |
| Total % | 5 | 21 | 7 | | 33 | 4 | 4 | 4 | | 12 | 2 | 44 | 2 | | 48 | 2 | 4 | 1 | | 7 | 6.5 | 93.5 | |



| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **9** | 0 | **9** | 0 | **1** | 0 | **1** | 11 |
| 07:15 AM | 1 | 0 | 0 | 1 | **1** | 0 | **1** | **2** | 0 | 4 | 0 | 4 | 0 | 1 | 0 | 1 | 8 |
| 07:30 AM | 1 | **4** | 0 | **5** | 1 | 0 | 1 | 2 | **2** | 6 | 0 | 8 | 0 | 0 | 0 | 0 | **15** |
| 07:45 AM | 0 | 4 | 0 | 4 | 0 | **2** | 0 | 2 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 12 |
| Total Volume | 3 | 8 | 0 | 11 | 2 | 2 | 2 | 6 | 2 | 25 | 0 | 27 | 0 | 2 | 0 | 2 | 46 |
| % App. Total | 27.3 | 72.7 | 0 | | 33.3 | 33.3 | 33.3 | | 7.4 | 92.6 | 0 | | 0 | 100 | 0 | | |
| PHF | .750 | .500 | .000 | .550 | .500 | .250 | .500 | .750 | .250 | .694 | .000 | .750 | .000 | .500 | .000 | .500 | .767 |

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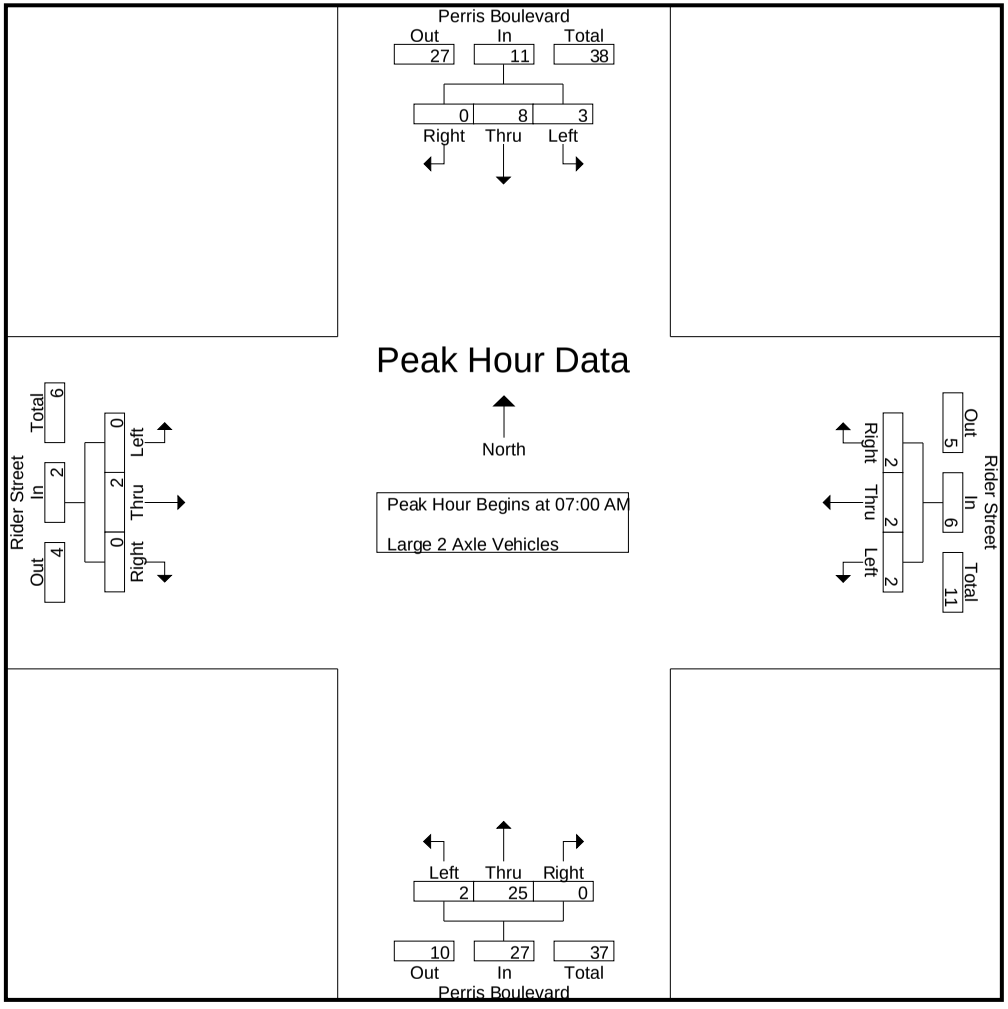
City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **9** | 0 | **9** | 0 | **1** | 0 | **1** | |
| +15 mins. | 1 | 0 | 0 | 1 | **1** | 0 | **1** | **2** | 0 | 4 | 0 | 4 | 0 | 1 | 0 | 1 | |
| +30 mins. | 1 | **4** | 0 | **5** | 1 | 0 | 1 | 2 | **2** | 6 | 0 | 8 | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | 4 | 0 | 4 | 0 | **2** | 0 | 2 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | |
| Total Volume | 3 | 8 | 0 | 11 | 2 | 2 | 2 | 6 | 2 | 25 | 0 | 27 | 0 | 2 | 0 | 2 | |
| % App. Total | 27.3 | 72.7 | 0 | | 33.3 | 33.3 | 33.3 | | 7.4 | 92.6 | 0 | | 0 | 100 | 0 | | |
| PHF | .750 | .500 | .000 | .550 | .500 | .250 | .500 | .750 | .250 | .694 | .000 | .750 | .000 | .500 | .000 | .500 | |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| 07:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 07:30 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 07:45 AM | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| Total | 1 | 6 | 0 | 0 | 7 | 0 | 1 | 0 | 0 | 1 | 1 | 5 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 15 |
| 08:00 AM | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 7 | 8 |
| 08:15 AM | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 3 |
| Total | 2 | 1 | 1 | 1 | 4 | 0 | 1 | 1 | 1 | 2 | 1 | 2 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 2 | 11 | 13 |
| Grand Total | 3 | 7 | 1 | 1 | 11 | 0 | 2 | 1 | 1 | 3 | 2 | 7 | 1 | 0 | 10 | 2 | 0 | 0 | 0 | 2 | 2 | 26 | 28 |
| Apprch % | 27.3 | 63.6 | 9.1 | | | 0 | 66.7 | 33.3 | | | 20 | 70 | 10 | | | 100 | 0 | 0 | | | | | |
| Total % | 11.5 | 26.9 | 3.8 | | 42.3 | 0 | 7.7 | 3.8 | | 11.5 | 7.7 | 26.9 | 3.8 | | 38.5 | 7.7 | 0 | 0 | | 7.7 | 7.1 | 92.9 | |



| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | **4** | 0 | **4** | 0 | 0 | 0 | 0 | **5** |
| 07:15 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 |
| 07:30 AM | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | **1** | 2 | 0 | 0 | 0 | 0 | 4 |
| 07:45 AM | **1** | **3** | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Total Volume | 1 | 6 | 0 | 7 | 0 | 1 | 0 | 1 | 1 | 5 | 1 | 7 | 0 | 0 | 0 | 0 | 15 |
| % App. Total | 14.3 | 85.7 | 0 | | 0 | 100 | 0 | | 14.3 | 71.4 | 14.3 | | 0 | 0 | 0 | | |
| PHF | .250 | .500 | .000 | .438 | .000 | .250 | .000 | .250 | .250 | .313 | .250 | .438 | .000 | .000 | .000 | .000 | .750 |

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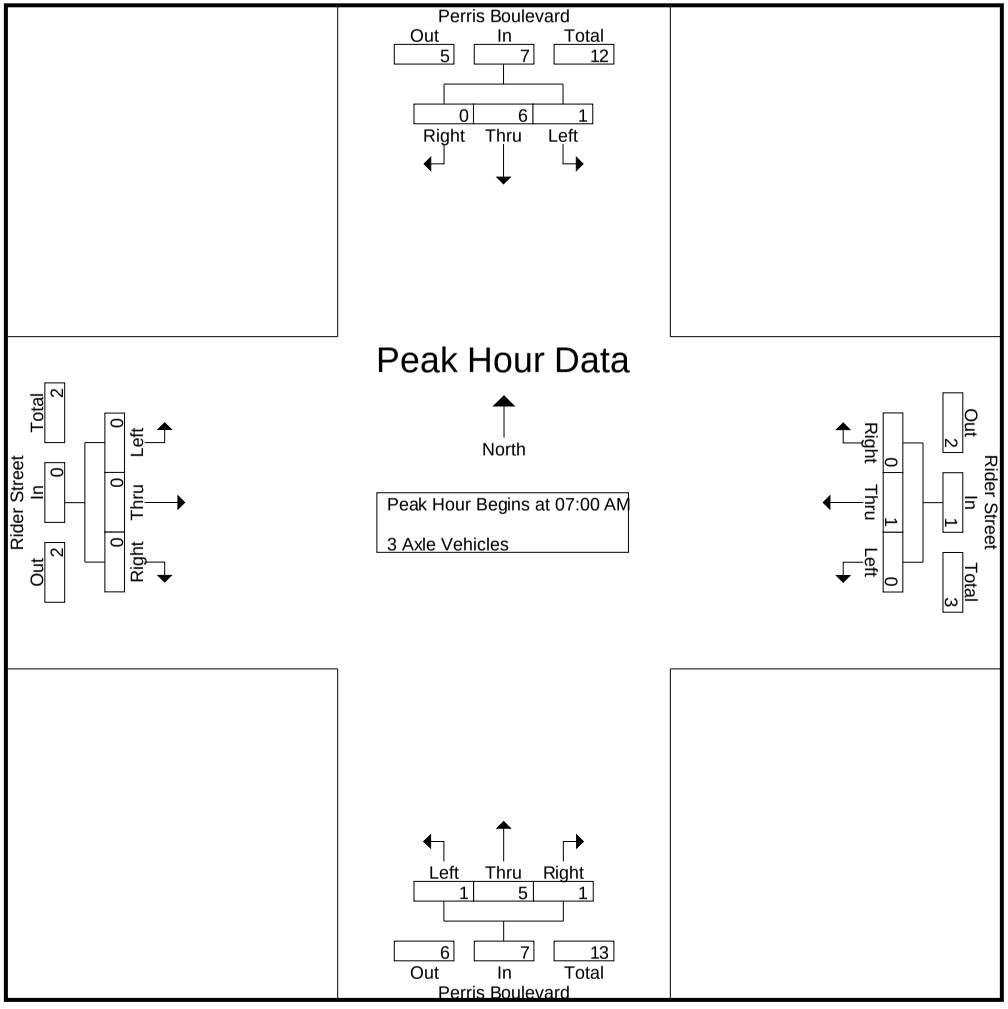
City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | **4** | 0 | **4** | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | **1** | 2 | 0 | 0 | 0 | 0 | |
| +45 mins. | **1** | **3** | 0 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 1 | 6 | 0 | 7 | 0 | 1 | 0 | 1 | 1 | 5 | 1 | 7 | 0 | 0 | 0 | 0 | |
| % App. Total | 14.3 | 85.7 | 0 | | 0 | 100 | 0 | | 14.3 | 71.4 | 14.3 | | 0 | 0 | 0 | | |
| PHF | .250 | .500 | .000 | .438 | .000 | .250 | .000 | .250 | .250 | .313 | .250 | .438 | .000 | .000 | .000 | .000 | |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 2 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 07:30 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 4 | 4 |
| 07:45 AM | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Total | 0 | 3 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 0 | 10 | 10 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| 08:15 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 3 | 3 |
| 08:30 AM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| 08:45 AM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Total | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 5 | 1 | 1 | 1 | 0 | 3 | 0 | 11 | 11 |
| Grand Total | 0 | 5 | 2 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 2 | 7 | 0 | 0 | 9 | 3 | 1 | 1 | 0 | 5 | 0 | 21 | 21 |
| Apprch % | 0 | 71.4 | 28.6 | | | 0 | 0 | 0 | | | 22.2 | 77.8 | 0 | | | 60 | 20 | 20 | | | | | |
| Total % | 0 | 23.8 | 9.5 | | 33.3 | 0 | 0 | 0 | | 0 | 9.5 | 33.3 | 0 | | 42.9 | 14.3 | 4.8 | 4.8 | | 23.8 | 0 | 100 | |



| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | **1** | 2 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 2 |
| 07:30 AM | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | **1** | 1 | 0 | 2 | 1 | 0 | 0 | 1 | **4** |
| 07:45 AM | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 0 | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 2 | 0 | 0 | 2 | 10 |
| % App. Total | 0 | 75 | 25 | | 0 | 0 | 0 | | 25 | 75 | 0 | | 100 | 0 | 0 | | |
| PHF | .000 | .375 | .250 | .500 | .000 | .000 | .000 | .000 | .250 | .375 | .000 | .500 | .500 | .000 | .000 | .500 | .625 |

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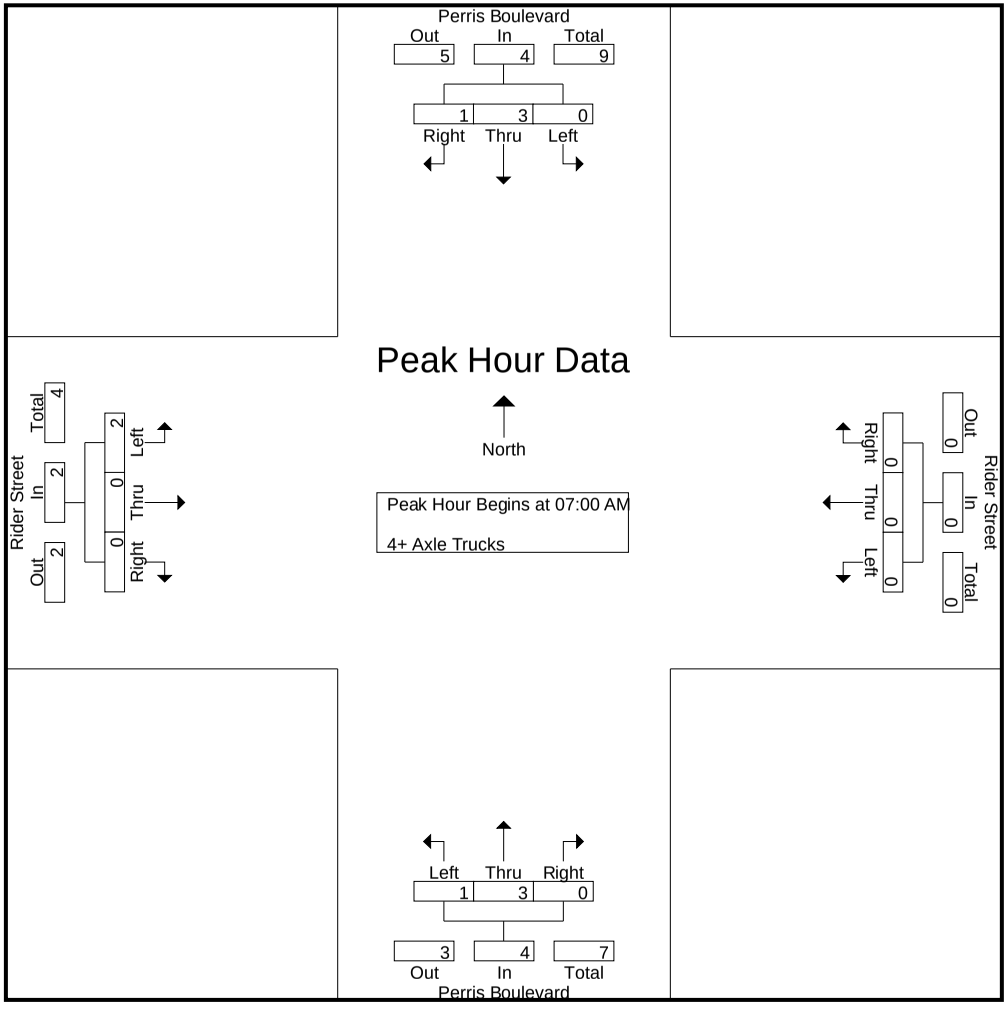
City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | **1** | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | **1** | 1 | 0 | 2 | 1 | 0 | 0 | 1 | |
| +45 mins. | 0 | **2** | 0 | **2** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 3 | 1 | 4 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 4 | 2 | 0 | 0 | 2 | |
| % App. Total | 0 | 75 | 25 | | 0 | 0 | 0 | | 25 | 75 | 0 | | 100 | 0 | 0 | | |
| PHF | .000 | .375 | .250 | .500 | .000 | .000 | .000 | .000 | .250 | .375 | .000 | .500 | .500 | .000 | .000 | .500 | |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 34 | 164 | 2 | 1 | 200 | 41 | 14 | 31 | 22 | 86 | 6 | 131 | 36 | 15 | 173 | 7 | 38 | 18 | 9 | 63 | 47 | 522 | 569 |
| 04:15 PM | 28 | 178 | 4 | 3 | 210 | 27 | 14 | 24 | 19 | 65 | 5 | 135 | 48 | 21 | 188 | 7 | 39 | 11 | 6 | 57 | 49 | 520 | 569 |
| 04:30 PM | 31 | 177 | 10 | 5 | 218 | 41 | 15 | 33 | 23 | 89 | 8 | 126 | 53 | 22 | 187 | 13 | 50 | 10 | 6 | 73 | 56 | 567 | 623 |
| 04:45 PM | 30 | 230 | 2 | 2 | 262 | 45 | 11 | 32 | 27 | 88 | 5 | 126 | 42 | 13 | 173 | 10 | 45 | 11 | 6 | 66 | 48 | 589 | 637 |
| Total | 123 | 749 | 18 | 11 | 890 | 154 | 54 | 120 | 91 | 328 | 24 | 518 | 179 | 71 | 721 | 37 | 172 | 50 | 27 | 259 | 200 | 2198 | 2398 |
| 05:00 PM | 26 | 194 | 4 | 3 | 224 | 45 | 16 | 22 | 13 | 83 | 1 | 141 | 38 | 11 | 180 | 11 | 40 | 10 | 8 | 61 | 35 | 548 | 583 |
| 05:15 PM | 20 | 215 | 7 | 3 | 242 | 29 | 13 | 30 | 20 | 72 | 5 | 149 | 45 | 15 | 199 | 8 | 37 | 14 | 11 | 59 | 49 | 572 | 621 |
| 05:30 PM | 37 | 185 | 1 | 1 | 223 | 30 | 22 | 38 | 21 | 90 | 7 | 151 | 55 | 19 | 213 | 4 | 53 | 13 | 8 | 70 | 49 | 596 | 645 |
| 05:45 PM | 21 | 180 | 5 | 3 | 206 | 30 | 22 | 35 | 22 | 87 | 2 | 134 | 42 | 11 | 178 | 6 | 44 | 11 | 8 | 61 | 44 | 532 | 576 |
| Total | 104 | 774 | 17 | 10 | 895 | 134 | 73 | 125 | 76 | 332 | 15 | 575 | 180 | 56 | 770 | 29 | 174 | 48 | 35 | 251 | 177 | 2248 | 2425 |
| Grand Total | 227 | 1523 | 35 | 21 | 1785 | 288 | 127 | 245 | 167 | 660 | 39 | 1093 | 359 | 127 | 1491 | 66 | 346 | 98 | 62 | 510 | 377 | 4446 | 4823 |
| Apprch % | 12.7 | 85.3 | 2 | | | 43.6 | 19.2 | 37.1 | | | 2.6 | 73.3 | 24.1 | | | 12.9 | 67.8 | 19.2 | | | | | |
| Total % | 5.1 | 34.3 | 0.8 | | 40.1 | 6.5 | 2.9 | 5.5 | | 14.8 | 0.9 | 24.6 | 8.1 | | 33.5 | 1.5 | 7.8 | 2.2 | | 11.5 | 7.8 | 92.2 | |
| Passenger Vehicles | 219 | 1492 | 32 | | 1762 | 282 | 126 | 242 | | 815 | 39 | 1077 | 358 | | 1601 | 62 | 340 | 97 | | 561 | 0 | 0 | 4739 |
| %Passenger Vehicles | 96.5 | 98 | 91.4 | 90.5 | 97.6 | 97.9 | 99.2 | 98.8 | 98.8 | 98.5 | 100 | 98.5 | 99.7 | 100 | 98.9 | 93.9 | 98.3 | 99 | 100 | 98.1 | 0 | 0 | 98.3 |
| Large 2 Axle Vehicles | 5 | 29 | 2 | | 38 | 5 | 1 | 3 | | 11 | 0 | 14 | 1 | | 15 | 1 | 5 | 1 | | 7 | 0 | 0 | 71 |
| % Large 2 Axle Vehicles | 2.2 | 1.9 | 5.7 | 9.5 | 2.1 | 1.7 | 0.8 | 1.2 | 1.2 | 1.3 | 0 | 1.3 | 0.3 | 0 | 0.9 | 1.5 | 1.4 | 1 | 0 | 1.2 | 0 | 0 | 1.5 |
| 3 Axle Vehicles | 2 | 2 | 0 | | 4 | 1 | 0 | 0 | | 1 | 0 | 1 | 0 | | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 6 |
| % 3 Axle Vehicles | 0.9 | 0.1 | 0 | 0 | 0.2 | 0.3 | 0 | 0 | 0 | 0.1 | 0 | 0.1 | 0 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 |
| 4+ Axle Trucks | 1 | 0 | 1 | | 2 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | 3 | 1 | 0 | | 4 | 0 | 0 | 7 |
| % 4+ Axle Trucks | 0.4 | 0 | 2.9 | 0 | 0.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0.1 | 0 | 0 | 0.1 | 4.5 | 0.3 | 0 | 0 | 0.7 | 0 | 0 | 0.1 |

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 30 | **230** | 2 | **262** | **45** | 11 | 32 | 88 | 5 | 126 | 42 | 173 | 10 | 45 | 11 | 66 | 589 |
| 05:00 PM | 26 | 194 | 4 | 224 | 45 | 16 | 22 | 83 | 1 | 141 | 38 | 180 | **11** | 40 | 10 | 61 | 548 |
| 05:15 PM | 20 | 215 | **7** | 242 | 29 | 13 | 30 | 72 | 5 | 149 | 45 | 199 | 8 | 37 | **14** | 59 | 572 |
| 05:30 PM | **37** | 185 | 1 | 223 | 30 | **22** | **38** | **90** | **7** | **151** | **55** | **213** | 4 | **53** | 13 | **70** | **596** |
| Total Volume | 113 | 824 | 14 | 951 | 149 | 62 | 122 | 333 | 18 | 567 | 180 | 765 | 33 | 175 | 48 | 256 | 2305 |
| % App. Total | 11.9 | 86.6 | 1.5 | | 44.7 | 18.6 | 36.6 | | 2.4 | 74.1 | 23.5 | | 12.9 | 68.4 | 18.8 | | |
| PHF | .764 | .896 | .500 | .907 | .828 | .705 | .803 | .925 | .643 | .939 | .818 | .898 | .750 | .825 | .857 | .914 | .967 |

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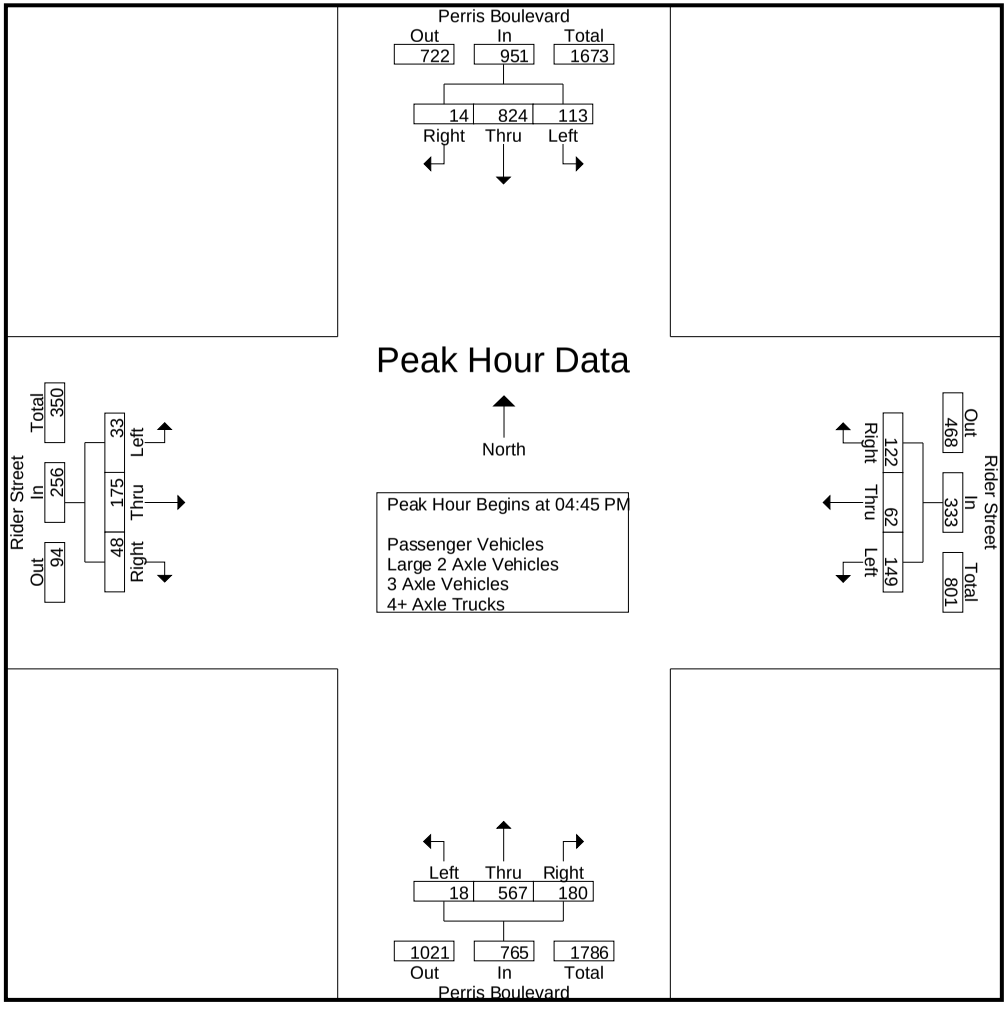
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:45 PM | | | | 05:00 PM | | | | 04:00 PM | | | | |
| +0 mins. | 30 | **230** | 2 | **262** | **45** | 11 | 32 | 88 | 1 | 141 | 38 | 180 | 7 | 38 | **18** | 63 | |
| +15 mins. | 26 | 194 | 4 | 224 | 45 | 16 | 22 | 83 | 5 | 149 | 45 | 199 | 7 | 39 | 11 | 57 | |
| +30 mins. | 20 | 215 | **7** | 242 | 29 | 13 | 30 | 72 | **7** | **151** | **55** | **213** | **13** | **50** | 10 | **73** | |
| +45 mins. | **37** | 185 | 1 | 223 | 30 | **22** | **38** | **90** | 2 | 134 | 42 | 178 | 10 | 45 | 11 | 66 | |
| Total Volume | 113 | 824 | 14 | 951 | 149 | 62 | 122 | 333 | 15 | 575 | 180 | 770 | 37 | 172 | 50 | 259 | |
| % App. Total | 11.9 | 86.6 | 1.5 | | 44.7 | 18.6 | 36.6 | | 1.9 | 74.7 | 23.4 | | 14.3 | 66.4 | 19.3 | | |
| PHF | .764 | .896 | .500 | .907 | .828 | .705 | .803 | .925 | .536 | .952 | .818 | .904 | .712 | .860 | .694 | .887 | |

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City of Perris
N/S: Perris Boulevard
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Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 34 | 159 | 2 | 1 | 195 | 40 | 14 | 31 | 22 | 85 | 6 | 129 | 36 | 15 | 171 | 6 | 38 | 18 | 9 | 62 | 47 | 513 | 560 |
| 04:15 PM | 28 | 173 | 2 | 2 | 203 | 27 | 14 | 24 | 19 | 65 | 5 | 131 | 48 | 21 | 184 | 6 | 39 | 11 | 6 | 56 | 48 | 508 | 556 |
| 04:30 PM | 28 | 171 | 10 | 5 | 209 | 40 | 15 | 32 | 22 | 87 | 8 | 125 | 53 | 22 | 186 | 13 | 48 | 9 | 6 | 70 | 55 | 552 | 607 |
| 04:45 PM | 29 | 228 | 1 | 1 | 258 | 42 | 11 | 32 | 27 | 85 | 5 | 121 | 42 | 13 | 168 | 9 | 42 | 11 | 6 | 62 | 47 | 573 | 620 |
| Total | 119 | 731 | 15 | 9 | 865 | 149 | 54 | 119 | 90 | 322 | 24 | 506 | 179 | 71 | 709 | 34 | 167 | 49 | 27 | 250 | 197 | 2146 | 2343 |
| 05:00 PM | 24 | 190 | 4 | 3 | 218 | 45 | 16 | 22 | 13 | 83 | 1 | 141 | 38 | 11 | 180 | 10 | 40 | 10 | 8 | 60 | 35 | 541 | 576 |
| 05:15 PM | 20 | 212 | 7 | 3 | 239 | 29 | 13 | 30 | 20 | 72 | 5 | 147 | 45 | 15 | 197 | 8 | 37 | 14 | 11 | 59 | 49 | 567 | 616 |
| 05:30 PM | 36 | 181 | 1 | 1 | 218 | 30 | 22 | 37 | 21 | 89 | 7 | 151 | 55 | 19 | 213 | 4 | 53 | 13 | 8 | 70 | 49 | 590 | 639 |
| 05:45 PM | 20 | 178 | 5 | 3 | 203 | 29 | 21 | 34 | 21 | 84 | 2 | 132 | 41 | 11 | 175 | 6 | 43 | 11 | 8 | 60 | 43 | 522 | 565 |
| Total | 100 | 761 | 17 | 10 | 878 | 133 | 72 | 123 | 75 | 328 | 15 | 571 | 179 | 56 | 765 | 28 | 173 | 48 | 35 | 249 | 176 | 2220 | 2396 |
| Grand Total | 219 | 1492 | 32 | 19 | 1743 | 282 | 126 | 242 | 165 | 650 | 39 | 1077 | 358 | 127 | 1474 | 62 | 340 | 97 | 62 | 499 | 373 | 4366 | 4739 |
| Apprch % | 12.6 | 85.6 | 1.8 | | | 43.4 | 19.4 | 37.2 | | | 2.6 | 73.1 | 24.3 | | | 12.4 | 68.1 | 19.4 | | | | | |
| Total % | 5 | 34.2 | 0.7 | | 39.9 | 6.5 | 2.9 | 5.5 | | 14.9 | 0.9 | 24.7 | 8.2 | | 33.8 | 1.4 | 7.8 | 2.2 | | 11.4 | 7.9 | 92.1 | |

3.1-131

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 29 | **228** | 1 | **258** | 42 | 11 | 32 | 85 | 5 | 121 | 42 | 168 | 9 | 42 | 11 | 62 | 573 |
| 05:00 PM | 24 | 190 | 4 | 218 | **45** | 16 | 22 | 83 | 1 | 141 | 38 | 180 | **10** | 40 | 10 | 60 | 541 |
| 05:15 PM | 20 | 212 | **7** | 239 | 29 | 13 | 30 | 72 | 5 | 147 | 45 | 197 | 8 | 37 | **14** | 59 | 567 |
| 05:30 PM | **36** | 181 | 1 | 218 | 30 | **22** | **37** | **89** | **7** | **151** | **55** | **213** | 4 | **53** | 13 | **70** | **590** |
| Total Volume | 109 | 811 | 13 | 933 | 146 | 62 | 121 | 329 | 18 | 560 | 180 | 758 | 31 | 172 | 48 | 251 | 2271 |
| % App. Total | 11.7 | 86.9 | 1.4 | | 44.4 | 18.8 | 36.8 | | 2.4 | 73.9 | 23.7 | | 12.4 | 68.5 | 19.1 | | |
| PHF | .757 | .889 | .464 | .904 | .811 | .705 | .818 | .924 | .643 | .927 | .818 | .890 | .775 | .811 | .857 | .896 | .962 |

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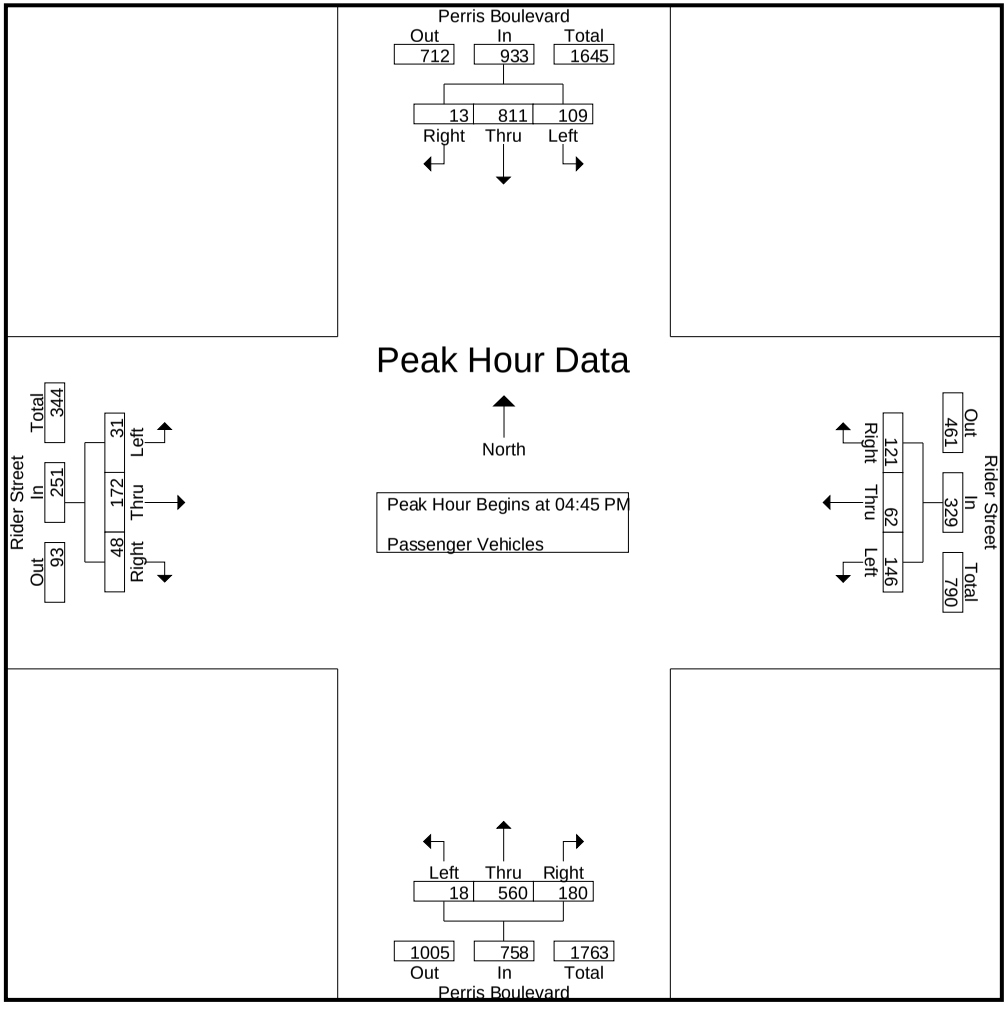
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | |
| +0 mins. | 29 | **228** | 1 | **258** | 42 | 11 | 32 | 85 | 5 | 121 | 42 | 168 | 9 | 42 | 11 | 62 | |
| +15 mins. | 24 | 190 | 4 | 218 | **45** | 16 | 22 | 83 | 1 | 141 | 38 | 180 | **10** | 40 | 10 | 60 | |
| +30 mins. | 20 | 212 | **7** | 239 | 29 | 13 | 30 | 72 | 5 | 147 | 45 | 197 | 8 | 37 | **14** | 59 | |
| +45 mins. | **36** | 181 | 1 | 218 | 30 | **22** | **37** | **89** | **7** | **151** | **55** | **213** | 4 | **53** | 13 | **70** | |
| Total Volume | 109 | 811 | 13 | 933 | 146 | 62 | 121 | 329 | 18 | 560 | 180 | 758 | 31 | 172 | 48 | 251 | |
| % App. Total | 11.7 | 86.9 | 1.4 | | 44.4 | 18.8 | 36.8 | | 2.4 | 73.9 | 23.7 | | 12.4 | 68.5 | 19.1 | | |
| PHF | .757 | .889 | .464 | .904 | .811 | .705 | .818 | .924 | .643 | .927 | .818 | .890 | .775 | .811 | .857 | .896 | |

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City of Perris
N/S: Perris Boulevard
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Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 5 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 |
| 04:15 PM | 0 | 4 | 1 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 1 | 10 | 11 |
| 04:30 PM | 1 | 6 | 0 | 0 | 7 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 3 | 1 | 12 | 13 |
| 04:45 PM | 1 | 2 | 1 | 1 | 4 | 3 | 0 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 4 | 0 | 2 | 0 | 0 | 2 | 1 | 13 | 14 |
| Total | 2 | 17 | 2 | 2 | 21 | 4 | 0 | 1 | 1 | 5 | 0 | 11 | 0 | 0 | 11 | 1 | 4 | 1 | 0 | 6 | 3 | 43 | 46 |
| 05:00 PM | 1 | 4 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| 05:15 PM | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 05:30 PM | 1 | 3 | 0 | 0 | 4 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 |
| 05:45 PM | 1 | 2 | 0 | 0 | 3 | 1 | 1 | 1 | 1 | 3 | 0 | 2 | 1 | 0 | 3 | 0 | 1 | 0 | 0 | 1 | 1 | 10 | 11 |
| Total | 3 | 12 | 0 | 0 | 15 | 1 | 1 | 2 | 1 | 4 | 0 | 3 | 1 | 0 | 4 | 0 | 1 | 0 | 0 | 1 | 1 | 24 | 25 |
| Grand Total | 5 | 29 | 2 | 2 | 36 | 5 | 1 | 3 | 2 | 9 | 0 | 14 | 1 | 0 | 15 | 1 | 5 | 1 | 0 | 7 | 4 | 67 | 71 |
| Apprch % | 13.9 | 80.6 | 5.6 | | | 55.6 | 11.1 | 33.3 | | | 0 | 93.3 | 6.7 | | | 14.3 | 71.4 | 14.3 | | | | | |
| Total % | 7.5 | 43.3 | 3 | | 53.7 | 7.5 | 1.5 | 4.5 | | 13.4 | 0 | 20.9 | 1.5 | | 22.4 | 1.5 | 7.5 | 1.5 | | 10.4 | 5.6 | 94.4 | |



| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | **1** | 2 | **1** | 4 | **3** | 0 | 0 | **3** | 0 | **4** | 0 | **4** | 0 | **2** | 0 | **2** | **13** |
| 05:00 PM | 1 | **4** | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 05:15 PM | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 4 |
| 05:30 PM | 1 | 3 | 0 | 4 | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Total Volume | 3 | 12 | 1 | 16 | 3 | 0 | 1 | 4 | 0 | 5 | 0 | 5 | 0 | 2 | 0 | 2 | 27 |
| % App. Total | 18.8 | 75 | 6.2 | | 75 | 0 | 25 | | 0 | 100 | 0 | | 0 | 100 | 0 | | |
| PHF | .750 | .750 | .250 | .800 | .250 | .000 | .250 | .333 | .000 | .313 | .000 | .313 | .000 | .250 | .000 | .250 | .519 |

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City of Perris
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Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
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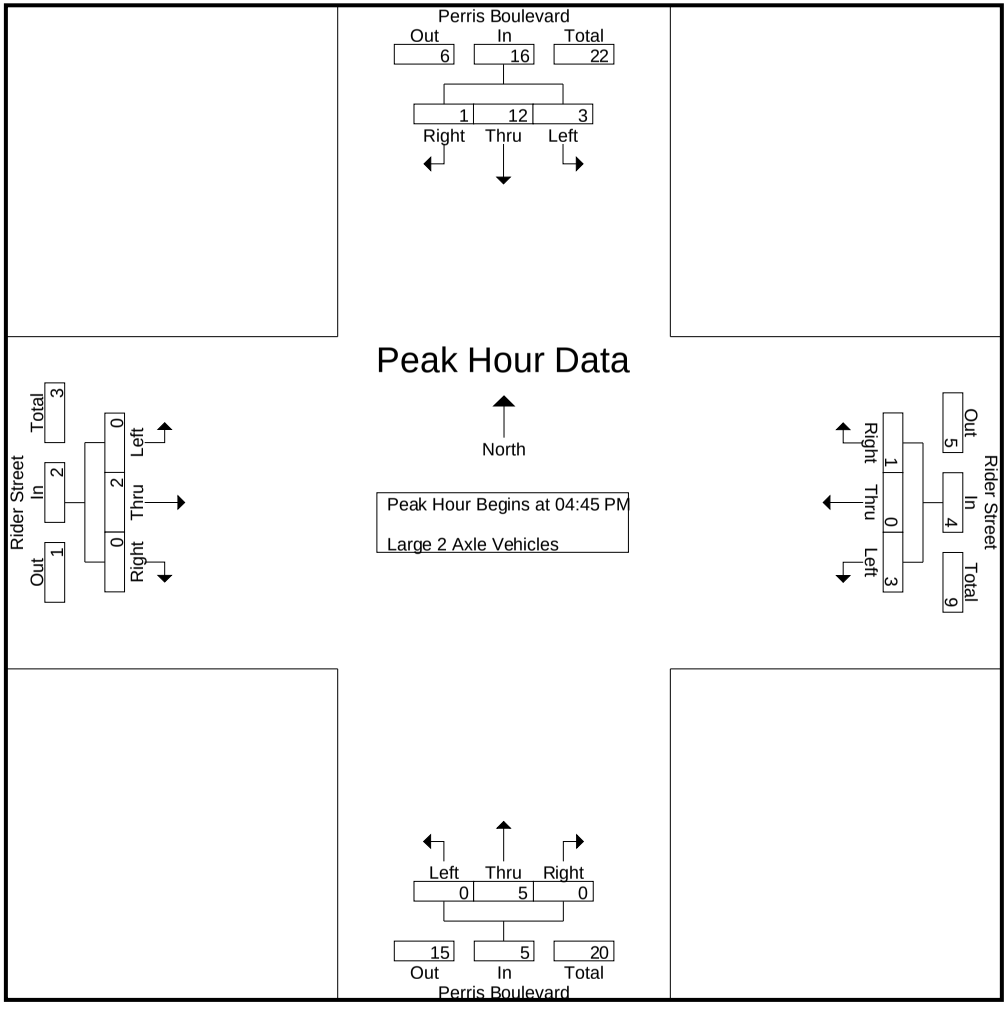
Page No : 2



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PO Box 1178
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(951) 268-6268

City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | |
| +0 mins. | **1** | 2 | **1** | 4 | **3** | 0 | 0 | **3** | 0 | **4** | 0 | **4** | 0 | **2** | 0 | **2** | |
| +15 mins. | 1 | **4** | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| +45 mins. | 1 | 3 | 0 | 4 | 0 | 0 | **1** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 3 | 12 | 1 | 16 | 3 | 0 | 1 | 4 | 0 | 5 | 0 | 5 | 0 | 2 | 0 | 2 | |
| % App. Total | 18.8 | 75 | 6.2 | | 75 | 0 | 25 | | 0 | 100 | 0 | | 0 | 100 | 0 | | |
| PHF | .750 | .750 | .250 | .800 | .250 | .000 | .250 | .333 | .000 | .313 | .000 | .313 | .000 | .250 | .000 | .250 | |

Counts Unlimited
PO Box 1178
Corona, CA 92878
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City of Perris
N/S: Perris Boulevard
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Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 04:30 PM | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| 05:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 |
| Grand Total | 2 | 2 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 6 |
| Apprch % | 50 | 50 | 0 | | | 100 | 0 | 0 | | | 0 | 100 | 0 | | | 0 | 0 | 0 | | | | | |
| Total % | 33.3 | 33.3 | 0 | | 66.7 | 16.7 | 0 | 0 | | 16.7 | 0 | 16.7 | 0 | | 16.7 | 0 | 0 | 0 | | 0 | 0 | 100 | |



| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM | **1** | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total Volume | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| % App. Total | 50 | 50 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | 0 | 0 | 0 | | |
| PHF | .250 | .250 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .000 | .750 |

Counts Unlimited
PO Box 1178
Corona, CA 92878
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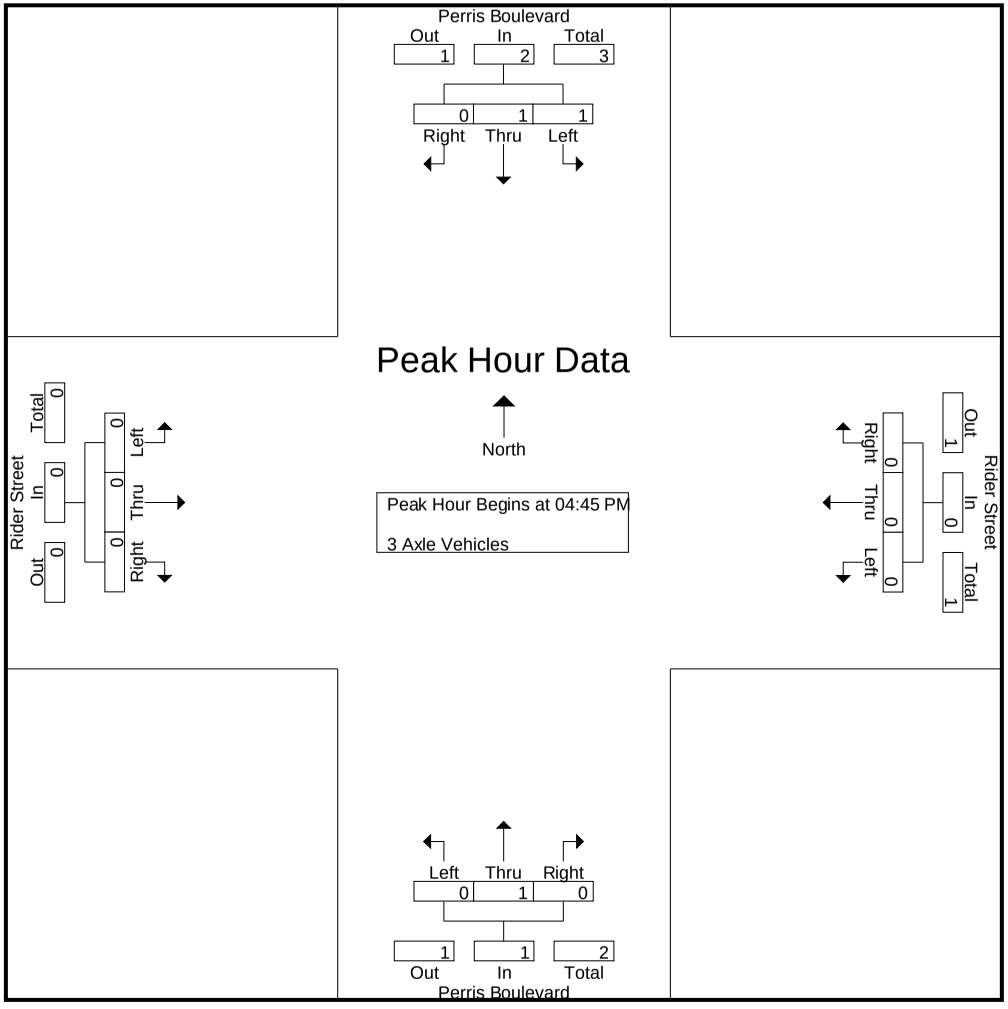
City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| +15 mins. | **1** | 0 | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | |
| % App. Total | 50 | 50 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | 0 | 0 | 0 | | |
| PHF | .250 | .250 | .000 | .500 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .000 | .000 | .000 | .000 | |

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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Perris Boulevard Southbound | | | | | Rider Street Westbound | | | | | Perris Boulevard Northbound | | | | | Rider Street Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:15 PM | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 04:30 PM | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 2 | 0 | 3 | 3 |
| Total | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 | 1 | 0 | 0 | 3 | 0 | 6 | 6 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Grand Total | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 1 | 0 | 0 | 4 | 0 | 7 | 7 |
| Apprch % | 50 | 0 | 50 | | | 0 | 0 | 0 | | | 0 | 100 | 0 | | | 75 | 25 | 0 | | | | | |
| Total % | 14.3 | 0 | 14.3 | | 28.6 | 0 | 0 | 0 | | 0 | 0 | 14.3 | 0 | | 14.3 | 42.9 | 14.3 | 0 | | 57.1 | 0 | 100 | |

3.1-140

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **1** | **1** | 0 | **2** | **3** |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 3 | 4 |
| % App. Total | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | 66.7 | 33.3 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .500 | .250 | .000 | .375 | .333 |

Counts Unlimited
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City of Perris
N/S: Perris Boulevard
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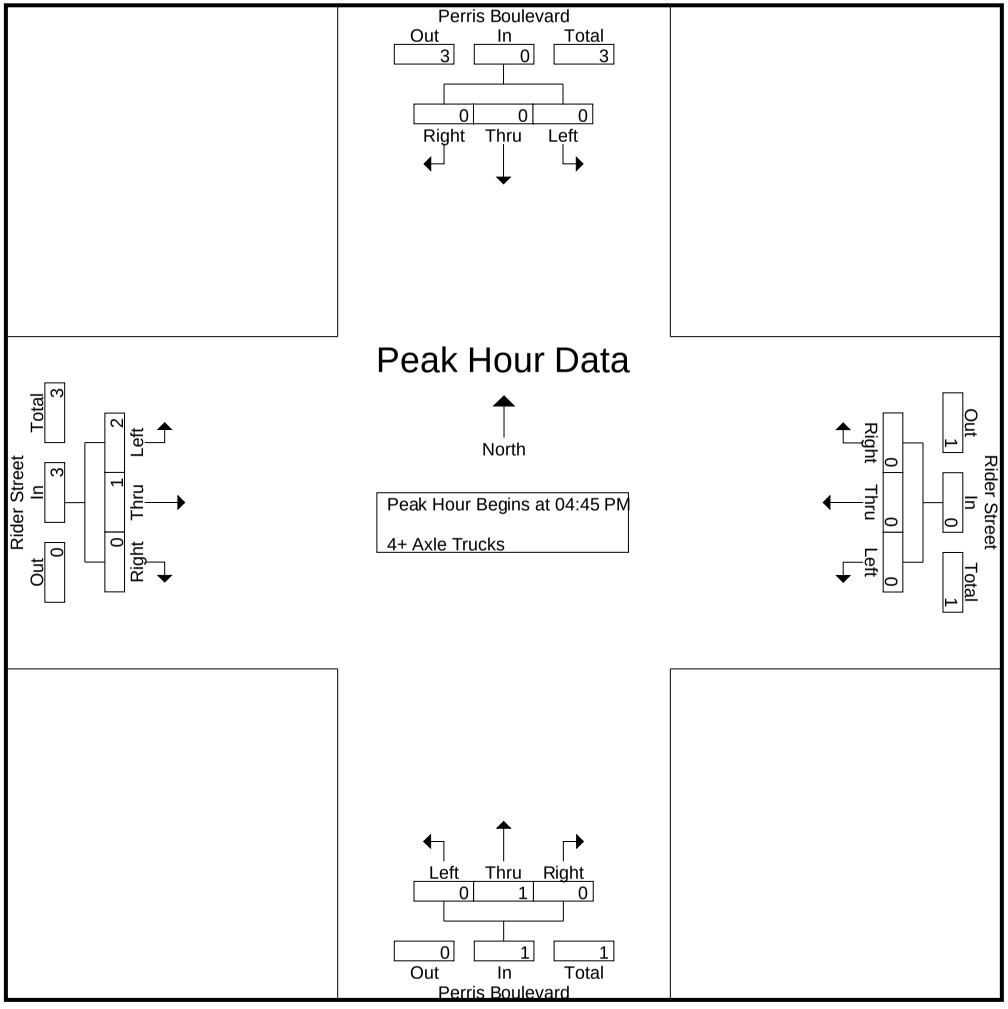
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



Counts Unlimited
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City of Perris
N/S: Perris Boulevard
E/W: Rider Street
Weather: Clear

File Name : 17_PER_Perris Blvd_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Perris Boulevard Southbound | | | | Rider Street Westbound | | | | Perris Boulevard Northbound | | | | Rider Street Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | 04:45 PM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **1** | **1** | 0 | **2** | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 1 | 0 | 3 | |
| % App. Total | 0 | 0 | 0 | | 0 | 0 | 0 | | 0 | 100 | 0 | | 66.7 | 33.3 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .500 | .250 | .000 | .375 | |

Location: City of Perris
N/S: Perris Boulevard
E/W: Rider Street

Date: 5/24/2018
Day: Thursday

**PEDESTRIANS**

| | North Leg Perris Boulevard | East Leg Rider Street | South Leg Perris Boulevard | West Leg Rider Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 1 | 0 | 0 | 1 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 1 | 1 | 0 | 2 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 1 | 0 | 1 |
| TOTAL VOLUMES: | 0 | 2 | 2 | 0 | 4 |

| | North Leg Perris Boulevard | East Leg Rider Street | South Leg Perris Boulevard | West Leg Rider Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 1 | 0 | 0 | 1 |
| 4:30 PM | 0 | 1 | 3 | 1 | 5 |
| 4:45 PM | 0 | 0 | 1 | 1 | 2 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 1 | 0 | 0 | 1 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 3 | 4 | 2 | 9 |



Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

Location: City of Perris
N/S: Perris Boulevard
E/W: Rider Street

Date: 5/24/2018
Day: Thursday

**BICYCLES**

| | Southbound Perris Boulevard | | | Westbound Rider Street | | | Northbound Perris Boulevard | | | Eastbound Rider Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |

| | Southbound Perris Boulevard | | | Westbound Rider Street | | | Northbound Perris Boulevard | | | Eastbound Rider Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 5:45 PM | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| TOTAL VOLUMES: | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 5 |



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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 11 | 0 | 3 | 1 | 14 | 9 | 345 | 100 | 25 | 454 | 4 | 1 | 32 | 14 | 37 | 7 | 164 | 1 | 0 | 172 | 40 | 677 | 717 |
| 07:15 AM | 13 | 0 | 1 | 0 | 14 | 19 | 349 | 84 | 16 | 452 | 3 | 1 | 19 | 15 | 23 | 5 | 181 | 3 | 2 | 189 | 33 | 678 | 711 |
| 07:30 AM | 9 | 1 | 1 | 1 | 11 | 17 | 382 | 91 | 11 | 490 | 5 | 0 | 17 | 13 | 22 | 6 | 178 | 7 | 1 | 191 | 26 | 714 | 740 |
| 07:45 AM | 13 | 0 | 1 | 1 | 14 | 32 | 383 | 64 | 11 | 479 | 3 | 2 | 21 | 19 | 26 | 7 | 202 | 3 | 0 | 212 | 31 | 731 | 762 |
| Total | 46 | 1 | 6 | 3 | 53 | 77 | 1459 | 339 | 63 | 1875 | 15 | 4 | 89 | 61 | 108 | 25 | 725 | 14 | 3 | 764 | 130 | 2800 | 2930 |
| 08:00 AM | 9 | 1 | 8 | 7 | 18 | 11 | 296 | 21 | 3 | 328 | 0 | 1 | 10 | 7 | 11 | 4 | 180 | 3 | 1 | 187 | 18 | 544 | 562 |
| 08:15 AM | 10 | 0 | 1 | 1 | 11 | 12 | 265 | 22 | 2 | 299 | 0 | 0 | 9 | 4 | 9 | 2 | 166 | 5 | 2 | 173 | 9 | 492 | 501 |
| 08:30 AM | 2 | 0 | 5 | 3 | 7 | 7 | 249 | 31 | 2 | 287 | 1 | 1 | 10 | 8 | 12 | 1 | 151 | 7 | 0 | 159 | 13 | 465 | 478 |
| 08:45 AM | 3 | 0 | 0 | 0 | 3 | 8 | 253 | 14 | 0 | 275 | 1 | 1 | 4 | 2 | 6 | 3 | 127 | 7 | 1 | 137 | 3 | 421 | 424 |
| Total | 24 | 1 | 14 | 11 | 39 | 38 | 1063 | 88 | 7 | 1189 | 2 | 3 | 33 | 21 | 38 | 10 | 624 | 22 | 4 | 656 | 43 | 1922 | 1965 |
| Grand Total | 70 | 2 | 20 | 14 | 92 | 115 | 2522 | 427 | 70 | 3064 | 17 | 7 | 122 | 82 | 146 | 35 | 1349 | 36 | 7 | 1420 | 173 | 4722 | 4895 |
| Apprch % | 76.1 | 2.2 | 21.7 | | | 3.8 | 82.3 | 13.9 | | | 11.6 | 4.8 | 83.6 | | | 2.5 | 95 | 2.5 | | | | | |
| Total % | 1.5 | 0 | 0.4 | | 1.9 | 2.4 | 53.4 | 9 | | 64.9 | 0.4 | 0.1 | 2.6 | | 3.1 | 0.7 | 28.6 | 0.8 | | 30.1 | 3.5 | 96.5 | |
| Passenger Vehicles | 67 | 2 | 17 | | 99 | 113 | 2466 | 422 | | 3069 | 6 | 6 | 120 | | 212 | 30 | 1287 | 28 | | 1352 | 0 | 0 | 4732 |
| % Passenger Vehicles | 95.7 | 100 | 85 | 92.9 | 93.4 | 98.3 | 97.8 | 98.8 | 97.1 | 97.9 | 35.3 | 85.7 | 98.4 | 97.6 | 93 | 85.7 | 95.4 | 77.8 | 100 | 94.7 | 0 | 0 | 96.7 |
| Large 2 Axle Vehicles | 2 | 0 | 0 | | 2 | 2 | 40 | 5 | | 49 | 1 | 0 | 2 | | 5 | 2 | 44 | 1 | | 47 | 0 | 0 | 103 |
| % Large 2 Axle Vehicles | 2.9 | 0 | 0 | 0 | 1.9 | 1.7 | 1.6 | 1.2 | 2.9 | 1.6 | 5.9 | 0 | 1.6 | 2.4 | 2.2 | 5.7 | 3.3 | 2.8 | 0 | 3.3 | 0 | 0 | 2.1 |
| 3 Axle Vehicles | 1 | 0 | 1 | | 2 | 0 | 4 | 0 | | 4 | 2 | 0 | 0 | | 2 | 0 | 4 | 3 | | 7 | 0 | 0 | 15 |
| % 3 Axle Vehicles | 1.4 | 0 | 5 | 0 | 1.9 | 0 | 0.2 | 0 | 0 | 0.1 | 11.8 | 0 | 0 | 0 | 0.9 | 0 | 0.3 | 8.3 | 0 | 0.5 | 0 | 0 | 0.3 |
| 4+ Axle Trucks | 0 | 0 | 2 | | 3 | 0 | 12 | 0 | | 12 | 8 | 1 | 0 | | 9 | 3 | 14 | 4 | | 21 | 0 | 0 | 45 |
| % 4+ Axle Trucks | 0 | 0 | 10 | 7.1 | 2.8 | 0 | 0.5 | 0 | 0 | 0.4 | 47.1 | 14.3 | 0 | 0 | 3.9 | 8.6 | 1 | 11.1 | 0 | 1.5 | 0 | 0 | 0.9 |

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 11 | 0 | **3** | **14** | 9 | 345 | **100** | 454 | 4 | 1 | **32** | **37** | **7** | 164 | 1 | 172 | 677 |
| 07:15 AM | **13** | 0 | 1 | 14 | 19 | 349 | 84 | 452 | 3 | 1 | 19 | 23 | 5 | 181 | 3 | 189 | 678 |
| 07:30 AM | 9 | **1** | 1 | 11 | 17 | 382 | 91 | **490** | **5** | 0 | 17 | 22 | 6 | 178 | **7** | 191 | 714 |
| 07:45 AM | 13 | 0 | 1 | 14 | **32** | **383** | 64 | 479 | 3 | **2** | 21 | 26 | 7 | **202** | 3 | **212** | **731** |
| Total Volume | 46 | 1 | 6 | 53 | 77 | 1459 | 339 | 1875 | 15 | 4 | 89 | 108 | 25 | 725 | 14 | 764 | 2800 |
| % App. Total | 86.8 | 1.9 | 11.3 | | 4.1 | 77.8 | 18.1 | | 13.9 | 3.7 | 82.4 | | 3.3 | 94.9 | 1.8 | | |
| PHF | .885 | .250 | .500 | .946 | .602 | .952 | .848 | .957 | .750 | .500 | .695 | .730 | .893 | .897 | .500 | .901 | .958 |

Counts Unlimited
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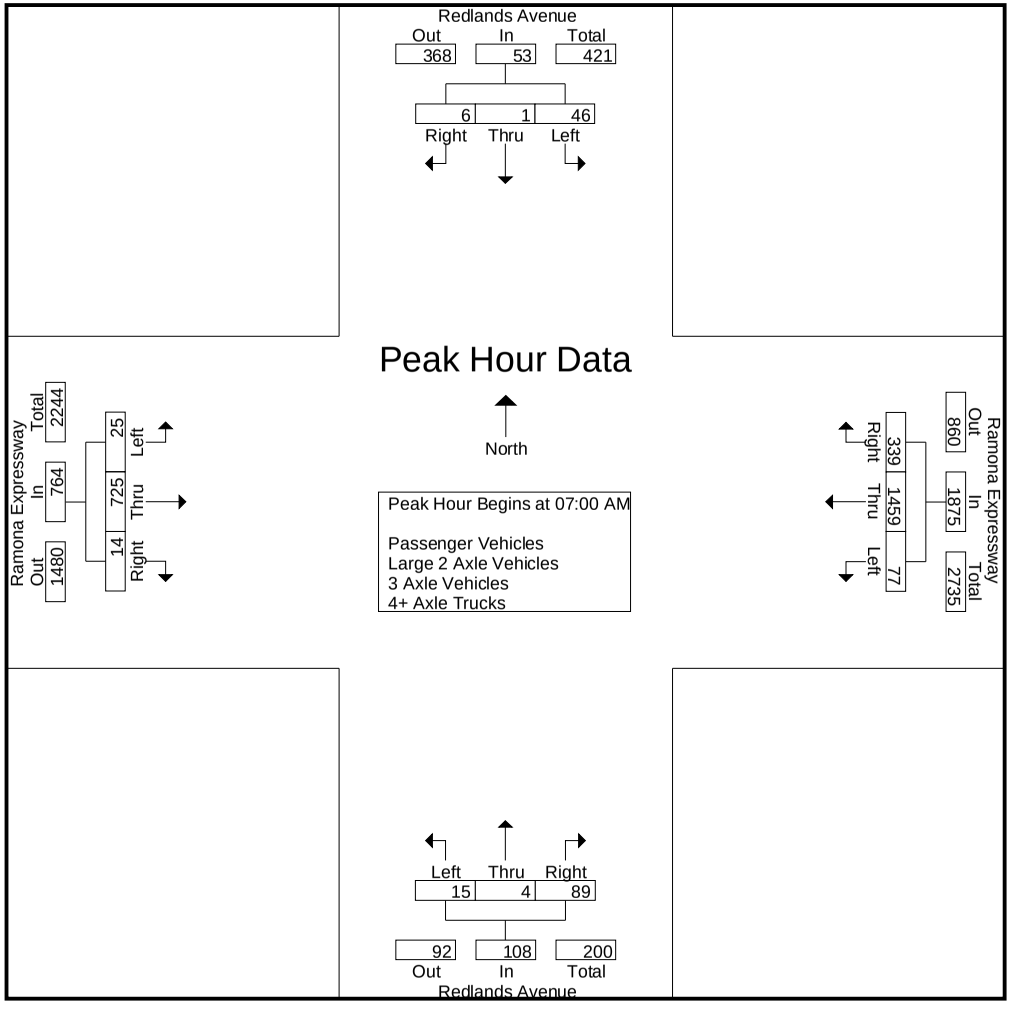
City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:15 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:15 AM | | | | |
| +0 mins. | **13** | 0 | 1 | 14 | 9 | 345 | **100** | 454 | 4 | 1 | **32** | **37** | 5 | 181 | 3 | 189 | |
| +15 mins. | 9 | **1** | 1 | 11 | 19 | 349 | 84 | 452 | 3 | 1 | 19 | 23 | 6 | 178 | **7** | 191 | |
| +30 mins. | 13 | 0 | 1 | 14 | 17 | 382 | 91 | **490** | **5** | 0 | 17 | 22 | **7** | **202** | 3 | **212** | |
| +45 mins. | 9 | 1 | **8** | **18** | **32** | **383** | 64 | 479 | 3 | **2** | 21 | 26 | 4 | 180 | 3 | 187 | |
| Total Volume | 44 | 2 | 11 | 57 | 77 | 1459 | 339 | 1875 | 15 | 4 | 89 | 108 | 22 | 741 | 16 | 779 | |
| % App. Total | 77.2 | 3.5 | 19.3 | | 4.1 | 77.8 | 18.1 | | 13.9 | 3.7 | 82.4 | | 2.8 | 95.1 | 2.1 | | |
| PHF | .846 | .500 | .344 | .792 | .602 | .952 | .848 | .957 | .750 | .500 | .695 | .730 | .786 | .917 | .571 | .919 | |

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City of Perris
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E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 10 | 0 | 2 | 1 | 12 | 9 | 338 | 99 | 24 | 446 | 1 | 0 | 30 | 12 | 31 | 7 | 160 | 0 | 0 | 167 | 37 | 656 | 693 |
| 07:15 AM | 13 | 0 | 0 | 0 | 13 | 19 | 341 | 83 | 16 | 443 | 1 | 1 | 19 | 15 | 21 | 4 | 173 | 2 | 2 | 179 | 33 | 656 | 689 |
| 07:30 AM | 9 | 1 | 1 | 1 | 11 | 17 | 377 | 90 | 11 | 484 | 3 | 0 | 17 | 13 | 20 | 5 | 169 | 5 | 1 | 179 | 26 | 694 | 720 |
| 07:45 AM | 12 | 0 | 1 | 1 | 13 | 32 | 375 | 64 | 11 | 471 | 1 | 2 | 21 | 19 | 24 | 6 | 194 | 3 | 0 | 203 | 31 | 711 | 742 |
| Total | 44 | 1 | 4 | 3 | 49 | 77 | 1431 | 336 | 62 | 1844 | 6 | 3 | 87 | 59 | 96 | 22 | 696 | 10 | 3 | 728 | 127 | 2717 | 2844 |
| 08:00 AM | 8 | 1 | 7 | 6 | 16 | 11 | 291 | 21 | 3 | 323 | 0 | 1 | 10 | 7 | 11 | 3 | 175 | 3 | 1 | 181 | 17 | 531 | 548 |
| 08:15 AM | 10 | 0 | 1 | 1 | 11 | 11 | 259 | 21 | 1 | 291 | 0 | 0 | 9 | 4 | 9 | 2 | 156 | 4 | 2 | 162 | 8 | 473 | 481 |
| 08:30 AM | 2 | 0 | 5 | 3 | 7 | 6 | 237 | 30 | 2 | 273 | 0 | 1 | 10 | 8 | 11 | 1 | 139 | 6 | 0 | 146 | 13 | 437 | 450 |
| 08:45 AM | 3 | 0 | 0 | 0 | 3 | 8 | 248 | 14 | 0 | 270 | 0 | 1 | 4 | 2 | 5 | 2 | 121 | 5 | 1 | 128 | 3 | 406 | 409 |
| Total | 23 | 1 | 13 | 10 | 37 | 36 | 1035 | 86 | 6 | 1157 | 0 | 3 | 33 | 21 | 36 | 8 | 591 | 18 | 4 | 617 | 41 | 1847 | 1888 |
| Grand Total | 67 | 2 | 17 | 13 | 86 | 113 | 2466 | 422 | 68 | 3001 | 6 | 6 | 120 | 80 | 132 | 30 | 1287 | 28 | 7 | 1345 | 168 | 4564 | 4732 |
| Apprch % | 77.9 | 2.3 | 19.8 | | | 3.8 | 82.2 | 14.1 | | | 4.5 | 4.5 | 90.9 | | | 2.2 | 95.7 | 2.1 | | | | | |
| Total % | 1.5 | 0 | 0.4 | | 1.9 | 2.5 | 54 | 9.2 | | 65.8 | 0.1 | 0.1 | 2.6 | | 2.9 | 0.7 | 28.2 | 0.6 | | 29.5 | 3.6 | 96.4 | |



| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 10 | 0 | **2** | 12 | 9 | 338 | **99** | 446 | 1 | 0 | **30** | **31** | **7** | 160 | 0 | 167 | 656 |
| 07:15 AM | **13** | 0 | 0 | **13** | 19 | 341 | 83 | 443 | 1 | 1 | 19 | 21 | 4 | 173 | 2 | 179 | 656 |
| 07:30 AM | 9 | **1** | 1 | 11 | 17 | **377** | 90 | **484** | **3** | 0 | 17 | 20 | 5 | 169 | **5** | 179 | 694 |
| 07:45 AM | 12 | 0 | 1 | 13 | **32** | 375 | 64 | 471 | 1 | **2** | 21 | 24 | 6 | **194** | 3 | **203** | **711** |
| Total Volume | 44 | 1 | 4 | 49 | 77 | 1431 | 336 | 1844 | 6 | 3 | 87 | 96 | 22 | 696 | 10 | 728 | 2717 |
| % App. Total | 89.8 | 2 | 8.2 | | 4.2 | 77.6 | 18.2 | | 6.2 | 3.1 | 90.6 | | 3 | 95.6 | 1.4 | | |
| PHF | .846 | .250 | .500 | .942 | .602 | .949 | .848 | .952 | .500 | .375 | .725 | .774 | .786 | .897 | .500 | .897 | .955 |

Counts Unlimited
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City of Perris
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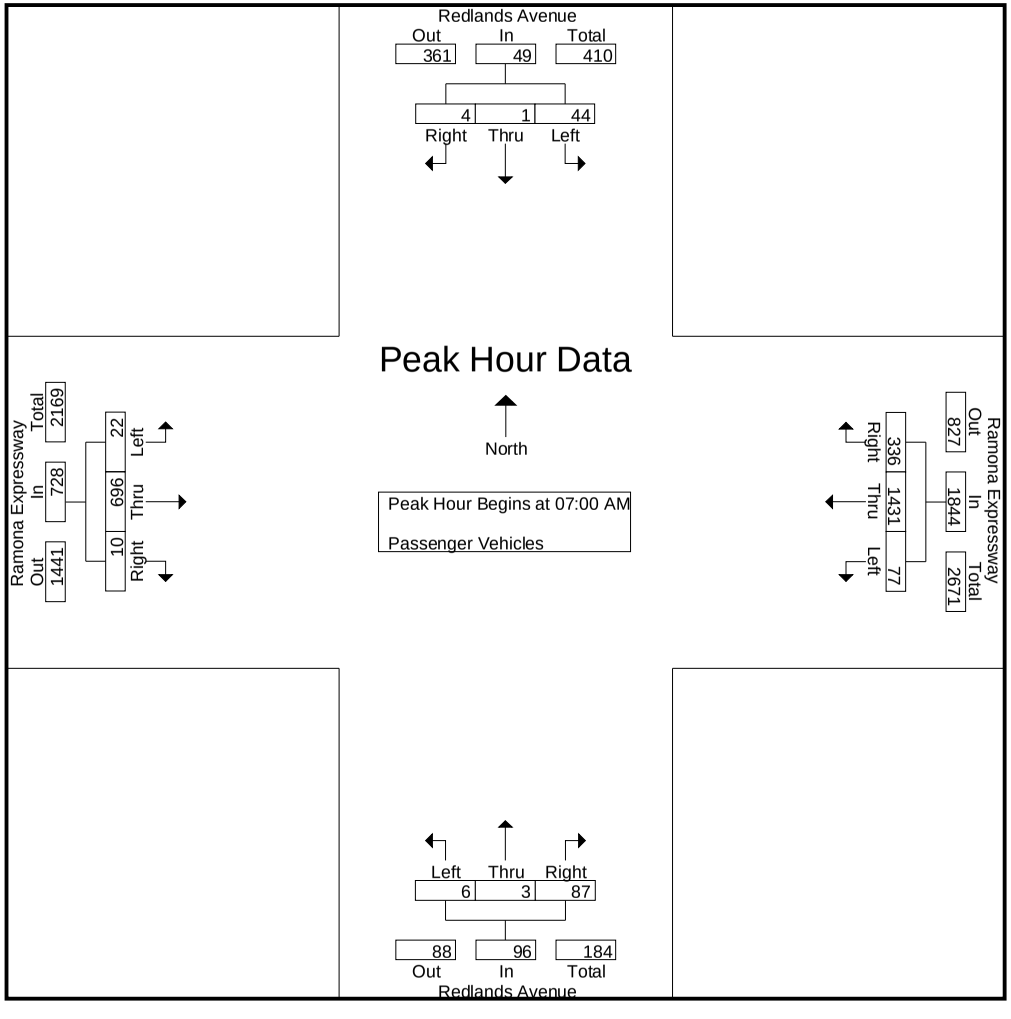
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Redlands Avenue
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Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 10 | 0 | **2** | 12 | 9 | 338 | **99** | 446 | 1 | 0 | **30** | **31** | **7** | 160 | 0 | 167 | |
| +15 mins. | **13** | 0 | 0 | **13** | 19 | 341 | 83 | 443 | 1 | 1 | 19 | 21 | 4 | 173 | 2 | 179 | |
| +30 mins. | 9 | **1** | 1 | 11 | 17 | **377** | 90 | **484** | **3** | 0 | 17 | 20 | 5 | 169 | **5** | 179 | |
| +45 mins. | 12 | 0 | 1 | 13 | **32** | 375 | 64 | 471 | 1 | **2** | 21 | 24 | 6 | **194** | 3 | **203** | |
| Total Volume | 44 | 1 | 4 | 49 | 77 | 1431 | 336 | 1844 | 6 | 3 | 87 | 96 | 22 | 696 | 10 | 728 | |
| % App. Total | 89.8 | 2 | 8.2 | | 4.2 | 77.6 | 18.2 | | 6.2 | 3.1 | 90.6 | | 3 | 95.6 | 1.4 | | |
| PHF | .846 | .250 | .500 | .942 | .602 | .949 | .848 | .952 | .500 | .375 | .725 | .774 | .786 | .897 | .500 | .897 | |

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City of Perris
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E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 1 | 4 | 0 | 0 | 2 | 2 | 2 | 0 | 3 | 0 | 0 | 3 | 3 | 9 | 12 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 1 | 0 | 7 | 1 | 0 | 0 | 0 | 1 | 1 | 5 | 0 | 0 | 6 | 0 | 14 | 14 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | 0 | 7 | 0 | 12 | 12 |
| 07:45 AM | 1 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 0 | 14 | 14 |
| Total | 1 | 0 | 0 | 0 | 1 | 0 | 19 | 3 | 1 | 22 | 1 | 0 | 2 | 2 | 3 | 2 | 21 | 0 | 0 | 23 | 3 | 49 | 52 |
| 08:00 AM | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 7 | 7 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 1 | 6 | 1 | 1 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 | 0 | 10 | 1 | 18 | 19 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 10 | 1 | 0 | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 0 | 20 | 20 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 5 | 5 |
| Total | 1 | 0 | 0 | 0 | 1 | 2 | 21 | 2 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 1 | 0 | 24 | 1 | 50 | 51 |
| Grand Total | 2 | 0 | 0 | 0 | 2 | 2 | 40 | 5 | 2 | 47 | 1 | 0 | 2 | 2 | 3 | 2 | 44 | 1 | 0 | 47 | 4 | 99 | 103 |
| Apprch % | 100 | 0 | 0 | | | 4.3 | 85.1 | 10.6 | | | 33.3 | 0 | 66.7 | | | 4.3 | 93.6 | 2.1 | | | | | |
| Total % | 2 | 0 | 0 | | 2 | 2 | 40.4 | 5.1 | | 47.5 | 1 | 0 | 2 | | 3 | 2 | 44.4 | 1 | | 47.5 | 3.9 | 96.1 | |

3.1-151

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 4 | 0 | 0 | **2** | **2** | 0 | 3 | 0 | 3 | 9 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | **6** | 1 | **7** | **1** | 0 | 0 | 1 | **1** | 5 | 0 | 6 | **14** |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 5 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | **7** | 12 |
| 07:45 AM | **1** | 0 | 0 | **1** | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 7 | 14 |
| Total Volume | 1 | 0 | 0 | 1 | 0 | 19 | 3 | 22 | 1 | 0 | 2 | 3 | 2 | 21 | 0 | 23 | 49 |
| % App. Total | 100 | 0 | 0 | | 0 | 86.4 | 13.6 | | 33.3 | 0 | 66.7 | | 8.7 | 91.3 | 0 | | |
| PHF | .250 | .000 | .000 | .250 | .000 | .792 | .750 | .786 | .250 | .000 | .250 | .375 | .500 | .750 | .000 | .821 | .875 |

Counts Unlimited
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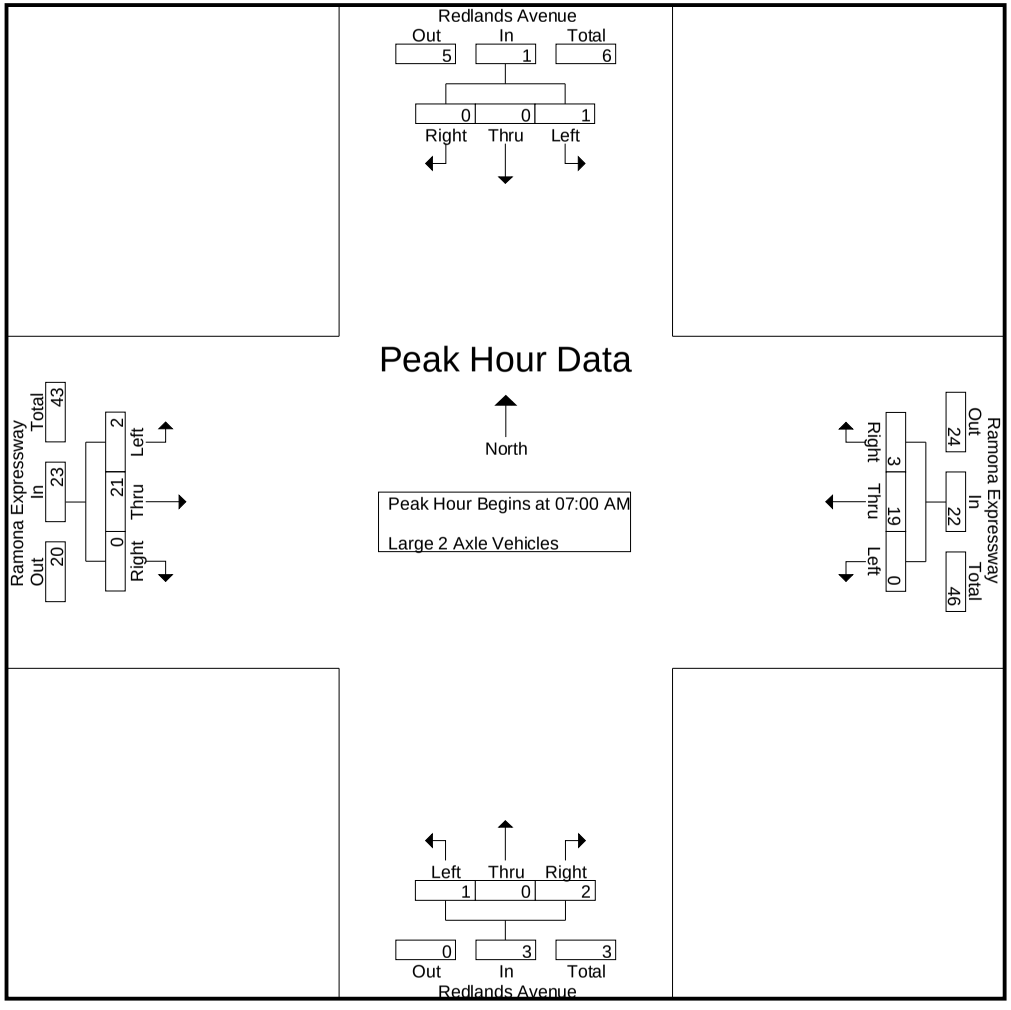
City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 4 | 0 | 0 | **2** | **2** | 0 | 3 | 0 | 3 | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | **6** | 1 | **7** | **1** | 0 | 0 | 1 | **1** | 5 | 0 | 6 | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 5 | 0 | 0 | 0 | 0 | 1 | 6 | 0 | **7** | |
| +45 mins. | **1** | 0 | 0 | **1** | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | **7** | 0 | 7 | |
| Total Volume | 1 | 0 | 0 | 1 | 0 | 19 | 3 | 22 | 1 | 0 | 2 | 3 | 2 | 21 | 0 | 23 | |
| % App. Total | 100 | 0 | 0 | | 0 | 86.4 | 13.6 | | 33.3 | 0 | 66.7 | | 8.7 | 91.3 | 0 | | |
| PHF | .250 | .000 | .000 | .250 | .000 | .792 | .750 | .786 | .250 | .000 | .250 | .375 | .500 | .750 | .000 | .821 | |

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City of Perris
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E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 1 | 0 | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 2 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 0 | 7 | 7 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 5 | 5 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 3 | 3 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 2 | 0 | 5 | 0 | 8 | 8 |
| Grand Total | 1 | 0 | 1 | 0 | 2 | 0 | 4 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 2 | 0 | 4 | 3 | 0 | 7 | 0 | 15 | 15 |
| Apprch % | 50 | 0 | 50 | | | 0 | 100 | 0 | | | 100 | 0 | 0 | | | 0 | 57.1 | 42.9 | | | | | |
| Total % | 6.7 | 0 | 6.7 | | 13.3 | 0 | 26.7 | 0 | | 26.7 | 13.3 | 0 | 0 | | 13.3 | 0 | 26.7 | 20 | | 46.7 | 0 | 100 | |



| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | **1** | 0 | **1** | **2** | 0 | **1** | 0 | **1** | **1** | 0 | 0 | **1** | 0 | 0 | 0 | 0 | **4** |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | 1 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | 2 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 1 | 0 | 1 | 2 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | 7 |
| % App. Total | 50 | 0 | 50 | | 0 | 100 | 0 | | 100 | 0 | 0 | | 0 | 50 | 50 | | |
| PHF | .250 | .000 | .250 | .250 | .000 | .500 | .000 | .500 | .250 | .000 | .000 | .250 | .000 | .250 | .250 | .500 | .438 |

Counts Unlimited
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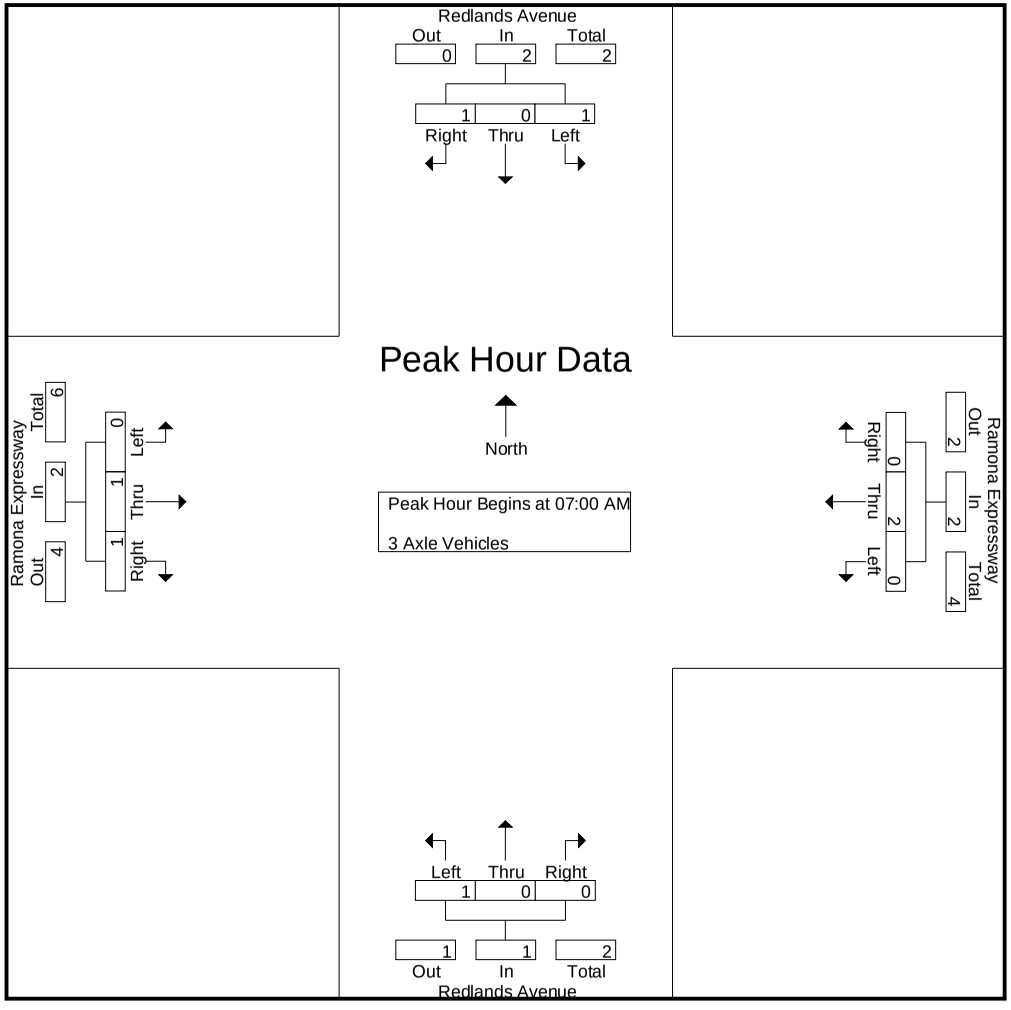
City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | **1** | 0 | **1** | **2** | 0 | **1** | 0 | **1** | **1** | 0 | 0 | **1** | 0 | 0 | 0 | 0 | |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | **1** | **1** | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | 1 | |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Volume | 1 | 0 | 1 | 2 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 2 | |
| % App. Total | 50 | 0 | 50 | | 0 | 100 | 0 | | 100 | 0 | 0 | | 0 | 50 | 50 | | |
| PHF | .250 | .000 | .250 | .250 | .000 | .500 | .000 | .500 | .250 | .000 | .000 | .250 | .000 | .250 | .250 | .500 | |

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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 2 | 1 | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 2 | 0 | 8 | 8 |
| 07:15 AM | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 7 | 7 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 4 | 0 | 6 | 6 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 2 | 0 | 6 | 6 |
| Total | 0 | 0 | 1 | 0 | 1 | 0 | 7 | 0 | 0 | 7 | 7 | 1 | 0 | 0 | 8 | 1 | 7 | 3 | 0 | 11 | 0 | 27 | 27 |
| 08:00 AM | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 1 | 6 | 7 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 3 | 3 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 1 | 0 | 4 | 0 | 7 | 7 |
| Total | 0 | 0 | 1 | 1 | 1 | 0 | 5 | 0 | 0 | 5 | 1 | 0 | 0 | 0 | 1 | 2 | 7 | 1 | 0 | 10 | 1 | 17 | 18 |
| Grand Total | 0 | 0 | 2 | 1 | 2 | 0 | 12 | 0 | 0 | 12 | 8 | 1 | 0 | 0 | 9 | 3 | 14 | 4 | 0 | 21 | 1 | 44 | 45 |
| Apprch % | 0 | 0 | 100 | | | 0 | 100 | 0 | | | 88.9 | 11.1 | 0 | | | 14.3 | 66.7 | 19 | | | | | |
| Total % | 0 | 0 | 4.5 | | 4.5 | 0 | 27.3 | 0 | | 27.3 | 18.2 | 2.3 | 0 | | 20.5 | 6.8 | 31.8 | 9.1 | | 47.7 | 2.2 | 97.8 | |



| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** | **2** | **1** | 0 | **3** | 0 | 1 | 1 | 2 | **8** |
| 07:15 AM | 0 | 0 | **1** | **1** | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | **3** | 0 | 3 | 7 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | **2** | **4** | 6 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | **1** | 1 | 0 | 2 | 6 |
| Total Volume | 0 | 0 | 1 | 1 | 0 | 7 | 0 | 7 | 7 | 1 | 0 | 8 | 1 | 7 | 3 | 11 | 27 |
| % App. Total | 0 | 0 | 100 | | 0 | 100 | 0 | | 87.5 | 12.5 | 0 | | 9.1 | 63.6 | 27.3 | | |
| PHF | .000 | .000 | .250 | .250 | .000 | .583 | .000 | .583 | .875 | .250 | .000 | .667 | .250 | .583 | .375 | .688 | .844 |

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City of Perris
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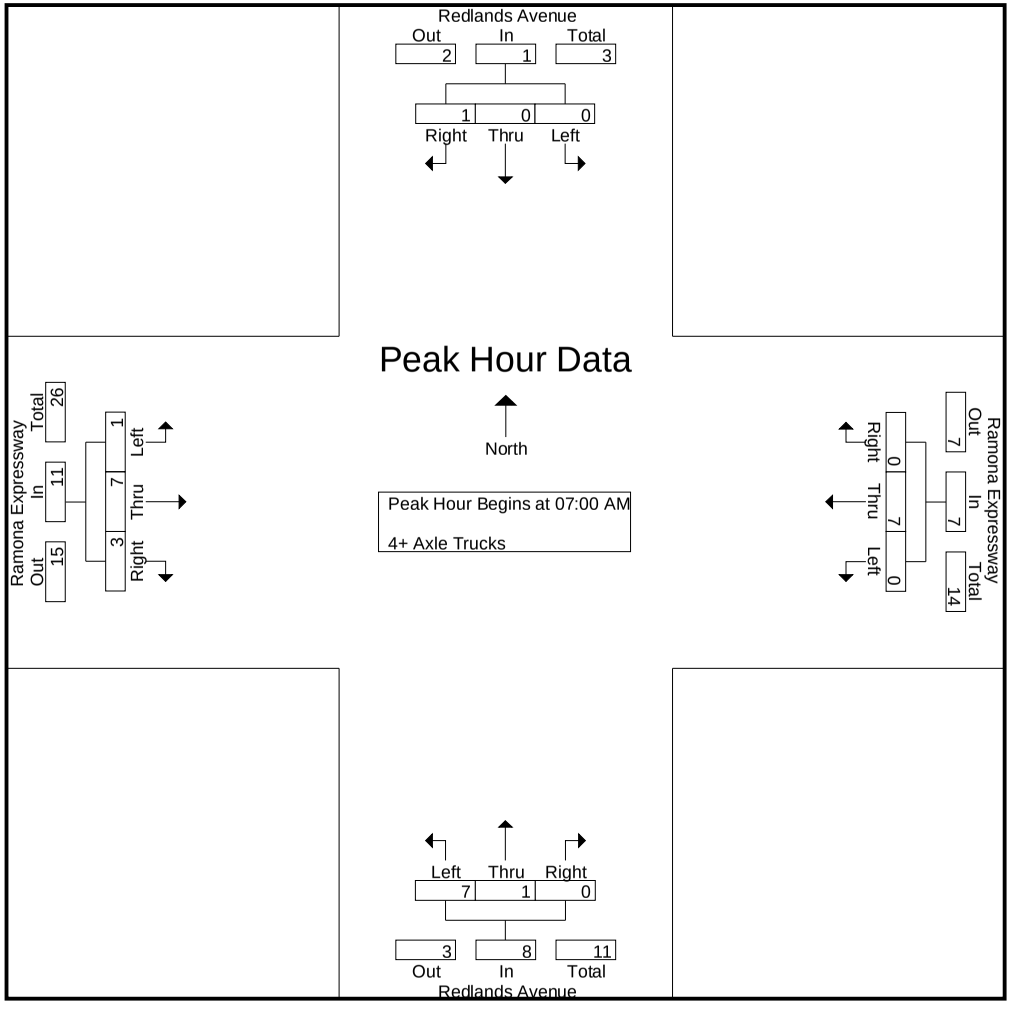
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
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E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | 07:00 AM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | 0 | **3** | 0 | **3** | **2** | **1** | 0 | **3** | 0 | 1 | 1 | 2 | |
| +15 mins. | 0 | 0 | **1** | **1** | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 1 | 0 | **3** | 0 | 3 | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | **2** | **4** | |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | **1** | 1 | 0 | 2 | |
| Total Volume | 0 | 0 | 1 | 1 | 0 | 7 | 0 | 7 | 7 | 1 | 0 | 8 | 1 | 7 | 3 | 11 | |
| % App. Total | 0 | 0 | 100 | | 0 | 100 | 0 | | 87.5 | 12.5 | 0 | | 9.1 | 63.6 | 27.3 | | |
| PHF | .000 | .000 | .250 | .250 | .000 | .583 | .000 | .583 | .875 | .250 | .000 | .667 | .250 | .583 | .375 | .688 | |

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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 43 | 2 | 3 | 2 | 48 | 6 | 221 | 13 | 3 | 240 | 5 | 1 | 10 | 3 | 16 | 2 | 309 | 3 | 0 | 314 | 8 | 618 | 626 |
| 04:15 PM | 40 | 3 | 2 | 1 | 45 | 7 | 290 | 17 | 4 | 314 | 3 | 0 | 5 | 1 | 8 | 5 | 353 | 6 | 0 | 364 | 6 | 731 | 737 |
| 04:30 PM | 63 | 5 | 0 | 0 | 68 | 5 | 231 | 18 | 9 | 254 | 4 | 1 | 15 | 9 | 20 | 1 | 354 | 9 | 3 | 364 | 21 | 706 | 727 |
| 04:45 PM | 63 | 2 | 2 | 2 | 67 | 6 | 234 | 26 | 7 | 266 | 3 | 1 | 13 | 5 | 17 | 3 | 321 | 8 | 5 | 332 | 19 | 682 | 701 |
| Total | 209 | 12 | 7 | 5 | 228 | 24 | 976 | 74 | 23 | 1074 | 15 | 3 | 43 | 18 | 61 | 11 | 1337 | 26 | 8 | 1374 | 54 | 2737 | 2791 |
| 05:00 PM | 47 | 2 | 5 | 1 | 54 | 3 | 213 | 17 | 7 | 233 | 5 | 2 | 10 | 3 | 17 | 6 | 353 | 4 | 0 | 363 | 11 | 667 | 678 |
| 05:15 PM | 64 | 0 | 0 | 0 | 64 | 6 | 242 | 12 | 5 | 260 | 6 | 1 | 4 | 2 | 11 | 5 | 306 | 4 | 2 | 315 | 9 | 650 | 659 |
| 05:30 PM | 51 | 1 | 3 | 1 | 55 | 6 | 226 | 29 | 6 | 261 | 3 | 1 | 10 | 8 | 14 | 6 | 365 | 6 | 1 | 377 | 16 | 707 | 723 |
| 05:45 PM | 41 | 0 | 3 | 1 | 44 | 8 | 268 | 22 | 12 | 298 | 2 | 3 | 9 | 2 | 14 | 3 | 365 | 0 | 0 | 368 | 15 | 724 | 739 |
| Total | 203 | 3 | 11 | 3 | 217 | 23 | 949 | 80 | 30 | 1052 | 16 | 7 | 33 | 15 | 56 | 20 | 1389 | 14 | 3 | 1423 | 51 | 2748 | 2799 |
| Grand Total | 412 | 15 | 18 | 8 | 445 | 47 | 1925 | 154 | 53 | 2126 | 31 | 10 | 76 | 33 | 117 | 31 | 2726 | 40 | 11 | 2797 | 105 | 5485 | 5590 |
| Apprch % | 92.6 | 3.4 | 4 | | | 2.2 | 90.5 | 7.2 | | | 26.5 | 8.5 | 65 | | | 1.1 | 97.5 | 1.4 | | | | | |
| Total % | 7.5 | 0.3 | 0.3 | | 8.1 | 0.9 | 35.1 | 2.8 | | 38.8 | 0.6 | 0.2 | 1.4 | | 2.1 | 0.6 | 49.7 | 0.7 | | 51 | 1.9 | 98.1 | |
| Passenger Vehicles | 408 | 6 | 15 | | 435 | 44 | 1872 | 146 | | 2113 | 8 | 4 | 74 | | 119 | 31 | 2680 | 21 | | 2739 | 0 | 0 | 5406 |
| %Passenger Vehicles | 99 | 40 | 83.3 | 75 | 96 | 93.6 | 97.2 | 94.8 | 96.2 | 97 | 25.8 | 40 | 97.4 | 100 | 79.3 | 100 | 98.3 | 52.5 | 63.6 | 97.5 | 0 | 0 | 96.7 |
| Large 2 Axle Vehicles | 4 | 1 | 2 | | 9 | 1 | 21 | 1 | | 23 | 0 | 0 | 1 | | 1 | 0 | 30 | 2 | | 32 | 0 | 0 | 65 |
| % Large 2 Axle Vehicles | 1 | 6.7 | 11.1 | 25 | 2 | 2.1 | 1.1 | 0.6 | 0 | 1.1 | 0 | 0 | 1.3 | 0 | 0.7 | 0 | 1.1 | 5 | 0 | 1.1 | 0 | 0 | 1.2 |
| 3 Axle Vehicles | 0 | 4 | 0 | | 4 | 1 | 10 | 5 | | 18 | 9 | 0 | 0 | | 9 | 0 | 7 | 6 | | 15 | 0 | 0 | 46 |
| % 3 Axle Vehicles | 0 | 26.7 | 0 | 0 | 0.9 | 2.1 | 0.5 | 3.2 | 3.8 | 0.8 | 29 | 0 | 0 | 0 | 6 | 0 | 0.3 | 15 | 18.2 | 0.5 | 0 | 0 | 0.8 |
| 4+ Axle Trucks | 0 | 4 | 1 | | 5 | 1 | 22 | 2 | | 25 | 14 | 6 | 1 | | 21 | 0 | 9 | 11 | | 22 | 0 | 0 | 73 |
| % 4+ Axle Trucks | 0 | 26.7 | 5.6 | 0 | 1.1 | 2.1 | 1.1 | 1.3 | 0 | 1.1 | 45.2 | 60 | 1.3 | 0 | 14 | 0 | 0.3 | 27.5 | 18.2 | 0.8 | 0 | 0 | 1.3 |

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | |
| 04:15 PM | 40 | 3 | 2 | 45 | **7** | **290** | 17 | **314** | 3 | 0 | 5 | 8 | 5 | 353 | 6 | **364** | **731** |
| 04:30 PM | **63** | **5** | 0 | **68** | 5 | 231 | 18 | 254 | 4 | 1 | **15** | **20** | 1 | **354** | **9** | 364 | 706 |
| 04:45 PM | 63 | 2 | 2 | 67 | 6 | 234 | **26** | 266 | 3 | 1 | 13 | 17 | 3 | 321 | 8 | 332 | 682 |
| 05:00 PM | 47 | 2 | **5** | 54 | 3 | 213 | 17 | 233 | **5** | **2** | 10 | 17 | **6** | 353 | 4 | 363 | 667 |
| Total Volume | 213 | 12 | 9 | 234 | 21 | 968 | 78 | 1067 | 15 | 4 | 43 | 62 | 15 | 1381 | 27 | 1423 | 2786 |
| % App. Total | 91 | 5.1 | 3.8 | | 2 | 90.7 | 7.3 | | 24.2 | 6.5 | 69.4 | | 1.1 | 97 | 1.9 | | |
| PHF | .845 | .600 | .450 | .860 | .750 | .834 | .750 | .850 | .750 | .500 | .717 | .775 | .625 | .975 | .750 | .977 | .953 |

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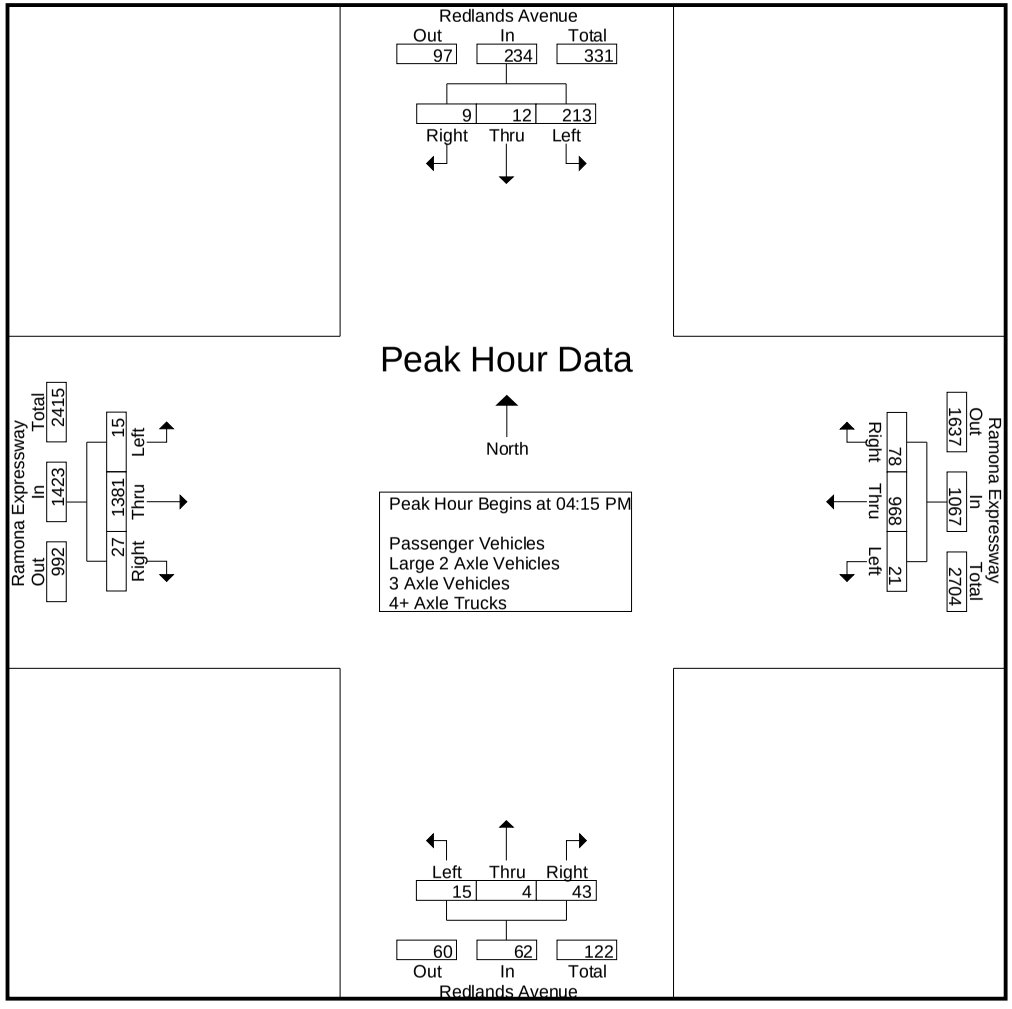
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:30 PM | | | | 04:00 PM | | | | 04:30 PM | | | | 04:15 PM | | | | |
| +0 mins. | 63 | **5** | 0 | **68** | 6 | 221 | 13 | 240 | 4 | 1 | **15** | **20** | 5 | 353 | 6 | **364** | |
| +15 mins. | 63 | 2 | 2 | 67 | **7** | **290** | 17 | **314** | 3 | 1 | 13 | 17 | 1 | **354** | **9** | 364 | |
| +30 mins. | 47 | 2 | **5** | 54 | 5 | 231 | 18 | 254 | 5 | **2** | 10 | 17 | 3 | 321 | 8 | 332 | |
| +45 mins. | **64** | 0 | 0 | 64 | 6 | 234 | **26** | 266 | **6** | 1 | 4 | 11 | **6** | 353 | 4 | 363 | |
| Total Volume | 237 | 9 | 7 | 253 | 24 | 976 | 74 | 1074 | 18 | 5 | 42 | 65 | 15 | 1381 | 27 | 1423 | |
| % App. Total | 93.7 | 3.6 | 2.8 | | 2.2 | 90.9 | 6.9 | | 27.7 | 7.7 | 64.6 | | 1.1 | 97 | 1.9 | | |
| PHF | .926 | .450 | .350 | .930 | .857 | .841 | .712 | .855 | .750 | .625 | .700 | .813 | .625 | .975 | .750 | .977 | |

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E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 43 | 1 | 1 | 1 | 45 | 6 | 215 | 12 | 3 | 233 | 1 | 0 | 9 | 3 | 10 | 2 | 302 | 1 | 0 | 305 | 7 | 593 | 600 |
| 04:15 PM | 40 | 1 | 1 | 0 | 42 | 5 | 282 | 16 | 4 | 303 | 0 | 0 | 5 | 1 | 5 | 5 | 349 | 2 | 0 | 356 | 5 | 706 | 711 |
| 04:30 PM | 61 | 2 | 0 | 0 | 63 | 5 | 221 | 17 | 8 | 243 | 2 | 1 | 15 | 9 | 18 | 1 | 349 | 4 | 1 | 354 | 18 | 678 | 696 |
| 04:45 PM | 63 | 0 | 2 | 2 | 65 | 6 | 228 | 26 | 7 | 260 | 0 | 0 | 12 | 5 | 12 | 3 | 315 | 4 | 3 | 322 | 17 | 659 | 676 |
| Total | 207 | 4 | 4 | 3 | 215 | 22 | 946 | 71 | 22 | 1039 | 3 | 1 | 41 | 18 | 45 | 11 | 1315 | 11 | 4 | 1337 | 47 | 2636 | 2683 |
| 05:00 PM | 46 | 1 | 5 | 1 | 52 | 3 | 209 | 14 | 6 | 226 | 2 | 1 | 10 | 3 | 13 | 6 | 348 | 2 | 0 | 356 | 10 | 647 | 657 |
| 05:15 PM | 64 | 0 | 0 | 0 | 64 | 5 | 239 | 12 | 5 | 256 | 1 | 0 | 4 | 2 | 5 | 5 | 299 | 4 | 2 | 308 | 9 | 633 | 642 |
| 05:30 PM | 50 | 1 | 3 | 1 | 54 | 6 | 219 | 28 | 6 | 253 | 1 | 1 | 10 | 8 | 12 | 6 | 360 | 4 | 1 | 370 | 16 | 689 | 705 |
| 05:45 PM | 41 | 0 | 3 | 1 | 44 | 8 | 259 | 21 | 12 | 288 | 1 | 1 | 9 | 2 | 11 | 3 | 358 | 0 | 0 | 361 | 15 | 704 | 719 |
| Total | 201 | 2 | 11 | 3 | 214 | 22 | 926 | 75 | 29 | 1023 | 5 | 3 | 33 | 15 | 41 | 20 | 1365 | 10 | 3 | 1395 | 50 | 2673 | 2723 |
| Grand Total | 408 | 6 | 15 | 6 | 429 | 44 | 1872 | 146 | 51 | 2062 | 8 | 4 | 74 | 33 | 86 | 31 | 2680 | 21 | 7 | 2732 | 97 | 5309 | 5406 |
| Apprch % | 95.1 | 1.4 | 3.5 | | | 2.1 | 90.8 | 7.1 | | | 9.3 | 4.7 | 86 | | | 1.1 | 98.1 | 0.8 | | | | | |
| Total % | 7.7 | 0.1 | 0.3 | | 8.1 | 0.8 | 35.3 | 2.8 | | 38.8 | 0.2 | 0.1 | 1.4 | | 1.6 | 0.6 | 50.5 | 0.4 | | 51.5 | 1.8 | 98.2 | |



| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | |
| 04:15 PM | 40 | 1 | 1 | 42 | 5 | **282** | 16 | **303** | 0 | 0 | 5 | 5 | 5 | **349** | 2 | **356** | **706** |
| 04:30 PM | 61 | **2** | 0 | 63 | 5 | 221 | 17 | 243 | **2** | **1** | **15** | **18** | 1 | 349 | **4** | 354 | 678 |
| 04:45 PM | **63** | 0 | 2 | **65** | **6** | 228 | **26** | 260 | 0 | 0 | 12 | 12 | 3 | 315 | 4 | 322 | 659 |
| 05:00 PM | 46 | 1 | **5** | 52 | 3 | 209 | 14 | 226 | 2 | 1 | 10 | 13 | **6** | 348 | 2 | 356 | 647 |
| Total Volume | 210 | 4 | 8 | 222 | 19 | 940 | 73 | 1032 | 4 | 2 | 42 | 48 | 15 | 1361 | 12 | 1388 | 2690 |
| % App. Total | 94.6 | 1.8 | 3.6 | | 1.8 | 91.1 | 7.1 | | 8.3 | 4.2 | 87.5 | | 1.1 | 98.1 | 0.9 | | |
| PHF | .833 | .500 | .400 | .854 | .792 | .833 | .702 | .851 | .500 | .500 | .700 | .667 | .625 | .975 | .750 | .975 | .953 |

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City of Perris
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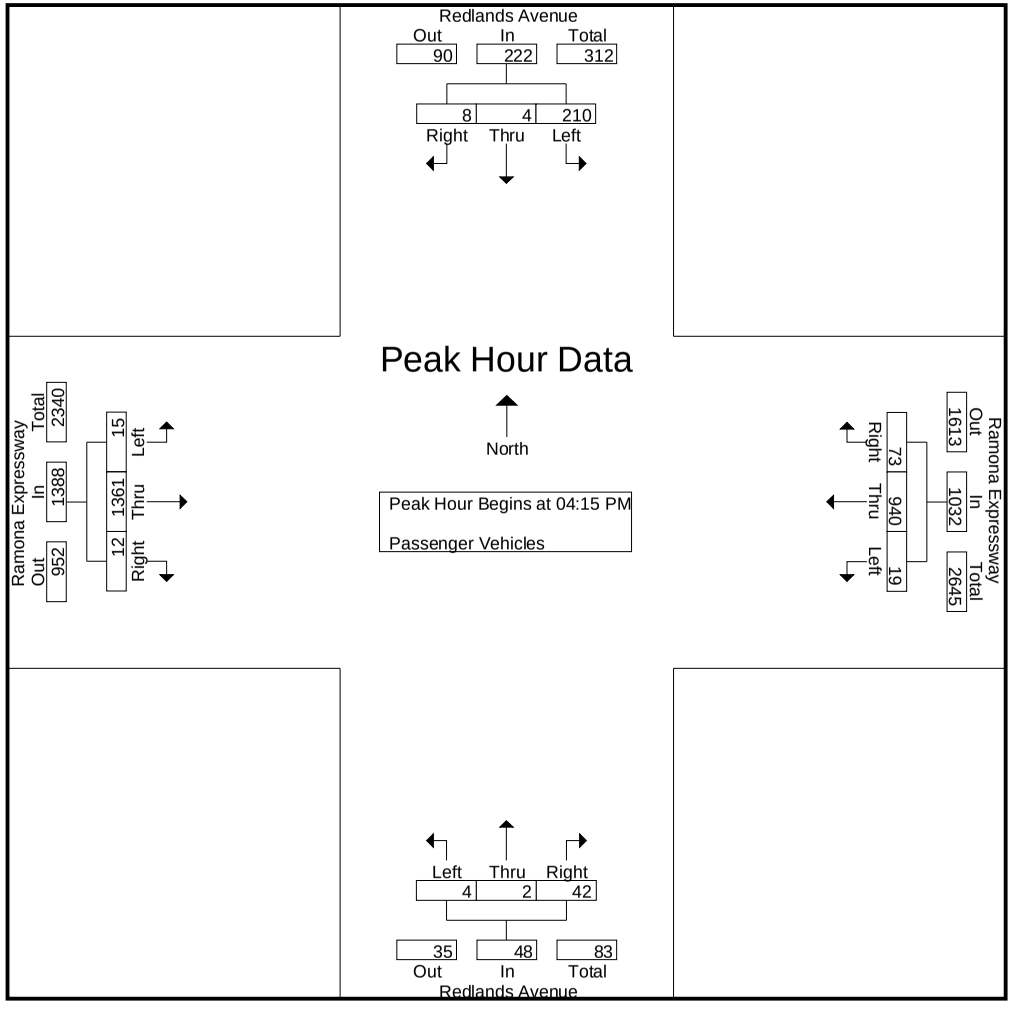
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | |
| +0 mins. | 40 | 1 | 1 | 42 | 5 | **282** | 16 | **303** | 0 | 0 | 5 | 5 | 5 | **349** | 2 | **356** | |
| +15 mins. | 61 | **2** | 0 | 63 | 5 | 221 | 17 | 243 | **2** | **1** | **15** | **18** | 1 | 349 | **4** | 354 | |
| +30 mins. | **63** | 0 | 2 | **65** | **6** | 228 | **26** | 260 | 0 | 0 | 12 | 12 | 3 | 315 | 4 | 322 | |
| +45 mins. | 46 | 1 | **5** | 52 | 3 | 209 | 14 | 226 | 2 | 1 | 10 | 13 | **6** | 348 | 2 | 356 | |
| Total Volume | 210 | 4 | 8 | 222 | 19 | 940 | 73 | 1032 | 4 | 2 | 42 | 48 | 15 | 1361 | 12 | 1388 | |
| % App. Total | 94.6 | 1.8 | 3.6 | | 1.8 | 91.1 | 7.1 | | 8.3 | 4.2 | 87.5 | | 1.1 | 98.1 | 0.9 | | |
| PHF | .833 | .500 | .400 | .854 | .792 | .833 | .702 | .851 | .500 | .500 | .700 | .667 | .625 | .975 | .750 | .975 | |

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City of Perris
N/S: Redlands Avenue
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Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 7 | 1 | 10 | 11 |
| 04:15 PM | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 4 | 1 | 10 | 11 |
| 04:30 PM | 2 | 1 | 0 | 0 | 3 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 12 | 12 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 6 | 6 |
| Total | 2 | 1 | 2 | 2 | 5 | 1 | 11 | 1 | 0 | 13 | 0 | 0 | 1 | 0 | 1 | 0 | 18 | 1 | 0 | 19 | 2 | 38 | 40 |
| 05:00 PM | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 9 | 9 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 3 | 3 |
| 05:30 PM | 1 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 7 | 7 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 6 | 6 |
| Total | 2 | 0 | 0 | 0 | 2 | 0 | 10 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 13 | 0 | 25 | 25 |
| Grand Total | 4 | 1 | 2 | 2 | 7 | 1 | 21 | 1 | 0 | 23 | 0 | 0 | 1 | 0 | 1 | 0 | 30 | 2 | 0 | 32 | 2 | 63 | 65 |
| Apprch % | 57.1 | 14.3 | 28.6 | | | 4.3 | 91.3 | 4.3 | | | 0 | 0 | 100 | | | 0 | 93.8 | 6.2 | | | | | |
| Total % | 6.3 | 1.6 | 3.2 | | 11.1 | 1.6 | 33.3 | 1.6 | | 36.5 | 0 | 0 | 1.6 | | 1.6 | 0 | 47.6 | 3.2 | | 50.8 | 3.1 | 96.9 | |



| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | **1** | 1 | **1** | 3 | **1** | **5** | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 4 | 10 |
| 04:30 PM | **2** | **1** | 0 | **3** | 0 | **4** | 0 | 4 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** | **12** |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | **1** | **1** | 0 | 3 | 0 | 3 | 6 |
| 05:00 PM | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | 9 |
| Total Volume | 3 | 1 | 1 | 5 | 1 | 12 | 1 | 14 | 0 | 0 | 1 | 1 | 0 | 16 | 1 | 17 | 37 |
| % App. Total | 60 | 20 | 20 | | 7.1 | 85.7 | 7.1 | | 0 | 0 | 100 | | 0 | 94.1 | 5.9 | | |
| PHF | .375 | .250 | .250 | .417 | .250 | .750 | .250 | .700 | .000 | .000 | .250 | .250 | .000 | .800 | .250 | .850 | .771 |

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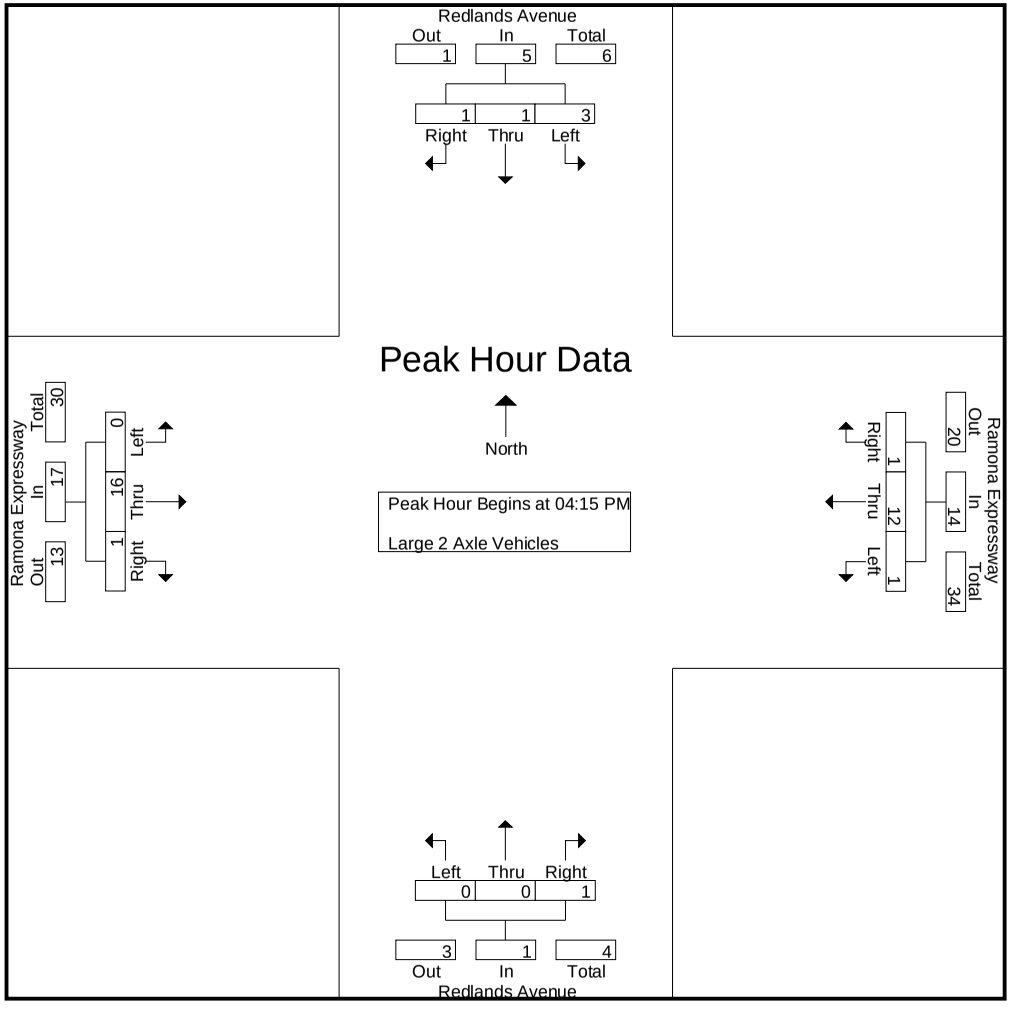
City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | |
| +0 mins. | 0 | 0 | **1** | 1 | **1** | 3 | **1** | **5** | 0 | 0 | 0 | 0 | 0 | 3 | **1** | 4 | |
| +15 mins. | **2** | **1** | 0 | **3** | 0 | **4** | 0 | 4 | 0 | 0 | 0 | 0 | 0 | **5** | 0 | **5** | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | **1** | **1** | 0 | 3 | 0 | 3 | |
| +45 mins. | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 5 | |
| Total Volume | 3 | 1 | 1 | 5 | 1 | 12 | 1 | 14 | 0 | 0 | 1 | 1 | 0 | 16 | 1 | 17 | |
| % App. Total | 60 | 20 | 20 | | 7.1 | 85.7 | 7.1 | | 0 | 0 | 100 | | 0 | 94.1 | 5.9 | | |
| PHF | .375 | .250 | .250 | .417 | .250 | .750 | .250 | .700 | .000 | .000 | .250 | .250 | .000 | .800 | .250 | .850 | |

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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 5 | 5 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 6 | 6 |
| 04:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 1 | 1 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 6 | 7 |
| 04:45 PM | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 2 | 3 | 2 | 6 | 8 |
| Total | 0 | 4 | 0 | 0 | 4 | 1 | 6 | 1 | 1 | 8 | 4 | 0 | 0 | 0 | 4 | 0 | 1 | 6 | 2 | 7 | 3 | 23 | 26 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 4 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 3 | 0 | 7 | 7 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 4 | 4 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 2 | 0 | 5 | 5 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 1 | 8 | 5 | 0 | 0 | 0 | 5 | 0 | 6 | 0 | 0 | 6 | 1 | 19 | 20 |
| Grand Total | 0 | 4 | 0 | 0 | 4 | 1 | 10 | 5 | 2 | 16 | 9 | 0 | 0 | 0 | 9 | 0 | 7 | 6 | 2 | 13 | 4 | 42 | 46 |
| Apprch % | 0 | 100 | 0 | | | 6.2 | 62.5 | 31.2 | | | 100 | 0 | 0 | | | 0 | 53.8 | 46.2 | | | | | |
| Total % | 0 | 9.5 | 0 | | 9.5 | 2.4 | 23.8 | 11.9 | | 38.1 | 21.4 | 0 | 0 | | 21.4 | 0 | 16.7 | 14.3 | | 31 | 8.7 | 91.3 | |



| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | 0 | 0 | 0 | **1** | 2 | 0 | 3 | **2** | 0 | 0 | **2** | 0 | **1** | 0 | 1 | **6** |
| 04:30 PM | 0 | 1 | 0 | 1 | 0 | **3** | 1 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 6 |
| 04:45 PM | 0 | **2** | 0 | **2** | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | **3** | 6 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 3 |
| Total Volume | 0 | 3 | 0 | 3 | 1 | 6 | 3 | 10 | 3 | 0 | 0 | 3 | 0 | 1 | 4 | 5 | 21 |
| % App. Total | 0 | 100 | 0 | | 10 | 60 | 30 | | 100 | 0 | 0 | | 0 | 20 | 80 | | |
| PHF | .000 | .375 | .000 | .375 | .250 | .500 | .375 | .625 | .375 | .000 | .000 | .375 | .000 | .250 | .333 | .417 | .875 |

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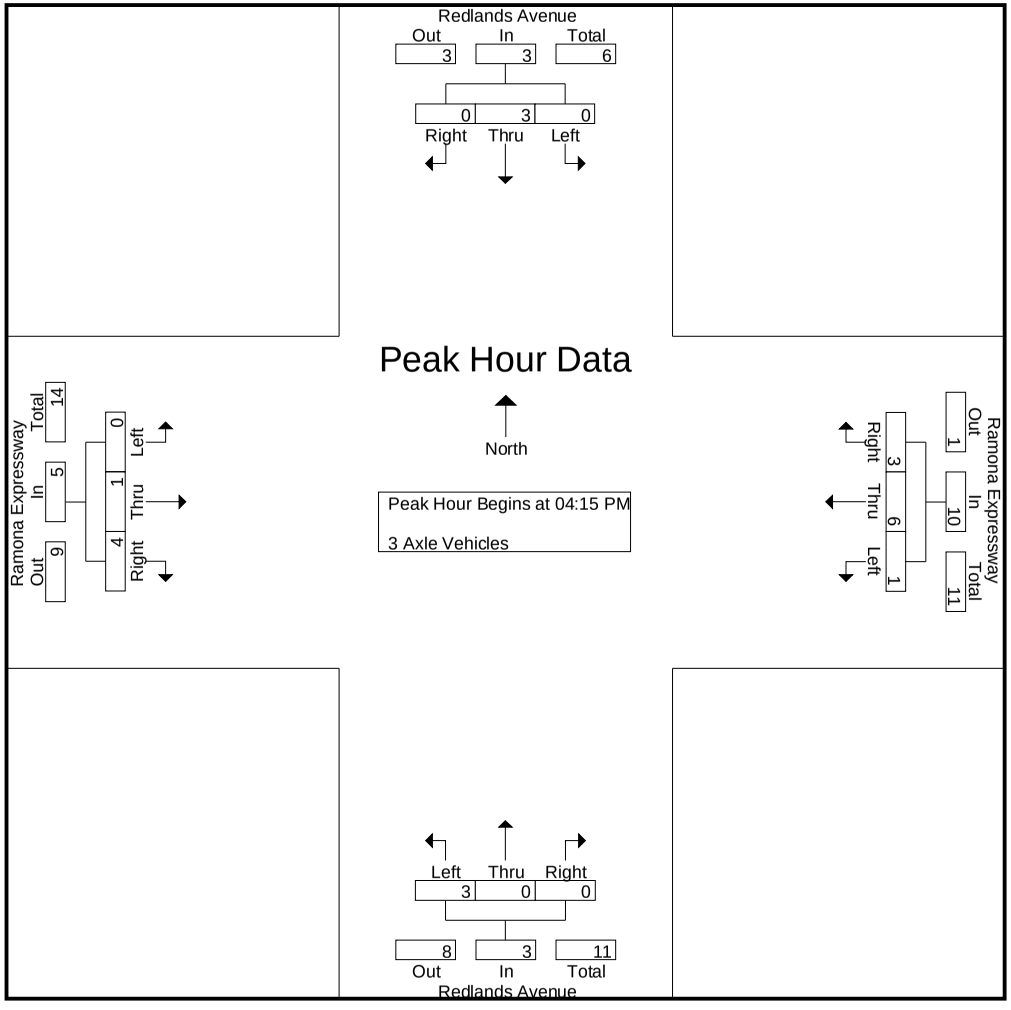
City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 3

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | |
| +0 mins. | 0 | 0 | 0 | 0 | **1** | 2 | 0 | 3 | **2** | 0 | 0 | **2** | 0 | **1** | 0 | 1 | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | **3** | 1 | **4** | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| +30 mins. | 0 | **2** | 0 | **2** | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | **3** | **3** | |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **2** | 2 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| Total Volume | 0 | 3 | 0 | 3 | 1 | 6 | 3 | 10 | 3 | 0 | 0 | 3 | 0 | 1 | 4 | 5 | |
| % App. Total | 0 | 100 | 0 | | 10 | 60 | 30 | | 100 | 0 | 0 | | 0 | 20 | 80 | | |
| PHF | .000 | .375 | .000 | .375 | .250 | .500 | .375 | .625 | .375 | .000 | .000 | .375 | .000 | .250 | .333 | .417 | |

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City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway
Weather: Clear

File Name : 14_PER_Redlands_Ramona PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Redlands Avenue Southbound | | | | | Ramona Expressway Westbound | | | | | Redlands Avenue Northbound | | | | | Ramona Expressway Eastbound | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Left | Thru | Right | RTOR | App. Total | Exclu. Total | Inclu. Total | Int. Total |
| 04:00 PM | 0 | 0 | 1 | 0 | 1 | 0 | 4 | 1 | 0 | 5 | 2 | 1 | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 |
| 04:15 PM | 0 | 2 | 0 | 0 | 2 | 0 | 3 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 3 | 0 | 9 | 9 |
| 04:30 PM | 0 | 1 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 2 | 4 | 2 | 10 | 12 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 3 | 1 | 0 | 0 | 4 | 0 | 3 | 1 | 0 | 4 | 0 | 11 | 11 |
| Total | 0 | 3 | 1 | 0 | 4 | 0 | 13 | 1 | 0 | 14 | 8 | 2 | 1 | 0 | 11 | 0 | 3 | 8 | 2 | 11 | 2 | 40 | 42 |
| 05:00 PM | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 2 | 2 | 1 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 2 | 0 | 8 | 8 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 2 | 1 | 0 | 0 | 3 | 0 | 2 | 0 | 0 | 2 | 0 | 7 | 7 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 1 | 0 | 3 | 0 | 7 | 7 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 9 | 9 |
| Total | 0 | 1 | 0 | 0 | 1 | 1 | 9 | 1 | 0 | 11 | 6 | 4 | 0 | 0 | 10 | 0 | 6 | 3 | 0 | 9 | 0 | 31 | 31 |
| Grand Total | 0 | 4 | 1 | 0 | 5 | 1 | 22 | 2 | 0 | 25 | 14 | 6 | 1 | 0 | 21 | 0 | 9 | 11 | 2 | 20 | 2 | 71 | 73 |
| Apprch % | 0 | 80 | 20 | | | 4 | 88 | 8 | | | 66.7 | 28.6 | 4.8 | | | 0 | 45 | 55 | | | | | |
| Total % | 0 | 5.6 | 1.4 | | 7 | 1.4 | 31 | 2.8 | | 35.2 | 19.7 | 8.5 | 1.4 | | 29.6 | 0 | 12.7 | 15.5 | | 28.2 | 2.7 | 97.3 | |

3.1-172

| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:15 PM | | | | | | | | | | | | | | | | | |
| 04:15 PM | 0 | **2** | 0 | **2** | 0 | **3** | 0 | **3** | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | 9 |
| 04:30 PM | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | **4** | **4** | 10 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | **3** | **1** | 0 | **4** | 0 | **3** | 1 | 4 | **11** |
| 05:00 PM | 0 | 1 | 0 | 1 | 0 | 1 | **1** | 2 | 2 | 1 | 0 | 3 | 0 | 0 | 2 | 2 | 8 |
| Total Volume | 0 | 4 | 0 | 4 | 0 | 10 | 1 | 11 | 8 | 2 | 0 | 10 | 0 | 3 | 10 | 13 | 38 |
| % App. Total | 0 | 100 | 0 | | 0 | 90.9 | 9.1 | | 80 | 20 | 0 | | 0 | 23.1 | 76.9 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .833 | .250 | .917 | .667 | .500 | .000 | .625 | .000 | .250 | .625 | .813 | .864 |

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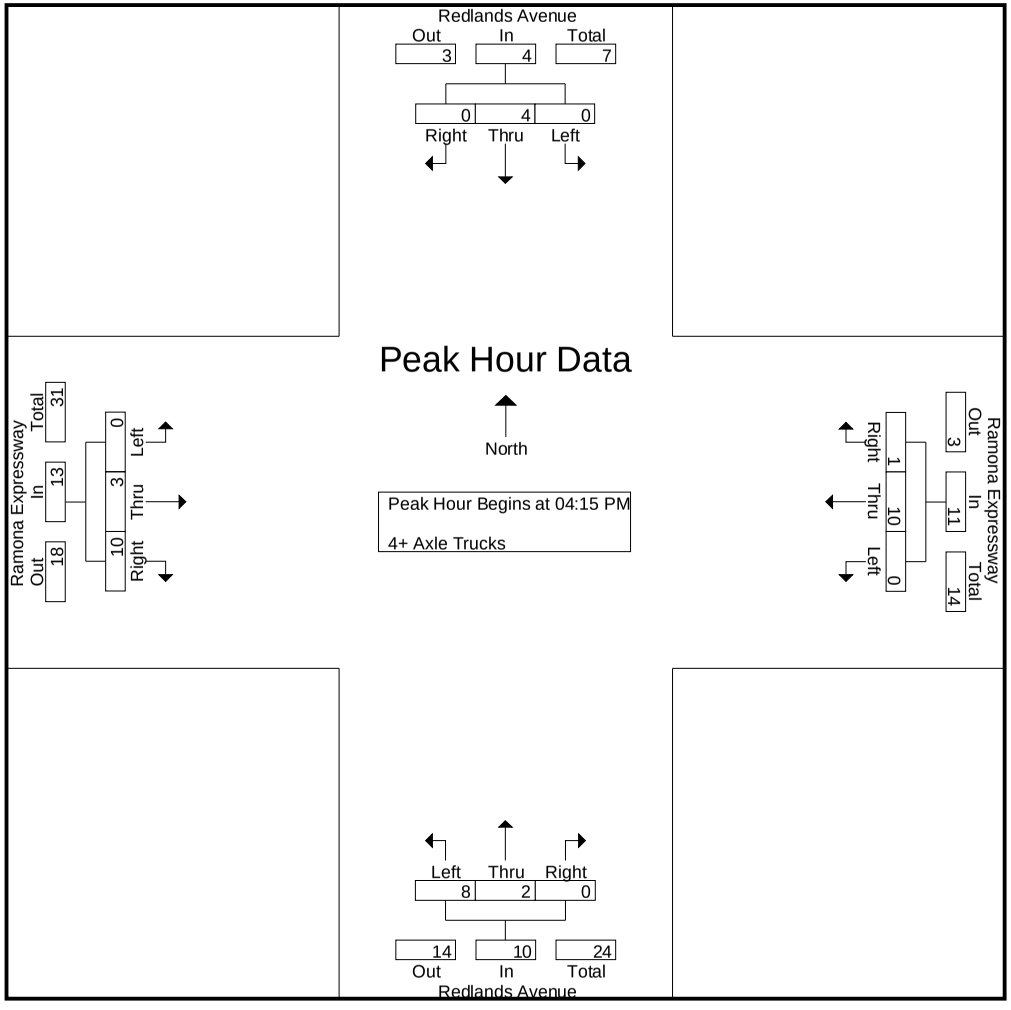
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2



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| | Redlands Avenue Southbound | | | | Ramona Expressway Westbound | | | | Redlands Avenue Northbound | | | | Ramona Expressway Eastbound | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Left | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1 | | | | | | | | | | | | | | | | | |
| Peak Hour for Each Approach Begins at: | | | | | | | | | | | | | | | | | |
| | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | 04:15 PM | | | | |
| +0 mins. | 0 | **2** | 0 | **2** | 0 | **3** | 0 | **3** | 1 | 0 | 0 | 1 | 0 | 0 | 3 | 3 | |
| +15 mins. | 0 | 1 | 0 | 1 | 0 | 3 | 0 | 3 | 2 | 0 | 0 | 2 | 0 | 0 | **4** | **4** | |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 3 | **3** | **1** | 0 | **4** | 0 | **3** | 1 | 4 | |
| +45 mins. | 0 | 1 | 0 | 1 | 0 | 1 | **1** | 2 | 2 | 1 | 0 | 3 | 0 | 0 | 2 | 2 | |
| Total Volume | 0 | 4 | 0 | 4 | 0 | 10 | 1 | 11 | 8 | 2 | 0 | 10 | 0 | 3 | 10 | 13 | |
| % App. Total | 0 | 100 | 0 | | 0 | 90.9 | 9.1 | | 80 | 20 | 0 | | 0 | 23.1 | 76.9 | | |
| PHF | .000 | .500 | .000 | .500 | .000 | .833 | .250 | .917 | .667 | .500 | .000 | .625 | .000 | .250 | .625 | .813 | |

Location: City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway

Date: 5/24/2018
Day: Thursday

**PEDESTRIANS**

| | North Leg Redlands Avenue | East Leg Ramona Expressway | South Leg Redlands Avenue | West Leg Ramona Expressway | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 1 | 0 | 1 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 1 | 0 | 1 |

| | North Leg Redlands Avenue | East Leg Ramona Expressway | South Leg Redlands Avenue | West Leg Ramona Expressway | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 1 | 1 | 1 | 0 | 3 |
| 4:30 PM | 0 | 0 | 2 | 0 | 2 |
| 4:45 PM | 1 | 1 | 2 | 0 | 4 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 1 | 2 | 0 | 3 |
| 5:30 PM | 0 | 0 | 1 | 0 | 1 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 2 | 3 | 8 | 0 | 13 |

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Location: City of Perris
N/S: Redlands Avenue
E/W: Ramona Expressway

Date: 5/24/2018
Day: Thursday

**BICYCLES**

| | Southbound Redlands Avenue | | | Westbound Ramona Expressway | | | Northbound Redlands Avenue | | | Eastbound Ramona Expressway | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |

| | Southbound Redlands Avenue | | | Westbound Ramona Expressway | | | Northbound Redlands Avenue | | | Eastbound Ramona Expressway | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 5:00 PM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| TOTAL VOLUMES: | 0 | 0 | 0 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 6 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 3 | 3 | 0 | 0 | 0 | 9 | 0 | 9 | 12 |
| 07:15 AM | 0 | 9 | 9 | 0 | 0 | 0 | 6 | 0 | 6 | 15 |
| 07:30 AM | 0 | 13 | 13 | 0 | 0 | 0 | 2 | 0 | 2 | 15 |
| 07:45 AM | 0 | 18 | 18 | 0 | 0 | 0 | 14 | 0 | 14 | 32 |
| Total | 0 | 43 | 43 | 0 | 0 | 0 | 31 | 0 | 31 | 74 |
| 08:00 AM | 0 | 5 | 5 | 0 | 0 | 0 | 2 | 0 | 2 | 7 |
| 08:15 AM | 0 | 11 | 11 | 0 | 0 | 0 | 5 | 0 | 5 | 16 |
| 08:30 AM | 0 | 5 | 5 | 0 | 0 | 0 | 7 | 0 | 7 | 12 |
| 08:45 AM | 0 | 4 | 4 | 0 | 0 | 0 | 3 | 0 | 3 | 7 |
| Total | 0 | 25 | 25 | 0 | 0 | 0 | 17 | 0 | 17 | 42 |
| Grand Total | 0 | 68 | 68 | 0 | 0 | 0 | 48 | 0 | 48 | 116 |
| Apprch % | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 58.6 | 58.6 | 0 | 0 | 0 | 41.4 | 0 | 41.4 | |
| Passenger Vehicles | 0 | 65 | 65 | 0 | 0 | 0 | 46 | 0 | 46 | 111 |
| % Passenger Vehicles | 0 | 95.6 | 95.6 | 0 | 0 | 0 | 95.8 | 0 | 95.8 | 95.7 |
| Large 2 Axle Vehicles | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 3 |
| % Large 2 Axle Vehicles | 0 | 1.5 | 1.5 | 0 | 0 | 0 | 4.2 | 0 | 4.2 | 2.6 |
| 3 Axle Vehicles | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| % 3 Axle Vehicles | 0 | 1.5 | 1.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 |
| 4+ Axle Trucks | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| % 4+ Axle Trucks | 0 | 1.5 | 1.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0.9 |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 3 | 3 | 0 | 0 | 0 | 9 | 0 | 9 | 12 |
| 07:15 AM | 0 | 9 | 9 | 0 | 0 | 0 | 6 | 0 | 6 | 15 |
| 07:30 AM | 0 | 13 | 13 | 0 | 0 | 0 | 2 | 0 | 2 | 15 |
| 07:45 AM | 0 | **18** | **18** | 0 | 0 | 0 | **14** | 0 | **14** | **32** |
| Total Volume | 0 | 43 | 43 | 0 | 0 | 0 | 31 | 0 | 31 | 74 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| PHF | .000 | .597 | .597 | .000 | .000 | .000 | .554 | .000 | .554 | .578 |

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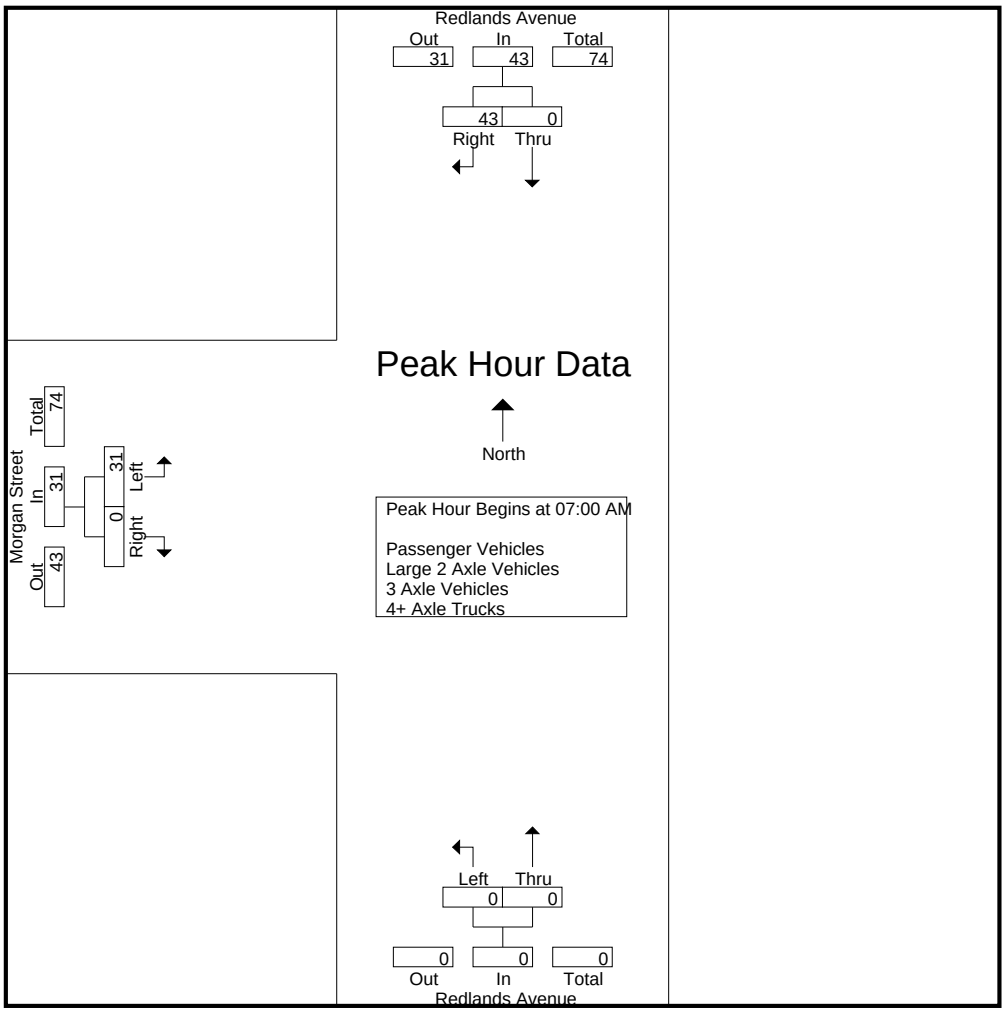
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:30 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 13 | 13 | 0 | 0 | 0 | 9 | 0 | 9 |
| +15 mins. | 0 | **18** | **18** | 0 | 0 | 0 | 6 | 0 | 6 |
| +30 mins. | 0 | 5 | 5 | 0 | 0 | 0 | 2 | 0 | 2 |
| +45 mins. | 0 | 11 | 11 | 0 | 0 | 0 | **14** | 0 | **14** |
| Total Volume | 0 | 47 | 47 | 0 | 0 | 0 | 31 | 0 | 31 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | |
| PHF | .000 | .653 | .653 | .000 | .000 | .000 | .554 | .000 | .554 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 2 | 2 | 0 | 0 | 0 | 9 | 0 | 9 | 11 |
| 07:15 AM | 0 | 9 | 9 | 0 | 0 | 0 | 5 | 0 | 5 | 14 |
| 07:30 AM | 0 | 12 | 12 | 0 | 0 | 0 | 2 | 0 | 2 | 14 |
| 07:45 AM | 0 | 18 | 18 | 0 | 0 | 0 | 14 | 0 | 14 | 32 |
| Total | 0 | 41 | 41 | 0 | 0 | 0 | 30 | 0 | 30 | 71 |
| 08:00 AM | 0 | 5 | 5 | 0 | 0 | 0 | 2 | 0 | 2 | 7 |
| 08:15 AM | 0 | 11 | 11 | 0 | 0 | 0 | 4 | 0 | 4 | 15 |
| 08:30 AM | 0 | 4 | 4 | 0 | 0 | 0 | 7 | 0 | 7 | 11 |
| 08:45 AM | 0 | 4 | 4 | 0 | 0 | 0 | 3 | 0 | 3 | 7 |
| Total | 0 | 24 | 24 | 0 | 0 | 0 | 16 | 0 | 16 | 40 |
| Grand Total | 0 | 65 | 65 | 0 | 0 | 0 | 46 | 0 | 46 | 111 |
| Apprch % | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 58.6 | 58.6 | 0 | 0 | 0 | 41.4 | 0 | 41.4 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 2 | 2 | 0 | 0 | 0 | 9 | 0 | 9 | 11 |
| 07:15 AM | 0 | 9 | 9 | 0 | 0 | 0 | 5 | 0 | 5 | 14 |
| 07:30 AM | 0 | 12 | 12 | 0 | 0 | 0 | 2 | 0 | 2 | 14 |
| 07:45 AM | 0 | **18** | **18** | 0 | 0 | 0 | **14** | 0 | **14** | **32** |
| Total Volume | 0 | 41 | 41 | 0 | 0 | 0 | 30 | 0 | 30 | 71 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| PHF | .000 | .569 | .569 | .000 | .000 | .000 | .536 | .000 | .536 | .555 |

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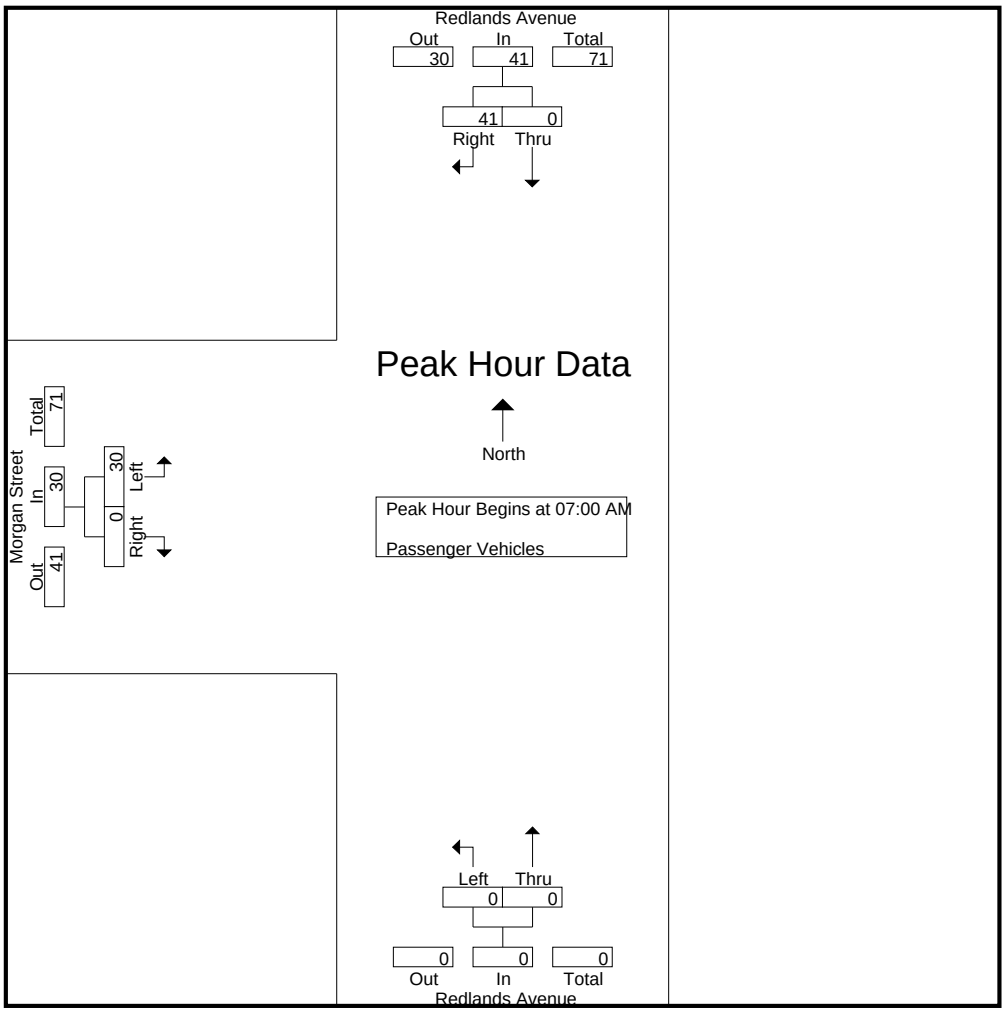
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 2 | 2 | 0 | 0 | 0 | 9 | 0 | 9 |
| +15 mins. | 0 | 9 | 9 | 0 | 0 | 0 | 5 | 0 | 5 |
| +30 mins. | 0 | 12 | 12 | 0 | 0 | 0 | 2 | 0 | 2 |
| +45 mins. | 0 | **18** | **18** | 0 | 0 | 0 | **14** | 0 | **14** |
| Total Volume | 0 | 41 | 41 | 0 | 0 | 0 | 30 | 0 | 30 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | |
| PHF | .000 | .569 | .569 | .000 | .000 | .000 | .536 | .000 | .536 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 07:30 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Grand Total | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 0 | 2 | 3 |
| Apprch % | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 33.3 | 33.3 | 0 | 0 | 0 | 66.7 | 0 | 66.7 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **1** |
| 07:30 AM | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| PHF | .000 | .250 | .250 | .000 | .000 | .000 | .250 | .000 | .250 | .500 |

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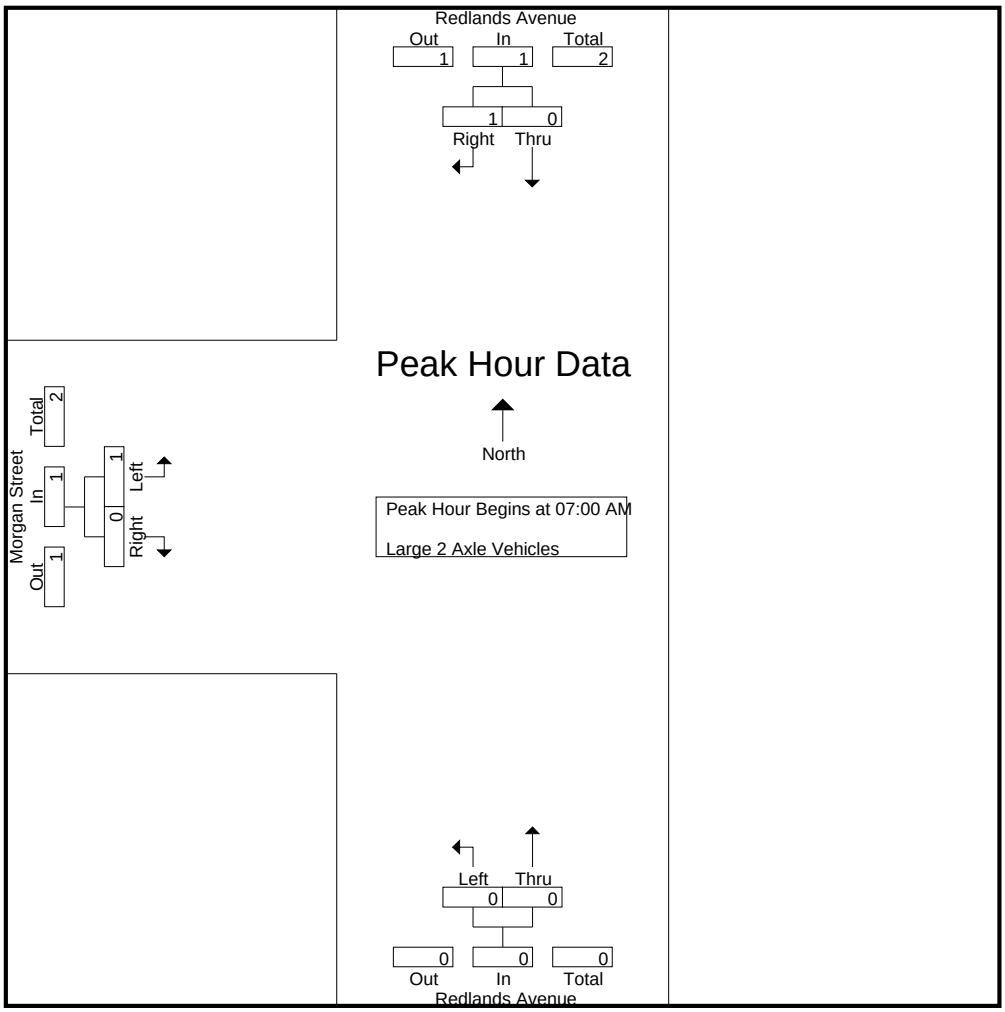
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| +30 mins. | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | |
| PHF | .000 | .250 | .250 | .000 | .000 | .000 | .250 | .000 | .250 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Apprch % | 0 | 100 | | 0 | 0 | | 0 | 0 | | |
| Total % | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

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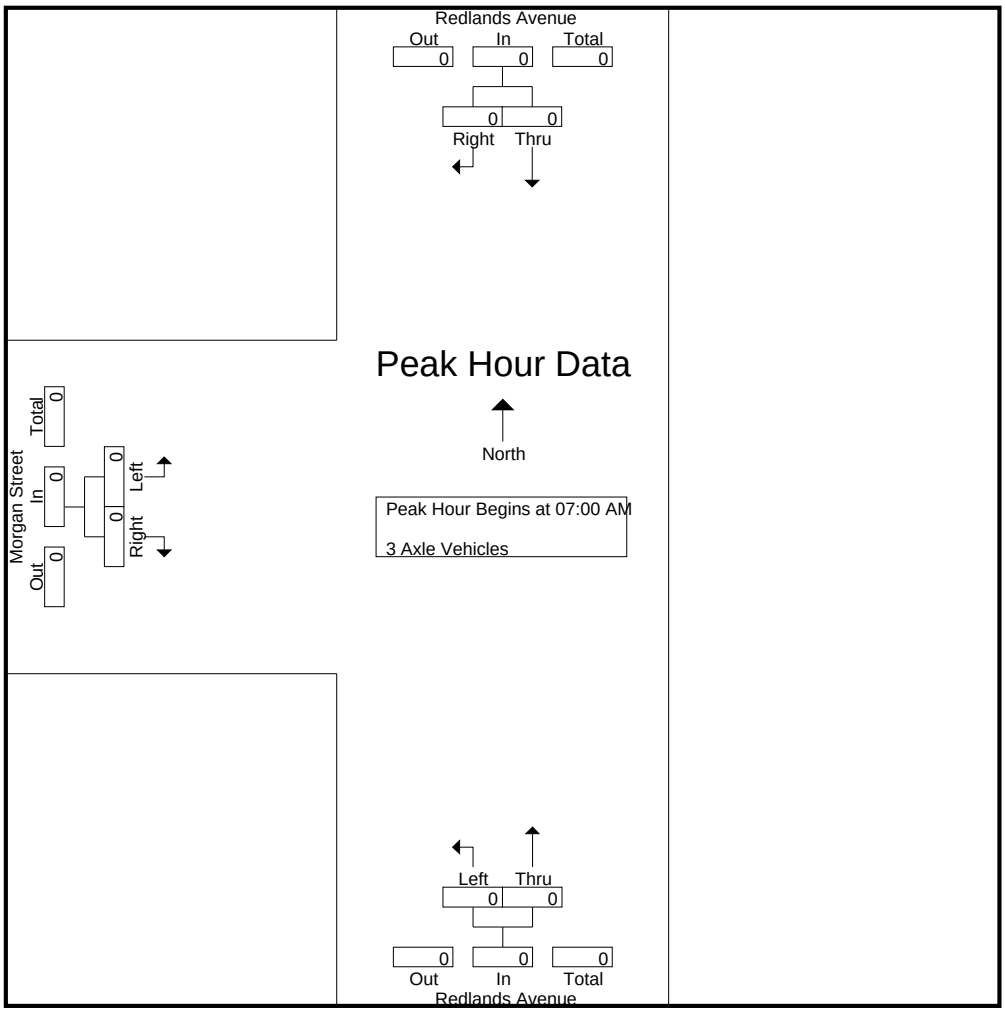
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Apprch % | 0 | 100 | | 0 | 0 | | 0 | 0 | | |
| Total % | 0 | 100 | 100 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 | **1** |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| % App. Total | 0 | 100 | | 0 | 0 | | 0 | 0 | | |
| PHF | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .000 | .000 | .250 |

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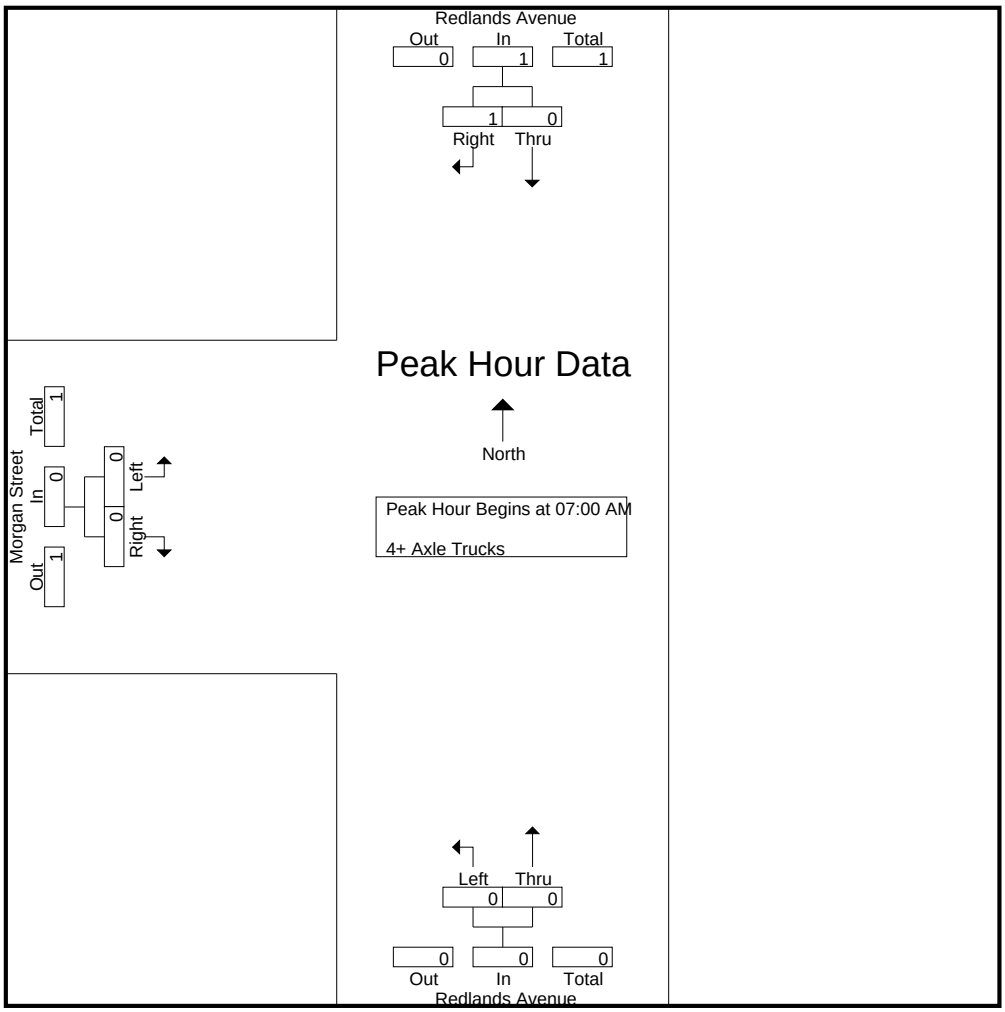
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | **1** | **1** | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 100 | | 0 | 0 | | 0 | 0 | |
| PHF | .000 | .250 | .250 | .000 | .000 | .000 | .000 | .000 | .000 |

Counts Unlimited
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(951) 268-6268

City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 1 | 7 | 8 | 0 | 1 | 1 | 7 | 0 | 7 | 16 |
| 04:15 PM | 0 | 4 | 4 | 0 | 0 | 0 | 8 | 0 | 8 | 12 |
| 04:30 PM | 0 | 12 | 12 | 0 | 0 | 0 | 13 | 0 | 13 | 25 |
| 04:45 PM | 0 | 7 | 7 | 0 | 0 | 0 | 10 | 0 | 10 | 17 |
| Total | 1 | 30 | 31 | 0 | 1 | 1 | 38 | 0 | 38 | 70 |
| 05:00 PM | 0 | 3 | 3 | 0 | 0 | 0 | 7 | 0 | 7 | 10 |
| 05:15 PM | 0 | 3 | 3 | 0 | 0 | 0 | 4 | 0 | 4 | 7 |
| 05:30 PM | 0 | 8 | 8 | 0 | 0 | 0 | 4 | 0 | 4 | 12 |
| 05:45 PM | 0 | 4 | 4 | 0 | 0 | 0 | 7 | 0 | 7 | 11 |
| Total | 0 | 18 | 18 | 0 | 0 | 0 | 22 | 0 | 22 | 40 |
| Grand Total | 1 | 48 | 49 | 0 | 1 | 1 | 60 | 0 | 60 | 110 |
| Apprch % | 2 | 98 | | 0 | 100 | | 100 | 0 | | |
| Total % | 0.9 | 43.6 | 44.5 | 0 | 0.9 | 0.9 | 54.5 | 0 | 54.5 | |
| Passenger Vehicles | 0 | 44 | 44 | 0 | 0 | 0 | 55 | 0 | 55 | 99 |
| % Passenger Vehicles | 0 | 91.7 | 89.8 | 0 | 0 | 0 | 91.7 | 0 | 91.7 | 90 |
| Large 2 Axle Vehicles | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| % Large 2 Axle Vehicles | 0 | 4.2 | 4.1 | 0 | 0 | 0 | 3.3 | 0 | 3.3 | 3.6 |
| 3 Axle Vehicles | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 2 | 5 |
| % 3 Axle Vehicles | 100 | 2.1 | 4.1 | 0 | 100 | 100 | 3.3 | 0 | 3.3 | 4.5 |
| 4+ Axle Trucks | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| % 4+ Axle Trucks | 0 | 2.1 | 2 | 0 | 0 | 0 | 1.7 | 0 | 1.7 | 1.8 |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **1** | 7 | 8 | 0 | **1** | **1** | 7 | 0 | 7 | 16 |
| 04:15 PM | 0 | 4 | 4 | 0 | 0 | 0 | 8 | 0 | 8 | 12 |
| 04:30 PM | 0 | **12** | **12** | 0 | 0 | 0 | **13** | 0 | **13** | **25** |
| 04:45 PM | 0 | 7 | 7 | 0 | 0 | 0 | 10 | 0 | 10 | 17 |
| Total Volume | 1 | 30 | 31 | 0 | 1 | 1 | 38 | 0 | 38 | 70 |
| % App. Total | 3.2 | 96.8 | | 0 | 100 | | 100 | 0 | | |
| PHF | .250 | .625 | .646 | .000 | .250 | .250 | .731 | .000 | .731 | .700 |

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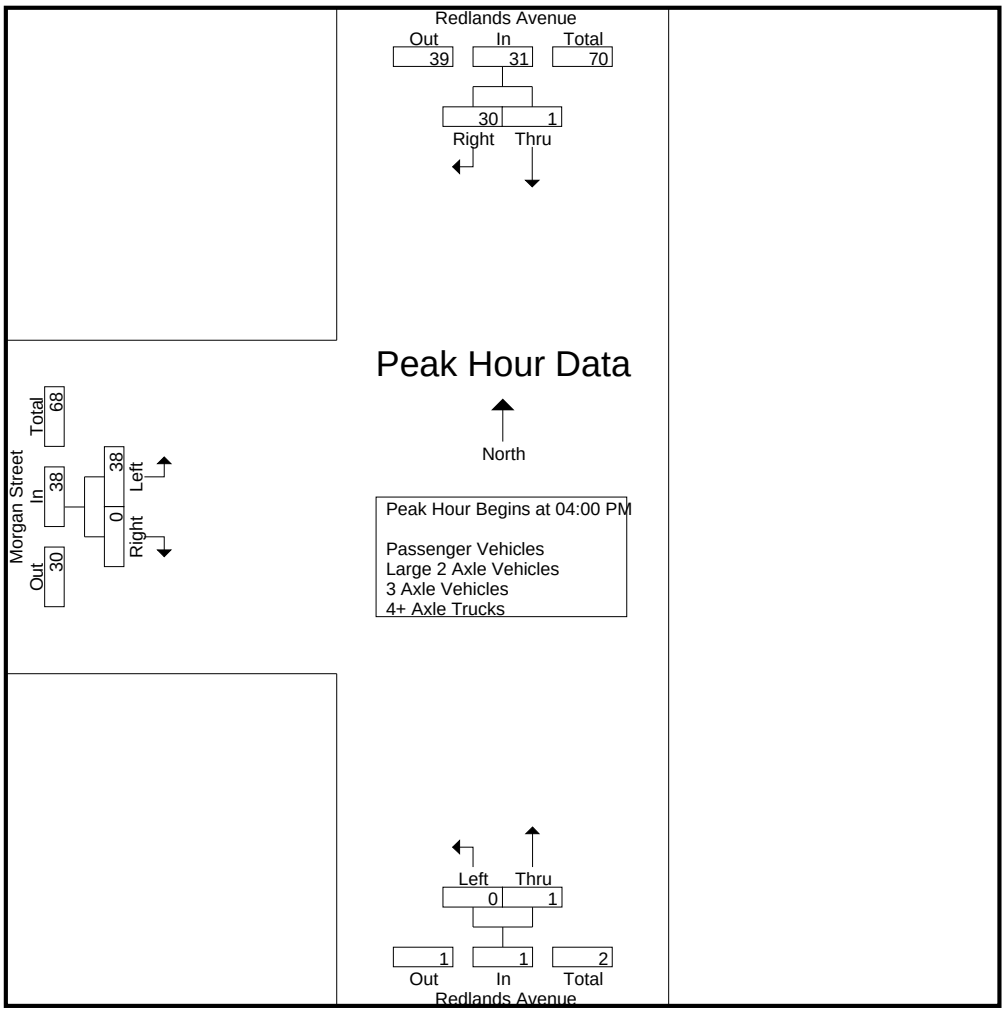
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **1** | 7 | 8 | 0 | **1** | **1** | 7 | 0 | 7 |
| +15 mins. | 0 | 4 | 4 | 0 | 0 | 0 | 8 | 0 | 8 |
| +30 mins. | 0 | **12** | **12** | 0 | 0 | 0 | **13** | 0 | **13** |
| +45 mins. | 0 | 7 | 7 | 0 | 0 | 0 | 10 | 0 | 10 |
| Total Volume | 1 | 30 | 31 | 0 | 1 | 1 | 38 | 0 | 38 |
| % App. Total | 3.2 | 96.8 | | 0 | 100 | | 100 | 0 | |
| PHF | .250 | .625 | .646 | .000 | .250 | .250 | .731 | .000 | .731 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 7 | 7 | 0 | 0 | 0 | 7 | 0 | 7 | 14 |
| 04:15 PM | 0 | 4 | 4 | 0 | 0 | 0 | 6 | 0 | 6 | 10 |
| 04:30 PM | 0 | 10 | 10 | 0 | 0 | 0 | 13 | 0 | 13 | 23 |
| 04:45 PM | 0 | 7 | 7 | 0 | 0 | 0 | 8 | 0 | 8 | 15 |
| Total | 0 | 28 | 28 | 0 | 0 | 0 | 34 | 0 | 34 | 62 |
| 05:00 PM | 0 | 3 | 3 | 0 | 0 | 0 | 7 | 0 | 7 | 10 |
| 05:15 PM | 0 | 3 | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 6 |
| 05:30 PM | 0 | 7 | 7 | 0 | 0 | 0 | 4 | 0 | 4 | 11 |
| 05:45 PM | 0 | 3 | 3 | 0 | 0 | 0 | 7 | 0 | 7 | 10 |
| Total | 0 | 16 | 16 | 0 | 0 | 0 | 21 | 0 | 21 | 37 |
| Grand Total | 0 | 44 | 44 | 0 | 0 | 0 | 55 | 0 | 55 | 99 |
| Apprch % | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 44.4 | 44.4 | 0 | 0 | 0 | 55.6 | 0 | 55.6 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | 0 | 7 | 7 | 0 | 0 | 0 | 7 | 0 | 7 | 14 |
| 04:15 PM | 0 | 4 | 4 | 0 | 0 | 0 | 6 | 0 | 6 | 10 |
| 04:30 PM | 0 | **10** | **10** | 0 | 0 | 0 | **13** | 0 | **13** | **23** |
| 04:45 PM | 0 | 7 | 7 | 0 | 0 | 0 | 8 | 0 | 8 | 15 |
| Total Volume | 0 | 28 | 28 | 0 | 0 | 0 | 34 | 0 | 34 | 62 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| PHF | .000 | .700 | .700 | .000 | .000 | .000 | .654 | .000 | .654 | .674 |

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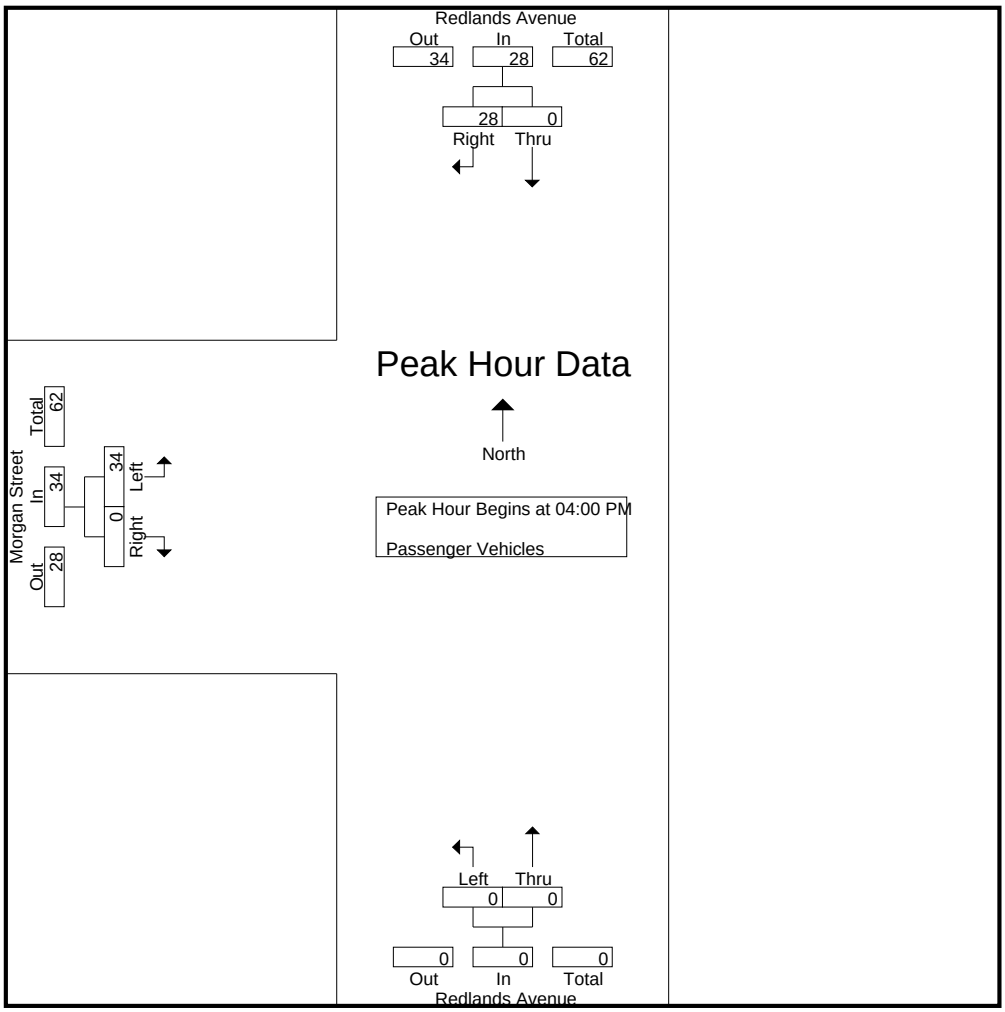
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 7 | 7 | 0 | 0 | 0 | 7 | 0 | 7 |
| +15 mins. | 0 | 4 | 4 | 0 | 0 | 0 | 6 | 0 | 6 |
| +30 mins. | 0 | **10** | **10** | 0 | 0 | 0 | **13** | 0 | **13** |
| +45 mins. | 0 | 7 | 7 | 0 | 0 | 0 | 8 | 0 | 8 |
| Total Volume | 0 | 28 | 28 | 0 | 0 | 0 | 34 | 0 | 34 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | |
| PHF | .000 | .700 | .700 | .000 | .000 | .000 | .654 | .000 | .654 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:30 PM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| Apprch % | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 50 | 50 | 0 | 0 | 0 | 50 | 0 | 50 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 1 |
| 04:30 PM | 0 | **2** | **2** | 0 | 0 | 0 | 0 | 0 | 0 | **2** |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total Volume | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| PHF | .000 | .250 | .250 | .000 | .000 | .000 | .500 | .000 | .500 | .500 |

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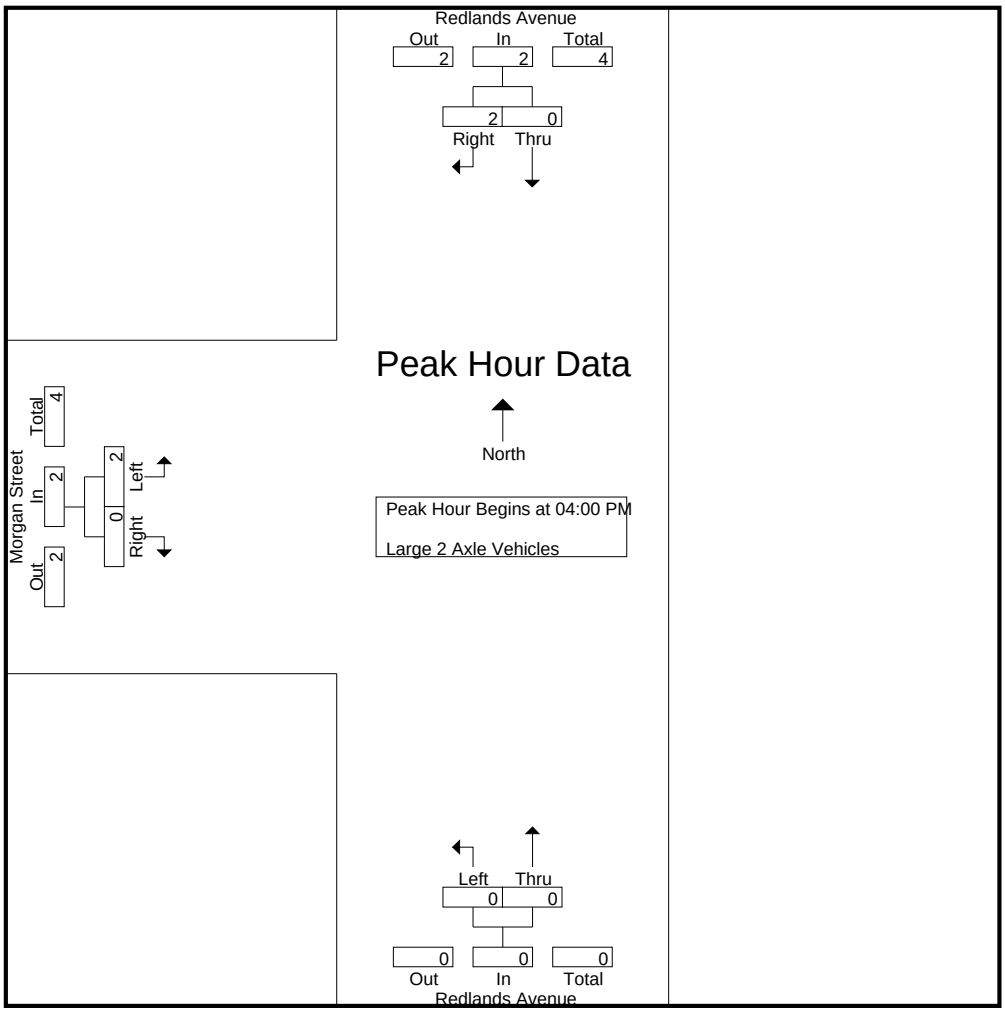
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| +30 mins. | 0 | **2** | **2** | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total Volume | 0 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 2 |
| % App. Total | 0 | 100 | | 0 | 0 | | 100 | 0 | |
| PHF | .000 | .250 | .250 | .000 | .000 | .000 | .500 | .000 | .500 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 1 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total | 1 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 2 | 4 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grand Total | 1 | 1 | 2 | 0 | 1 | 1 | 2 | 0 | 2 | 5 |
| Apprch % | 50 | 50 | | 0 | 100 | | 100 | 0 | | |
| Total % | 20 | 20 | 40 | 0 | 20 | 20 | 40 | 0 | 40 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | **1** | 0 | **1** | 0 | **1** | **1** | 0 | 0 | 0 | **2** |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 1 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total Volume | 1 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 2 | 4 |
| % App. Total | 100 | 0 | | 0 | 100 | | 100 | 0 | | |
| PHF | .250 | .000 | .250 | .000 | .250 | .250 | .500 | .000 | .500 | .500 |

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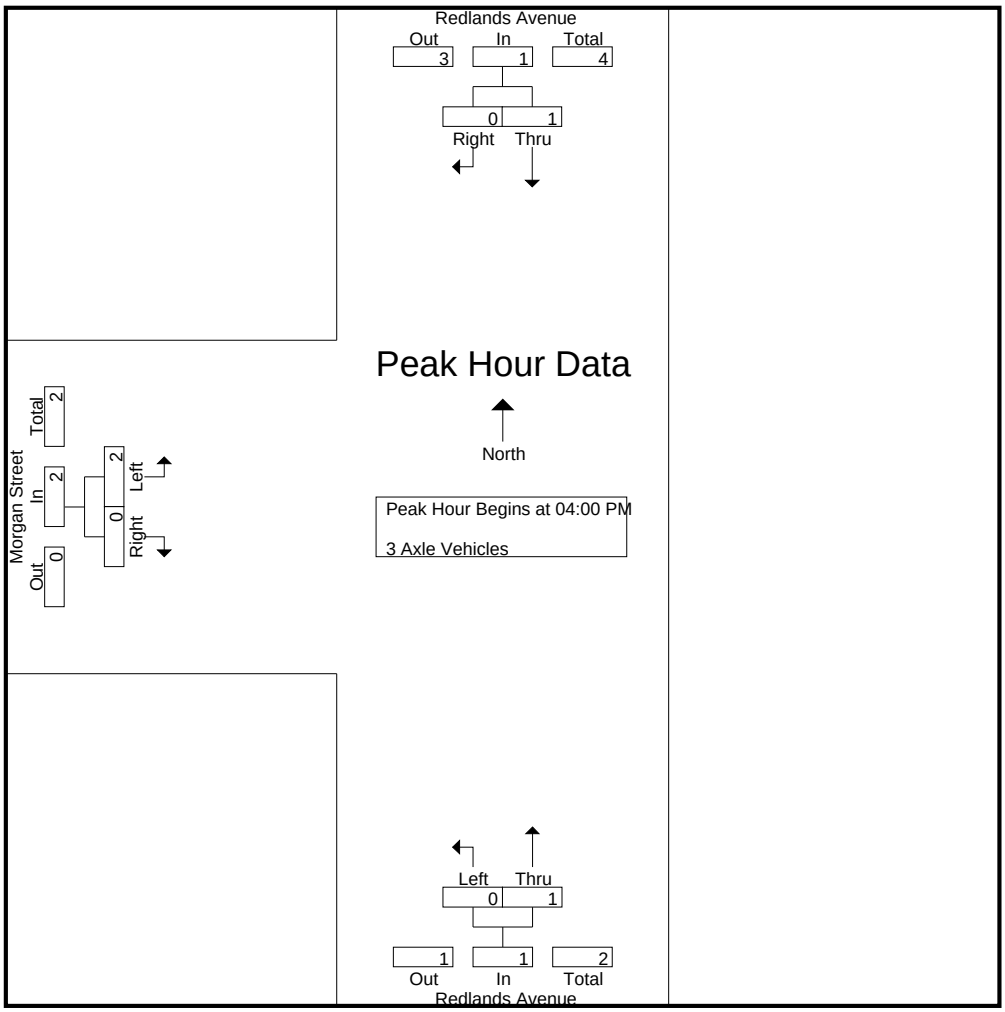
City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **1** | 0 | **1** | 0 | **1** | **1** | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total Volume | 1 | 0 | 1 | 0 | 1 | 1 | 2 | 0 | 2 |
| % App. Total | 100 | 0 | | 0 | 100 | | 100 | 0 | |
| PHF | .250 | .000 | .250 | .000 | .250 | .250 | .500 | .000 | .500 |

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City of Perris
N/S: Redlands Avenue
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Grand Total | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Apprch % | 0 | 100 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 50 | 50 | 0 | 0 | 0 | 50 | 0 | 50 | |

| | Redlands Avenue Southbound | | | Redlands Avenue Northbound | | | Morgan Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Thru | Right | App. Total | Left | Thru | App. Total | Left | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:00 PM | | | | | | | | | | |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

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City of Perris
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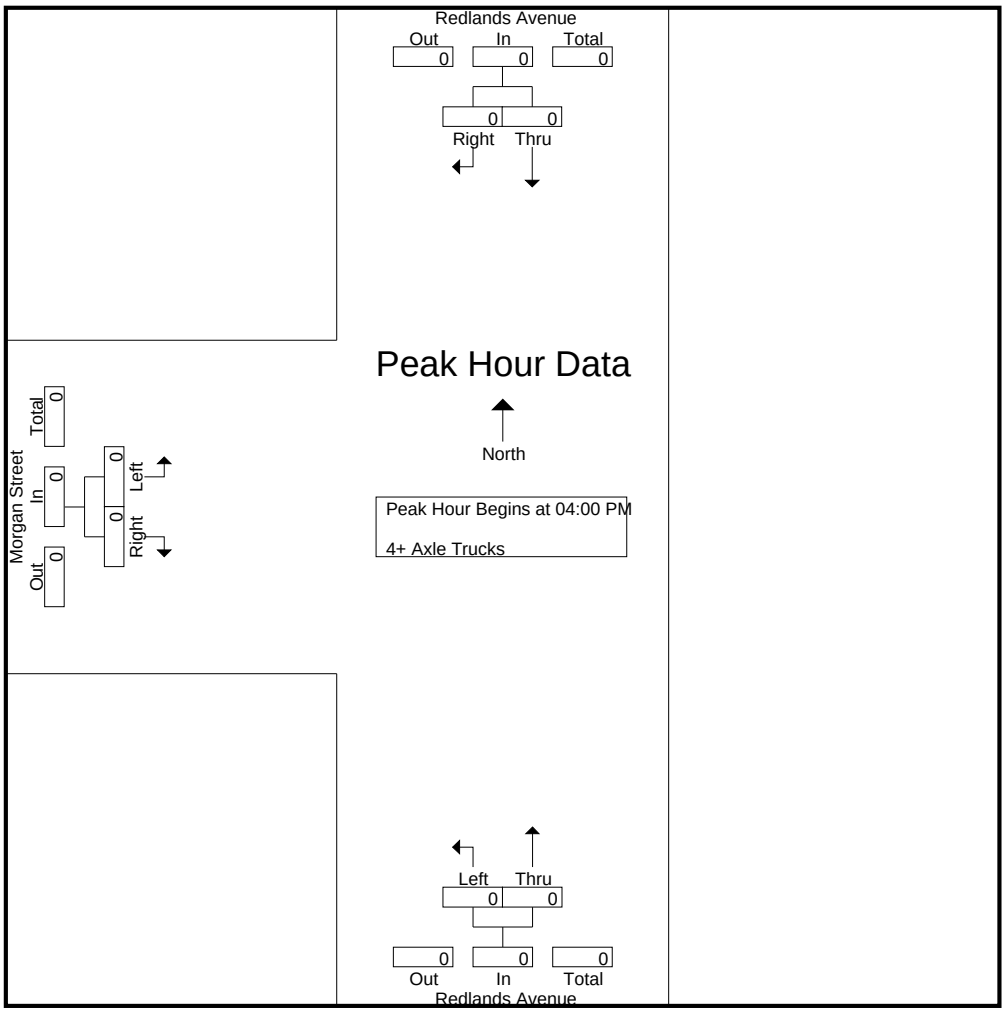
E/W: Morgan Street
Weather: Clear

File Name : 16_PER_Redlands_Morgan PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:00 PM | | | 04:00 PM | | | 04:00 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

Location: City of Perris
N/S: Redlands Avenue
E/W: Morgan Street

Date: 5/24/2018
Day: Thursday

**PEDESTRIANS**

| | North Leg Redlands Avenue | East Leg Morgan Street | South Leg Redlands Avenue | West Leg Morgan Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 0 | 0 | 0 |

| | North Leg Redlands Avenue | East Leg Morgan Street | South Leg Redlands Avenue | West Leg Morgan Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 1 | 0 | 1 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 1 | 0 | 1 |

Location: City of Perris
N/S: Redlands Avenue
E/W: Morgan Street

Date: 5/24/2018
Day: Thursday

**BICYCLES**

| | Southbound Redlands Avenue | | | Westbound Morgan Street | | | Northbound Redlands Avenue | | | Eastbound Morgan Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |

| | Southbound Redlands Avenue | | | Westbound Morgan Street | | | Northbound Redlands Avenue | | | Eastbound Morgan Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Counts Unlimited
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(951) 268-6268

City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 19 | 154 | 173 | 10 | 42 | 52 | 72 | 1 | 73 | 298 |
| 07:15 AM | 41 | 158 | 199 | 10 | 51 | 61 | 75 | 2 | 77 | 337 |
| 07:30 AM | 45 | 181 | 226 | 10 | 52 | 62 | 86 | 6 | 92 | 380 |
| 07:45 AM | 50 | 165 | 215 | 13 | 42 | 55 | 90 | 1 | 91 | 361 |
| Total | 155 | 658 | 813 | 43 | 187 | 230 | 323 | 10 | 333 | 1376 |
| 08:00 AM | 43 | 109 | 152 | 14 | 15 | 29 | 44 | 2 | 46 | 227 |
| 08:15 AM | 26 | 77 | 103 | 3 | 28 | 31 | 39 | 1 | 40 | 174 |
| 08:30 AM | 24 | 56 | 80 | 8 | 16 | 24 | 28 | 3 | 31 | 135 |
| 08:45 AM | 16 | 56 | 72 | 5 | 11 | 16 | 29 | 3 | 32 | 120 |
| Total | 109 | 298 | 407 | 30 | 70 | 100 | 140 | 9 | 149 | 656 |
| Grand Total | 264 | 956 | 1220 | 73 | 257 | 330 | 463 | 19 | 482 | 2032 |
| Apprch % | 21.6 | 78.4 | | 22.1 | 77.9 | | 96.1 | 3.9 | | |
| Total % | 13 | 47 | 60 | 3.6 | 12.6 | 16.2 | 22.8 | 0.9 | 23.7 | |
| Passenger Vehicles | 261 | 946 | 1207 | 70 | 253 | 323 | 450 | 16 | 466 | 1996 |
| % Passenger Vehicles | 98.9 | 99 | 98.9 | 95.9 | 98.4 | 97.9 | 97.2 | 84.2 | 96.7 | 98.2 |
| Large 2 Axle Vehicles | 3 | 10 | 13 | 1 | 3 | 4 | 10 | 1 | 11 | 28 |
| % Large 2 Axle Vehicles | | | | | | | | | | |
| 3 Axle Vehicles | 0 | 0 | 0 | 2 | 1 | 3 | 1 | 2 | 3 | 6 |
| % 3 Axle Vehicles | 0 | 0 | 0 | 2.7 | 0.4 | 0.9 | 0.2 | 10.5 | 0.6 | 0.3 |
| 4+ Axle Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| % 4+ Axle Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0.4 | 0 | 0.4 | 0.1 |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 19 | 154 | 173 | 10 | 42 | 52 | 72 | 1 | 73 | 298 |
| 07:15 AM | 41 | 158 | 199 | 10 | 51 | 61 | 75 | 2 | 77 | 337 |
| 07:30 AM | 45 | **181** | **226** | 10 | **52** | **62** | 86 | **6** | **92** | **380** |
| 07:45 AM | **50** | 165 | 215 | **13** | 42 | 55 | **90** | 1 | 91 | 361 |
| Total Volume | 155 | 658 | 813 | 43 | 187 | 230 | 323 | 10 | 333 | 1376 |
| % App. Total | 19.1 | 80.9 | | 18.7 | 81.3 | | 97 | 3 | | |
| PHF | .775 | .909 | .899 | .827 | .899 | .927 | .897 | .417 | .905 | .905 |

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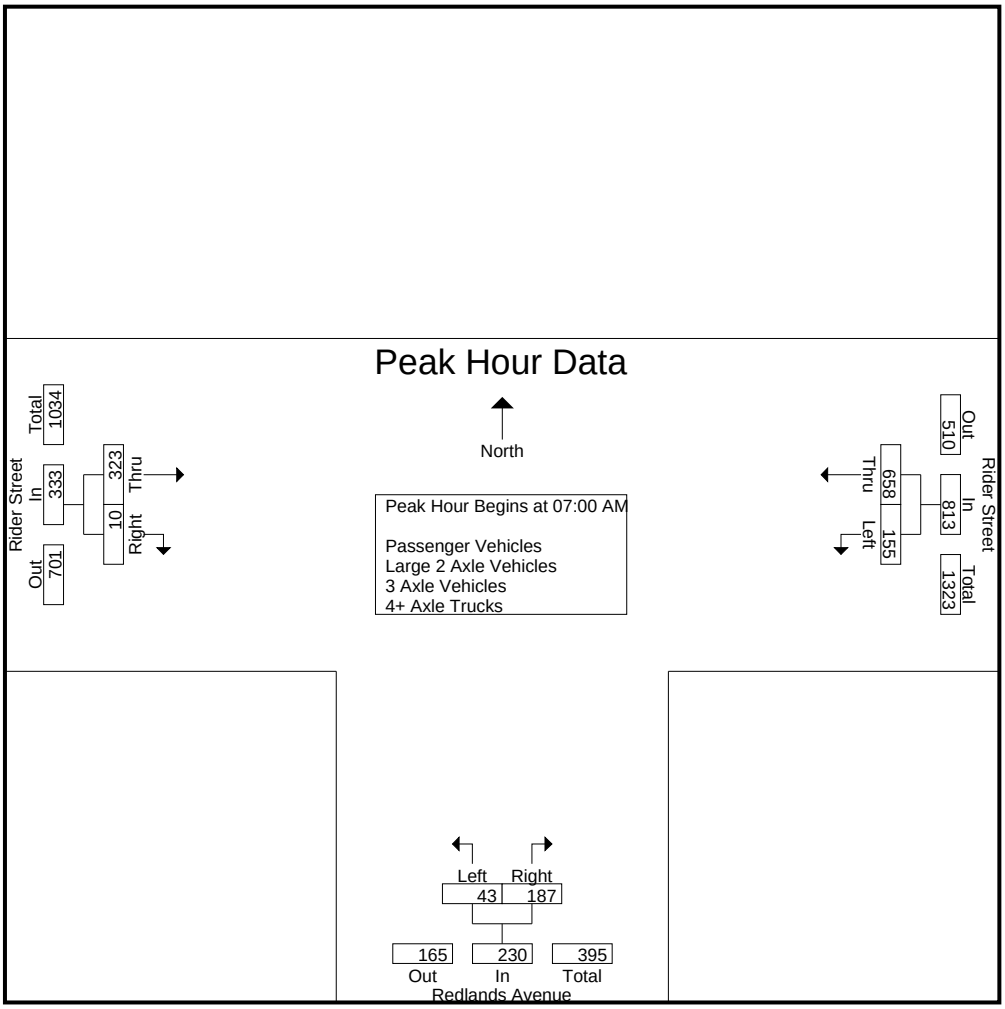
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 19 | 154 | 173 | 10 | 42 | 52 | 72 | 1 | 73 |
| +15 mins. | 41 | 158 | 199 | 10 | 51 | 61 | 75 | 2 | 77 |
| +30 mins. | 45 | **181** | **226** | 10 | **52** | **62** | 86 | **6** | **92** |
| +45 mins. | **50** | 165 | 215 | **13** | 42 | 55 | **90** | 1 | 91 |
| Total Volume | 155 | 658 | 813 | 43 | 187 | 230 | 323 | 10 | 333 |
| % App. Total | 19.1 | 80.9 | | 18.7 | 81.3 | | 97 | 3 | |
| PHF | .775 | .909 | .899 | .827 | .899 | .927 | .897 | .417 | .905 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 19 | 154 | 173 | 9 | 42 | 51 | 70 | 1 | 71 | 295 |
| 07:15 AM | 40 | 156 | 196 | 10 | 49 | 59 | 72 | 2 | 74 | 329 |
| 07:30 AM | 44 | 179 | 223 | 10 | 52 | 62 | 83 | 6 | 89 | 374 |
| 07:45 AM | 50 | 163 | 213 | 13 | 42 | 55 | 90 | 1 | 91 | 359 |
| Total | 153 | 652 | 805 | 42 | 185 | 227 | 315 | 10 | 325 | 1357 |
| 08:00 AM | 43 | 107 | 150 | 13 | 15 | 28 | 42 | 1 | 43 | 221 |
| 08:15 AM | 25 | 76 | 101 | 3 | 26 | 29 | 38 | 1 | 39 | 169 |
| 08:30 AM | 24 | 56 | 80 | 8 | 16 | 24 | 27 | 2 | 29 | 133 |
| 08:45 AM | 16 | 55 | 71 | 4 | 11 | 15 | 28 | 2 | 30 | 116 |
| Total | 108 | 294 | 402 | 28 | 68 | 96 | 135 | 6 | 141 | 639 |
| Grand Total | 261 | 946 | 1207 | 70 | 253 | 323 | 450 | 16 | 466 | 1996 |
| Apprch % | 21.6 | 78.4 | | 21.7 | 78.3 | | 96.6 | 3.4 | | |
| Total % | 13.1 | 47.4 | 60.5 | 3.5 | 12.7 | 16.2 | 22.5 | 0.8 | 23.3 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 19 | 154 | 173 | 9 | 42 | 51 | 70 | 1 | 71 | 295 |
| 07:15 AM | 40 | 156 | 196 | 10 | 49 | 59 | 72 | 2 | 74 | 329 |
| 07:30 AM | 44 | **179** | **223** | 10 | **52** | **62** | 83 | **6** | 89 | **374** |
| 07:45 AM | **50** | 163 | 213 | **13** | 42 | 55 | **90** | 1 | **91** | 359 |
| Total Volume | 153 | 652 | 805 | 42 | 185 | 227 | 315 | 10 | 325 | 1357 |
| % App. Total | 19 | 81 | | 18.5 | 81.5 | | 96.9 | 3.1 | | |
| PHF | .765 | .911 | .902 | .808 | .889 | .915 | .875 | .417 | .893 | .907 |

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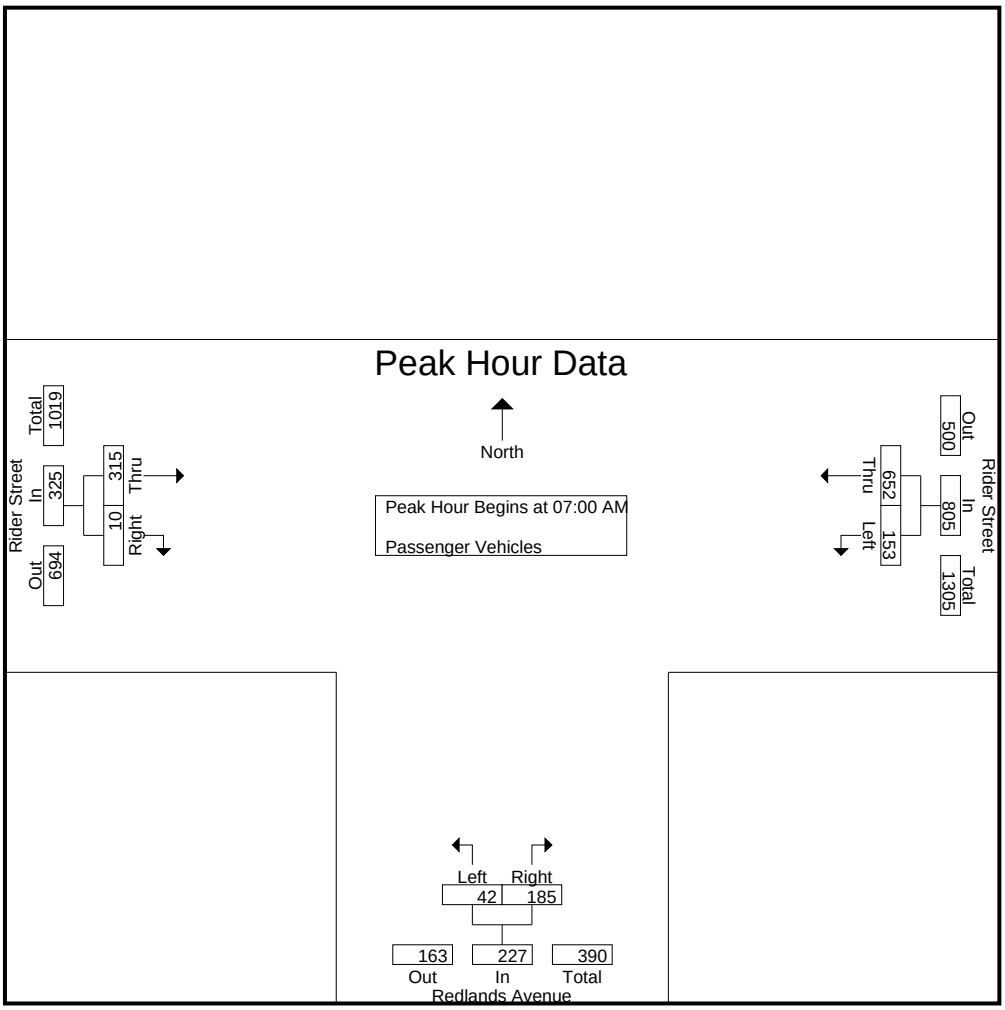
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 19 | 154 | 173 | 9 | 42 | 51 | 70 | 1 | 71 |
| +15 mins. | 40 | 156 | 196 | 10 | 49 | 59 | 72 | 2 | 74 |
| +30 mins. | 44 | **179** | **223** | 10 | **52** | **62** | 83 | **6** | 89 |
| +45 mins. | **50** | 163 | 213 | **13** | 42 | 55 | **90** | 1 | **91** |
| Total Volume | 153 | 652 | 805 | 42 | 185 | 227 | 315 | 10 | 325 |
| % App. Total | 19 | 81 | | 18.5 | 81.5 | | 96.9 | 3.1 | |
| PHF | .765 | .911 | .902 | .808 | .889 | .915 | .875 | .417 | .893 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 07:15 AM | 1 | 2 | 3 | 0 | 2 | 2 | 3 | 0 | 3 | 8 |
| 07:30 AM | 1 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 2 | 5 |
| 07:45 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total | 2 | 6 | 8 | 0 | 2 | 2 | 7 | 0 | 7 | 17 |
| 08:00 AM | 0 | 2 | 2 | 1 | 0 | 1 | 1 | 0 | 1 | 4 |
| 08:15 AM | 1 | 1 | 2 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 |
| 08:45 AM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Total | 1 | 4 | 5 | 1 | 1 | 2 | 3 | 1 | 4 | 11 |
| Grand Total | 3 | 10 | 13 | 1 | 3 | 4 | 10 | 1 | 11 | 28 |
| Apprch % | 23.1 | 76.9 | | 25 | 75 | | 90.9 | 9.1 | | |
| Total % | 10.7 | 35.7 | 46.4 | 3.6 | 10.7 | 14.3 | 35.7 | 3.6 | 39.3 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 07:15 AM | **1** | **2** | **3** | 0 | **2** | **2** | **3** | 0 | **3** | **8** |
| 07:30 AM | 1 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 2 | 5 |
| 07:45 AM | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Total Volume | 2 | 6 | 8 | 0 | 2 | 2 | 7 | 0 | 7 | 17 |
| % App. Total | 25 | 75 | | 0 | 100 | | 100 | 0 | | |
| PHF | .500 | .750 | .667 | .000 | .250 | .250 | .583 | .000 | .583 | .531 |

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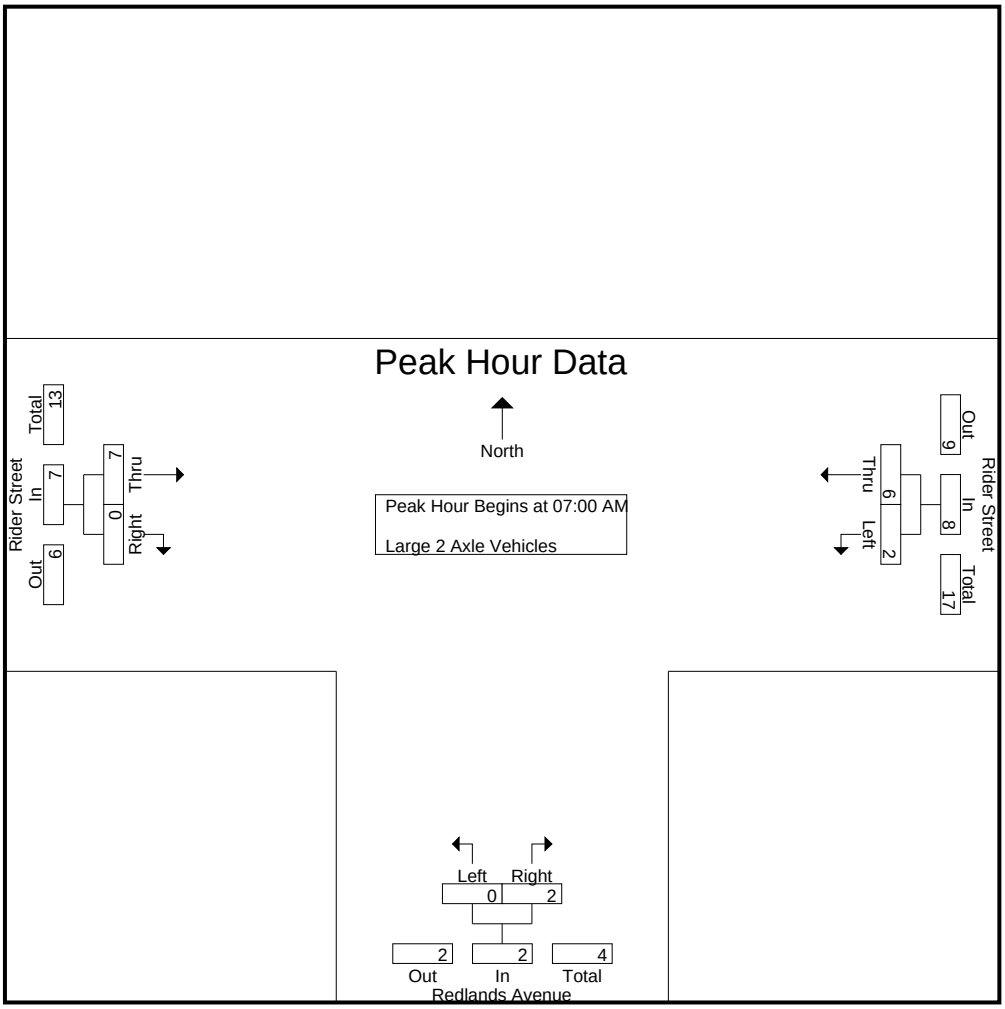
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 |
| +15 mins. | **1** | **2** | **3** | 0 | **2** | **2** | **3** | 0 | **3** |
| +30 mins. | 1 | 2 | 3 | 0 | 0 | 0 | 2 | 0 | 2 |
| +45 mins. | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 2 | 6 | 8 | 0 | 2 | 2 | 7 | 0 | 7 |
| % App. Total | 25 | 75 | | 0 | 100 | | 100 | 0 | |
| PHF | .500 | .750 | .667 | .000 | .250 | .250 | .583 | .000 | .583 |

Counts Unlimited
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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| 08:15 AM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 2 |
| Total | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 2 | 2 | 4 |
| Grand Total | 0 | 0 | 0 | 2 | 1 | 3 | 1 | 2 | 3 | 6 |
| Apprch % | 0 | 0 | | 66.7 | 33.3 | | 33.3 | 66.7 | | |
| Total % | 0 | 0 | 0 | 33.3 | 16.7 | 50 | 16.7 | 33.3 | 50 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 | **1** |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | 1 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 2 |
| % App. Total | 0 | 0 | | 100 | 0 | | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .250 | .000 | .250 | .250 | .000 | .250 | .500 |

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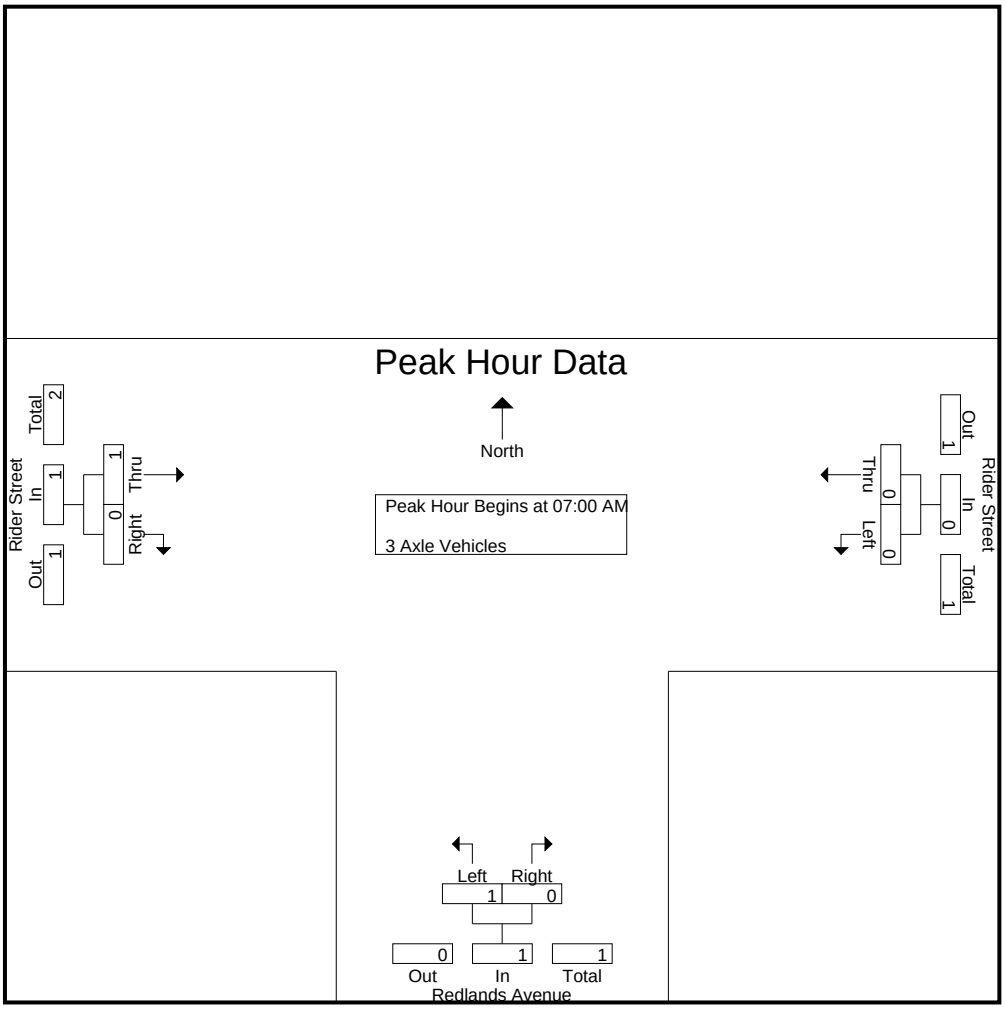
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | **1** | 0 | **1** | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| % App. Total | 0 | 0 | | 100 | 0 | | 100 | 0 | |
| PHF | .000 | .000 | .000 | .250 | .000 | .250 | .250 | .000 | .250 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 08:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| Apprch % | 0 | 0 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 07:00 AM | | | | | | | | | | |
| 07:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | | 0 | 0 | | 0 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

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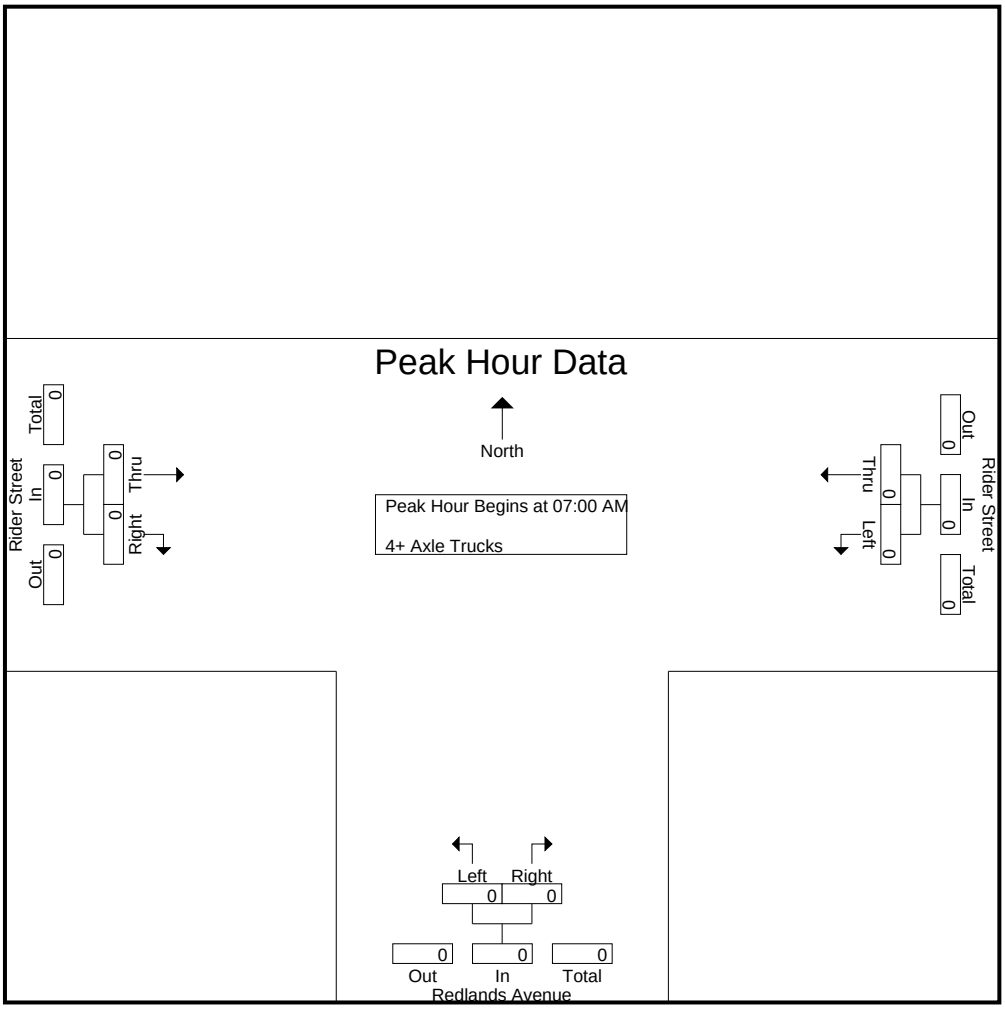
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider AM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 07:00 AM | | | 07:00 AM | | | 07:00 AM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % App. Total | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 |

Counts Unlimited
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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 15 | 62 | 77 | 11 | 23 | 34 | 100 | 10 | 110 | 221 |
| 04:15 PM | 20 | 63 | 83 | 6 | 21 | 27 | 108 | 8 | 116 | 226 |
| 04:30 PM | 24 | 76 | 100 | 9 | 24 | 33 | 121 | 10 | 131 | 264 |
| 04:45 PM | 25 | 81 | 106 | 6 | 20 | 26 | 115 | 10 | 125 | 257 |
| Total | 84 | 282 | 366 | 32 | 88 | 120 | 444 | 38 | 482 | 968 |
| 05:00 PM | 18 | 70 | 88 | 5 | 27 | 32 | 100 | 11 | 111 | 231 |
| 05:15 PM | 14 | 66 | 80 | 9 | 32 | 41 | 92 | 5 | 97 | 218 |
| 05:30 PM | 21 | 89 | 110 | 6 | 28 | 34 | 134 | 8 | 142 | 286 |
| 05:45 PM | 13 | 81 | 94 | 10 | 16 | 26 | 105 | 6 | 111 | 231 |
| Total | 66 | 306 | 372 | 30 | 103 | 133 | 431 | 30 | 461 | 966 |
| Grand Total | 150 | 588 | 738 | 62 | 191 | 253 | 875 | 68 | 943 | 1934 |
| Apprch % | 20.3 | 79.7 | | 24.5 | 75.5 | | 92.8 | 7.2 | | |
| Total % | 7.8 | 30.4 | 38.2 | 3.2 | 9.9 | 13.1 | 45.2 | 3.5 | 48.8 | |
| Passenger Vehicles | 146 | 577 | 723 | 62 | 189 | 251 | 861 | 66 | 927 | 1901 |
| % Passenger Vehicles | 97.3 | 98.1 | 98 | 100 | 99 | 99.2 | 98.4 | 97.1 | 98.3 | 98.3 |
| Large 2 Axle Vehicles | 3 | 10 | 13 | 0 | 2 | 2 | 10 | 2 | 12 | 27 |
| % Large 2 Axle Vehicles | | | | | | | | | | |
| 3 Axle Vehicles | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| % 3 Axle Vehicles | 0.7 | 0.2 | 0.3 | 0 | 0 | 0 | 0.2 | 0 | 0.2 | 0.2 |
| 4+ Axle Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| % 4+ Axle Trucks | 0 | 0 | 0 | 0 | 0 | 0 | 0.2 | 0 | 0.2 | 0.1 |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | **25** | 81 | 106 | 6 | 20 | 26 | 115 | 10 | 125 | 257 |
| 05:00 PM | 18 | 70 | 88 | 5 | 27 | 32 | 100 | **11** | 111 | 231 |
| 05:15 PM | 14 | 66 | 80 | **9** | **32** | **41** | 92 | 5 | 97 | 218 |
| 05:30 PM | 21 | **89** | **110** | 6 | 28 | 34 | **134** | 8 | **142** | **286** |
| Total Volume | 78 | 306 | 384 | 26 | 107 | 133 | 441 | 34 | 475 | 992 |
| % App. Total | 20.3 | 79.7 | | 19.5 | 80.5 | | 92.8 | 7.2 | | |
| PHF | .780 | .860 | .873 | .722 | .836 | .811 | .823 | .773 | .836 | .867 |

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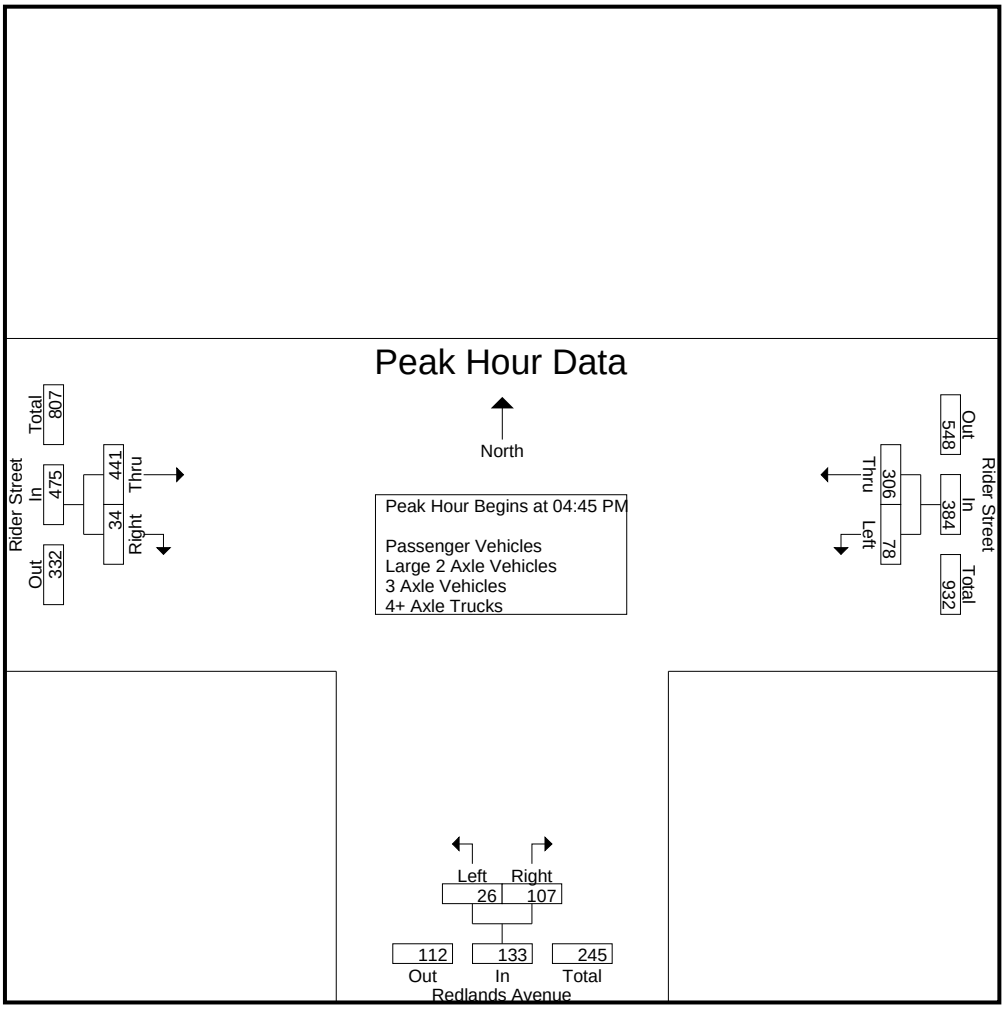
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | 04:45 PM | | | 04:15 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **25** | 81 | 106 | 6 | 20 | 26 | 108 | 8 | 116 |
| +15 mins. | 18 | 70 | 88 | 5 | 27 | 32 | **121** | 10 | **131** |
| +30 mins. | 14 | 66 | 80 | **9** | **32** | **41** | 115 | 10 | 125 |
| +45 mins. | 21 | **89** | **110** | 6 | 28 | 34 | 100 | **11** | 111 |
| Total Volume | 78 | 306 | 384 | 26 | 107 | 133 | 444 | 39 | 483 |
| % App. Total | 20.3 | 79.7 | | 19.5 | 80.5 | | 91.9 | 8.1 | |
| PHF | .780 | .860 | .873 | .722 | .836 | .811 | .917 | .886 | .922 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Passenger Vehicles

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 15 | 61 | 76 | 11 | 23 | 34 | 100 | 10 | 110 | 220 |
| 04:15 PM | 19 | 62 | 81 | 6 | 20 | 26 | 108 | 8 | 116 | 223 |
| 04:30 PM | 23 | 74 | 97 | 9 | 24 | 33 | 116 | 10 | 126 | 256 |
| 04:45 PM | 25 | 78 | 103 | 6 | 20 | 26 | 110 | 9 | 119 | 248 |
| Total | 82 | 275 | 357 | 32 | 87 | 119 | 434 | 37 | 471 | 947 |
| 05:00 PM | 18 | 70 | 88 | 5 | 26 | 31 | 99 | 11 | 110 | 229 |
| 05:15 PM | 12 | 66 | 78 | 9 | 32 | 41 | 92 | 5 | 97 | 216 |
| 05:30 PM | 21 | 86 | 107 | 6 | 28 | 34 | 133 | 8 | 141 | 282 |
| 05:45 PM | 13 | 80 | 93 | 10 | 16 | 26 | 103 | 5 | 108 | 227 |
| Total | 64 | 302 | 366 | 30 | 102 | 132 | 427 | 29 | 456 | 954 |
| Grand Total | 146 | 577 | 723 | 62 | 189 | 251 | 861 | 66 | 927 | 1901 |
| Apprch % | 20.2 | 79.8 | | 24.7 | 75.3 | | 92.9 | 7.1 | | |
| Total % | 7.7 | 30.4 | 38 | 3.3 | 9.9 | 13.2 | 45.3 | 3.5 | 48.8 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | **25** | 78 | 103 | 6 | 20 | 26 | 110 | 9 | 119 | 248 |
| 05:00 PM | 18 | 70 | 88 | 5 | 26 | 31 | 99 | **11** | 110 | 229 |
| 05:15 PM | 12 | 66 | 78 | **9** | **32** | **41** | 92 | 5 | 97 | 216 |
| 05:30 PM | 21 | **86** | **107** | 6 | 28 | 34 | **133** | 8 | **141** | **282** |
| Total Volume | 76 | 300 | 376 | 26 | 106 | 132 | 434 | 33 | 467 | 975 |
| % App. Total | 20.2 | 79.8 | | 19.7 | 80.3 | | 92.9 | 7.1 | | |
| PHF | .760 | .872 | .879 | .722 | .828 | .805 | .816 | .750 | .828 | .864 |

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City of Perris
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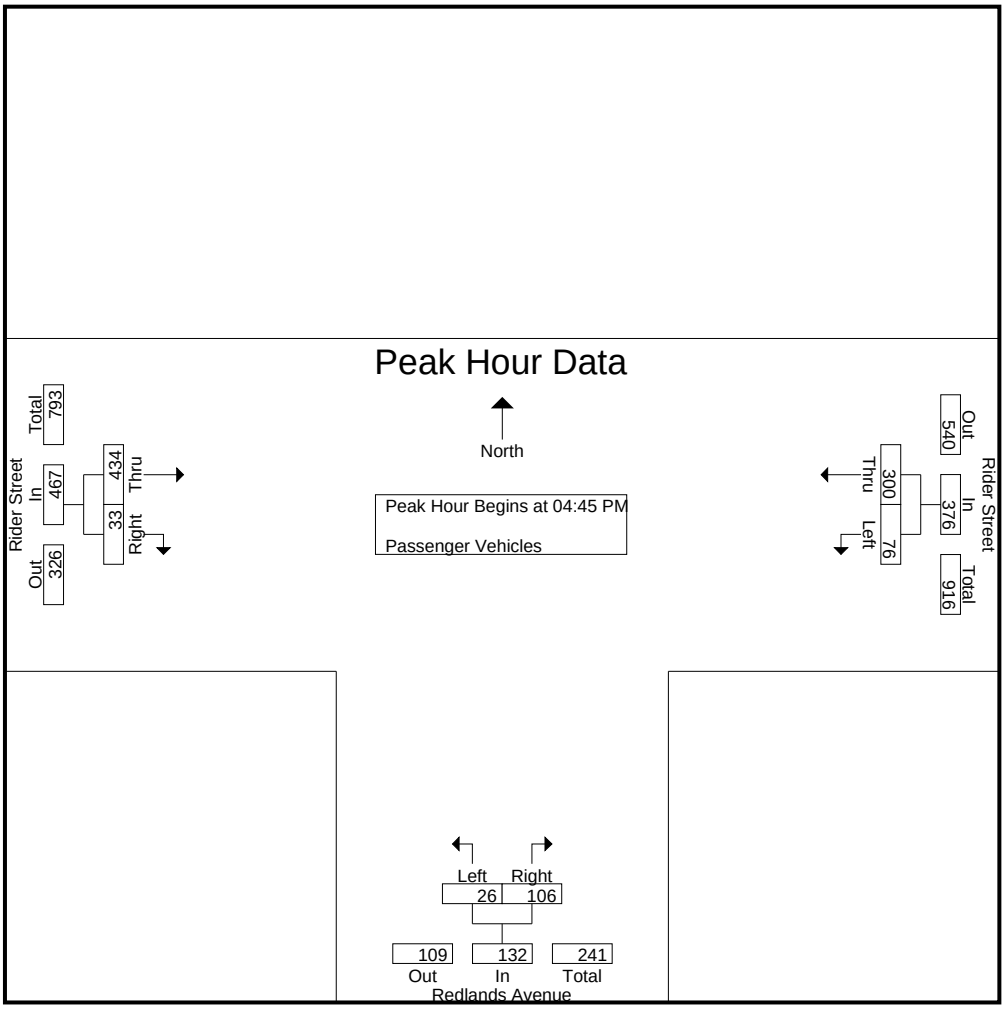
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | 04:45 PM | | | 04:45 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | **25** | 78 | 103 | 6 | 20 | 26 | 110 | 9 | 119 |
| +15 mins. | 18 | 70 | 88 | 5 | 26 | 31 | 99 | **11** | 110 |
| +30 mins. | 12 | 66 | 78 | **9** | **32** | **41** | 92 | 5 | 97 |
| +45 mins. | 21 | **86** | **107** | 6 | 28 | 34 | **133** | 8 | **141** |
| Total Volume | 76 | 300 | 376 | 26 | 106 | 132 | 434 | 33 | 467 |
| % App. Total | 20.2 | 79.8 | | 19.7 | 80.3 | | 92.9 | 7.1 | |
| PHF | .760 | .872 | .879 | .722 | .828 | .805 | .816 | .750 | .828 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- Large 2 Axle Vehicles

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 04:15 PM | 1 | 1 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 3 |
| 04:30 PM | 1 | 1 | 2 | 0 | 0 | 0 | 3 | 0 | 3 | 5 |
| 04:45 PM | 0 | 3 | 3 | 0 | 0 | 0 | 4 | 1 | 5 | 8 |
| Total | 2 | 6 | 8 | 0 | 1 | 1 | 7 | 1 | 8 | 17 |
| 05:00 PM | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| 05:15 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | 3 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| 05:45 PM | 0 | 1 | 1 | 0 | 0 | 0 | 2 | 1 | 3 | 4 |
| Total | 1 | 4 | 5 | 0 | 1 | 1 | 3 | 1 | 4 | 10 |
| Grand Total | 3 | 10 | 13 | 0 | 2 | 2 | 10 | 2 | 12 | 27 |
| Apprch % | 23.1 | 76.9 | | 0 | 100 | | 83.3 | 16.7 | | |
| Total % | 11.1 | 37 | 48.1 | 0 | 7.4 | 7.4 | 37 | 7.4 | 44.4 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | 0 | **3** | **3** | 0 | 0 | 0 | **4** | **1** | **5** | **8** |
| 05:00 PM | 0 | 0 | 0 | 0 | **1** | **1** | 0 | 0 | 0 | 1 |
| 05:15 PM | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | 3 | 3 | 0 | 0 | 0 | 1 | 0 | 1 | 4 |
| Total Volume | 1 | 6 | 7 | 0 | 1 | 1 | 5 | 1 | 6 | 14 |
| % App. Total | 14.3 | 85.7 | | 0 | 100 | | 83.3 | 16.7 | | |
| PHF | .250 | .500 | .583 | .000 | .250 | .250 | .313 | .250 | .300 | .438 |

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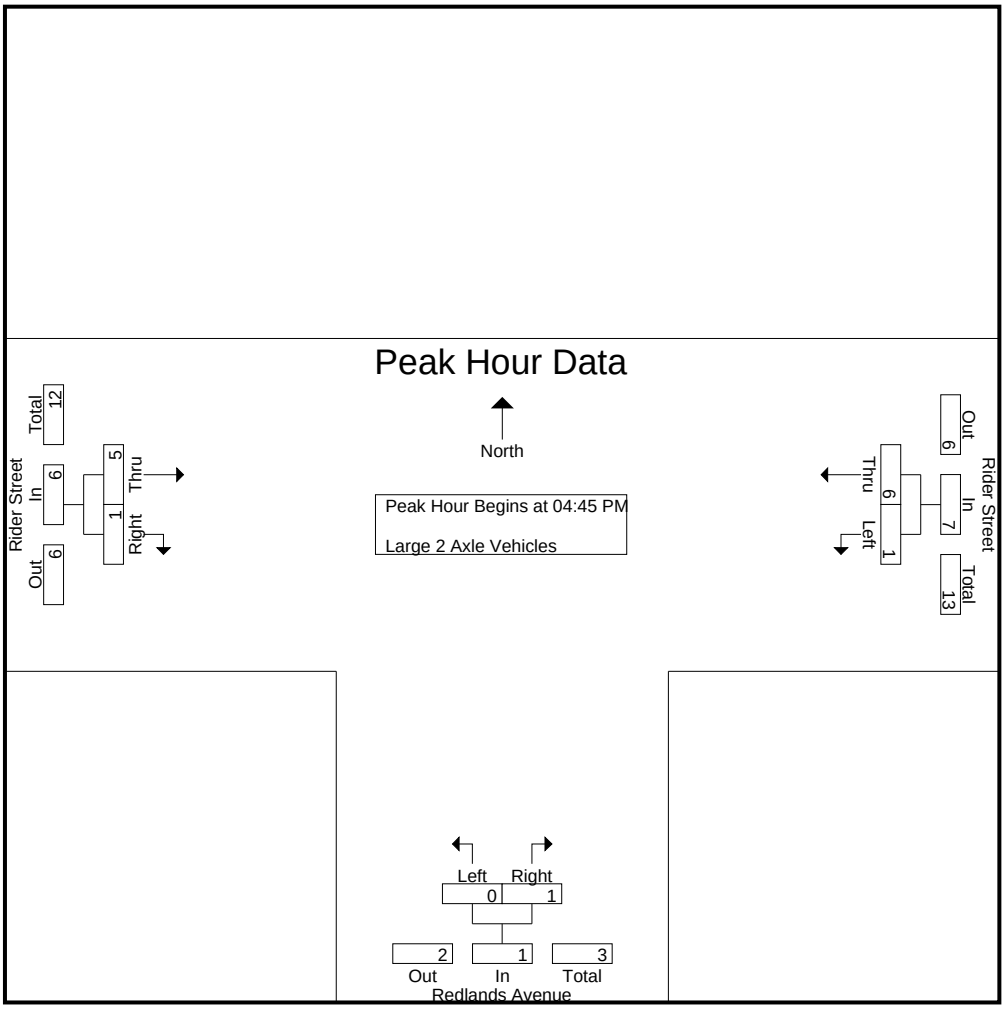
City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | 04:45 PM | | | 04:45 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | **3** | **3** | 0 | 0 | 0 | **4** | **1** | **5** |
| +15 mins. | 0 | 0 | 0 | 0 | **1** | **1** | 0 | 0 | 0 |
| +30 mins. | **1** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 3 | 3 | 0 | 0 | 0 | 1 | 0 | 1 |
| Total Volume | 1 | 6 | 7 | 0 | 1 | 1 | 5 | 1 | 6 |
| % App. Total | 14.3 | 85.7 | | 0 | 100 | | 83.3 | 16.7 | |
| PHF | .250 | .500 | .583 | .000 | .250 | .250 | .313 | .250 | .300 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 3 Axle Vehicles

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 05:15 PM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| Grand Total | 1 | 1 | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 4 |
| Apprch % | 50 | 50 | | 0 | 0 | | 100 | 0 | | |
| Total % | 25 | 25 | 50 | 0 | 0 | 0 | 50 | 0 | 50 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **1** |
| 05:15 PM | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 2 |
| % App. Total | 100 | 0 | | 0 | 0 | | 100 | 0 | | |
| PHF | .250 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .250 | .500 |

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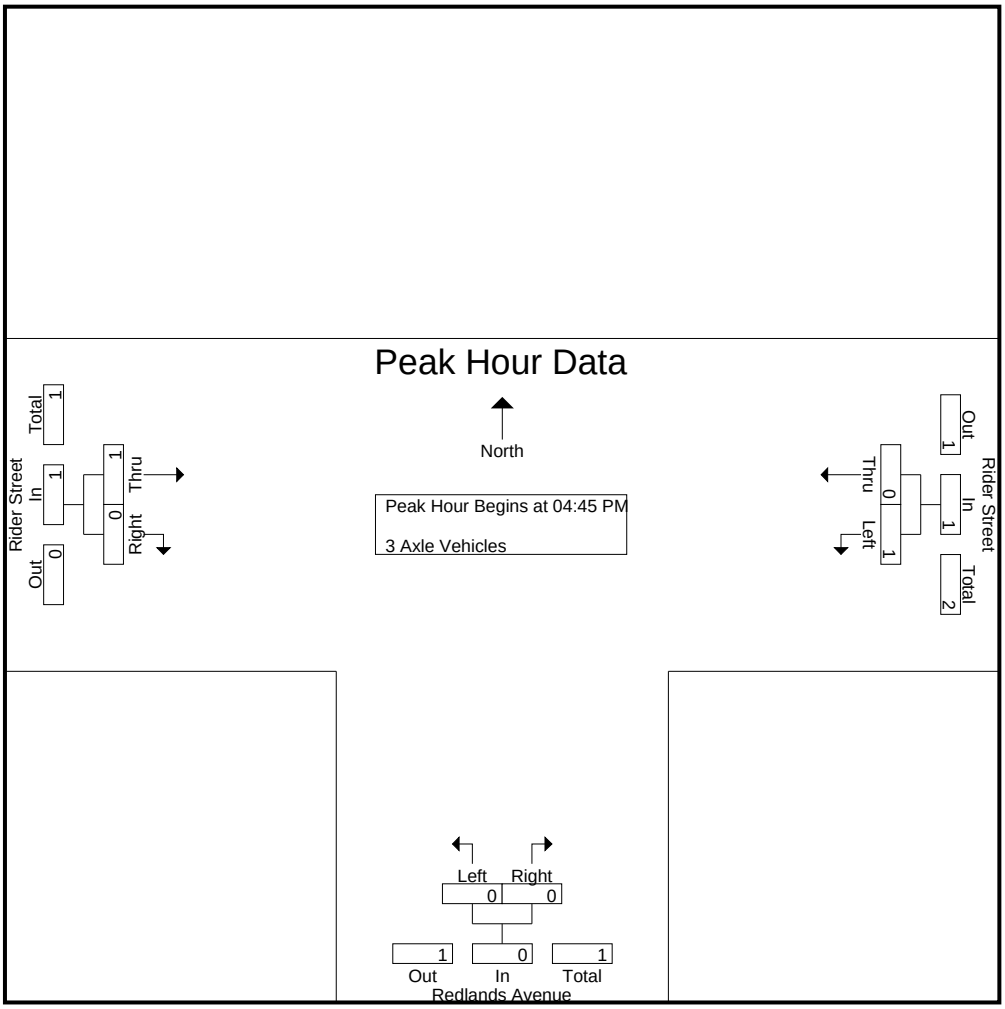
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 2




Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | 04:45 PM | | | 04:45 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| +30 mins. | **1** | 0 | **1** | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| % App. Total | 100 | 0 | | 0 | 0 | | 100 | 0 | |
| PHF | .250 | .000 | .250 | .000 | .000 | .000 | .250 | .000 | .250 |

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City of Perris
N/S: Redlands Avenue
E/W: Rider Street
Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
Page No : 1

Groups Printed- 4+ Axle Trucks

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| 04:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 2 |
| Apprch % | 0 | 0 | | 0 | 0 | | 100 | 0 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 100 | |

| | Rider Street Westbound | | | Redlands Avenue Northbound | | | Rider Street Eastbound | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Start Time | Left | Thru | App. Total | Left | Right | App. Total | Thru | Right | App. Total | Int. Total |
| Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1 | | | | | | | | | | |
| Peak Hour for Entire Intersection Begins at 04:45 PM | | | | | | | | | | |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** | **1** |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 05:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| % App. Total | 0 | 0 | | 0 | 0 | | 100 | 0 | | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 | .250 |

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City of Perris
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Weather: Clear

File Name : 18_PER_Redlands_Rider PM
Site Code : 05118431
Start Date : 5/24/2018
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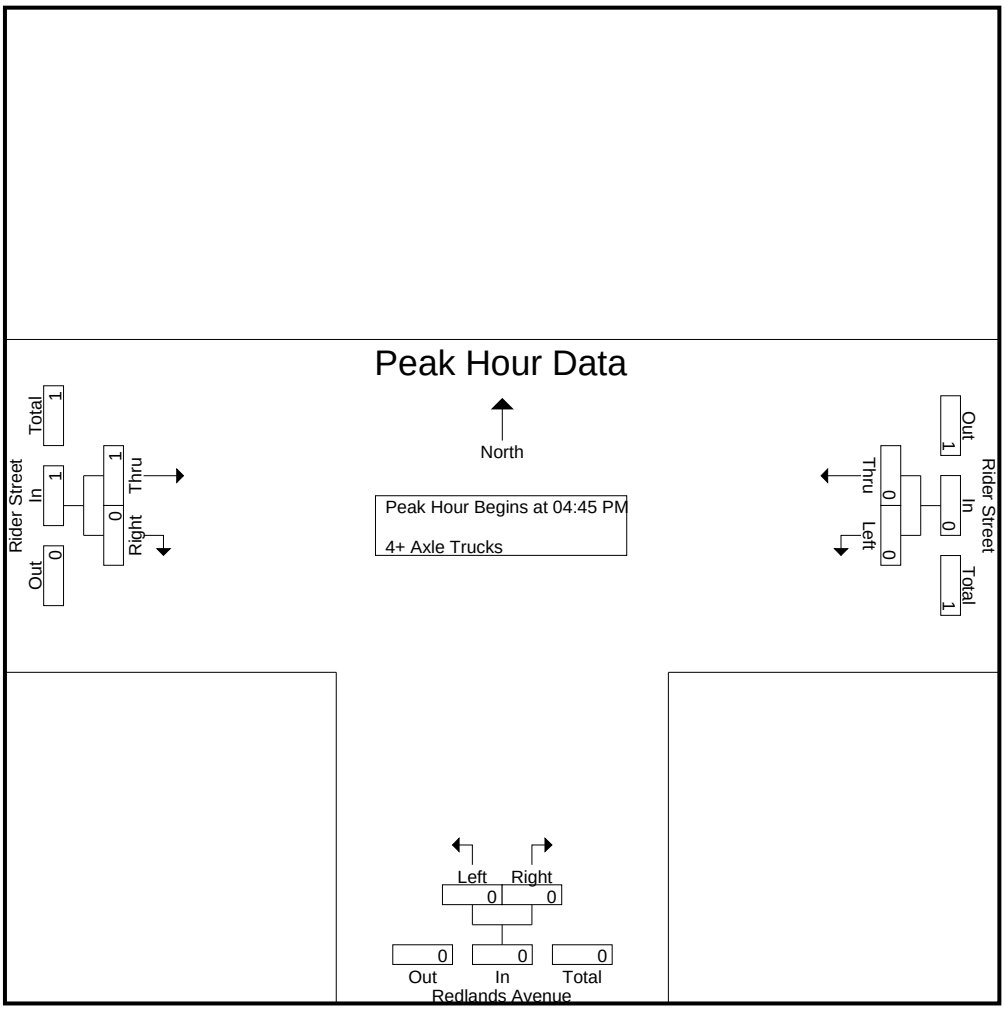


Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

| | 04:45 PM | | | 04:45 PM | | | 04:45 PM | | |
|---|---|---|---|---|---|---|---|---|---|
| +0 mins. | 0 | 0 | 0 | 0 | 0 | 0 | **1** | 0 | **1** |
| +15 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +30 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| +45 mins. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Volume | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| % App. Total | 0 | 0 | | 0 | 0 | | 100 | 0 | |
| PHF | .000 | .000 | .000 | .000 | .000 | .000 | .250 | .000 | .250 |

Location: City of Perris
N/S: Redlands Avenue
E/W: Rider Street

Date: 5/24/2018
Day: Thursday

**PEDESTRIANS**

| | North Leg Redlands Avenue | East Leg Rider Street | South Leg Redlands Avenue | West Leg Rider Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 2 | 0 | 2 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 2 | 0 | 2 |

| | North Leg Redlands Avenue | East Leg Rider Street | South Leg Redlands Avenue | West Leg Rider Street | |
|---|---|---|---|---|---|
| | Pedestrians | Pedestrians | Pedestrians | Pedestrians | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 0 | 0 | 0 |

Location: City of Perris
N/S: Redlands Avenue
E/W: Rider Street

Date: 5/24/2018
Day: Thursday

**BICYCLES**

| | Southbound Redlands Avenue | | | Westbound Rider Street | | | Northbound Redlands Avenue | | | Eastbound Rider Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 7:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| | Southbound Redlands Avenue | | | Westbound Rider Street | | | Northbound Redlands Avenue | | | Eastbound Rider Street | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| 4:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL VOLUMES: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

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City of Perris
Harley Knox Boulevard
W/ Perris Boulevard
24 Hour Directional Classification Count

PER001
Site Code: 051-18431

Eastbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 1 | 31 | 5 | 0 | 2 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | **1** | 46 |
| 01:00 | 0 | 39 | 4 | 1 | 0 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 49 |
| 02:00 | 3 | 47 | 11 | 0 | 1 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 67 |
| 03:00 | 2 | 71 | 15 | 0 | 2 | 4 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 96 |
| 04:00 | 6 | 123 | 24 | 2 | 4 | 9 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 169 |
| 05:00 | 5 | 110 | 26 | 0 | 11 | 6 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 163 |
| 06:00 | 5 | 92 | 34 | 0 | 13 | 6 | 0 | 3 | 6 | 0 | 0 | 0 | 0 | 159 |
| 07:00 | 3 | **177** | **51** | 1 | 10 | 3 | **1** | **10** | 3 | **2** | 0 | 0 | 0 | **261** |
| 08:00 | 4 | 118 | 40 | 3 | 16 | 5 | 0 | 5 | 4 | 0 | **1** | 0 | 1 | 197 |
| 09:00 | 3 | 82 | 29 | **5** | 9 | 4 | 0 | 5 | 7 | 0 | 0 | 0 | 0 | 144 |
| 10:00 | 11 | 98 | 27 | 4 | **17** | 14 | 0 | 7 | **20** | 0 | 1 | 0 | 0 | 199 |
| 11:00 | **14** | 121 | 37 | 3 | 11 | **18** | 0 | 5 | 15 | 0 | 0 | 0 | 0 | 224 |
| 12 PM | 7 | 182 | 55 | **5** | 11 | **18** | **1** | 6 | **13** | 0 | 0 | 0 | 0 | 298 |
| 13:00 | 3 | 220 | 58 | 2 | 18 | 9 | 1 | 5 | 6 | 0 | 0 | 0 | 0 | 322 |
| 14:00 | **10** | 204 | 79 | 2 | 26 | 11 | 0 | 6 | 8 | 0 | 0 | 0 | 0 | 346 |
| 15:00 | 9 | **340** | **83** | 2 | 31 | 8 | 1 | **7** | 5 | 0 | 0 | 0 | **1** | **487** |
| 16:00 | 4 | 254 | 76 | 1 | **32** | 5 | 0 | 3 | 6 | 0 | 0 | 0 | 0 | 381 |
| 17:00 | 2 | 263 | 72 | 0 | 28 | 4 | 0 | 4 | 0 | 0 | **1** | 0 | 0 | 374 |
| 18:00 | 7 | 214 | 57 | 0 | 13 | 7 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 303 |
| 19:00 | 9 | 180 | 47 | 1 | 11 | 5 | 0 | 4 | 3 | **1** | 0 | 0 | 0 | 261 |
| 20:00 | 8 | 134 | 37 | 2 | 7 | 5 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 202 |
| 21:00 | 4 | 98 | 22 | 0 | 3 | 9 | 0 | 1 | 8 | 0 | 0 | 0 | 0 | 145 |
| 22:00 | 2 | 105 | 19 | 0 | 4 | 3 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 138 |
| 23:00 | 5 | 55 | 9 | 0 | 1 | 11 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 86 |
| Total | 127 | 3358 | 917 | 34 | 281 | 171 | 4 | 75 | 141 | 3 | 3 | 0 | 3 | 5117 |
| Percent | 2.5% | 65.6% | 17.9% | 0.7% | 5.5% | 3.3% | 0.1% | 1.5% | 2.8% | 0.1% | 0.1% | 0.0% | 0.1% | |
| AM Peak | 11:00 | 07:00 | 07:00 | 09:00 | 10:00 | 11:00 | 07:00 | 07:00 | 10:00 | 07:00 | 08:00 | | 00:00 | 07:00 |
| Vol. | 14 | 177 | 51 | 5 | 17 | 18 | 1 | 10 | 20 | 2 | 1 | | 1 | 261 |
| PM Peak | 14:00 | 15:00 | 15:00 | 12:00 | 16:00 | 12:00 | 12:00 | 15:00 | 12:00 | 19:00 | 17:00 | | 15:00 | 15:00 |
| Vol. | 10 | 340 | 83 | 5 | 32 | 18 | 1 | 7 | 13 | 1 | 1 | | 1 | 487 |
| Grand Total | 127 | 3358 | 917 | 34 | 281 | 171 | 4 | 75 | 141 | 3 | 3 | 0 | 3 | 5117 |
| Percent | 2.5% | 65.6% | 17.9% | 0.7% | 5.5% | 3.3% | 0.1% | 1.5% | 2.8% | 0.1% | 0.1% | 0.0% | 0.1% | |

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City of Perris
Harley Knox Boulevard
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24 Hour Directional Classification Count

PER001
Site Code: 051-18431

Westbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 3 | 14 | 3 | 1 | 0 | 3 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 31 |
| 01:00 | 3 | 15 | 1 | 0 | 0 | 3 | 0 | 2 | 3 | 0 | 0 | **1** | 0 | 28 |
| 02:00 | 7 | 16 | 6 | 2 | 0 | 10 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 46 |
| 03:00 | 3 | 37 | 15 | 3 | 5 | 4 | 0 | 2 | 3 | 0 | 0 | 0 | 0 | 72 |
| 04:00 | 8 | 146 | 31 | 0 | 10 | 9 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 210 |
| 05:00 | 3 | 163 | 53 | 2 | 22 | 6 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 250 |
| 06:00 | 9 | 388 | 100 | 3 | **41** | **17** | 0 | 3 | 7 | 0 | 0 | 0 | 0 | 568 |
| 07:00 | **11** | **472** | **106** | 0 | 18 | 6 | 0 | **8** | 4 | 0 | 0 | 0 | 0 | **625** |
| 08:00 | 10 | 177 | 52 | 2 | 22 | 11 | 1 | 2 | 9 | 0 | 0 | 0 | 0 | 286 |
| 09:00 | 5 | 91 | 32 | **5** | 12 | 5 | 0 | 4 | 6 | 0 | 0 | 0 | 0 | 160 |
| 10:00 | 8 | 98 | 37 | 5 | 14 | 14 | 0 | 3 | 13 | 0 | 0 | 0 | 0 | 192 |
| 11:00 | 10 | 84 | 31 | 3 | 14 | 12 | **2** | 8 | **21** | 0 | 0 | 0 | 0 | 185 |
| 12 PM | 8 | 106 | 37 | 1 | 10 | 13 | **1** | 3 | 13 | 0 | 0 | 0 | 0 | 192 |
| 13:00 | 7 | 149 | 38 | **6** | **21** | 15 | 1 | 4 | **15** | 0 | 0 | 0 | 0 | 256 |
| 14:00 | 13 | 188 | **79** | 2 | 17 | **16** | 0 | 3 | 10 | 0 | 0 | 0 | 0 | **328** |
| 15:00 | 6 | 212 | 59 | 1 | 17 | 7 | 0 | **7** | 3 | 0 | 0 | 0 | 0 | 312 |
| 16:00 | 9 | **214** | 48 | 0 | 13 | 10 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 301 |
| 17:00 | **18** | 180 | 45 | 0 | 15 | 14 | 0 | 3 | 6 | **1** | 0 | 0 | 0 | 282 |
| 18:00 | 4 | 128 | 32 | 0 | 12 | 8 | 1 | 4 | 4 | 0 | 0 | **1** | 0 | 194 |
| 19:00 | 9 | 84 | 20 | 1 | 11 | 8 | 0 | 1 | 4 | 0 | 0 | 0 | 0 | 138 |
| 20:00 | 4 | 56 | 17 | 0 | 6 | 4 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 89 |
| 21:00 | 5 | 45 | 6 | 0 | 5 | 3 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 75 |
| 22:00 | 9 | 70 | 15 | 0 | 2 | 10 | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 112 |
| 23:00 | 6 | 40 | 9 | 0 | 1 | 10 | 0 | 0 | 8 | 0 | 0 | 0 | 0 | 74 |
| Total | 178 | 3173 | 872 | 37 | 288 | 218 | 6 | 67 | 164 | 1 | 0 | 2 | 0 | 5006 |
| Percent | 3.6% | 63.4% | 17.4% | 0.7% | 5.8% | 4.4% | 0.1% | 1.3% | 3.3% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 07:00 | 07:00 | 09:00 | 06:00 | 06:00 | 11:00 | 07:00 | 11:00 | | | 01:00 | | 07:00 |
| Vol. | 11 | 472 | 106 | 5 | 41 | 17 | 2 | 8 | 21 | | | 1 | | 625 |
| PM Peak | 17:00 | 16:00 | 14:00 | 13:00 | 13:00 | 14:00 | 12:00 | 15:00 | 13:00 | 17:00 | | 18:00 | | 14:00 |
| Vol. | 18 | 214 | 79 | 6 | 21 | 16 | 1 | 7 | 15 | 1 | | 1 | | 328 |
| Grand Total | 178 | 3173 | 872 | 37 | 288 | 218 | 6 | 67 | 164 | 1 | 0 | 2 | 0 | 5006 |
| Percent | 3.6% | 63.4% | 17.4% | 0.7% | 5.8% | 4.4% | 0.1% | 1.3% | 3.3% | 0.0% | 0.0% | 0.0% | 0.0% | |

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City of Perris
Harley Knox Boulevard
W/ Perris Boulevard
24 Hour Directional Classification Count

PER001
Site Code: 051-18431

Eastbound, Westbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 4 | 45 | 8 | 1 | 2 | 5 | 0 | 1 | 10 | 0 | 0 | 0 | **1** | 77 |
| 01:00 | 3 | 54 | 5 | 1 | 0 | 5 | 0 | 2 | 6 | 0 | 0 | **1** | 0 | 77 |
| 02:00 | 10 | 63 | 17 | 2 | 1 | 13 | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 113 |
| 03:00 | 5 | 108 | 30 | 3 | 7 | 8 | 0 | 2 | 5 | 0 | 0 | 0 | 0 | 168 |
| 04:00 | 14 | 269 | 55 | 2 | 14 | 18 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 379 |
| 05:00 | 8 | 273 | 79 | 2 | 33 | 12 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 413 |
| 06:00 | 14 | 480 | 134 | 3 | **54** | 23 | 0 | 6 | 13 | 0 | 0 | 0 | 0 | 727 |
| 07:00 | 14 | **649** | **157** | 1 | 28 | 9 | 1 | **18** | 7 | **2** | 0 | 0 | 0 | **886** |
| 08:00 | 14 | 295 | 92 | 5 | 38 | 16 | 1 | 7 | 13 | 0 | **1** | 0 | 1 | 483 |
| 09:00 | 8 | 173 | 61 | **10** | 21 | 9 | 0 | 9 | 13 | 0 | 0 | 0 | 0 | 304 |
| 10:00 | 19 | 196 | 64 | 9 | 31 | 28 | 0 | 10 | 33 | 0 | 1 | 0 | 0 | 391 |
| 11:00 | **24** | 205 | 68 | 6 | 25 | **30** | **2** | 13 | **36** | 0 | 0 | 0 | 0 | 409 |
| 12 PM | 15 | 288 | 92 | 6 | 21 | **31** | **2** | 9 | **26** | 0 | 0 | 0 | 0 | 490 |
| 13:00 | 10 | 369 | 96 | **8** | 39 | 24 | 2 | 9 | 21 | 0 | 0 | 0 | 0 | 578 |
| 14:00 | **23** | 392 | **158** | 4 | 43 | 27 | 0 | 9 | 18 | 0 | 0 | 0 | 0 | 674 |
| 15:00 | 15 | **552** | 142 | 3 | **48** | 15 | 1 | **14** | 8 | 0 | 0 | 0 | **1** | **799** |
| 16:00 | 13 | 468 | 124 | 1 | 45 | 15 | 0 | 7 | 9 | 0 | 0 | 0 | 0 | 682 |
| 17:00 | 20 | 443 | 117 | 0 | 43 | 18 | 0 | 7 | 6 | **1** | **1** | 0 | 0 | 656 |
| 18:00 | 11 | 342 | 89 | 0 | 25 | 15 | 1 | 6 | 7 | 0 | 0 | **1** | 0 | 497 |
| 19:00 | 18 | 264 | 67 | 2 | 22 | 13 | 0 | 5 | 7 | 1 | 0 | 0 | 0 | 399 |
| 20:00 | 12 | 190 | 54 | 2 | 13 | 9 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 291 |
| 21:00 | 9 | 143 | 28 | 0 | 8 | 12 | 0 | 3 | 17 | 0 | 0 | 0 | 0 | 220 |
| 22:00 | 11 | 175 | 34 | 0 | 6 | 13 | 0 | 2 | 9 | 0 | 0 | 0 | 0 | 250 |
| 23:00 | 11 | 95 | 18 | 0 | 2 | 21 | 0 | 0 | 13 | 0 | 0 | 0 | 0 | 160 |
| Total | 305 | 6531 | 1789 | 71 | 569 | 389 | 10 | 142 | 305 | 4 | 3 | 2 | 3 | 10123 |
| Percent | 3.0% | 64.5% | 17.7% | 0.7% | 5.6% | 3.8% | 0.1% | 1.4% | 3.0% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 07:00 | 07:00 | 09:00 | 06:00 | 11:00 | 11:00 | 07:00 | 11:00 | 07:00 | 08:00 | 01:00 | 00:00 | 07:00 |
| Vol. | 24 | 649 | 157 | 10 | 54 | 30 | 2 | 18 | 36 | 2 | 1 | 1 | 1 | 886 |
| PM Peak | 14:00 | 15:00 | 14:00 | 13:00 | 15:00 | 12:00 | 12:00 | 15:00 | 12:00 | 17:00 | 17:00 | 18:00 | 15:00 | 15:00 |
| Vol. | 23 | 552 | 158 | 8 | 48 | 31 | 2 | 14 | 26 | 1 | 1 | 1 | 1 | 799 |
| Grand Total | 305 | 6531 | 1789 | 71 | 569 | 389 | 10 | 142 | 305 | 4 | 3 | 2 | 3 | 10123 |
| Percent | 3.0% | 64.5% | 17.7% | 0.7% | 5.6% | 3.8% | 0.1% | 1.4% | 3.0% | 0.0% | 0.0% | 0.0% | 0.0% | |

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Northbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 0 | 52 | 14 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 71 |
| 01:00 | 0 | 34 | 13 | 1 | 4 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 59 |
| 02:00 | 3 | 51 | 13 | 1 | 6 | 4 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 87 |
| 03:00 | 2 | 164 | 84 | 3 | 15 | 1 | 0 | **15** | 2 | 0 | 0 | 0 | 0 | 286 |
| 04:00 | 0 | 392 | 142 | 5 | 43 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 0 | 595 |
| 05:00 | 5 | 395 | 171 | 9 | 62 | 4 | 1 | 10 | 2 | 0 | 0 | 0 | 0 | 659 |
| 06:00 | 2 | 515 | 223 | 9 | **75** | 2 | 1 | 8 | 2 | 0 | 0 | 0 | 0 | 837 |
| 07:00 | 10 | **657** | **259** | 5 | 71 | 5 | 0 | 12 | 2 | 0 | 0 | 0 | 0 | **1021** |
| 08:00 | 3 | 399 | 171 | **12** | 43 | 5 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 640 |
| 09:00 | 9 | 333 | 170 | 6 | 47 | **10** | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 581 |
| 10:00 | 7 | 397 | 170 | 10 | 54 | 9 | **3** | 2 | 1 | 0 | **1** | **1** | **1** | 656 |
| 11:00 | **12** | 329 | 135 | 8 | 42 | 3 | 1 | 7 | **7** | 0 | 0 | 0 | 0 | 544 |
| 12 PM | 6 | 352 | 171 | 7 | 41 | 5 | **1** | 4 | 3 | 0 | 0 | 0 | 0 | 590 |
| 13:00 | **7** | **493** | 193 | **8** | 42 | **8** | 0 | **9** | 2 | **1** | **1** | 0 | 0 | **764** |
| 14:00 | 4 | 454 | 167 | 5 | 44 | 4 | 1 | 8 | **5** | 0 | 1 | 0 | 0 | 693 |
| 15:00 | 5 | 463 | 181 | 6 | **50** | 2 | 0 | 8 | 2 | 1 | 0 | 0 | 0 | 718 |
| 16:00 | 1 | 442 | 184 | 3 | 35 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | **1** | 670 |
| 17:00 | 3 | 492 | **207** | 4 | 32 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 743 |
| 18:00 | 4 | 343 | 147 | 2 | 20 | 2 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 524 |
| 19:00 | 4 | 317 | 129 | 1 | 28 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 484 |
| 20:00 | 5 | 288 | 117 | 2 | 18 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 435 |
| 21:00 | 3 | 274 | 92 | 1 | 17 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 392 |
| 22:00 | 1 | 182 | 58 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 248 |
| 23:00 | 0 | 86 | 32 | 1 | 12 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 132 |
| Total | 96 | 7904 | 3243 | 109 | 813 | 73 | 9 | 138 | 36 | 2 | 3 | 1 | 2 | 12429 |
| Percent | 0.8% | 63.6% | 26.1% | 0.9% | 6.5% | 0.6% | 0.1% | 1.1% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 07:00 | 07:00 | 08:00 | 06:00 | 09:00 | 10:00 | 03:00 | 11:00 | | 10:00 | 10:00 | 10:00 | 07:00 |
| Vol. | 12 | 657 | 259 | 12 | 75 | 10 | 3 | 15 | 7 | | 1 | 1 | 1 | 1021 |
| PM Peak | 13:00 | 13:00 | 17:00 | 13:00 | 15:00 | 13:00 | 12:00 | 13:00 | 14:00 | 13:00 | 13:00 | | 16:00 | 13:00 |
| Vol. | 7 | 493 | 207 | 8 | 50 | 8 | 1 | 9 | 5 | 1 | 1 | | 1 | 764 |
| Grand Total | 96 | 7904 | 3243 | 109 | 813 | 73 | 9 | 138 | 36 | 2 | 3 | 1 | 2 | 12429 |
| Percent | 0.8% | 63.6% | 26.1% | 0.9% | 6.5% | 0.6% | 0.1% | 1.1% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |

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Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 0 | 103 | 20 | 0 | 7 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 132 |
| 01:00 | 0 | 49 | 10 | 2 | 4 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75 |
| 02:00 | 1 | 42 | 11 | 3 | 3 | 8 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 70 |
| 03:00 | 0 | 59 | 18 | 1 | 4 | 14 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 98 |
| 04:00 | 0 | 164 | 50 | 2 | 8 | **19** | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 244 |
| 05:00 | 3 | 185 | 49 | 2 | 13 | 9 | 0 | 4 | 1 | 0 | **1** | 0 | 0 | 267 |
| 06:00 | 1 | 189 | 64 | 6 | 14 | 7 | 0 | 5 | **5** | 0 | 0 | 0 | 0 | 291 |
| 07:00 | 0 | 289 | 91 | 5 | 21 | 6 | 0 | **6** | 2 | 0 | 0 | 0 | **1** | 421 |
| 08:00 | **4** | 273 | 80 | **10** | 24 | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 397 |
| 09:00 | 4 | 319 | 88 | 7 | 25 | 3 | 0 | 3 | 4 | 0 | 0 | 0 | 0 | 453 |
| 10:00 | 4 | 339 | **101** | 7 | 26 | 4 | 0 | 4 | 5 | 0 | 0 | 0 | 0 | 490 |
| 11:00 | 3 | **347** | 101 | 9 | **30** | 6 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | **503** |
| 12 PM | 5 | 427 | 141 | **8** | 45 | 1 | **1** | 6 | **4** | 0 | 0 | 0 | 0 | 638 |
| 13:00 | 7 | 542 | 151 | 3 | 36 | 2 | 1 | **7** | 0 | 0 | 0 | **1** | 0 | 750 |
| 14:00 | 5 | 607 | 187 | 5 | 51 | **5** | 0 | 1 | 0 | **1** | 0 | 0 | 0 | 862 |
| 15:00 | 6 | 570 | 187 | 4 | 48 | 5 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 826 |
| 16:00 | **10** | **658** | **192** | 2 | **55** | 3 | 0 | 0 | 0 | 0 | **1** | 0 | 0 | **921** |
| 17:00 | 10 | 619 | 186 | 3 | 50 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 872 |
| 18:00 | 2 | 576 | 159 | 2 | 43 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 786 |
| 19:00 | 3 | 446 | 123 | 5 | 27 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 607 |
| 20:00 | 5 | 357 | 95 | 3 | 18 | 2 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 482 |
| 21:00 | 1 | 305 | 75 | 6 | 15 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 404 |
| 22:00 | 3 | 285 | 67 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 364 |
| 23:00 | 0 | 173 | 31 | 1 | 6 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 213 |
| Total | 77 | 7923 | 2277 | 96 | 582 | 110 | 2 | 60 | 34 | 1 | 2 | 1 | 1 | 11166 |
| Percent | 0.7% | 71.0% | 20.4% | 0.9% | 5.2% | 1.0% | 0.0% | 0.5% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 08:00 | 11:00 | 10:00 | 08:00 | 11:00 | 04:00 | | 07:00 | 06:00 | | 05:00 | | 07:00 | 11:00 |
| Vol. | 4 | 347 | 101 | 10 | 30 | 19 | | 6 | 5 | | 1 | | 1 | 503 |
| PM Peak | 16:00 | 16:00 | 16:00 | 12:00 | 16:00 | 14:00 | 12:00 | 13:00 | 12:00 | 14:00 | 16:00 | 13:00 | | 16:00 |
| Vol. | 10 | 658 | 192 | 8 | 55 | 5 | 1 | 7 | 4 | 1 | 1 | 1 | | 921 |
| Grand Total | 77 | 7923 | 2277 | 96 | 582 | 110 | 2 | 60 | 34 | 1 | 2 | 1 | 1 | 11166 |
| Percent | 0.7% | 71.0% | 20.4% | 0.9% | 5.2% | 1.0% | 0.0% | 0.5% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |

# Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Perris
Perris Boulevard
N/ Rider Street
24 Hour Directional Classification Count

PER002
Site Code: 051-18431

Northbound, Southbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 0 | 155 | 34 | 0 | 12 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 203 |
| 01:00 | 0 | 83 | 23 | 3 | 8 | 10 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 134 |
| 02:00 | 4 | 93 | 24 | 4 | 9 | 12 | 0 | 8 | 3 | 0 | 0 | 0 | 0 | 157 |
| 03:00 | 2 | 223 | 102 | 4 | 19 | 15 | 0 | 17 | 2 | 0 | 0 | 0 | 0 | 384 |
| 04:00 | 0 | 556 | 192 | 7 | 51 | **19** | 0 | 12 | 2 | 0 | 0 | 0 | 0 | 839 |
| 05:00 | 8 | 580 | 220 | 11 | 75 | 13 | 1 | 14 | 3 | 0 | **1** | 0 | 0 | 926 |
| 06:00 | 3 | 704 | 287 | 15 | 89 | 9 | 1 | 13 | 7 | 0 | 0 | 0 | 0 | 1128 |
| 07:00 | 10 | **946** | **350** | 10 | **92** | 11 | 0 | **18** | 4 | 0 | 0 | 0 | **1** | **1442** |
| 08:00 | 7 | 672 | 251 | **22** | 67 | 7 | 0 | 9 | 2 | 0 | 0 | 0 | 0 | 1037 |
| 09:00 | 13 | 652 | 258 | 13 | 72 | 13 | 0 | 7 | 6 | 0 | 0 | 0 | 0 | 1034 |
| 10:00 | 11 | 736 | 271 | 17 | 80 | 13 | **3** | 6 | 6 | 0 | 1 | **1** | 1 | 1146 |
| 11:00 | **15** | 676 | 236 | 17 | 72 | 9 | 1 | 11 | **10** | 0 | 0 | 0 | 0 | 1047 |
| 12 PM | 11 | 779 | 312 | **15** | 86 | 6 | **2** | 10 | **7** | 0 | 0 | 0 | 0 | 1228 |
| 13:00 | **14** | 1035 | 344 | 11 | 78 | **10** | 1 | **16** | 2 | **1** | **1** | **1** | 0 | 1514 |
| 14:00 | 9 | 1061 | 354 | 10 | 95 | 9 | 1 | 9 | 5 | 1 | 1 | 0 | 0 | 1555 |
| 15:00 | 11 | 1033 | 368 | 10 | **98** | 7 | 0 | 13 | 3 | 1 | 0 | 0 | 0 | 1544 |
| 16:00 | 11 | 1100 | 376 | 5 | 90 | 4 | 1 | 2 | 0 | 0 | 1 | 0 | **1** | 1591 |
| 17:00 | 13 | **1111** | **393** | 7 | 82 | 1 | 0 | 7 | 1 | 0 | 0 | 0 | 0 | **1615** |
| 18:00 | 6 | 919 | 306 | 4 | 63 | 3 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 1310 |
| 19:00 | 7 | 763 | 252 | 6 | 55 | 5 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 1091 |
| 20:00 | 10 | 645 | 212 | 5 | 36 | 4 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 917 |
| 21:00 | 4 | 579 | 167 | 7 | 32 | 3 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 796 |
| 22:00 | 4 | 467 | 125 | 0 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 612 |
| 23:00 | 0 | 259 | 63 | 2 | 18 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 345 |
| Total | 173 | 15827 | 5520 | 205 | 1395 | 183 | 11 | 198 | 70 | 3 | 5 | 2 | 3 | 23595 |
| Percent | 0.7% | 67.1% | 23.4% | 0.9% | 5.9% | 0.8% | 0.0% | 0.8% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 11:00 | 07:00 | 07:00 | 08:00 | 07:00 | 04:00 | 10:00 | 07:00 | 11:00 | | 05:00 | 10:00 | 07:00 | 07:00 |
| Vol. | 15 | 946 | 350 | 22 | 92 | 19 | 3 | 18 | 10 | | 1 | 1 | 1 | 1442 |
| PM Peak | 13:00 | 17:00 | 17:00 | 12:00 | 15:00 | 13:00 | 12:00 | 13:00 | 12:00 | 13:00 | 13:00 | 13:00 | 16:00 | 17:00 |
| Vol. | 14 | 1111 | 393 | 15 | 98 | 10 | 2 | 16 | 7 | 1 | 1 | 1 | 1 | 1615 |
| Grand Total | 173 | 15827 | 5520 | 205 | 1395 | 183 | 11 | 198 | 70 | 3 | 5 | 2 | 3 | 23595 |
| Percent | 0.7% | 67.1% | 23.4% | 0.9% | 5.9% | 0.8% | 0.0% | 0.8% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |

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City of Perris
Rider Street
W/ Redlands Avenue
24 Hour Directional Classification Count

PER003
Site Code: 051-18431

Eastbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 0 | 33 | 10 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 |
| 01:00 | 0 | 26 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 31 |
| 02:00 | 0 | 16 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| 03:00 | 1 | 11 | 4 | 0 | 2 | **1** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 04:00 | 1 | 53 | 10 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70 |
| 05:00 | 1 | 61 | 16 | 1 | 7 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 87 |
| 06:00 | 0 | 75 | 27 | 2 | 21 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 127 |
| 07:00 | 0 | **199** | **90** | 3 | 21 | 0 | **1** | **4** | 0 | 0 | 0 | 0 | 0 | **318** |
| 08:00 | 0 | 96 | 33 | 1 | 15 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 149 |
| 09:00 | 0 | 85 | 42 | 2 | 17 | 1 | 1 | 1 | **2** | 0 | 0 | 0 | 0 | 151 |
| 10:00 | **4** | 103 | 36 | **4** | **22** | 1 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 174 |
| 11:00 | 1 | 141 | 43 | 0 | 16 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 204 |
| 12 PM | 1 | 150 | 71 | 2 | 20 | 0 | **1** | 3 | 1 | 0 | 0 | 0 | 0 | 249 |
| 13:00 | 0 | 230 | 93 | 1 | 29 | 1 | 0 | 2 | **2** | 0 | 0 | 0 | 0 | 358 |
| 14:00 | 4 | **349** | **137** | 1 | 30 | 1 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | **527** |
| 15:00 | 4 | 323 | 100 | 0 | 31 | **2** | 0 | **9** | 2 | 0 | 0 | 0 | 0 | 471 |
| 16:00 | **5** | 297 | 119 | **3** | **42** | 1 | 0 | 3 | 1 | 0 | **1** | 0 | 0 | 472 |
| 17:00 | 0 | 319 | 106 | 0 | 33 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 461 |
| 18:00 | 0 | 291 | 78 | 2 | 26 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 399 |
| 19:00 | 0 | 244 | 76 | 1 | 27 | 2 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 353 |
| 20:00 | 1 | 219 | 71 | 0 | 13 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 307 |
| 21:00 | 3 | 152 | 48 | 1 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 217 |
| 22:00 | 2 | 141 | 33 | 0 | 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 186 |
| 23:00 | 1 | 98 | 26 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 134 |
| Total | 29 | 3712 | 1280 | 24 | 412 | 16 | 4 | 45 | 11 | 0 | 1 | 0 | 0 | 5534 |
| Percent | 0.5% | 67.1% | 23.1% | 0.4% | 7.4% | 0.3% | 0.1% | 0.8% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 10:00 | 07:00 | 07:00 | 10:00 | 10:00 | 03:00 | 07:00 | 07:00 | 09:00 | | | | | 07:00 |
| Vol. | 4 | 199 | 90 | 4 | 22 | 1 | 1 | 4 | 2 | | | | | 318 |
| PM Peak | 16:00 | 14:00 | 14:00 | 16:00 | 16:00 | 15:00 | 12:00 | 15:00 | 13:00 | | 16:00 | | | 14:00 |
| Vol. | 5 | 349 | 137 | 3 | 42 | 2 | 1 | 9 | 2 | | 1 | | | 527 |
| Grand Total | 29 | 3712 | 1280 | 24 | 412 | 16 | 4 | 45 | 11 | 0 | 1 | 0 | 0 | 5534 |
| Percent | 0.5% | 67.1% | 23.1% | 0.4% | 7.4% | 0.3% | 0.1% | 0.8% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | |

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City of Perris
Rider Street
W/ Redlands Avenue
24 Hour Directional Classification Count

PER003
Site Code: 051-18431

Westbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 0 | 17 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 01:00 | 0 | 16 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 02:00 | 1 | 22 | 4 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| 03:00 | 2 | 101 | 24 | 0 | 3 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 133 |
| 04:00 | 1 | 238 | 57 | 0 | 15 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 312 |
| 05:00 | 2 | 252 | 85 | 2 | 14 | 0 | 0 | 3 | 2 | **1** | 0 | 0 | 0 | 361 |
| 06:00 | 1 | 289 | 93 | 1 | 15 | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 406 |
| 07:00 | **7** | **515** | **128** | 1 | **17** | 0 | 0 | **6** | 0 | 1 | 0 | 0 | 0 | **675** |
| 08:00 | 0 | 248 | 57 | 2 | 8 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 319 |
| 09:00 | 1 | 214 | 70 | 2 | 13 | **2** | 0 | 2 | **4** | 0 | 0 | 0 | 0 | 308 |
| 10:00 | 0 | 181 | 62 | **3** | 10 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 259 |
| 11:00 | 0 | 184 | 46 | 1 | 8 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 240 |
| 12 PM | 1 | 206 | 49 | 1 | 14 | **2** | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 275 |
| 13:00 | 1 | 292 | 69 | **2** | 10 | 0 | 0 | **5** | 0 | 0 | 0 | 0 | 0 | 379 |
| 14:00 | 2 | **338** | **78** | 1 | 14 | 2 | 0 | 4 | 1 | 0 | 0 | 0 | **1** | **441** |
| 15:00 | **4** | 302 | 77 | 2 | **17** | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 406 |
| 16:00 | 3 | 224 | 61 | 1 | 12 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 304 |
| 17:00 | 3 | 275 | 54 | 1 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 342 |
| 18:00 | 2 | 221 | 56 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 288 |
| 19:00 | 0 | 214 | 45 | 0 | 6 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 268 |
| 20:00 | 3 | 150 | 33 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 191 |
| 21:00 | 2 | 112 | 28 | 0 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 145 |
| 22:00 | 1 | 83 | 17 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 102 |
| 23:00 | 0 | 52 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| Total | 37 | 4746 | 1206 | 20 | 200 | 14 | 0 | 39 | 16 | 2 | 0 | 0 | 2 | 6282 |
| Percent | 0.6% | 75.5% | 19.2% | 0.3% | 3.2% | 0.2% | 0.0% | 0.6% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 07:00 | 07:00 | 10:00 | 07:00 | 09:00 | | 07:00 | 09:00 | 05:00 | | | | 07:00 |
| Vol. | 7 | 515 | 128 | 3 | 17 | 2 | | 6 | 4 | 1 | | | | 675 |
| PM Peak | 15:00 | 14:00 | 14:00 | 13:00 | 15:00 | 12:00 | | 13:00 | 12:00 | | | | 14:00 | 14:00 |
| Vol. | 4 | 338 | 78 | 2 | 17 | 2 | | 5 | 1 | | | | 1 | 441 |
| Grand Total | 37 | 4746 | 1206 | 20 | 200 | 14 | 0 | 39 | 16 | 2 | 0 | 0 | 2 | 6282 |
| Percent | 0.6% | 75.5% | 19.2% | 0.3% | 3.2% | 0.2% | 0.0% | 0.6% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | |

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Eastbound, Westbound

| Start Time | Bikes | Cars & Trailers | 2 Axle Long | Buses | 2 Axle 6 Tire | 3 Axle Single | 4 Axle Single | <5 Axl Double | 5 Axle Double | >6 Axl Double | <6 Axl Multi | 6 Axle Multi | >6 Axl Multi | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 05/24/18 | 0 | 50 | 12 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 64 |
| 01:00 | 0 | 42 | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 02:00 | 1 | 38 | 11 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| 03:00 | 3 | 112 | 28 | 0 | 5 | 2 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 152 |
| 04:00 | 2 | 291 | 67 | 0 | 20 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 382 |
| 05:00 | 3 | 313 | 101 | 3 | 21 | 0 | 0 | 4 | 2 | **1** | 0 | 0 | 0 | 448 |
| 06:00 | 1 | 364 | 120 | 3 | 36 | 0 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 533 |
| 07:00 | **7** | **714** | **218** | 4 | **38** | 0 | **1** | **10** | 0 | 1 | 0 | 0 | 0 | **993** |
| 08:00 | 0 | 344 | 90 | 3 | 23 | 1 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 468 |
| 09:00 | 1 | 299 | 112 | 4 | 30 | **3** | 1 | 3 | **6** | 0 | 0 | 0 | 0 | 459 |
| 10:00 | 4 | 284 | 98 | **7** | 32 | 2 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 433 |
| 11:00 | 1 | 325 | 89 | 1 | 24 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 444 |
| 12 PM | 2 | 356 | 120 | 3 | 34 | 2 | **1** | 4 | **2** | 0 | 0 | 0 | 0 | 524 |
| 13:00 | 1 | 522 | 162 | 3 | 39 | 1 | 0 | 7 | 2 | 0 | 0 | 0 | 0 | 737 |
| 14:00 | 6 | **687** | **215** | 2 | 44 | **3** | 1 | 7 | 2 | 0 | 0 | 0 | **1** | **968** |
| 15:00 | **8** | 625 | 177 | 2 | 48 | 2 | 0 | **12** | 2 | 0 | 0 | 0 | 1 | 877 |
| 16:00 | 8 | 521 | 180 | **4** | **54** | 2 | 0 | 5 | 1 | 0 | **1** | 0 | 0 | 776 |
| 17:00 | 3 | 594 | 160 | 1 | 41 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 803 |
| 18:00 | 2 | 512 | 134 | 2 | 35 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 687 |
| 19:00 | 0 | 458 | 121 | 1 | 33 | 3 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 621 |
| 20:00 | 4 | 369 | 104 | 0 | 17 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 498 |
| 21:00 | 5 | 264 | 76 | 1 | 12 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 362 |
| 22:00 | 3 | 224 | 50 | 0 | 10 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 288 |
| 23:00 | 1 | 150 | 34 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 194 |
| Total | 66 | 8458 | 2486 | 44 | 612 | 30 | 4 | 84 | 27 | 2 | 1 | 0 | 2 | 11816 |
| Percent | 0.6% | 71.6% | 21.0% | 0.4% | 5.2% | 0.3% | 0.0% | 0.7% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | |
| AM Peak | 07:00 | 07:00 | 07:00 | 10:00 | 07:00 | 09:00 | 07:00 | 07:00 | 09:00 | 05:00 | | | | 07:00 |
| Vol. | 7 | 714 | 218 | 7 | 38 | 3 | 1 | 10 | 6 | 1 | | | | 993 |
| PM Peak | 15:00 | 14:00 | 14:00 | 16:00 | 16:00 | 14:00 | 12:00 | 15:00 | 12:00 | | 16:00 | | 14:00 | 14:00 |
| Vol. | 8 | 687 | 215 | 4 | 54 | 3 | 1 | 12 | 2 | | 1 | | 1 | 968 |
| Grand Total | 66 | 8458 | 2486 | 44 | 612 | 30 | 4 | 84 | 27 | 2 | 1 | 0 | 2 | 11816 |
| Percent | 0.6% | 71.6% | 21.0% | 0.4% | 5.2% | 0.3% | 0.0% | 0.7% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | |

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# APPENDIX 3.2:

# EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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| Intersection | |
|---|---|
| Intersection Delay, s/veh | 15.3 |
| Intersection LOS | C |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 209 | 166 | 213 | 161 | 88 | 139 |
| Future Vol, veh/h | 209 | 166 | 213 | 161 | 88 | 139 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 230 | 182 | 234 | 177 | 97 | 153 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 1 |

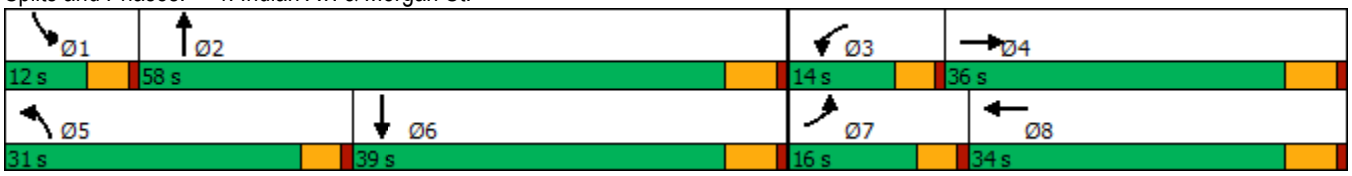
| Approach | EB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 1 |
| Conflicting Approach Left | SB | EB | |
| Conflicting Lanes Left | 2 | 2 | 0 |
| Conflicting Approach Right | NB | | EB |
| Conflicting Lanes Right | 1 | 0 | 2 |
| HCM Control Delay | 12.9 | 20.8 | 10.3 |
| HCM LOS | B | C | B |

| Lane | NBLn1 | EBLn1 | EBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Vol Left, % | 57% | 100% | 0% | 0% | 0% |
| Vol Thru, % | 43% | 0% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 374 | 209 | 166 | 88 | 139 |
| LT Vol | 213 | 209 | 0 | 0 | 0 |
| Through Vol | 161 | 0 | 0 | 88 | 0 |
| RT Vol | 0 | 0 | 166 | 0 | 139 |
| Lane Flow Rate | 411 | 230 | 182 | 97 | 153 |
| Geometry Grp | 4 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.68 | 0.437 | 0.286 | 0.17 | 0.239 |
| Departure Headway (Hd) | 5.96 | 6.851 | 5.635 | 6.344 | 5.631 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 608 | 526 | 637 | 565 | 635 |
| Service Time | 3.999 | 4.594 | 3.377 | 4.093 | 3.38 |
| HCM Lane V/C Ratio | 0.676 | 0.437 | 0.286 | 0.172 | 0.241 |
| HCM Control Delay | 20.8 | 14.8 | 10.6 | 10.4 | 10.2 |
| HCM Lane LOS | C | B | B | B | B |
| HCM 95th-tile Q | 5.2 | 2.2 | 1.2 | 0.6 | 0.9 |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 34 | 75 | 18 | 117 | 112 | 206 | 6 | 99 |
| Future Volume (vph) | 34 | 75 | 18 | 117 | 112 | 206 | 6 | 99 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 31.8 | 9.6 | 29.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 16.0 | 36.0 | 14.0 | 34.0 | 31.0 | 58.0 | 12.0 | 39.0 |
| Total Split (%) | 13.3% | 30.0% | 11.7% | 28.3% | 25.8% | 48.3% | 10.0% | 32.5% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 6.7 | 15.1 | 5.9 | 12.4 | 11.1 | 53.5 | 5.3 | 39.3 |
| Actuated g/C Ratio | 0.08 | 0.18 | 0.07 | 0.14 | 0.13 | 0.62 | 0.06 | 0.46 |
| v/c Ratio | 0.29 | 0.29 | 0.18 | 0.29 | 0.59 | 0.12 | 0.06 | 0.12 |
| Control Delay | 47.2 | 17.3 | 46.5 | 34.7 | 48.2 | 9.3 | 46.0 | 11.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.2 | 17.3 | 46.5 | 34.7 | 48.2 | 9.3 | 46.0 | 11.6 |
| LOS | D | B | D | C | D | A | D | B |
| Approach Delay | | 22.6 | | 36.2 | | 22.7 | | 12.9 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 86.2 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.59 | |
| Intersection Signal Delay: 23.1 | Intersection LOS: C |
| Intersection Capacity Utilization 45.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 34 | 75 | 80 | 18 | 117 | 7 | 112 | 206 | 9 | 6 | 99 | 53 |
| Future Volume (veh/h) | 34 | 75 | 80 | 18 | 117 | 7 | 112 | 206 | 9 | 6 | 99 | 53 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 91 | 78 | 22 | 143 | 9 | 137 | 251 | 10 | 7 | 121 | 50 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 65 | 265 | 206 | 43 | 432 | 27 | 172 | 2100 | 83 | 16 | 1283 | 506 |
| Arrive On Green | 0.04 | 0.14 | 0.14 | 0.02 | 0.13 | 0.13 | 0.10 | 0.59 | 0.59 | 0.01 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1810 | 1928 | 1496 | 1810 | 3449 | 215 | 1810 | 3539 | 140 | 1810 | 2529 | 997 |
| Grp Volume(v), veh/h | 41 | 85 | 84 | 22 | 74 | 78 | 137 | 128 | 133 | 7 | 85 | 86 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1619 | 1810 | 1805 | 1859 | 1810 | 1805 | 1875 | 1810 | 1805 | 1721 |
| Q Serve(g_s), s | 2.0 | 3.7 | 4.2 | 1.1 | 3.3 | 3.4 | 6.5 | 2.7 | 2.7 | 0.3 | 2.1 | 2.3 |
| Cycle Q Clear(g_c), s | 2.0 | 3.7 | 4.2 | 1.1 | 3.3 | 3.4 | 6.5 | 2.7 | 2.7 | 0.3 | 2.1 | 2.3 |
| Prop In Lane | 1.00 | | 0.92 | 1.00 | | 0.12 | 1.00 | | 0.07 | 1.00 | | 0.58 |
| Lane Grp Cap(c), veh/h | 65 | 248 | 223 | 43 | 226 | 233 | 172 | 1071 | 1113 | 16 | 916 | 873 |
| V/C Ratio(X) | 0.63 | 0.34 | 0.38 | 0.51 | 0.33 | 0.33 | 0.80 | 0.12 | 0.12 | 0.43 | 0.09 | 0.10 |
| Avail Cap(c_a), veh/h | 235 | 620 | 556 | 193 | 579 | 596 | 543 | 1071 | 1113 | 152 | 916 | 873 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 41.8 | 34.3 | 34.5 | 42.4 | 35.1 | 35.1 | 39.0 | 7.8 | 7.8 | 43.4 | 11.2 | 11.2 |
| Incr Delay (d2), s/veh | 3.7 | 0.8 | 1.1 | 3.5 | 0.8 | 0.8 | 3.2 | 0.2 | 0.2 | 6.6 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 1.6 | 1.6 | 0.5 | 1.4 | 1.5 | 2.9 | 0.9 | 1.0 | 0.2 | 0.8 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 45.5 | 35.1 | 35.6 | 46.0 | 35.9 | 36.0 | 42.2 | 8.0 | 8.0 | 50.0 | 11.4 | 11.5 |
| LnGrp LOS | D | D | D | D | D | D | D | A | A | D | B | B |
| Approach Vol, veh/h | | 210 | | | 174 | | | 398 | | | 178 | |
| Approach Delay, s/veh | | 37.3 | | | 37.2 | | | 19.8 | | | 12.9 | |
| Approach LOS | | D | | | D | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.4 | 58.0 | 6.7 | 17.9 | 13.0 | 50.4 | 7.8 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 52.2 | 9.4 | 30.2 | 26.4 | 33.2 | 11.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.3 | 4.7 | 3.1 | 6.2 | 8.5 | 4.3 | 4.0 | 5.4 |
| Green Ext Time (p_c), s | 0.0 | 1.4 | 0.0 | 0.8 | 0.1 | 0.8 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.5 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 10.8 |
| Intersection LOS | B |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 143 | 30 | 151 | 94 | 33 | 108 |
| Future Vol, veh/h | 143 | 30 | 151 | 94 | 33 | 108 |
| Peak Hour Factor | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 207 | 43 | 219 | 136 | 48 | 157 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 1 |

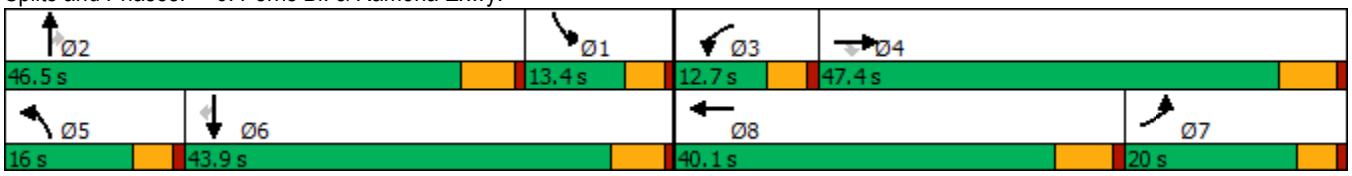
| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 2 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Righ | SB | WB | |
| Conflicting Lanes Right | 2 | 2 | 0 |
| HCM Control Delay | 12.1 | 10.2 | 10.2 |
| HCM LOS | B | B | B |

| Lane | NBLn1 | NBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 100% | 0% | 0% | 0% | 0% | 100% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 151 | 94 | 143 | 30 | 33 | 108 |
| LT Vol | 0 | 0 | 143 | 0 | 33 | 0 |
| Through Vol | 151 | 0 | 0 | 0 | 0 | 108 |
| RT Vol | 0 | 94 | 0 | 30 | 0 | 0 |
| Lane Flow Rate | 219 | 136 | 207 | 43 | 48 | 157 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.334 | 0.181 | 0.37 | 0.063 | 0.083 | 0.25 |
| Departure Headway (Hd) | 5.6 | 4.893 | 6.423 | 5.214 | 6.256 | 5.75 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 646 | 738 | 564 | 690 | 576 | 628 |
| Service Time | 3.3 | 2.593 | 4.132 | 2.923 | 3.956 | 3.45 |
| HCM Lane V/C Ratio | 0.339 | 0.184 | 0.367 | 0.062 | 0.083 | 0.25 |
| HCM Control Delay | 11.1 | 8.7 | 12.9 | 8.3 | 9.5 | 10.4 |
| HCM Lane LOS | B | A | B | A | A | B |
| HCM 95th-tile Q | 1.5 | 0.7 | 1.7 | 0.2 | 0.3 | 1 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 381 | 584 | 86 | 104 | 1160 | 273 | 735 | 59 | 123 | 355 | 139 |
| Future Volume (vph) | 381 | 584 | 86 | 104 | 1160 | 273 | 735 | 59 | 123 | 355 | 139 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 16.0 | 46.5 | 46.5 | 13.4 | 43.9 | 43.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 13.3% | 38.8% | 38.8% | 11.2% | 36.6% | 36.6% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 14.8 | 41.4 | 41.4 | 7.2 | 33.8 | 11.1 | 29.4 | 29.4 | 7.7 | 26.1 | 26.1 |
| Actuated g/C Ratio | 0.14 | 0.39 | 0.39 | 0.07 | 0.32 | 0.10 | 0.27 | 0.27 | 0.07 | 0.24 | 0.24 |
| v/c Ratio | 0.82 | 0.30 | 0.12 | 0.46 | 0.87 | 0.78 | 0.77 | 0.11 | 0.51 | 0.42 | 0.28 |
| Control Delay | 60.7 | 24.5 | 0.3 | 56.7 | 42.2 | 64.1 | 41.6 | 0.4 | 56.9 | 35.3 | 4.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.7 | 24.5 | 0.3 | 56.7 | 42.2 | 64.1 | 41.6 | 0.4 | 56.9 | 35.3 | 4.4 |
| LOS | E | C | A | E | D | E | D | A | E | D | A |
| Approach Delay | | 35.6 | | | 43.2 | | 45.1 | | | 32.6 | |
| Approach LOS | | D | | | D | | D | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 107.1 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.87 | |
| Intersection Signal Delay: 40.2 | Intersection LOS: D |
| Intersection Capacity Utilization 80.5% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 381 | 584 | 86 | 104 | 1160 | 196 | 273 | 735 | 59 | 123 | 355 | 139 |
| Future Volume (veh/h) | 381 | 584 | 86 | 104 | 1160 | 196 | 273 | 735 | 59 | 123 | 355 | 139 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 397 | 608 | 64 | 108 | 1208 | 177 | 284 | 766 | 31 | 128 | 370 | 115 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 464 | 2125 | 660 | 168 | 1414 | 207 | 350 | 964 | 429 | 191 | 844 | 376 |
| Arrive On Green | 0.13 | 0.41 | 0.41 | 0.05 | 0.31 | 0.31 | 0.10 | 0.27 | 0.27 | 0.05 | 0.23 | 0.23 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4568 | 669 | 3510 | 3610 | 1605 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 397 | 608 | 64 | 108 | 915 | 470 | 284 | 766 | 31 | 128 | 370 | 115 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1779 | 1755 | 1805 | 1605 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 11.2 | 8.0 | 2.5 | 3.1 | 25.2 | 25.2 | 8.0 | 20.0 | 1.2 | 3.6 | 8.9 | 4.0 |
| Cycle Q Clear(g_c), s | 11.2 | 8.0 | 2.5 | 3.1 | 25.2 | 25.2 | 8.0 | 20.0 | 1.2 | 3.6 | 8.9 | 4.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 464 | 2125 | 660 | 168 | 1070 | 550 | 350 | 964 | 429 | 191 | 844 | 376 |
| V/C Ratio(X) | 0.85 | 0.29 | 0.10 | 0.64 | 0.85 | 0.85 | 0.81 | 0.79 | 0.07 | 0.67 | 0.44 | 0.31 |
| Avail Cap(c_a), veh/h | 533 | 2125 | 660 | 280 | 1156 | 595 | 395 | 1449 | 644 | 305 | 1356 | 604 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.0 | 20.0 | 18.4 | 47.4 | 32.9 | 32.9 | 44.7 | 34.6 | 17.5 | 47.0 | 33.2 | 14.5 |
| Incr Delay (d2), s/veh | 10.4 | 0.1 | 0.1 | 1.5 | 6.1 | 11.1 | 9.6 | 1.8 | 0.1 | 1.5 | 0.4 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.3 | 3.0 | 0.9 | 1.3 | 10.6 | 11.7 | 3.8 | 8.5 | 0.5 | 1.6 | 3.8 | 2.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.5 | 20.1 | 18.5 | 49.0 | 39.0 | 43.9 | 54.3 | 36.4 | 17.6 | 48.6 | 33.5 | 15.0 |
| LnGrp LOS | D | C | B | D | D | D | D | D | B | D | C | B |
| Approach Vol, veh/h | | 1069 | | | 1493 | | | 1081 | | | 613 | |
| Approach Delay, s/veh | | 32.4 | | | 41.3 | | | 40.6 | | | 33.2 | |
| Approach LOS | | C | | | D | | | D | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.3 | 32.9 | 9.5 | 47.7 | 14.7 | 29.5 | 19.6 | 37.6 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 11.4 | 38.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 5.6 | 22.0 | 5.1 | 10.0 | 10.0 | 10.9 | 13.2 | 27.2 |
| Green Ext Time (p_c), s | 0.1 | 4.7 | 0.0 | 4.1 | 0.1 | 2.6 | 0.2 | 4.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.7 |
| HCM 6th LOS | D |

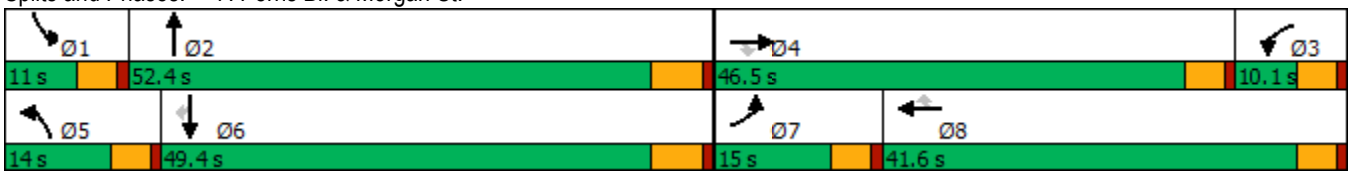
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 15 | 19 | 16 | 26 | 3 | 34 | 973 | 5 | 471 | 99 |
| Future Volume (vph) | 36 | 15 | 19 | 16 | 26 | 3 | 34 | 973 | 5 | 471 | 99 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 9.2 | 20.0 | 20.0 | 9.2 | 18.8 | 18.8 | 9.1 | 35.0 | 8.3 | 32.9 | 32.9 |
| Actuated g/C Ratio | 0.20 | 0.44 | 0.44 | 0.20 | 0.41 | 0.41 | 0.20 | 0.76 | 0.18 | 0.72 | 0.72 |
| v/c Ratio | 0.11 | 0.01 | 0.03 | 0.05 | 0.04 | 0.00 | 0.11 | 0.29 | 0.02 | 0.21 | 0.10 |
| Control Delay | 31.0 | 18.9 | 0.1 | 30.2 | 19.4 | 0.0 | 31.1 | 10.8 | 36.0 | 13.7 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 31.0 | 18.9 | 0.1 | 30.2 | 19.4 | 0.0 | 31.1 | 10.8 | 36.0 | 13.7 | 3.3 |
| LOS | C | B | A | C | B | A | C | B | D | B | A |
| Approach Delay | | 19.9 | | | 22.1 | | | 11.5 | | 12.1 | |
| Approach LOS | | B | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 45.9 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.29 | |
| Intersection Signal Delay: 12.3 | Intersection LOS: B |
| Intersection Capacity Utilization 44.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 15 | 19 | 16 | 26 | 3 | 34 | 973 | 18 | 5 | 471 | 99 |
| Future Volume (veh/h) | 36 | 15 | 19 | 16 | 26 | 3 | 34 | 973 | 18 | 5 | 471 | 99 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 17 | 6 | 18 | 30 | 1 | 39 | 1106 | 18 | 6 | 535 | 101 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 80 | 554 | 247 | 40 | 250 | 211 | 77 | 2033 | 33 | 15 | 1271 | 560 |
| Arrive On Green | 0.04 | 0.15 | 0.15 | 0.02 | 0.13 | 0.13 | 0.04 | 0.39 | 0.39 | 0.01 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5257 | 86 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 41 | 17 | 6 | 18 | 30 | 1 | 39 | 727 | 397 | 6 | 535 | 101 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1885 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.0 | 0.2 | 0.1 | 0.4 | 0.6 | 0.0 | 1.0 | 7.5 | 7.5 | 0.2 | 5.1 | 2.0 |
| Cycle Q Clear(g_c), s | 1.0 | 0.2 | 0.1 | 0.4 | 0.6 | 0.0 | 1.0 | 7.5 | 7.5 | 0.2 | 5.1 | 2.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 80 | 554 | 247 | 40 | 250 | 211 | 77 | 1337 | 729 | 15 | 1271 | 560 |
| V/C Ratio(X) | 0.51 | 0.03 | 0.02 | 0.45 | 0.12 | 0.00 | 0.50 | 0.54 | 0.54 | 0.41 | 0.42 | 0.18 |
| Avail Cap(c_a), veh/h | 412 | 3314 | 1478 | 218 | 1540 | 1305 | 373 | 3531 | 1924 | 254 | 3449 | 1519 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 21.3 | 16.4 | 8.3 | 22.0 | 17.5 | 17.2 | 21.4 | 10.9 | 10.9 | 22.5 | 11.2 | 10.2 |
| Incr Delay (d2), s/veh | 1.9 | 0.0 | 0.0 | 2.8 | 0.2 | 0.0 | 1.9 | 0.3 | 0.6 | 6.8 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.1 | 0.1 | 0.2 | 0.3 | 0.0 | 0.4 | 2.0 | 2.2 | 0.1 | 1.5 | 0.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.2 | 16.5 | 8.3 | 24.9 | 17.7 | 17.2 | 23.3 | 11.2 | 11.5 | 29.4 | 11.5 | 10.4 |
| LnGrp LOS | C | B | A | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 64 | | | 49 | | | 1163 | | | 642 | |
| Approach Delay, s/veh | | 20.0 | | | 20.3 | | | 11.7 | | | 11.5 | |
| Approach LOS | | C | | | C | | | B | | | B | |

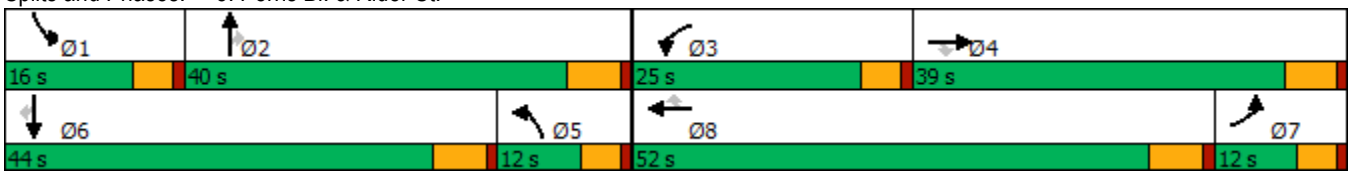
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.0 | 23.5 | 5.6 | 11.6 | 6.6 | 21.9 | 6.6 | 10.6 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.2 | 9.5 | 2.4 | 2.2 | 3.0 | 7.1 | 3.0 | 2.6 |
| Green Ext Time (p_c), s | 0.0 | 8.2 | 0.0 | 0.1 | 0.0 | 3.9 | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.1 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 37 | 146 | 16 | 153 | 295 | 254 | 42 | 792 | 73 | 74 | 378 | 40 |
| Future Volume (vph) | 37 | 146 | 16 | 153 | 295 | 254 | 42 | 792 | 73 | 74 | 378 | 40 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.3 | 13.9 | 13.9 | 11.5 | 22.5 | 22.5 | 9.2 | 19.2 | 19.2 | 7.9 | 22.5 | 22.5 |
| Actuated g/C Ratio | 0.11 | 0.19 | 0.19 | 0.16 | 0.31 | 0.31 | 0.13 | 0.27 | 0.27 | 0.11 | 0.31 | 0.31 |
| v/c Ratio | 0.18 | 0.21 | 0.04 | 0.54 | 0.27 | 0.38 | 0.18 | 0.58 | 0.14 | 0.38 | 0.24 | 0.06 |
| Control Delay | 37.1 | 28.6 | 0.1 | 40.1 | 24.0 | 5.6 | 36.1 | 26.7 | 0.5 | 42.3 | 22.8 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.1 | 28.6 | 0.1 | 40.1 | 24.0 | 5.6 | 36.1 | 26.7 | 0.5 | 42.3 | 22.8 | 0.2 |
| LOS | D | C | A | D | C | A | D | C | A | D | C | A |
| Approach Delay | | 27.9 | | | 20.8 | | | 25.0 | | | 23.9 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 72.3 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 23.7 | Intersection LOS: C |
| Intersection Capacity Utilization 53.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 37 | 146 | 16 | 153 | 295 | 254 | 42 | 792 | 73 | 74 | 378 | 40 |
| Future Volume (veh/h) | 37 | 146 | 16 | 153 | 295 | 254 | 42 | 792 | 73 | 74 | 378 | 40 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 37 | 147 | 4 | 155 | 298 | 122 | 42 | 800 | 42 | 75 | 382 | 25 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 161 | 653 | 291 | 201 | 653 | 291 | 229 | 1402 | 429 | 112 | 952 | 296 |
| Arrive On Green | 0.09 | 0.18 | 0.18 | 0.11 | 0.18 | 0.18 | 0.13 | 0.27 | 0.27 | 0.06 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 37 | 147 | 4 | 155 | 298 | 122 | 42 | 800 | 42 | 75 | 382 | 25 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.1 | 1.9 | 0.1 | 4.6 | 4.1 | 2.6 | 1.1 | 7.4 | 1.1 | 2.2 | 3.6 | 0.7 |
| Cycle Q Clear(g_c), s | 1.1 | 1.9 | 0.1 | 4.6 | 4.1 | 2.6 | 1.1 | 7.4 | 1.1 | 2.2 | 3.6 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 161 | 653 | 291 | 201 | 653 | 291 | 229 | 1402 | 429 | 112 | 952 | 296 |
| V/C Ratio(X) | 0.23 | 0.23 | 0.01 | 0.77 | 0.46 | 0.42 | 0.18 | 0.57 | 0.10 | 0.67 | 0.40 | 0.08 |
| Avail Cap(c_a), veh/h | 242 | 2168 | 967 | 668 | 3017 | 1345 | 242 | 3208 | 982 | 373 | 3584 | 1112 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.4 | 19.3 | 6.5 | 23.9 | 20.2 | 9.7 | 21.6 | 17.4 | 15.1 | 25.4 | 19.9 | 18.7 |
| Incr Delay (d2), s/veh | 0.3 | 0.2 | 0.0 | 2.4 | 0.5 | 1.0 | 0.1 | 0.4 | 0.1 | 2.6 | 0.3 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.7 | 0.0 | 1.8 | 1.5 | 1.2 | 0.4 | 2.5 | 0.3 | 0.9 | 1.3 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.7 | 19.5 | 6.5 | 26.3 | 20.7 | 10.6 | 21.7 | 17.8 | 15.2 | 28.0 | 20.2 | 18.8 |
| LnGrp LOS | C | B | A | C | C | B | C | B | B | C | C | B |
| Approach Vol, veh/h | | 188 | | | 575 | | | 884 | | | 482 | |
| Approach Delay, s/veh | | 20.1 | | | 20.1 | | | 17.8 | | | 21.3 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.0 | 20.7 | 10.7 | 15.8 | 12.8 | 15.9 | 10.7 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 4.2 | 9.4 | 6.6 | 3.9 | 3.1 | 5.6 | 3.1 | 6.1 |
| Green Ext Time (p_c), s | 0.0 | 5.5 | 0.1 | 0.8 | 0.0 | 2.5 | 0.0 | 2.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.4 |
| HCM 6th LOS | B |

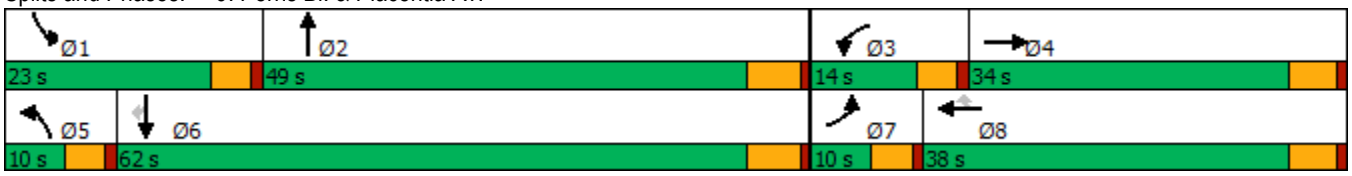
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 16 | 69 | 41 | 109 | 229 | 35 | 926 | 40 | 497 | 28 |
| Future Volume (vph) | 16 | 69 | 41 | 109 | 229 | 35 | 926 | 40 | 497 | 28 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 10.0 | 34.0 | 14.0 | 38.0 | 38.0 | 10.0 | 49.0 | 23.0 | 62.0 | 62.0 |
| Total Split (%) | 8.3% | 28.3% | 11.7% | 31.7% | 31.7% | 8.3% | 40.8% | 19.2% | 51.7% | 51.7% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.4 | 13.4 | 6.9 | 16.7 | 16.7 | 5.5 | 56.3 | 6.9 | 57.8 | 57.8 |
| Actuated g/C Ratio | 0.06 | 0.14 | 0.07 | 0.18 | 0.18 | 0.06 | 0.59 | 0.07 | 0.61 | 0.61 |
| v/c Ratio | 0.17 | 0.33 | 0.33 | 0.35 | 0.51 | 0.36 | 0.48 | 0.32 | 0.24 | 0.03 |
| Control Delay | 53.8 | 38.5 | 53.6 | 38.2 | 8.7 | 59.1 | 15.6 | 53.0 | 11.7 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.8 | 38.5 | 53.6 | 38.2 | 8.7 | 59.1 | 15.6 | 53.0 | 11.7 | 0.1 |
| LOS | D | D | D | D | A | E | B | D | B | A |
| Approach Delay | | 40.9 | | 22.0 | | | 17.1 | | 14.0 | |
| Approach LOS | | D | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 94.8 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.51 | |
| Intersection Signal Delay: 18.3 | Intersection LOS: B |
| Intersection Capacity Utilization 60.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 16 | 69 | 15 | 41 | 109 | 229 | 35 | 926 | 38 | 40 | 497 | 28 |
| Future Volume (veh/h) | 16 | 69 | 15 | 41 | 109 | 229 | 35 | 926 | 38 | 40 | 497 | 28 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 17 | 73 | 11 | 43 | 115 | 139 | 37 | 975 | 33 | 42 | 523 | 20 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 35 | 178 | 27 | 65 | 241 | 203 | 60 | 2135 | 72 | 64 | 2174 | 968 |
| Arrive On Green | 0.02 | 0.11 | 0.11 | 0.04 | 0.13 | 0.13 | 0.03 | 0.60 | 0.60 | 0.04 | 0.60 | 0.60 |
| Sat Flow, veh/h | 1810 | 1613 | 243 | 1810 | 1900 | 1595 | 1810 | 3560 | 120 | 1810 | 3610 | 1607 |
| Grp Volume(v), veh/h | 17 | 0 | 84 | 43 | 115 | 139 | 37 | 494 | 514 | 42 | 523 | 20 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1856 | 1810 | 1900 | 1595 | 1810 | 1805 | 1875 | 1810 | 1805 | 1607 |
| Q Serve(g_s), s | 0.9 | 0.0 | 3.9 | 2.2 | 5.2 | 7.8 | 1.9 | 14.1 | 14.1 | 2.1 | 6.3 | 0.5 |
| Cycle Q Clear(g_c), s | 0.9 | 0.0 | 3.9 | 2.2 | 5.2 | 7.8 | 1.9 | 14.1 | 14.1 | 2.1 | 6.3 | 0.5 |
| Prop In Lane | 1.00 | | 0.13 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 35 | 0 | 204 | 65 | 241 | 203 | 60 | 1083 | 1125 | 64 | 2174 | 968 |
| V/C Ratio(X) | 0.49 | 0.00 | 0.41 | 0.66 | 0.48 | 0.69 | 0.62 | 0.46 | 0.46 | 0.65 | 0.24 | 0.02 |
| Avail Cap(c_a), veh/h | 105 | 0 | 569 | 182 | 664 | 557 | 105 | 1083 | 1125 | 357 | 2174 | 968 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.3 | 0.0 | 38.7 | 44.4 | 37.9 | 39.0 | 44.5 | 10.3 | 10.3 | 44.4 | 8.6 | 7.5 |
| Incr Delay (d2), s/veh | 4.0 | 0.0 | 1.3 | 4.2 | 1.5 | 4.1 | 3.8 | 1.4 | 1.3 | 4.1 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.0 | 1.8 | 1.0 | 2.5 | 3.2 | 0.9 | 5.0 | 5.2 | 1.0 | 2.1 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 49.3 | 0.0 | 40.0 | 48.6 | 39.3 | 43.0 | 48.4 | 11.7 | 11.6 | 48.5 | 8.9 | 7.5 |
| LnGrp LOS | D | A | D | D | D | D | D | B | B | D | A | A |
| Approach Vol, veh/h | | 101 | | | 297 | | | 1045 | | | 585 | |
| Approach Delay, s/veh | | 41.6 | | | 42.4 | | | 13.0 | | | 11.7 | |
| Approach LOS | | D | | | D | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.9 | 61.8 | 8.0 | 15.7 | 7.7 | 62.0 | 6.4 | 17.2 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 18.4 | 43.2 | 9.4 | 28.6 | 5.4 | 56.2 | 5.4 | 32.6 |
| Max Q Clear Time (g_c+I1), s | 4.1 | 16.1 | 4.2 | 5.9 | 3.9 | 8.3 | 2.9 | 9.8 |
| Green Ext Time (p_c), s | 0.0 | 6.5 | 0.0 | 0.3 | 0.0 | 3.5 | 0.0 | 1.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 18.3 |
| HCM 6th LOS | B |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.5 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| Future Vol, veh/h | 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 46 |
| Peak Hour Factor | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79 |
| Number of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 1 | 2 |
| HCM Control Delay | 8.3 | 0 | 0 | 7 |
| HCM LOS | A | - | - | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 0% | 0% | 0% |
| Vol Thru, % | 100% | 0% | 100% | 100% | 100% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 0 | 32 | 0 | 0 | 0 | 46 |
| LT Vol | 0 | 32 | 0 | 0 | 0 | 0 |
| Through Vol | 0 | 0 | 0 | 0 | 0 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 0 | 46 |
| Lane Flow Rate | 0 | 55 | 0 | 0 | 0 | 79 |
| Geometry Grp | 6 | 7 | 7 | 6 | 7 | 7 |
| Degree of Util (X) | 0 | 0.079 | 0 | 0 | 0 | 0.086 |
| Departure Headway (Hd) | 4.657 | 5.139 | 4.638 | 4.681 | 4.597 | 3.896 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 0 | 697 | 0 | 0 | 0 | 911 |
| Service Time | 2.732 | 2.871 | 2.37 | 2.74 | 2.356 | 1.655 |
| HCM Lane V/C Ratio | 0 | 0.079 | 0 | 0 | 0 | 0.087 |
| HCM Control Delay | 7.7 | 8.3 | 7.4 | 7.7 | 7.4 | 7 |
| HCM Lane LOS | N | A | N | N | N | A |
| HCM 95th-tile Q | 0 | 0.3 | 0 | 0 | 0 | 0.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 0 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1 | 1 | 1 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 1027 | 1090 | 1635 | - | - | - |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1027 | 1090 | 1635 | - | - | - |
| Mov Cap-2 Maneuver | 1027 | - | - | - | - | - |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1635 | - | - | - | - |
| HCM Lane V/C Ratio | - | - | - | - | - |
| HCM Control Delay (s) | 0 | - | 0 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | - | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 336 | 10 | 161 | 685 | 0 | 45 | 0 | 192 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 336 | 10 | 161 | 685 | 0 | 45 | 0 | 192 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | 0 | 120 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 369 | 11 | 177 | 753 | 0 | 49 | 0 | 211 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 753 | 0 | 0 | 380 | 0 | 0 | 1100 | 1476 | 369 | 1587 | 1487 | 377 |
| Stage 1 | - | - | - | - | - | - | 369 | 369 | - | 1107 | 1107 | - |
| Stage 2 | - | - | - | - | - | - | 731 | 1107 | - | 480 | 380 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 866 | - | - | 1190 | - | - | 180 | 127 | 681 | 81 | 126 | 626 |
| Stage 1 | - | - | - | - | - | - | 655 | 624 | - | 228 | 288 | - |
| Stage 2 | - | - | - | - | - | - | 384 | 288 | - | 571 | 617 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 866 | - | - | 1190 | - | - | 159 | 108 | 681 | 49 | 107 | 626 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 159 | 108 | - | 49 | 107 | - |
| Stage 1 | - | - | - | - | - | - | 655 | 624 | - | 228 | 245 | - |
| Stage 2 | - | - | - | - | - | - | 327 | 245 | - | 394 | 617 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.6 | 17.3 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 159 | 681 | 866 | - | - | 1190 | - | - | - | - |
| HCM Lane V/C Ratio | 0.311 | 0.31 | - | - | - | 0.149 | - | - | - | - |
| HCM Control Delay (s) | 37.5 | 12.6 | 0 | - | - | 8.6 | - | - | 0 | 0 |
| HCM Lane LOS | E | B | A | - | - | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 1.2 | 1.3 | 0 | - | - | 0.5 | - | - | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 14.6 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 33 | 120 | 63 | 47 | 158 | 4 | 167 | 193 | 23 | 6 | 142 | 43 |
| Future Vol, veh/h | 33 | 120 | 63 | 47 | 158 | 4 | 167 | 193 | 23 | 6 | 142 | 43 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 42 | 154 | 81 | 60 | 203 | 5 | 214 | 247 | 29 | 8 | 182 | 55 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 13.2 | 15.6 | 14.9 | 14.6 |
| HCM LOS | B | C | B | B |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 74% | 0% | 100% | 0% | 0% | 98% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 26% | 0% | 0% | 100% | 0% | 2% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 167 | 129 | 87 | 33 | 120 | 63 | 47 | 162 | 6 | 142 | 43 |
| LT Vol | 167 | 0 | 0 | 33 | 0 | 0 | 47 | 0 | 6 | 0 | 0 |
| Through Vol | 0 | 129 | 64 | 0 | 120 | 0 | 0 | 158 | 0 | 142 | 0 |
| RT Vol | 0 | 0 | 23 | 0 | 0 | 63 | 0 | 4 | 0 | 0 | 43 |
| Lane Flow Rate | 214 | 165 | 112 | 42 | 154 | 81 | 60 | 208 | 8 | 182 | 55 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.467 | 0.336 | 0.222 | 0.098 | 0.336 | 0.16 | 0.137 | 0.443 | 0.018 | 0.401 | 0.11 |
| Departure Headway (Hd) | 7.847 | 7.339 | 7.152 | 8.358 | 7.853 | 7.146 | 8.201 | 7.684 | 8.435 | 7.926 | 7.213 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 458 | 490 | 502 | 428 | 457 | 501 | 437 | 467 | 424 | 453 | 496 |
| Service Time | 5.602 | 5.094 | 4.907 | 6.119 | 5.614 | 4.907 | 5.958 | 5.441 | 6.199 | 5.69 | 4.977 |
| HCM Lane V/C Ratio | 0.467 | 0.337 | 0.223 | 0.098 | 0.337 | 0.162 | 0.137 | 0.445 | 0.019 | 0.402 | 0.111 |
| HCM Control Delay | 17.3 | 13.8 | 12 | 12 | 14.6 | 11.3 | 12.3 | 16.5 | 11.4 | 15.9 | 10.9 |
| HCM Lane LOS | C | B | B | B | B | B | B | C | B | C | B |
| HCM 95th-tile Q | 2.4 | 1.5 | 0.8 | 0.3 | 1.5 | 0.6 | 0.5 | 2.2 | 0.1 | 1.9 | 0.4 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 500 | 18 | 207 | 799 | 0 | 32 | 0 | 171 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 500 | 18 | 207 | 799 | 0 | 32 | 0 | 171 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | 50 | 185 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 588 | 21 | 244 | 940 | 0 | 38 | 0 | 201 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 940 | 0 | 0 | 610 | 0 | 0 | 1547 | 2017 | 589 | 2127 | 2038 | 470 |
| Stage 1 | - | - | - | - | - | - | 589 | 589 | - | 1428 | 1428 | - |
| Stage 2 | - | - | - | - | - | - | 958 | 1428 | - | 699 | 610 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 737 | - | - | 979 | - | - | 86 | 59 | 512 | 33 | 57 | 545 |
| Stage 1 | - | - | - | - | - | - | 498 | 499 | - | 144 | 203 | - |
| Stage 2 | - | - | - | - | - | - | 280 | 203 | - | 434 | 488 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 737 | - | - | 978 | - | - | 69 | 44 | 512 | 16 | 43 | 545 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 160 | 120 | - | 17 | 104 | - |
| Stage 1 | - | - | - | - | - | - | 498 | 499 | - | 144 | 152 | - |
| Stage 2 | - | - | - | - | - | - | 210 | 152 | - | 263 | 488 | - |

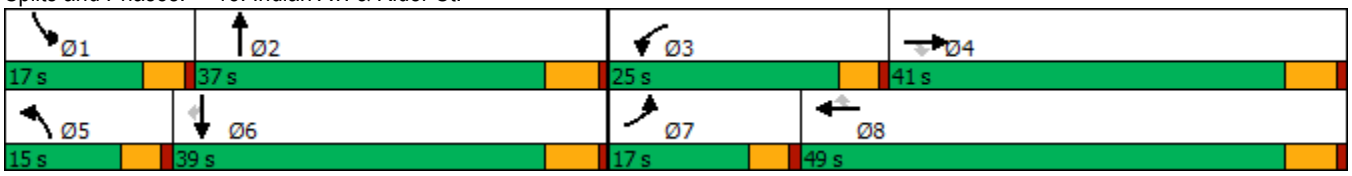
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 2 | 29.2 | 0 |
| HCM LOS | | | D | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 380 | 737 | - | - | 978 | - | - | - |
| HCM Lane V/C Ratio | 0.628 | - | - | - | 0.249 | - | - | - |
| HCM Control Delay (s) | 29.2 | 0 | - | - | 9.9 | - | - | 0 |
| HCM Lane LOS | D | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 4.1 | 0 | - | - | 1 | - | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 35 | 66 | 7 |
| Future Volume (vph) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 35 | 66 | 7 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 17.0 | 41.0 | 41.0 | 25.0 | 49.0 | 49.0 | 15.0 | 37.0 | 17.0 | 39.0 | 39.0 |
| Total Split (%) | 14.2% | 34.2% | 34.2% | 20.8% | 40.8% | 40.8% | 12.5% | 30.8% | 14.2% | 32.5% | 32.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 6.6 | 13.6 | 13.6 | 9.0 | 18.2 | 18.2 | 5.9 | 34.0 | 6.6 | 36.6 | 36.6 |
| Actuated g/C Ratio | 0.09 | 0.18 | 0.18 | 0.12 | 0.24 | 0.24 | 0.08 | 0.44 | 0.09 | 0.47 | 0.47 |
| v/c Ratio | 0.27 | 0.25 | 0.10 | 0.49 | 0.35 | 0.34 | 0.16 | 0.13 | 0.27 | 0.05 | 0.01 |
| Control Delay | 43.3 | 30.2 | 0.5 | 44.2 | 29.0 | 6.4 | 43.1 | 15.5 | 43.3 | 17.1 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 43.3 | 30.2 | 0.5 | 44.2 | 29.0 | 6.4 | 43.1 | 15.5 | 43.3 | 17.1 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 27.5 | | | 23.5 | | | 18.1 | | 24.5 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 77.2 | |
| Natural Cycle: 95 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.49 | |
| Intersection Signal Delay: 23.3 | Intersection LOS: C |
| Intersection Capacity Utilization 43.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 43 | 35 | 66 | 7 |
| Future Volume (veh/h) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 43 | 35 | 66 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 158 | 28 | 102 | 158 | 126 | 22 | 155 | 47 | 41 | 78 | 0 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 71 | 509 | 227 | 133 | 333 | 282 | 45 | 1248 | 366 | 71 | 1689 | 753 |
| Arrive On Green | 0.04 | 0.14 | 0.14 | 0.07 | 0.18 | 0.18 | 0.02 | 0.45 | 0.45 | 0.04 | 0.47 | 0.00 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 2752 | 808 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 41 | 158 | 28 | 102 | 158 | 126 | 22 | 100 | 102 | 41 | 78 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1755 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 1.6 | 2.8 | 1.1 | 3.9 | 5.3 | 5.0 | 0.9 | 2.3 | 2.4 | 1.6 | 0.8 | 0.0 |
| Cycle Q Clear(g_c), s | 1.6 | 2.8 | 1.1 | 3.9 | 5.3 | 5.0 | 0.9 | 2.3 | 2.4 | 1.6 | 0.8 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.46 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 71 | 509 | 227 | 133 | 333 | 282 | 45 | 819 | 796 | 71 | 1689 | 753 |
| V/C Ratio(X) | 0.58 | 0.31 | 0.12 | 0.77 | 0.47 | 0.45 | 0.49 | 0.12 | 0.13 | 0.58 | 0.05 | 0.00 |
| Avail Cap(c_a), veh/h | 316 | 1791 | 799 | 520 | 1157 | 980 | 265 | 819 | 796 | 316 | 1689 | 753 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 33.5 | 27.4 | 26.7 | 32.3 | 26.3 | 26.2 | 34.2 | 11.2 | 11.3 | 33.5 | 10.3 | 0.0 |
| Incr Delay (d2), s/veh | 2.8 | 0.3 | 0.2 | 3.5 | 1.0 | 1.1 | 3.1 | 0.3 | 0.3 | 2.8 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 1.1 | 0.4 | 1.7 | 2.3 | 1.8 | 0.4 | 0.8 | 0.9 | 0.7 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.3 | 27.7 | 26.9 | 35.8 | 27.4 | 27.3 | 37.2 | 11.5 | 11.6 | 36.3 | 10.3 | 0.0 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | B | A |
| Approach Vol, veh/h | | 227 | | | 386 | | | 224 | | | 119 | |
| Approach Delay, s/veh | | 29.2 | | | 29.6 | | | 14.1 | | | 19.3 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.4 | 38.0 | 9.8 | 15.8 | 6.4 | 39.0 | 7.4 | 18.2 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 12.4 | 31.2 | 20.4 | 35.2 | 10.4 | 33.2 | 12.4 | 43.2 |
| Max Q Clear Time (g_c+I1), s | 3.6 | 4.4 | 5.9 | 4.8 | 2.9 | 2.8 | 3.6 | 7.3 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.1 | 1.0 | 0.0 | 0.4 | 0.0 | 1.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 24.6 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 12.8 |
| Intersection LOS | B |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 86 | 353 | 172 | 28 | 182 | 173 |
| Future Vol, veh/h | 86 | 353 | 172 | 28 | 182 | 173 |
| Peak Hour Factor | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 | 0.94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 91 | 376 | 183 | 30 | 194 | 184 |
| Number of Lanes | 1 | 1 | 0 | 1 | 1 | 1 |

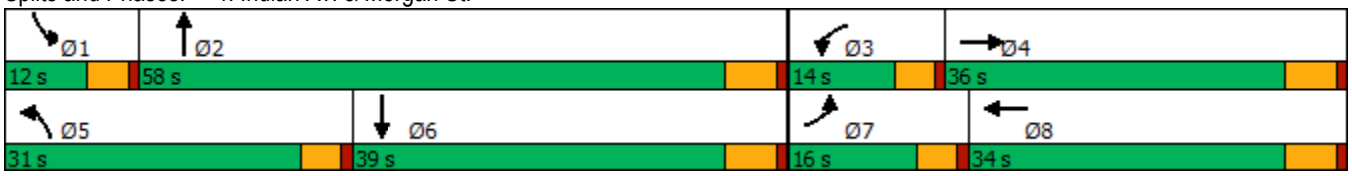
| Approach | EB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 1 |
| Conflicting Approach Left | SB | EB | |
| Conflicting Lanes Left | 2 | 2 | 0 |
| Conflicting Approach Right | NB | | EB |
| Conflicting Lanes Right | 1 | 0 | 2 |
| HCM Control Delay | 14.1 | 13 | 11.1 |
| HCM LOS | B | B | B |

| Lane | NBLn1 | EBLn1 | EBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|
| Vol Left, % | 86% | 100% | 0% | 0% | 0% |
| Vol Thru, % | 14% | 0% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 100% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 200 | 86 | 353 | 182 | 173 |
| LT Vol | 172 | 86 | 0 | 0 | 0 |
| Through Vol | 28 | 0 | 0 | 182 | 0 |
| RT Vol | 0 | 0 | 353 | 0 | 173 |
| Lane Flow Rate | 213 | 91 | 376 | 194 | 184 |
| Geometry Grp | 4 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.37 | 0.168 | 0.564 | 0.33 | 0.277 |
| Departure Headway (Hd) | 6.266 | 6.616 | 5.402 | 6.139 | 5.428 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes |
| Cap | 574 | 543 | 668 | 585 | 661 |
| Service Time | 4.307 | 4.352 | 3.138 | 3.879 | 3.168 |
| HCM Lane V/C Ratio | 0.371 | 0.168 | 0.563 | 0.332 | 0.278 |
| HCM Control Delay | 13 | 10.7 | 14.9 | 11.9 | 10.2 |
| HCM Lane LOS | B | B | B | B | B |
| HCM 95th-tile Q | 1.7 | 0.6 | 3.5 | 1.4 | 1.1 |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 64 | 56 | 10 | 27 | 71 | 167 | 7 | 323 |
| Future Volume (vph) | 64 | 56 | 10 | 27 | 71 | 167 | 7 | 323 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 31.8 | 9.6 | 29.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 16.0 | 36.0 | 14.0 | 34.0 | 31.0 | 58.0 | 12.0 | 39.0 |
| Total Split (%) | 13.3% | 30.0% | 11.7% | 28.3% | 25.8% | 48.3% | 10.0% | 32.5% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 9.5 | 18.8 | 5.6 | 12.4 | 9.5 | 54.2 | 5.4 | 44.0 |
| Actuated g/C Ratio | 0.11 | 0.21 | 0.06 | 0.14 | 0.11 | 0.61 | 0.06 | 0.50 |
| v/c Ratio | 0.48 | 0.23 | 0.13 | 0.09 | 0.54 | 0.12 | 0.09 | 0.31 |
| Control Delay | 49.4 | 14.6 | 47.7 | 33.1 | 50.1 | 9.8 | 47.6 | 17.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 49.4 | 14.6 | 47.7 | 33.1 | 50.1 | 9.8 | 47.6 | 17.0 |
| LOS | D | B | D | C | D | A | D | B |
| Approach Delay | | 26.5 | | 36.8 | | 21.0 | | 17.5 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.3 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.54 | |
| Intersection Signal Delay: 21.4 | Intersection LOS: C |
| Intersection Capacity Utilization 38.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 64 | 56 | 66 | 10 | 27 | 3 | 71 | 167 | 17 | 7 | 323 | 48 |
| Future Volume (veh/h) | 64 | 56 | 66 | 10 | 27 | 3 | 71 | 167 | 17 | 7 | 323 | 48 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 94 | 82 | 54 | 15 | 40 | 0 | 104 | 246 | 22 | 10 | 475 | 61 |
| Peak Hour Factor | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 | 0.68 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 121 | 343 | 207 | 31 | 398 | 0 | 134 | 1945 | 173 | 22 | 1668 | 213 |
| Arrive On Green | 0.07 | 0.16 | 0.16 | 0.02 | 0.11 | 0.00 | 0.07 | 0.58 | 0.58 | 0.01 | 0.52 | 0.52 |
| Sat Flow, veh/h | 1810 | 2151 | 1299 | 1810 | 3705 | 0 | 1810 | 3354 | 298 | 1810 | 3219 | 412 |
| Grp Volume(v), veh/h | 94 | 68 | 68 | 15 | 40 | 0 | 104 | 131 | 137 | 10 | 265 | 271 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1645 | 1810 | 1805 | 0 | 1810 | 1805 | 1846 | 1810 | 1805 | 1826 |
| Q Serve(g_s), s | 4.6 | 2.9 | 3.3 | 0.7 | 0.9 | 0.0 | 5.1 | 3.0 | 3.0 | 0.5 | 7.5 | 7.5 |
| Cycle Q Clear(g_c), s | 4.6 | 2.9 | 3.3 | 0.7 | 0.9 | 0.0 | 5.1 | 3.0 | 3.0 | 0.5 | 7.5 | 7.5 |
| Prop In Lane | 1.00 | | 0.79 | 1.00 | | 0.00 | 1.00 | | 0.16 | 1.00 | | 0.23 |
| Lane Grp Cap(c), veh/h | 121 | 288 | 262 | 31 | 398 | 0 | 134 | 1047 | 1071 | 22 | 935 | 946 |
| V/C Ratio(X) | 0.78 | 0.23 | 0.26 | 0.48 | 0.10 | 0.00 | 0.78 | 0.13 | 0.13 | 0.45 | 0.28 | 0.29 |
| Avail Cap(c_a), veh/h | 229 | 605 | 552 | 189 | 1131 | 0 | 531 | 1047 | 1071 | 149 | 935 | 946 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 41.4 | 33.0 | 33.2 | 43.8 | 36.0 | 0.0 | 41.0 | 8.6 | 8.6 | 44.2 | 12.3 | 12.3 |
| Incr Delay (d2), s/veh | 4.0 | 0.4 | 0.5 | 4.1 | 0.1 | 0.0 | 3.6 | 0.2 | 0.2 | 5.2 | 0.8 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 1.3 | 1.3 | 0.4 | 0.4 | 0.0 | 2.3 | 1.1 | 1.1 | 0.2 | 2.8 | 2.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 45.4 | 33.5 | 33.7 | 47.9 | 36.2 | 0.0 | 44.6 | 8.8 | 8.8 | 49.4 | 13.0 | 13.0 |
| LnGrp LOS | D | C | C | D | D | A | D | A | A | D | B | B |
| Approach Vol, veh/h | | 230 | | | 55 | | | 372 | | | 546 | |
| Approach Delay, s/veh | | 38.4 | | | 39.4 | | | 18.8 | | | 13.7 | |
| Approach LOS | | D | | | D | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.7 | 58.0 | 6.2 | 20.2 | 11.3 | 52.5 | 10.6 | 15.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 52.2 | 9.4 | 30.2 | 26.4 | 33.2 | 11.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.5 | 5.0 | 2.7 | 5.3 | 7.1 | 9.5 | 6.6 | 2.9 |
| Green Ext Time (p_c), s | 0.0 | 1.4 | 0.0 | 0.6 | 0.1 | 2.9 | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 21.2 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.3 |
| Intersection LOS | A |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 30 | 55 | 21 | 84 | 242 |
| Future Vol, veh/h | 18 | 30 | 55 | 21 | 84 | 242 |
| Peak Hour Factor | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 21 | 36 | 65 | 25 | 100 | 288 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 1 |

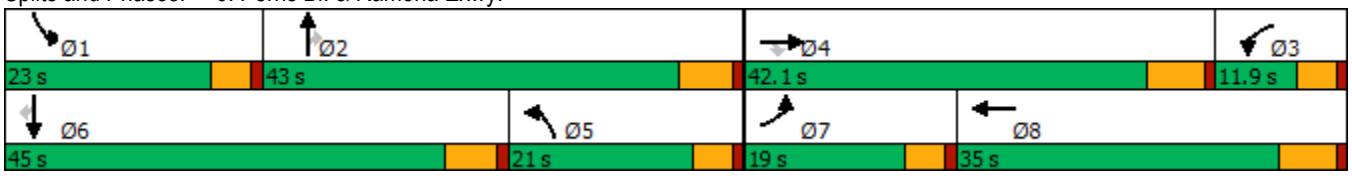
| Approach | WB | NB | SB |
|---|---|---|---|
| Opposing Approach | | SB | NB |
| Opposing Lanes | 0 | 2 | 2 |
| Conflicting Approach Left | NB | | WB |
| Conflicting Lanes Left | 2 | 0 | 2 |
| Conflicting Approach Right | SB | WB | |
| Conflicting Lanes Right | 2 | 2 | 0 |
| HCM Control Delay | 8.3 | 7.9 | 9.8 |
| HCM LOS | A | A | A |

| Lane | NBLn1 | NBLn2 | WBLn1 | WBLn2 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Thru, % | 100% | 0% | 0% | 0% | 0% | 100% |
| Vol Right, % | 0% | 100% | 0% | 100% | 0% | 0% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 55 | 21 | 18 | 30 | 84 | 242 |
| LT Vol | 0 | 0 | 18 | 0 | 84 | 0 |
| Through Vol | 55 | 0 | 0 | 0 | 0 | 242 |
| RT Vol | 0 | 21 | 0 | 30 | 0 | 0 |
| Lane Flow Rate | 65 | 25 | 21 | 36 | 100 | 288 |
| Geometry Grp | 7 | 7 | 7 | 7 | 7 | 7 |
| Degree of Util (X) | 0.091 | 0.03 | 0.036 | 0.049 | 0.143 | 0.372 |
| Departure Headway (Hd) | 4.982 | 4.279 | 6.108 | 4.902 | 5.146 | 4.645 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 722 | 839 | 589 | 734 | 689 | 763 |
| Service Time | 2.695 | 1.992 | 3.816 | 2.61 | 2.939 | 2.438 |
| HCM Lane V/C Ratio | 0.09 | 0.03 | 0.036 | 0.049 | 0.145 | 0.377 |
| HCM Control Delay | 8.2 | 7.1 | 9 | 7.9 | 8.8 | 10.2 |
| HCM Lane LOS | A | A | A | A | A | B |
| HCM 95th-tile Q | 0.3 | 0.1 | 0.1 | 0.2 | 0.5 | 1.7 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 241 | 1027 | 139 | 96 | 776 | 269 | 425 | 96 | 326 | 601 | 264 |
| Future Volume (vph) | 241 | 1027 | 139 | 96 | 776 | 269 | 425 | 96 | 326 | 601 | 264 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 19.0 | 42.1 | 42.1 | 11.9 | 35.0 | 21.0 | 43.0 | 43.0 | 23.0 | 45.0 | 45.0 |
| Total Split (%) | 15.8% | 35.1% | 35.1% | 9.9% | 29.2% | 17.5% | 35.8% | 35.8% | 19.2% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 11.0 | 29.5 | 29.5 | 7.0 | 22.8 | 11.9 | 22.4 | 22.4 | 13.4 | 23.9 | 23.9 |
| Actuated g/C Ratio | 0.12 | 0.32 | 0.32 | 0.08 | 0.25 | 0.13 | 0.24 | 0.24 | 0.15 | 0.26 | 0.26 |
| v/c Ratio | 0.58 | 0.63 | 0.22 | 0.37 | 0.70 | 0.60 | 0.49 | 0.19 | 0.65 | 0.65 | 0.44 |
| Control Delay | 46.9 | 30.3 | 3.1 | 49.3 | 35.1 | 46.1 | 32.8 | 0.8 | 45.4 | 34.5 | 6.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 46.9 | 30.3 | 3.1 | 49.3 | 35.1 | 46.1 | 32.8 | 0.8 | 45.4 | 34.5 | 6.8 |
| LOS | D | C | A | D | D | D | C | A | D | C | A |
| Approach Delay | | 30.4 | | | 36.5 | | 33.4 | | | 31.4 | |
| Approach LOS | | C | | | D | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 91.7 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.70 | |
| Intersection Signal Delay: 32.6 | Intersection LOS: C |
| Intersection Capacity Utilization 68.3% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 241 | 1027 | 139 | 96 | 776 | 98 | 269 | 425 | 96 | 326 | 601 | 264 |
| Future Volume (veh/h) | 241 | 1027 | 139 | 96 | 776 | 98 | 269 | 425 | 96 | 326 | 601 | 264 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.98 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 246 | 1048 | 101 | 98 | 792 | 87 | 274 | 434 | 57 | 333 | 613 | 213 |
| Peak Hour Factor | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 336 | 1509 | 468 | 194 | 1281 | 140 | 366 | 899 | 394 | 428 | 909 | 403 |
| Arrive On Green | 0.10 | 0.29 | 0.29 | 0.06 | 0.27 | 0.27 | 0.10 | 0.25 | 0.25 | 0.12 | 0.25 | 0.25 |
| Sat Flow, veh/h | 3510 | 5187 | 1609 | 3510 | 4739 | 517 | 3510 | 3610 | 1584 | 3510 | 3610 | 1601 |
| Grp Volume(v), veh/h | 246 | 1048 | 101 | 98 | 577 | 302 | 274 | 434 | 57 | 333 | 613 | 213 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1609 | 1755 | 1729 | 1798 | 1755 | 1805 | 1584 | 1755 | 1805 | 1601 |
| Q Serve(g_s), s | 5.5 | 14.5 | 3.8 | 2.2 | 11.8 | 11.9 | 6.1 | 8.3 | 1.6 | 7.4 | 12.3 | 6.5 |
| Cycle Q Clear(g_c), s | 5.5 | 14.5 | 3.8 | 2.2 | 11.8 | 11.9 | 6.1 | 8.3 | 1.6 | 7.4 | 12.3 | 6.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.29 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 336 | 1509 | 468 | 194 | 935 | 486 | 366 | 899 | 394 | 428 | 909 | 403 |
| V/C Ratio(X) | 0.73 | 0.69 | 0.22 | 0.51 | 0.62 | 0.62 | 0.75 | 0.48 | 0.14 | 0.78 | 0.67 | 0.53 |
| Avail Cap(c_a), veh/h | 627 | 2311 | 717 | 318 | 1236 | 643 | 714 | 1666 | 731 | 802 | 1756 | 779 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.4 | 25.4 | 21.6 | 37.0 | 25.7 | 25.8 | 35.1 | 25.8 | 12.5 | 34.3 | 27.2 | 12.7 |
| Incr Delay (d2), s/veh | 1.2 | 0.6 | 0.2 | 0.8 | 0.7 | 1.3 | 1.2 | 0.4 | 0.2 | 1.2 | 0.9 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.2 | 5.4 | 1.3 | 0.9 | 4.4 | 4.7 | 2.5 | 3.3 | 0.8 | 3.0 | 5.0 | 3.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.6 | 26.0 | 21.8 | 37.8 | 26.4 | 27.1 | 36.2 | 26.2 | 12.7 | 35.5 | 28.1 | 13.8 |
| LnGrp LOS | D | C | C | D | C | C | D | C | B | D | C | B |
| Approach Vol, veh/h | | 1395 | | | 977 | | | 765 | | | 1159 | |
| Approach Delay, s/veh | | 27.5 | | | 27.8 | | | 28.8 | | | 27.6 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 14.4 | 25.9 | 10.6 | 29.6 | 14.2 | 26.1 | 12.3 | 28.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 6.2 | * 6.2 | 5.8 | * 5.8 | 4.6 | 6.2 |
| Max Green Setting (Gmax), s | 18.4 | 37.2 | 7.3 | * 36 | 16.4 | * 39 | 14.4 | 28.8 |
| Max Q Clear Time (g_c+I1), s | 9.4 | 10.3 | 4.2 | 16.5 | 8.1 | 14.3 | 7.5 | 13.9 |
| Green Ext Time (p_c), s | 0.4 | 2.8 | 0.0 | 6.8 | 0.3 | 4.6 | 0.2 | 4.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.8 |
| HCM 6th LOS | C |

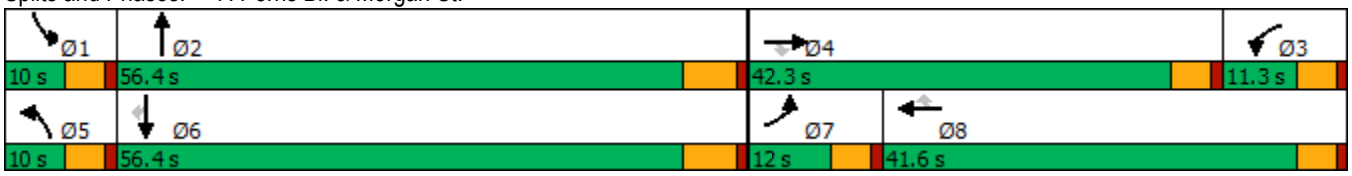
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 23 | 29 | 33 | 6 | 17 | 13 | 729 | 7 | 908 | 15 |
| Future Volume (vph) | 36 | 23 | 29 | 33 | 6 | 17 | 13 | 729 | 7 | 908 | 15 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 12.0 | 42.3 | 42.3 | 11.3 | 41.6 | 41.6 | 10.0 | 56.4 | 10.0 | 56.4 | 56.4 |
| Total Split (%) | 10.0% | 35.3% | 35.3% | 9.4% | 34.7% | 34.7% | 8.3% | 47.0% | 8.3% | 47.0% | 47.0% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 9.0 | 18.2 | 18.2 | 9.4 | 18.7 | 18.7 | 8.3 | 34.8 | 8.3 | 34.8 | 34.8 |
| Actuated g/C Ratio | 0.18 | 0.36 | 0.36 | 0.18 | 0.37 | 0.37 | 0.16 | 0.68 | 0.16 | 0.68 | 0.68 |
| v/c Ratio | 0.13 | 0.02 | 0.05 | 0.11 | 0.01 | 0.03 | 0.05 | 0.23 | 0.03 | 0.41 | 0.01 |
| Control Delay | 35.2 | 24.6 | 0.1 | 33.0 | 23.3 | 0.1 | 38.4 | 10.5 | 38.9 | 12.7 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.2 | 24.6 | 0.1 | 33.0 | 23.3 | 0.1 | 38.4 | 10.5 | 38.9 | 12.7 | 0.0 |
| LOS | D | C | A | C | C | A | D | B | D | B | A |
| Approach Delay | | 20.9 | | | 21.8 | | | 11.0 | | 12.7 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 51.2 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.41 | |
| Intersection Signal Delay: 12.7 | Intersection LOS: B |
| Intersection Capacity Utilization 50.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 23 | 29 | 33 | 6 | 17 | 13 | 729 | 11 | 7 | 908 | 15 |
| Future Volume (veh/h) | 36 | 23 | 29 | 33 | 6 | 17 | 13 | 729 | 11 | 7 | 908 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 40 | 25 | 16 | 36 | 7 | 16 | 14 | 801 | 12 | 8 | 998 | 15 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 76 | 541 | 241 | 72 | 280 | 237 | 32 | 2217 | 33 | 19 | 1495 | 667 |
| Arrive On Green | 0.04 | 0.15 | 0.15 | 0.04 | 0.15 | 0.15 | 0.02 | 0.42 | 0.42 | 0.01 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5264 | 79 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 40 | 25 | 16 | 36 | 7 | 16 | 14 | 526 | 287 | 8 | 998 | 15 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1885 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 1.1 | 0.3 | 0.3 | 1.0 | 0.2 | 0.4 | 0.4 | 5.4 | 5.4 | 0.2 | 11.6 | 0.3 |
| Cycle Q Clear(g_c), s | 1.1 | 0.3 | 0.3 | 1.0 | 0.2 | 0.4 | 0.4 | 5.4 | 5.4 | 0.2 | 11.6 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 76 | 541 | 241 | 72 | 280 | 237 | 32 | 1456 | 794 | 19 | 1495 | 667 |
| V/C Ratio(X) | 0.52 | 0.05 | 0.07 | 0.50 | 0.03 | 0.07 | 0.44 | 0.36 | 0.36 | 0.42 | 0.67 | 0.02 |
| Avail Cap(c_a), veh/h | 259 | 2630 | 1173 | 234 | 1359 | 1151 | 189 | 3381 | 1843 | 189 | 3530 | 1575 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.3 | 18.8 | 11.2 | 24.3 | 18.9 | 19.0 | 25.2 | 10.2 | 10.2 | 25.4 | 12.3 | 9.0 |
| Incr Delay (d2), s/veh | 2.1 | 0.0 | 0.1 | 2.0 | 0.0 | 0.1 | 3.5 | 0.2 | 0.3 | 5.4 | 0.5 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.1 | 0.2 | 0.4 | 0.1 | 0.2 | 0.2 | 1.5 | 1.7 | 0.1 | 3.5 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.3 | 18.9 | 11.3 | 26.3 | 18.9 | 19.1 | 28.7 | 10.4 | 10.5 | 30.9 | 12.8 | 9.0 |
| LnGrp LOS | C | B | B | C | B | B | C | B | B | C | B | A |
| Approach Vol, veh/h | | 81 | | | 59 | | | 827 | | | 1021 | |
| Approach Delay, s/veh | | 21.1 | | | 23.5 | | | 10.7 | | | 12.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |

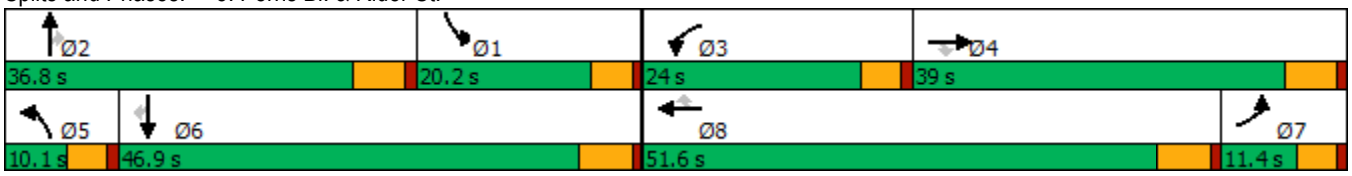
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.1 | 27.6 | 6.7 | 12.4 | 5.5 | 27.2 | 6.8 | 12.2 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 5.4 | 50.6 | 6.7 | 37.7 | 5.4 | 50.6 | 7.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.2 | 7.4 | 3.0 | 2.3 | 2.4 | 13.6 | 3.1 | 2.4 |
| Green Ext Time (p_c), s | 0.0 | 5.4 | 0.0 | 0.2 | 0.0 | 7.8 | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.6 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 182 | 49 | 154 | 63 | 125 | 18 | 584 | 184 | 118 | 848 | 15 |
| Future Volume (vph) | 38 | 182 | 49 | 154 | 63 | 125 | 18 | 584 | 184 | 118 | 848 | 15 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 11.4 | 39.0 | 39.0 | 24.0 | 51.6 | 51.6 | 10.1 | 36.8 | 36.8 | 20.2 | 46.9 | 46.9 |
| Total Split (%) | 9.5% | 32.5% | 32.5% | 20.0% | 43.0% | 43.0% | 8.4% | 30.7% | 30.7% | 16.8% | 39.1% | 39.1% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.7 | 14.0 | 14.0 | 11.6 | 24.6 | 24.6 | 5.7 | 17.3 | 17.3 | 9.9 | 25.7 | 25.7 |
| Actuated g/C Ratio | 0.12 | 0.19 | 0.19 | 0.16 | 0.34 | 0.34 | 0.08 | 0.24 | 0.24 | 0.14 | 0.35 | 0.35 |
| v/c Ratio | 0.18 | 0.27 | 0.12 | 0.55 | 0.05 | 0.19 | 0.13 | 0.49 | 0.36 | 0.49 | 0.48 | 0.02 |
| Control Delay | 36.5 | 28.7 | 0.6 | 40.4 | 23.4 | 2.4 | 44.1 | 27.4 | 7.2 | 41.9 | 20.7 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.5 | 28.7 | 0.6 | 40.4 | 23.4 | 2.4 | 44.1 | 27.4 | 7.2 | 41.9 | 20.7 | 0.1 |
| LOS | D | C | A | D | C | A | D | C | A | D | C | A |
| Approach Delay | | 24.7 | | | 23.4 | | | 23.0 | | | 22.9 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 72.4 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.55 | |
| Intersection Signal Delay: 23.2 | Intersection LOS: C |
| Intersection Capacity Utilization 55.6% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 182 | 49 | 154 | 63 | 125 | 18 | 584 | 184 | 118 | 848 | 15 |
| Future Volume (veh/h) | 38 | 182 | 49 | 154 | 63 | 125 | 18 | 584 | 184 | 118 | 848 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 39 | 188 | 17 | 159 | 65 | 45 | 19 | 602 | 130 | 122 | 874 | 6 |
| Peak Hour Factor | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 | 0.97 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 164 | 659 | 294 | 205 | 664 | 296 | 41 | 1139 | 348 | 159 | 1588 | 493 |
| Arrive On Green | 0.09 | 0.18 | 0.18 | 0.11 | 0.18 | 0.18 | 0.02 | 0.22 | 0.22 | 0.09 | 0.31 | 0.31 |
| Sat Flow, veh/h | 1810 | 3610 | 1608 | 1810 | 3610 | 1610 | 1810 | 5187 | 1584 | 1810 | 5187 | 1609 |
| Grp Volume(v), veh/h | 39 | 188 | 17 | 159 | 65 | 45 | 19 | 602 | 130 | 122 | 874 | 6 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1608 | 1810 | 1805 | 1610 | 1810 | 1729 | 1584 | 1810 | 1729 | 1609 |
| Q Serve(g_s), s | 1.1 | 2.5 | 0.5 | 4.7 | 0.8 | 1.3 | 0.6 | 5.7 | 2.4 | 3.7 | 7.8 | 0.1 |
| Cycle Q Clear(g_c), s | 1.1 | 2.5 | 0.5 | 4.7 | 0.8 | 1.3 | 0.6 | 5.7 | 2.4 | 3.7 | 7.8 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 164 | 659 | 294 | 205 | 664 | 296 | 41 | 1139 | 348 | 159 | 1588 | 493 |
| V/C Ratio(X) | 0.24 | 0.29 | 0.06 | 0.77 | 0.10 | 0.15 | 0.46 | 0.53 | 0.37 | 0.77 | 0.55 | 0.01 |
| Avail Cap(c_a), veh/h | 222 | 2160 | 962 | 633 | 2979 | 1329 | 179 | 2897 | 885 | 509 | 3841 | 1191 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.5 | 19.6 | 18.7 | 23.9 | 18.8 | 19.0 | 26.8 | 19.1 | 7.0 | 24.8 | 16.1 | 4.3 |
| Incr Delay (d2), s/veh | 0.3 | 0.2 | 0.1 | 2.4 | 0.1 | 0.2 | 2.9 | 0.4 | 0.7 | 2.9 | 0.3 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.9 | 0.2 | 1.9 | 0.3 | 0.4 | 0.3 | 2.0 | 1.2 | 1.5 | 2.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.7 | 19.8 | 18.8 | 26.3 | 18.9 | 19.2 | 29.7 | 19.5 | 7.6 | 27.7 | 16.4 | 4.3 |
| LnGrp LOS | C | B | B | C | B | B | C | B | A | C | B | A |
| Approach Vol, veh/h | | 244 | | | 269 | | | 751 | | | 1002 | |
| Approach Delay, s/veh | | 20.4 | | | 23.3 | | | 17.7 | | | 17.7 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.7 | 18.0 | 10.9 | 15.9 | 5.9 | 22.8 | 10.8 | 16.0 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 15.6 | * 31 | 19.4 | 33.2 | 5.5 | 41.1 | 6.8 | * 46 |
| Max Q Clear Time (g_c+I1), s | 5.7 | 7.7 | 6.7 | 4.5 | 2.6 | 9.8 | 3.1 | 3.3 |
| Green Ext Time (p_c), s | 0.1 | 4.2 | 0.1 | 1.1 | 0.0 | 6.3 | 0.0 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 18.6 |
| HCM 6th LOS | B |

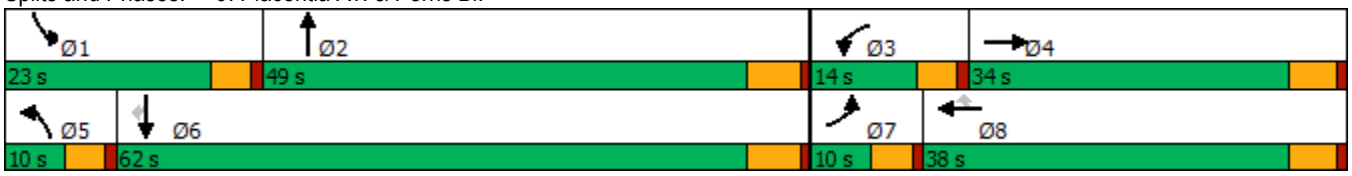
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 13 | 52 | 57 | 20 | 88 | 8 | 734 | 134 | 978 | 5 |
| Future Volume (vph) | 13 | 52 | 57 | 20 | 88 | 8 | 734 | 134 | 978 | 5 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 10.0 | 34.0 | 14.0 | 38.0 | 38.0 | 10.0 | 49.0 | 23.0 | 62.0 | 62.0 |
| Total Split (%) | 8.3% | 28.3% | 11.7% | 31.7% | 31.7% | 8.3% | 40.8% | 19.2% | 51.7% | 51.7% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| Total Lost Time (s) | 4.0 | 4.8 | 4.0 | 4.8 | 4.8 | 4.0 | 5.2 | 4.0 | 5.2 | 5.2 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.9 | 13.8 | 8.0 | 21.7 | 21.7 | 5.9 | 47.8 | 12.2 | 63.9 | 63.9 |
| Actuated g/C Ratio | 0.06 | 0.15 | 0.09 | 0.23 | 0.23 | 0.06 | 0.51 | 0.13 | 0.68 | 0.68 |
| v/c Ratio | 0.12 | 0.29 | 0.39 | 0.05 | 0.19 | 0.07 | 0.46 | 0.60 | 0.41 | 0.00 |
| Control Delay | 50.6 | 32.5 | 52.6 | 29.7 | 1.5 | 50.0 | 19.8 | 51.7 | 11.7 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.6 | 32.5 | 52.6 | 29.7 | 1.5 | 50.0 | 19.8 | 51.7 | 11.7 | 0.0 |
| LOS | D | C | D | C | A | D | B | D | B | A |
| Approach Delay | | 35.1 | | 22.5 | | | 20.1 | | 16.4 | |
| Approach LOS | | D | | C | | | C | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 93.6 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.60 | |
| Intersection Signal Delay: 19.0 | Intersection LOS: B |
| Intersection Capacity Utilization 56.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Placentia Av. & Perris Bl.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 13 | 52 | 28 | 57 | 20 | 88 | 8 | 734 | 61 | 134 | 978 | 5 |
| Future Volume (veh/h) | 13 | 52 | 28 | 57 | 20 | 88 | 8 | 734 | 61 | 134 | 978 | 5 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 14 | 54 | 20 | 59 | 21 | 35 | 8 | 765 | 42 | 140 | 1019 | 5 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 42 | 150 | 56 | 89 | 265 | 225 | 30 | 1869 | 103 | 185 | 2250 | 1002 |
| Arrive On Green | 0.02 | 0.11 | 0.11 | 0.05 | 0.14 | 0.14 | 0.02 | 0.54 | 0.53 | 0.10 | 0.62 | 0.62 |
| Sat Flow, veh/h | 1810 | 1322 | 490 | 1810 | 1900 | 1610 | 1810 | 3475 | 191 | 1810 | 3610 | 1608 |
| Grp Volume(v), veh/h | 14 | 0 | 74 | 59 | 21 | 35 | 8 | 397 | 410 | 140 | 1019 | 5 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1812 | 1810 | 1900 | 1610 | 1810 | 1805 | 1860 | 1810 | 1805 | 1608 |
| Q Serve(g_s), s | 0.7 | 0.0 | 3.4 | 2.9 | 0.9 | 1.7 | 0.4 | 11.9 | 11.9 | 6.9 | 13.5 | 0.1 |
| Cycle Q Clear(g_c), s | 0.7 | 0.0 | 3.4 | 2.9 | 0.9 | 1.7 | 0.4 | 11.9 | 11.9 | 6.9 | 13.5 | 0.1 |
| Prop In Lane | 1.00 | | 0.27 | 1.00 | | 1.00 | 1.00 | | 0.10 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 42 | 0 | 206 | 89 | 265 | 225 | 30 | 971 | 1000 | 185 | 2250 | 1002 |
| V/C Ratio(X) | 0.34 | 0.00 | 0.36 | 0.66 | 0.08 | 0.16 | 0.27 | 0.41 | 0.41 | 0.76 | 0.45 | 0.00 |
| Avail Cap(c_a), veh/h | 119 | 0 | 581 | 199 | 692 | 587 | 119 | 971 | 1000 | 377 | 2250 | 1002 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.8 | 0.0 | 37.4 | 42.6 | 34.1 | 34.5 | 44.3 | 12.5 | 12.5 | 39.8 | 9.0 | 6.5 |
| Incr Delay (d2), s/veh | 1.8 | 0.0 | 1.1 | 3.1 | 0.1 | 0.3 | 1.7 | 1.3 | 1.2 | 2.4 | 0.7 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.0 | 1.5 | 1.3 | 0.4 | 0.7 | 0.2 | 4.5 | 4.6 | 3.0 | 4.4 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 45.6 | 0.0 | 38.5 | 45.7 | 34.2 | 34.8 | 46.0 | 13.8 | 13.7 | 42.2 | 9.7 | 6.5 |
| LnGrp LOS | D | A | D | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 88 | | | 115 | | | 815 | | | 1164 | |
| Approach Delay, s/veh | | 39.6 | | | 40.3 | | | 14.1 | | | 13.6 | |
| Approach LOS | | D | | | D | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 13.3 | 54.2 | 8.5 | 15.1 | 5.5 | 62.0 | 6.1 | 17.5 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 18.4 | 43.2 | 9.4 | 28.6 | 5.4 | 56.2 | 5.4 | 32.6 |
| Max Q Clear Time (g_c+I1), s | 8.9 | 13.9 | 4.9 | 5.4 | 2.4 | 15.5 | 2.7 | 3.7 |
| Green Ext Time (p_c), s | 0.1 | 4.9 | 0.0 | 0.3 | 0.0 | 8.1 | 0.0 | 0.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.2 |
| HCM 6th LOS | B |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.7 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 32 |
| Future Vol, veh/h | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 32 |
| Peak Hour Factor | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 46 |
| Number of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 1 | 2 |
| HCM Control Delay | 8.3 | 0 | 7.7 | 6.9 |
| HCM LOS | A | - | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 0% | 0% | 0% |
| Vol Thru, % | 100% | 0% | 100% | 100% | 100% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 2 | 42 | 0 | 0 | 2 | 32 |
| LT Vol | 0 | 42 | 0 | 0 | 0 | 0 |
| Through Vol | 2 | 0 | 0 | 0 | 2 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 0 | 32 |
| Lane Flow Rate | 3 | 60 | 0 | 0 | 3 | 46 |
| Geometry Grp | 6 | 7 | 7 | 6 | 7 | 7 |
| Degree of Util (X) | 0.004 | 0.085 | 0 | 0 | 0.004 | 0.05 |
| Departure Headway (Hd) | 4.643 | 5.091 | 4.591 | 4.637 | 4.607 | 3.906 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 763 | 705 | 0 | 0 | 771 | 907 |
| Service Time | 2.716 | 2.812 | 2.312 | 2.686 | 2.371 | 1.67 |
| HCM Lane V/C Ratio | 0.004 | 0.085 | 0 | 0 | 0.004 | 0.051 |
| HCM Control Delay | 7.7 | 8.3 | 7.3 | 7.7 | 7.4 | 6.9 |
| HCM Lane LOS | A | A | N | N | A | A |
| HCM 95th-tile Q | 0 | 0.3 | 0 | 0 | 0 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 2 |
| Future Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 0 | 0 | 0 | 0 | 2 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1 | 1 | 2 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 1027 | 1090 | 1634 | - | - | - |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1027 | 1090 | 1634 | - | - | - |
| Mov Cap-2 Maneuver | 1027 | - | - | - | - | - |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.5 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1634 | - | 1027 | - | - |
| HCM Lane V/C Ratio | - | - | 0.002 | - | - |
| HCM Control Delay (s) | 0 | - | 8.5 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 466 | 35 | 84 | 359 | 0 | 27 | 0 | 113 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 466 | 35 | 84 | 359 | 0 | 27 | 0 | 113 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | 0 | 120 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 536 | 40 | 97 | 413 | 0 | 31 | 0 | 130 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 413 | 0 | 0 | 576 | 0 | 0 | 937 | 1143 | 536 | 1228 | 1183 | 207 |
| Stage 1 | - | - | - | - | - | - | 536 | 536 | - | 607 | 607 | - |
| Stage 2 | - | - | - | - | - | - | 401 | 607 | - | 621 | 576 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1157 | - | - | 1007 | - | - | 234 | 202 | 549 | 146 | 191 | 805 |
| Stage 1 | - | - | - | - | - | - | 532 | 527 | - | 455 | 489 | - |
| Stage 2 | - | - | - | - | - | - | 602 | 489 | - | 478 | 505 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1157 | - | - | 1007 | - | - | 217 | 183 | 549 | 103 | 173 | 805 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 217 | 183 | - | 103 | 173 | - |
| Stage 1 | - | - | - | - | - | - | 532 | 527 | - | 455 | 442 | - |
| Stage 2 | - | - | - | - | - | - | 544 | 442 | - | 365 | 505 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.7 | 15.7 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 217 | 549 | 1157 | - | - | 1007 | - | - | - | - |
| HCM Lane V/C Ratio | 0.143 | 0.237 | - | - | - | 0.096 | - | - | - | - |
| HCM Control Delay (s) | 24.3 | 13.6 | 0 | - | - | 9 | - | - | 0 | 0 |
| HCM Lane LOS | C | B | A | - | - | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.5 | 0.9 | 0 | - | - | 0.3 | - | - | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.2 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 31 | 97 | 76 | 20 | 65 | 0 | 67 | 110 | 23 | 4 | 101 | 12 |
| Future Vol, veh/h | 31 | 97 | 76 | 20 | 65 | 0 | 67 | 110 | 23 | 4 | 101 | 12 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 32 | 101 | 79 | 21 | 68 | 0 | 70 | 115 | 24 | 4 | 105 | 13 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 9 | 9.3 | 9.2 | 9.6 |
| HCM LOS | A | A | A | A |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 61% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 39% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 67 | 73 | 60 | 31 | 97 | 76 | 20 | 65 | 4 | 101 | 12 |
| LT Vol | 67 | 0 | 0 | 31 | 0 | 0 | 20 | 0 | 4 | 0 | 0 |
| Through Vol | 0 | 73 | 37 | 0 | 97 | 0 | 0 | 65 | 0 | 101 | 0 |
| RT Vol | 0 | 0 | 23 | 0 | 0 | 76 | 0 | 0 | 0 | 0 | 12 |
| Lane Flow Rate | 70 | 76 | 62 | 32 | 101 | 79 | 21 | 68 | 4 | 105 | 12 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.118 | 0.119 | 0.092 | 0.055 | 0.157 | 0.108 | 0.037 | 0.109 | 0.007 | 0.169 | 0.018 |
| Departure Headway (Hd) | 6.104 | 5.602 | 5.331 | 6.105 | 5.605 | 4.906 | 6.313 | 5.813 | 6.276 | 5.774 | 5.07 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 582 | 633 | 665 | 582 | 635 | 723 | 562 | 610 | 565 | 614 | 697 |
| Service Time | 3.895 | 3.393 | 3.122 | 3.891 | 3.391 | 2.691 | 4.112 | 3.612 | 4.075 | 3.572 | 2.868 |
| HCM Lane V/C Ratio | 0.12 | 0.12 | 0.093 | 0.055 | 0.159 | 0.109 | 0.037 | 0.111 | 0.007 | 0.171 | 0.017 |
| HCM Control Delay | 9.7 | 9.2 | 8.7 | 9.3 | 9.4 | 8.3 | 9.4 | 9.3 | 9.1 | 9.8 | 8 |
| HCM Lane LOS | A | A | A | A | A | A | A | A | A | A | A |
| HCM 95th-tile Q | 0.4 | 0.4 | 0.3 | 0.2 | 0.6 | 0.4 | 0.1 | 0.4 | 0 | 0.6 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 519 | 48 | 104 | 399 | 0 | 36 | 0 | 101 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 519 | 48 | 104 | 399 | 0 | 36 | 0 | 101 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | 50 | 185 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 564 | 52 | 113 | 434 | 0 | 39 | 0 | 110 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 434 | 0 | 0 | 616 | 0 | 0 | 1007 | 1224 | 564 | 1305 | 1276 | 217 |
| Stage 1 | - | - | - | - | - | - | 564 | 564 | - | 660 | 660 | - |
| Stage 2 | - | - | - | - | - | - | 443 | 660 | - | 645 | 616 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1136 | - | - | 974 | - | - | 209 | 181 | 529 | 129 | 168 | 794 |
| Stage 1 | - | - | - | - | - | - | 514 | 512 | - | 423 | 463 | - |
| Stage 2 | - | - | - | - | - | - | 569 | 463 | - | 464 | 485 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1136 | - | - | 974 | - | - | 190 | 160 | 529 | 93 | 149 | 794 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 319 | 279 | - | 184 | 246 | - |
| Stage 1 | - | - | - | - | - | - | 514 | 512 | - | 423 | 409 | - |
| Stage 2 | - | - | - | - | - | - | 503 | 409 | - | 368 | 485 | - |

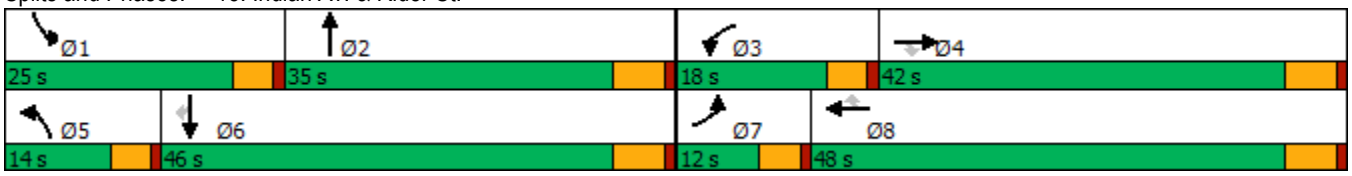
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.9 | 16.9 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 451 | 1136 | - | - | 974 | - | - | - |
| HCM Lane V/C Ratio | 0.33 | - | - | - | 0.116 | - | - | - |
| HCM Control Delay (s) | 16.9 | 0 | - | - | 9.2 | - | - | 0 |
| HCM Lane LOS | C | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 1.4 | 0 | - | - | 0.4 | - | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 74 | 223 | 20 |
| Future Volume (vph) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 74 | 223 | 20 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 12.0 | 42.0 | 42.0 | 18.0 | 48.0 | 48.0 | 14.0 | 35.0 | 25.0 | 46.0 | 46.0 |
| Total Split (%) | 10.0% | 35.0% | 35.0% | 15.0% | 40.0% | 40.0% | 11.7% | 29.2% | 20.8% | 38.3% | 38.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -0.6 | -1.8 | -1.8 | -0.6 | -1.8 | -1.8 | -0.6 | -1.8 | -0.6 | -1.8 | -1.8 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 7.0 | 16.2 | 16.2 | 8.7 | 21.8 | 21.8 | 7.6 | 37.2 | 11.1 | 45.5 | 45.5 |
| Actuated g/C Ratio | 0.09 | 0.20 | 0.20 | 0.11 | 0.27 | 0.27 | 0.09 | 0.46 | 0.14 | 0.56 | 0.56 |
| v/c Ratio | 0.08 | 0.35 | 0.13 | 0.27 | 0.22 | 0.15 | 0.14 | 0.09 | 0.42 | 0.16 | 0.03 |
| Control Delay | 44.4 | 30.9 | 0.6 | 42.8 | 24.9 | 0.6 | 43.5 | 15.7 | 42.0 | 13.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.4 | 30.9 | 0.6 | 42.8 | 24.9 | 0.6 | 43.5 | 15.7 | 42.0 | 13.5 | 0.1 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 25.7 | | | 20.5 | | | 19.7 | | 19.3 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 81.6 | |
| Natural Cycle: 95 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.42 | |
| Intersection Signal Delay: 21.4 | Intersection LOS: C |
| Intersection Capacity Utilization 36.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 22 | 74 | 223 | 20 |
| Future Volume (veh/h) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 22 | 74 | 223 | 20 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 13 | 248 | 31 | 52 | 110 | 44 | 24 | 113 | 17 | 104 | 314 | 13 |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 43 | 558 | 249 | 93 | 347 | 294 | 61 | 1581 | 233 | 150 | 1986 | 886 |
| Arrive On Green | 0.02 | 0.15 | 0.15 | 0.05 | 0.18 | 0.18 | 0.03 | 0.50 | 0.48 | 0.08 | 0.55 | 0.55 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 3155 | 466 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 13 | 248 | 31 | 52 | 110 | 44 | 24 | 64 | 66 | 104 | 314 | 13 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1816 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 0.5 | 4.8 | 1.3 | 2.1 | 3.8 | 1.8 | 1.0 | 1.4 | 1.5 | 4.3 | 3.3 | 0.3 |
| Cycle Q Clear(g_c), s | 0.5 | 4.8 | 1.3 | 2.1 | 3.8 | 1.8 | 1.0 | 1.4 | 1.5 | 4.3 | 3.3 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 43 | 558 | 249 | 93 | 347 | 294 | 61 | 905 | 910 | 150 | 1986 | 886 |
| V/C Ratio(X) | 0.30 | 0.44 | 0.12 | 0.56 | 0.32 | 0.15 | 0.39 | 0.07 | 0.07 | 0.69 | 0.16 | 0.01 |
| Avail Cap(c_a), veh/h | 190 | 1797 | 802 | 332 | 1095 | 928 | 237 | 905 | 910 | 498 | 1986 | 886 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.6 | 29.3 | 27.8 | 35.3 | 27.1 | 26.2 | 36.1 | 9.8 | 10.0 | 34.0 | 8.5 | 7.8 |
| Incr Delay (d2), s/veh | 3.9 | 0.6 | 0.2 | 5.1 | 0.5 | 0.2 | 4.0 | 0.2 | 0.2 | 5.6 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 2.0 | 0.5 | 1.0 | 1.7 | 0.6 | 0.5 | 0.5 | 0.5 | 2.0 | 1.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.6 | 29.8 | 28.0 | 40.4 | 27.6 | 26.5 | 40.1 | 10.0 | 10.1 | 39.6 | 8.6 | 7.8 |
| LnGrp LOS | D | C | C | D | C | C | D | A | B | D | A | A |
| Approach Vol, veh/h | | 292 | | | 206 | | | 154 | | | 431 | |
| Approach Delay, s/veh | | 30.1 | | | 30.6 | | | 14.7 | | | 16.1 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.3 | 42.3 | 7.9 | 15.8 | 6.6 | 46.0 | 5.8 | 17.9 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 20.4 | 29.2 | 13.4 | 36.2 | 9.4 | 40.2 | 7.4 | 42.2 |
| Max Q Clear Time (g_c+I1), s | 6.3 | 3.5 | 4.1 | 6.8 | 3.0 | 5.3 | 2.5 | 5.8 |
| Green Ext Time (p_c), s | 0.2 | 0.6 | 0.0 | 1.5 | 0.0 | 2.0 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.4 |
| HCM 6th LOS | C |

# APPENDIX 3.3:

# EXISTING (2019) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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## Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

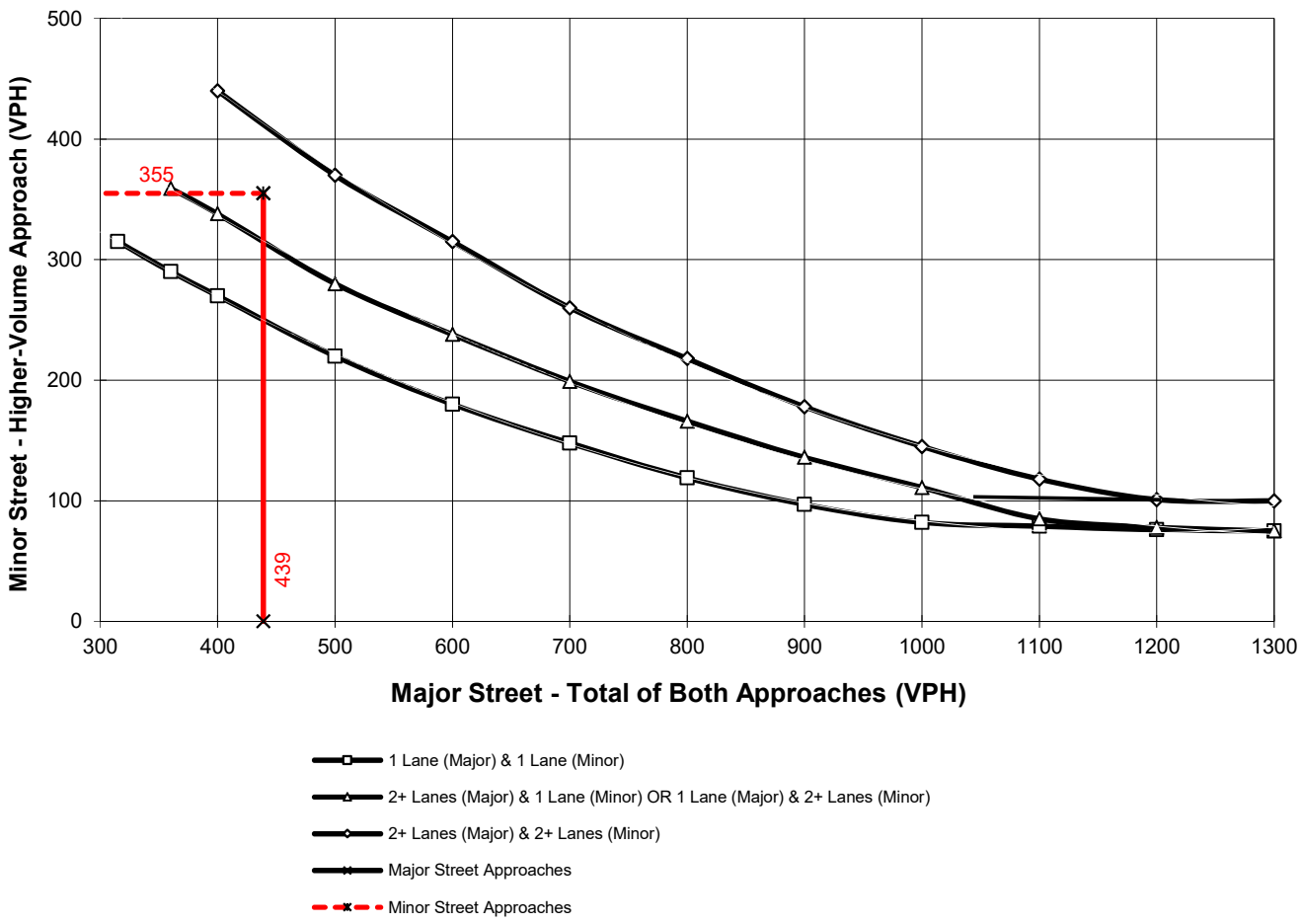
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)**

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

Major Street Name = **Placentia Av.**
Total of Both Approaches (VPH) = **439**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **I-215 Frontage Rd.**
High Volume Approach (VPH) = **355**
Number of Approach Lanes Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

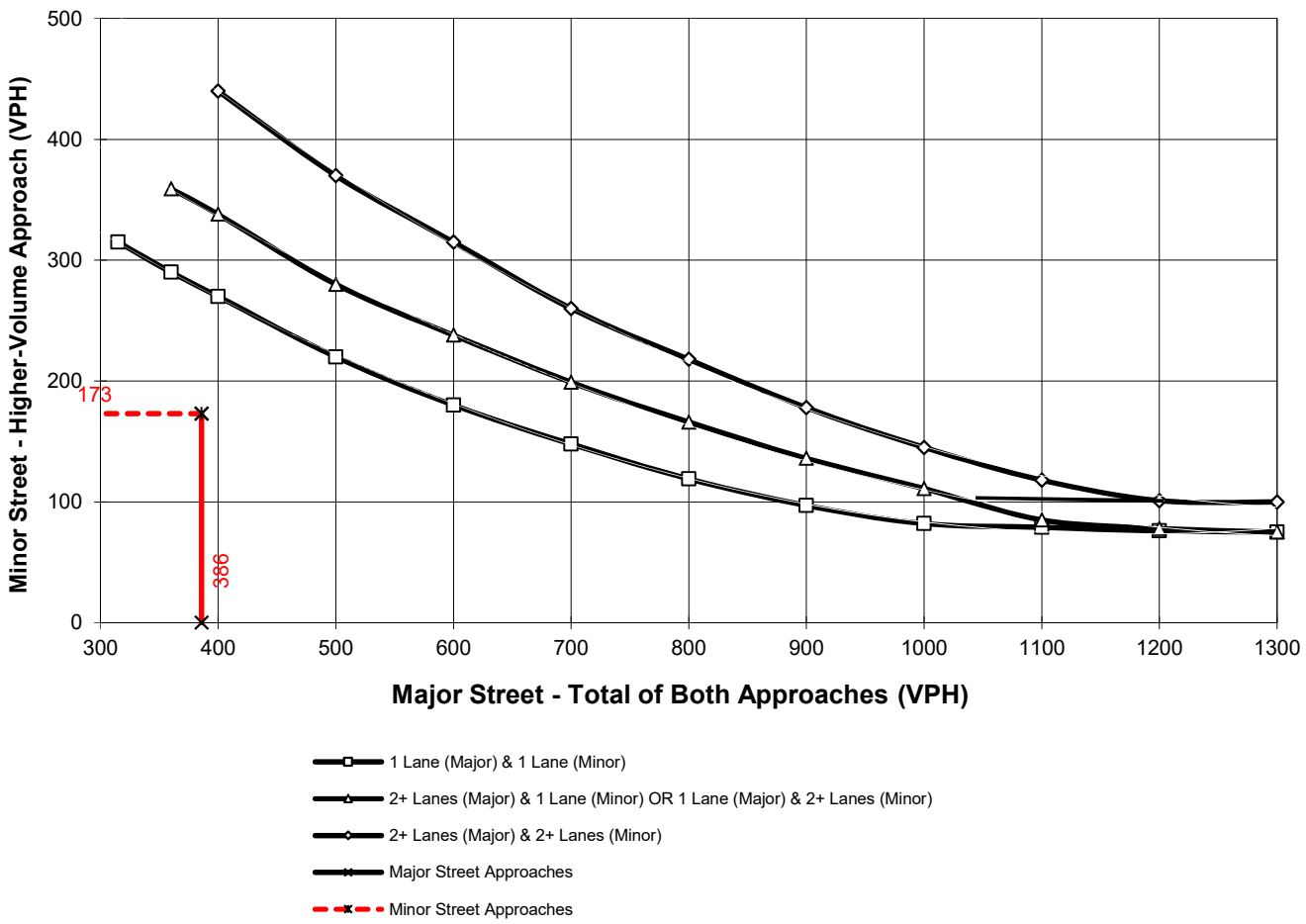
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)**

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Indian Av.**
Total of Both Approaches (VPH) = **386**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Placentia Av.**
High Volume Approach (VPH) = **173**
Number of Approach Lanes Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

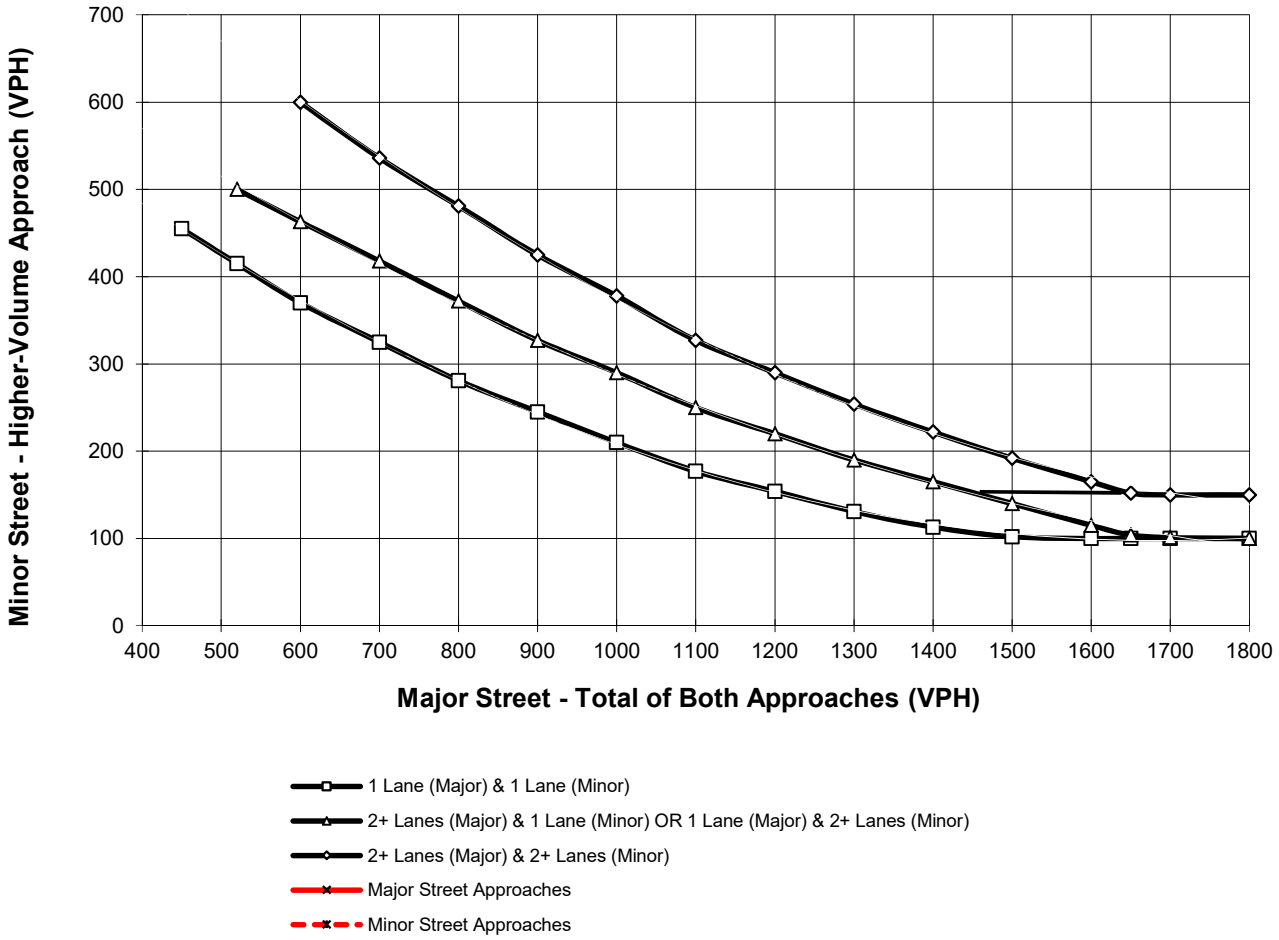
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **46**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Morgan St.**

High Volume Approach (VPH) = **32**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

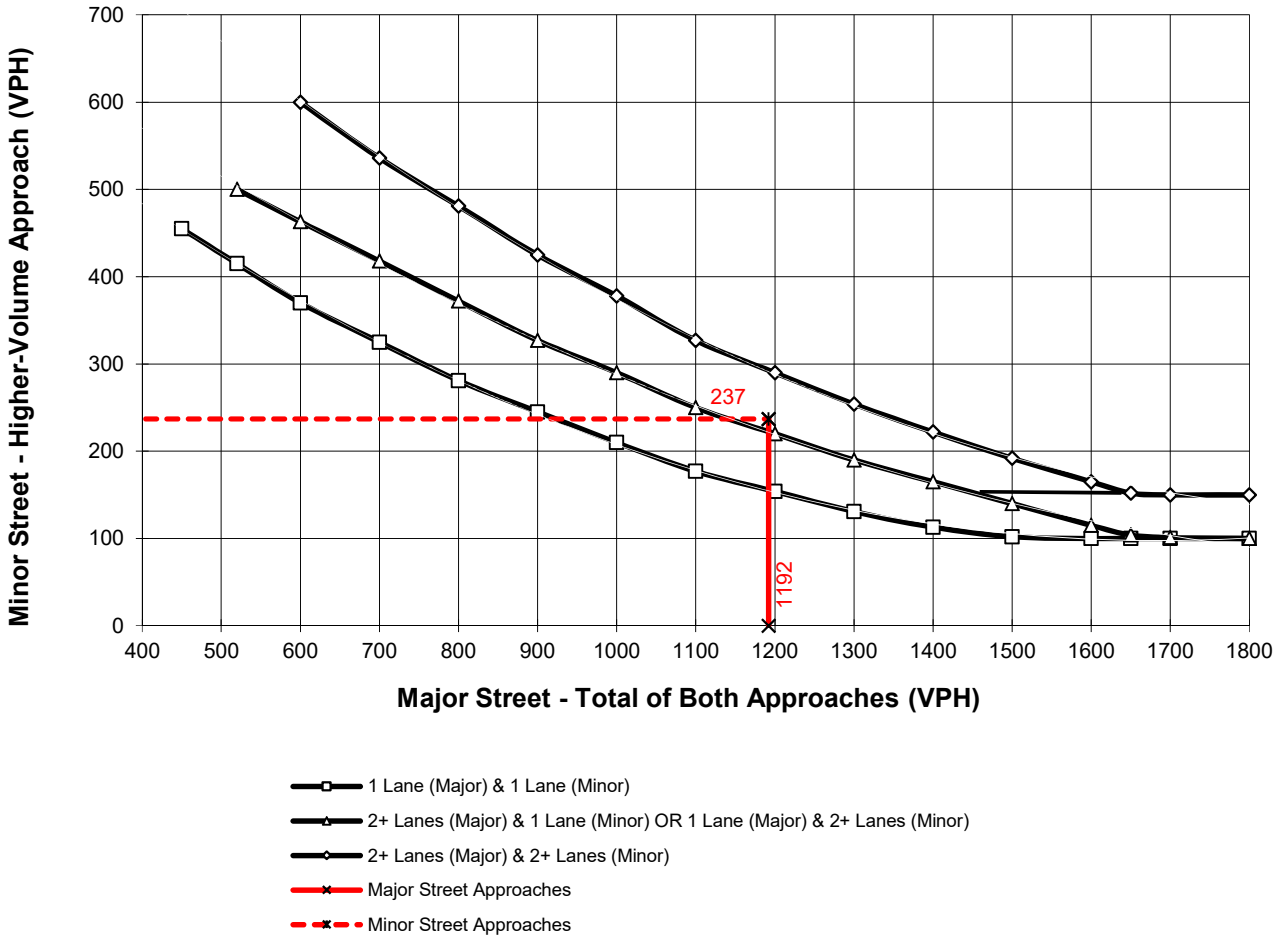
Major Street Name = **Rider St.**

Total of Both Approaches (VPH) = **1192**
Number of Approach Lanes on Major Street = **3**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **237**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

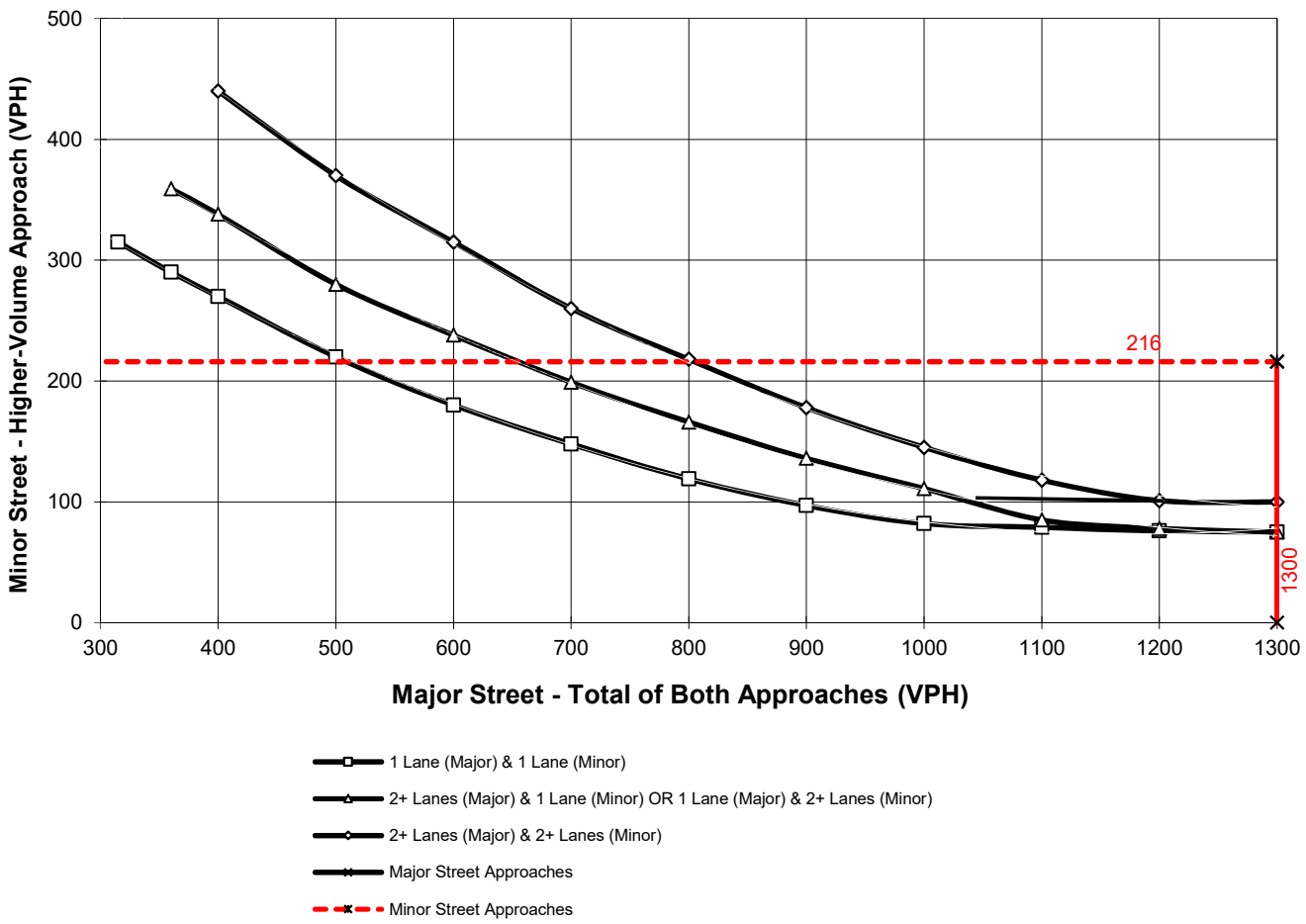
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)**

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Redlands Av.**
Total of Both Approaches (VPH) = **1625**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Placentia Av.**
High Volume Approach (VPH) = **216**
Number of Approach Lanes Minor Street = **2**

**WARRANTED FOR A SIGNAL**




*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

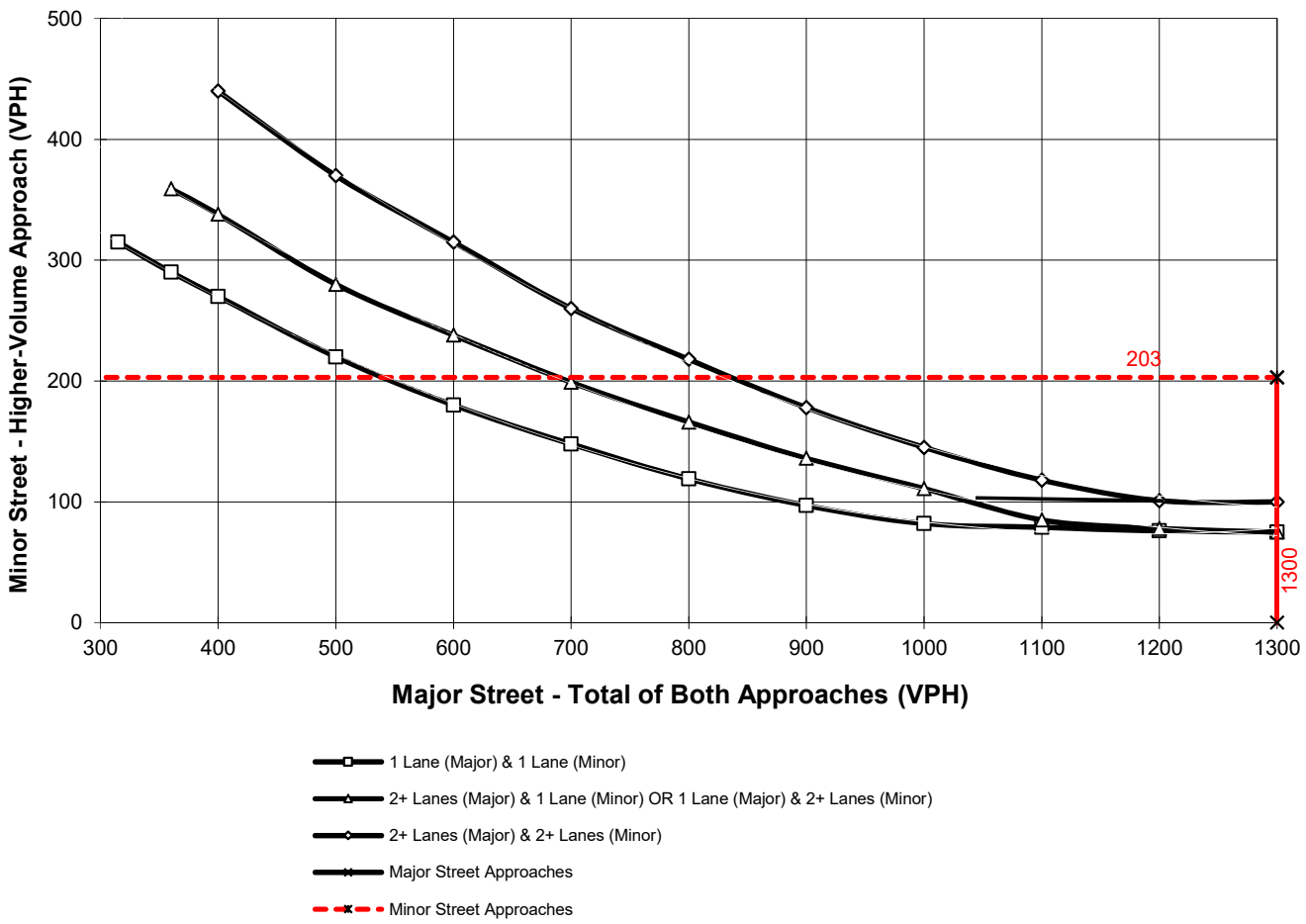
**(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)**

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Rider St.**
Total of Both Approaches (VPH) = **1,524**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Wilson Av.**
High Volume Approach (VPH) = **203**
Number of Approach Lanes Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

# APPENDIX 3.4:

# EXISTING (2019) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | RV | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | Existing (2018) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA (JN 11557) | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3403 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1258 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.52 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 70.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 18.0 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | B |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CM | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | Existing (2019) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA (JN 11557) | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4430 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1636 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.68 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 67.8 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 24.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CM | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | Existing (2019) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA (JN 11557) | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5013 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1835 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.76 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 65.3 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 28.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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03 PM I-215 Southbound, South of Ramona.xuf

# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CM | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | Existing (2019) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA (JN 11557) | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4038 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1493 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.62 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.6 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# APPENDIX 3.5:

# EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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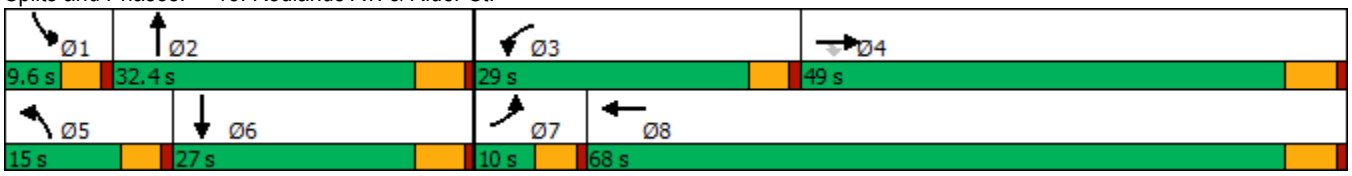
| Lane Group | EBT | EBR | WBL | WBT | NBL | NBT | Ø1 | Ø6 | Ø7 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 336 | 10 | 161 | 685 | 45 | 0 | | | |
| Future Volume (vph) | 336 | 10 | 161 | 685 | 45 | 0 | | | |
| Turn Type | NA | Perm | Prot | NA | Prot | NA | | | |
| Protected Phases | 4 | | 3 | 8 | 5 | 2 | 1 | 6 | 7 |
| Permitted Phases | | 4 | | | | | | | |
| Detector Phase | 4 | 4 | 3 | 8 | 5 | 2 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 |
| Minimum Split (s) | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 9.6 | 22.4 | 9.6 |
| Total Split (s) | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 9.6 | 27.0 | 10.0 |
| Total Split (%) | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 8% | 23% | 8% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | | | |
| Lead/Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | Max | Max | None | Max | None | None | None | None | None |
| Act Effct Green (s) | 45.7 | 45.7 | 12.4 | 62.7 | 8.6 | 10.0 | | | |
| Actuated g/C Ratio | 0.54 | 0.54 | 0.15 | 0.75 | 0.10 | 0.12 | | | |
| v/c Ratio | 0.36 | 0.01 | 0.67 | 0.28 | 0.26 | 0.30 | | | |
| Control Delay | 12.7 | 0.0 | 45.8 | 3.7 | 37.5 | 1.1 | | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Total Delay | 12.7 | 0.0 | 45.8 | 3.7 | 37.5 | 1.1 | | | |
| LOS | B | A | D | A | D | A | | | |
| Approach Delay | 12.3 | | | 11.7 | | 8.0 | | | |
| Approach LOS | B | | | B | | A | | | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 83.9 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.67 | |
| Intersection Signal Delay: 11.2 | Intersection LOS: B |
| Intersection Capacity Utilization 51.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 336 | 10 | 161 | 685 | 0 | 45 | 0 | 192 | 0 | 0 | 0 |
| Future Volume (veh/h) | 0 | 336 | 10 | 161 | 685 | 0 | 45 | 0 | 192 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 369 | 11 | 177 | 753 | 0 | 49 | 0 | 211 | 0 | 0 | 0 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 2 | 1026 | 870 | 215 | 2569 | 0 | 72 | 0 | 258 | 2 | 129 | 0 |
| Arrive On Green | 0.00 | 0.54 | 0.54 | 0.12 | 0.71 | 0.00 | 0.04 | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 1810 | 0 | 1610 | 1810 | 1900 | 0 |
| Grp Volume(v), veh/h | 0 | 369 | 11 | 177 | 753 | 0 | 49 | 0 | 211 | 0 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1810 | 0 | 1610 | 1810 | 1900 | 0 |
| Q Serve(g_s), s | 0.0 | 9.7 | 0.3 | 8.4 | 6.6 | 0.0 | 2.3 | 0.0 | 11.1 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 | 9.7 | 0.3 | 8.4 | 6.6 | 0.0 | 2.3 | 0.0 | 11.1 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 2 | 1026 | 870 | 215 | 2569 | 0 | 72 | 0 | 258 | 2 | 129 | 0 |
| V/C Ratio(X) | 0.00 | 0.36 | 0.01 | 0.82 | 0.29 | 0.00 | 0.68 | 0.00 | 0.82 | 0.00 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 112 | 1026 | 870 | 505 | 2569 | 0 | 215 | 0 | 497 | 104 | 470 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 0.0 | 11.5 | 9.3 | 37.6 | 4.6 | 0.0 | 41.4 | 0.0 | 35.5 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 1.0 | 0.0 | 3.0 | 0.3 | 0.0 | 4.2 | 0.0 | 6.3 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 3.8 | 0.1 | 3.7 | 1.7 | 0.0 | 1.1 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 12.4 | 9.3 | 40.6 | 4.9 | 0.0 | 45.6 | 0.0 | 41.8 | 0.0 | 0.0 | 0.0 |
| LnGrp LOS | A | B | A | D | A | A | D | A | D | A | A | A |
| Approach Vol, veh/h | | 380 | | | 930 | | | 260 | | | 0 | |
| Approach Delay, s/veh | | 12.4 | | | 11.7 | | | 42.5 | | | 0.0 | |
| Approach LOS | | B | | | B | | | D | | | | |

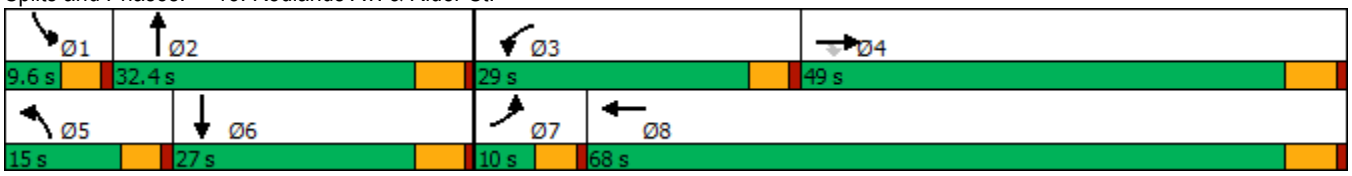
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 0.0 | 19.4 | 15.0 | 53.0 | 8.1 | 11.3 | 0.0 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 0.0 | 13.1 | 10.4 | 11.7 | 4.3 | 0.0 | 0.0 | 8.6 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.2 | 2.1 | 0.0 | 0.0 | 0.0 | 5.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.9 |
| HCM 6th LOS | B |

| Lane Group | EBT | EBR | WBL | WBT | NBL | NBT | Ø1 | Ø6 | Ø7 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 466 | 35 | 84 | 359 | 27 | 0 | | | |
| Future Volume (vph) | 466 | 35 | 84 | 359 | 27 | 0 | | | |
| Turn Type | NA | Perm | Prot | NA | Prot | NA | | | |
| Protected Phases | 4 | | 3 | 8 | 5 | 2 | 1 | 6 | 7 |
| Permitted Phases | | 4 | | | | | | | |
| Detector Phase | 4 | 4 | 3 | 8 | 5 | 2 | | | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 |
| Minimum Split (s) | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 9.6 | 22.4 | 9.6 |
| Total Split (s) | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 9.6 | 27.0 | 10.0 |
| Total Split (%) | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 8% | 23% | 8% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | | | |
| Lead/Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | Max | Max | None | Max | None | None | None | None | None |
| Act Effct Green (s) | 51.0 | 51.0 | 8.9 | 64.5 | 7.6 | 10.0 | | | |
| Actuated g/C Ratio | 0.59 | 0.59 | 0.10 | 0.75 | 0.09 | 0.12 | | | |
| v/c Ratio | 0.47 | 0.04 | 0.52 | 0.15 | 0.19 | 0.21 | | | |
| Control Delay | 12.1 | 0.1 | 45.1 | 3.1 | 36.5 | 0.8 | | | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| Total Delay | 12.1 | 0.1 | 45.1 | 3.1 | 36.5 | 0.8 | | | |
| LOS | B | A | D | A | D | A | | | |
| Approach Delay | 11.2 | | | 11.1 | | 7.6 | | | |
| Approach LOS | B | | | B | | A | | | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 85.8 | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 10.7 | Intersection LOS: B |
| Intersection Capacity Utilization 50.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 466 | 35 | 84 | 359 | 0 | 27 | 0 | 113 | 0 | 0 | 0 |
| Future Volume (veh/h) | 0 | 466 | 35 | 84 | 359 | 0 | 27 | 0 | 113 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 536 | 40 | 97 | 413 | 0 | 31 | 0 | 130 | 0 | 0 | 0 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 2 | 1184 | 1003 | 126 | 2700 | 0 | 56 | 0 | 189 | 2 | 59 | 0 |
| Arrive On Green | 0.00 | 0.62 | 0.62 | 0.07 | 0.75 | 0.00 | 0.03 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 1810 | 0 | 1610 | 1810 | 1900 | 0 |
| Grp Volume(v), veh/h | 0 | 536 | 40 | 97 | 413 | 0 | 31 | 0 | 130 | 0 | 0 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1810 | 0 | 1610 | 1810 | 1900 | 0 |
| Q Serve(g_s), s | 0.0 | 12.3 | 0.8 | 4.4 | 2.7 | 0.0 | 1.4 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 |
| Cycle Q Clear(g_c), s | 0.0 | 12.3 | 0.8 | 4.4 | 2.7 | 0.0 | 1.4 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 1.00 | 1.00 | | 0.00 |
| Lane Grp Cap(c), veh/h | 2 | 1184 | 1003 | 126 | 2700 | 0 | 56 | 0 | 189 | 2 | 59 | 0 |
| V/C Ratio(X) | 0.00 | 0.45 | 0.04 | 0.77 | 0.15 | 0.00 | 0.56 | 0.00 | 0.69 | 0.00 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h | 118 | 1184 | 1003 | 531 | 2700 | 0 | 226 | 0 | 523 | 109 | 494 | 0 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh | 0.0 | 8.2 | 6.1 | 38.0 | 3.0 | 0.0 | 39.7 | 0.0 | 35.2 | 0.0 | 0.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.0 | 1.3 | 0.1 | 3.7 | 0.1 | 0.0 | 3.2 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 4.3 | 0.2 | 2.0 | 0.6 | 0.0 | 0.6 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 9.5 | 6.1 | 41.8 | 3.1 | 0.0 | 43.0 | 0.0 | 39.6 | 0.0 | 0.0 | 0.0 |
| LnGrp LOS | A | A | A | D | A | A | D | A | D | A | A | A |
| Approach Vol, veh/h | | 576 | | | 510 | | | 161 | | | 0 | |
| Approach Delay, s/veh | | 9.2 | | | 10.5 | | | 40.3 | | | 0.0 | |
| Approach LOS | | A | | | B | | | D | | | | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 0.0 | 15.2 | 10.4 | 57.6 | 7.2 | 8.0 | 0.0 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 0.0 | 8.4 | 6.4 | 14.3 | 3.4 | 0.0 | 0.0 | 4.7 |
| Green Ext Time (p_c), s | 0.0 | 0.6 | 0.1 | 3.4 | 0.0 | 0.0 | 0.0 | 2.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.7 |
| HCM 6th LOS | B |

# APPENDIX 6.1:

# E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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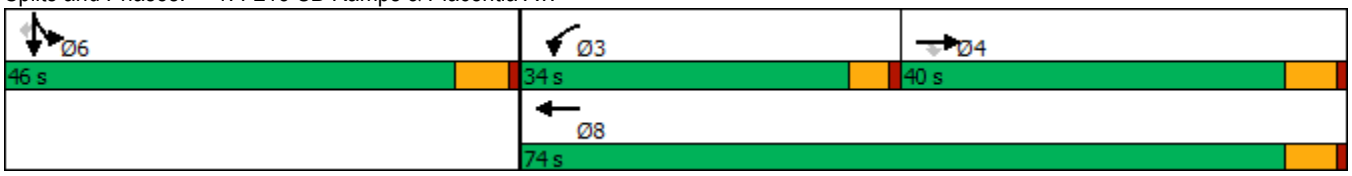
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 253 | 120 | 245 | 431 | 292 | 0 | 70 |
| Future Volume (vph) | 253 | 120 | 245 | 431 | 292 | 0 | 70 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.8 | 25.8 | 9.6 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.0 | 40.0 | 34.0 | 74.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 33.3% | 33.3% | 28.3% | 61.7% | 38.3% | 38.3% | 38.3% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 52.3 | 52.3 | 11.4 | 68.3 | 14.3 | 14.3 | 14.3 |
| Actuated g/C Ratio | 0.56 | 0.56 | 0.12 | 0.73 | 0.15 | 0.15 | 0.15 |
| v/c Ratio | 0.14 | 0.14 | 0.63 | 0.18 | 0.61 | 0.61 | 0.25 |
| Control Delay | 11.4 | 2.9 | 46.4 | 4.6 | 47.5 | 47.7 | 10.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.4 | 2.9 | 46.4 | 4.6 | 47.5 | 47.7 | 10.3 |
| LOS | B | A | D | A | D | D | B |
| Approach Delay | 8.7 | | | 19.8 | | 40.4 | |
| Approach LOS | A | | | B | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 94.2 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.63 | |
| Intersection Signal Delay: 22.1 | Intersection LOS: C |
| Intersection Capacity Utilization 55.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 253 | 120 | 245 | 431 | 0 | 0 | 0 | 0 | 292 | 0 | 70 |
| Future Volume (veh/h) | 0 | 253 | 120 | 245 | 431 | 0 | 0 | 0 | 0 | 292 | 0 | 70 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 275 | 130 | 266 | 468 | 0 | | | | 317 | 0 | 76 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 2167 | 966 | 352 | 2712 | 0 | | | | 438 | 0 | 195 |
| Arrive On Green | 0.00 | 0.60 | 0.60 | 0.10 | 0.75 | 0.00 | | | | 0.12 | 0.00 | 0.12 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 275 | 130 | 266 | 468 | 0 | | | | 317 | 0 | 76 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 3.0 | 3.2 | 6.7 | 3.4 | 0.0 | | | | 7.7 | 0.0 | 4.0 |
| Cycle Q Clear(g_c), s | 0.0 | 3.0 | 3.2 | 6.7 | 3.4 | 0.0 | | | | 7.7 | 0.0 | 4.0 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 2167 | 966 | 352 | 2712 | 0 | | | | 438 | 0 | 195 |
| V/C Ratio(X) | 0.00 | 0.13 | 0.13 | 0.75 | 0.17 | 0.00 | | | | 0.72 | 0.00 | 0.39 |
| Avail Cap(c_a), veh/h | 0 | 2167 | 966 | 1137 | 2712 | 0 | | | | 1603 | 0 | 713 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 7.9 | 7.9 | 39.7 | 3.2 | 0.0 | | | | 38.4 | 0.0 | 36.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.1 | 0.3 | 1.2 | 0.1 | 0.0 | | | | 2.3 | 0.0 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 1.0 | 1.0 | 2.8 | 0.8 | 0.0 | | | | 3.4 | 0.0 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 8.0 | 8.2 | 41.0 | 3.4 | 0.0 | | | | 40.7 | 0.0 | 38.1 |
| LnGrp LOS | A | A | A | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 405 | | | 734 | | | | | | 393 | |
| Approach Delay, s/veh | | 8.0 | | | 17.0 | | | | | | 40.2 | |
| Approach LOS | | A | | | B | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 13.7 | 60.3 | | 16.8 | | 74.0 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 29.4 | 34.2 | | 40.2 | | 68.2 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 8.7 | 5.2 | | 9.7 | | 5.4 | | | | | |
| Green Ext Time (p_c), s | | 0.4 | 2.0 | | 1.3 | | 3.1 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.6 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 56 | 489 | 538 | 479 | 138 | 0 | 284 |
| Future Volume (vph) | 56 | 489 | 538 | 479 | 138 | 0 | 284 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.2 | 75.5 | 66.6 | 66.6 | 11.5 | 11.5 | 11.5 |
| Actuated g/C Ratio | 0.06 | 0.77 | 0.68 | 0.68 | 0.12 | 0.12 | 0.12 |
| v/c Ratio | 0.28 | 0.19 | 0.24 | 0.43 | 0.38 | 0.38 | 0.67 |
| Control Delay | 47.5 | 3.5 | 7.2 | 3.8 | 45.7 | 45.7 | 12.5 |
| Queue Delay | 0.0 | 0.0 | 0.5 | 1.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.5 | 3.5 | 7.7 | 4.9 | 45.7 | 45.7 | 12.5 |
| LOS | D | A | A | A | D | D | B |
| Approach Delay | | 8.0 | 6.4 | | | 23.4 | |
| Approach LOS | | A | A | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.6 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.67 | |
| Intersection Signal Delay: 10.5 | Intersection LOS: B |
| Intersection Capacity Utilization 55.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 56 | 489 | 0 | 0 | 538 | 479 | 138 | 0 | 284 | 0 | 0 | 0 |
| Future Volume (veh/h) | 56 | 489 | 0 | 0 | 538 | 479 | 138 | 0 | 284 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 61 | 532 | 0 | 0 | 585 | 521 | 150 | 0 | 309 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 158 | 2456 | 0 | 0 | 2143 | 956 | 778 | 0 | 346 | | | |
| Arrive On Green | 0.05 | 0.68 | 0.00 | 0.00 | 0.59 | 0.59 | 0.22 | 0.00 | 0.22 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 61 | 532 | 0 | 0 | 585 | 521 | 150 | 0 | 309 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 1.9 | 6.1 | 0.0 | 0.0 | 8.7 | 21.5 | 3.8 | 0.0 | 20.7 | | | |
| Cycle Q Clear(g_c), s | 1.9 | 6.1 | 0.0 | 0.0 | 8.7 | 21.5 | 3.8 | 0.0 | 20.7 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 158 | 2456 | 0 | 0 | 2143 | 956 | 778 | 0 | 346 | | | |
| V/C Ratio(X) | 0.39 | 0.22 | 0.00 | 0.00 | 0.27 | 0.54 | 0.19 | 0.00 | 0.89 | | | |
| Avail Cap(c_a), veh/h | 1140 | 2456 | 0 | 0 | 2143 | 956 | 1078 | 0 | 479 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 51.4 | 6.6 | 0.0 | 0.0 | 10.9 | 13.5 | 35.6 | 0.0 | 42.3 | | | |
| Incr Delay (d2), s/veh | 0.6 | 0.2 | 0.0 | 0.0 | 0.3 | 2.2 | 0.1 | 0.0 | 14.7 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 0.8 | 2.0 | 0.0 | 0.0 | 3.2 | 7.5 | 1.6 | 0.0 | 9.3 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.0 | 6.8 | 0.0 | 0.0 | 11.2 | 15.8 | 35.7 | 0.0 | 56.9 | | | |
| LnGrp LOS | D | A | A | A | B | B | D | A | E | | | |
| Approach Vol, veh/h | | 593 | | | 1106 | | | 459 | | | | |
| Approach Delay, s/veh | | 11.5 | | | 13.4 | | | 50.0 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 29.6 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 22.7 | | 8.1 | | | 3.9 | 23.5 | | | | |
| Green Ext Time (p_c), s | | 1.2 | | 3.6 | | | 0.1 | 4.3 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.6 |
| HCM 6th LOS | C |

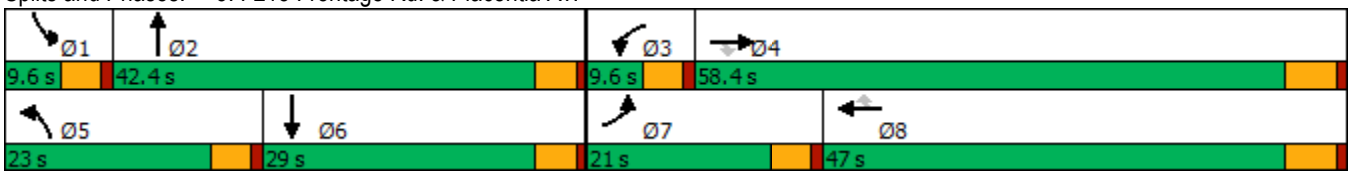
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 121 | 590 | 62 | 10 | 814 | 10 | 139 | 60 | 10 | 36 |
| Future Volume (vph) | 121 | 590 | 62 | 10 | 814 | 10 | 139 | 60 | 10 | 36 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 58.4 | 58.4 | 9.6 | 47.0 | 47.0 | 23.0 | 42.4 | 9.6 | 29.0 |
| Total Split (%) | 17.5% | 48.7% | 48.7% | 8.0% | 39.2% | 39.2% | 19.2% | 35.3% | 8.0% | 24.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 11.4 | 56.1 | 56.1 | 5.1 | 41.7 | 41.7 | 13.3 | 28.5 | 5.1 | 12.1 |
| Actuated g/C Ratio | 0.12 | 0.57 | 0.57 | 0.05 | 0.42 | 0.42 | 0.14 | 0.29 | 0.05 | 0.12 |
| v/c Ratio | 0.64 | 0.31 | 0.07 | 0.12 | 0.58 | 0.01 | 0.63 | 0.59 | 0.12 | 0.41 |
| Control Delay | 57.0 | 13.2 | 0.1 | 52.8 | 25.4 | 0.0 | 53.4 | 17.8 | 52.8 | 23.8 |
| Queue Delay | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.0 | 14.0 | 0.1 | 52.8 | 25.4 | 0.0 | 53.4 | 17.8 | 52.8 | 23.8 |
| LOS | E | B | A | D | C | A | D | B | D | C |
| Approach Delay | | 19.6 | | | 25.4 | | | 28.3 | | 26.4 |
| Approach LOS | | B | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.3 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.64 | |
| Intersection Signal Delay: 24.0 | Intersection LOS: C |
| Intersection Capacity Utilization 61.7% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 121 | 590 | 62 | 10 | 814 | 10 | 139 | 60 | 273 | 10 | 36 | 64 |
| Future Volume (veh/h) | 121 | 590 | 62 | 10 | 814 | 10 | 139 | 60 | 273 | 10 | 36 | 64 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 133 | 648 | 68 | 11 | 895 | 11 | 153 | 66 | 300 | 11 | 40 | 70 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 166 | 1809 | 807 | 24 | 1525 | 680 | 188 | 75 | 341 | 86 | 121 | 212 |
| Arrive On Green | 0.09 | 0.50 | 0.50 | 0.01 | 0.42 | 0.42 | 0.10 | 0.25 | 0.25 | 0.05 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 299 | 1357 | 1810 | 620 | 1085 |
| Grp Volume(v), veh/h | 133 | 648 | 68 | 11 | 895 | 11 | 153 | 0 | 366 | 11 | 0 | 110 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 0 | 1656 | 1810 | 0 | 1705 |
| Q Serve(g_s), s | 7.6 | 11.5 | 2.3 | 0.6 | 20.0 | 0.4 | 8.7 | 0.0 | 22.3 | 0.6 | 0.0 | 5.8 |
| Cycle Q Clear(g_c), s | 7.6 | 11.5 | 2.3 | 0.6 | 20.0 | 0.4 | 8.7 | 0.0 | 22.3 | 0.6 | 0.0 | 5.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 166 | 1809 | 807 | 24 | 1525 | 680 | 188 | 0 | 416 | 86 | 0 | 333 |
| V/C Ratio(X) | 0.80 | 0.36 | 0.08 | 0.47 | 0.59 | 0.02 | 0.81 | 0.00 | 0.88 | 0.13 | 0.00 | 0.33 |
| Avail Cap(c_a), veh/h | 283 | 1809 | 807 | 86 | 1525 | 680 | 317 | 0 | 596 | 86 | 0 | 396 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.7 | 15.9 | 13.6 | 51.4 | 23.3 | 17.6 | 46.0 | 0.0 | 37.8 | 47.9 | 0.0 | 36.3 |
| Incr Delay (d2), s/veh | 3.4 | 0.6 | 0.2 | 5.2 | 1.7 | 0.0 | 8.2 | 0.0 | 10.4 | 0.7 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.4 | 4.5 | 0.8 | 0.3 | 8.2 | 0.2 | 4.4 | 0.0 | 10.2 | 0.3 | 0.0 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.1 | 16.5 | 13.8 | 56.6 | 24.9 | 17.7 | 54.2 | 0.0 | 48.2 | 48.5 | 0.0 | 36.9 |
| LnGrp LOS | D | B | B | E | C | B | D | A | D | D | A | D |
| Approach Vol, veh/h | | 849 | | | 917 | | | 519 | | | 121 | |
| Approach Delay, s/veh | | 21.5 | | | 25.2 | | | 50.0 | | | 38.0 | |
| Approach LOS | | C | | | C | | | D | | | D | |

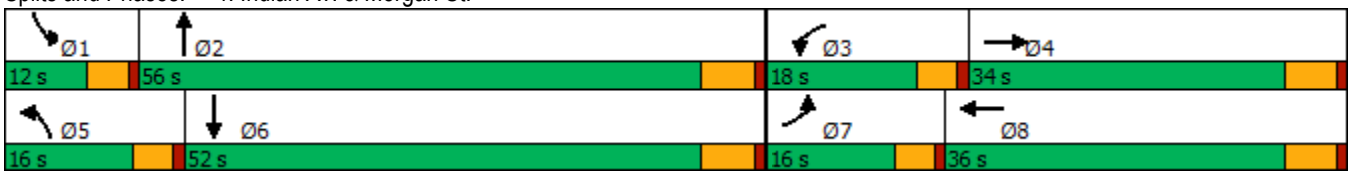
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 31.0 | 6.0 | 58.4 | 15.5 | 25.1 | 14.2 | 50.1 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 18.4 | 24.4 | 16.4 | 41.2 |
| Max Q Clear Time (g_c+I1), s | 2.6 | 24.3 | 2.6 | 13.5 | 10.7 | 7.8 | 9.6 | 22.0 |
| Green Ext Time (p_c), s | 0.0 | 2.1 | 0.0 | 4.7 | 0.2 | 0.5 | 0.1 | 5.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 29.9 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 34 | 75 | 37 | 117 | 112 | 206 | 6 | 99 |
| Future Volume (vph) | 34 | 75 | 37 | 117 | 112 | 206 | 6 | 99 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 16.0 | 34.0 | 18.0 | 36.0 | 16.0 | 56.0 | 12.0 | 52.0 |
| Total Split (%) | 13.3% | 28.3% | 15.0% | 30.0% | 13.3% | 46.7% | 10.0% | 43.3% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 6.8 | 12.6 | 7.0 | 12.8 | 10.6 | 60.4 | 5.3 | 46.9 |
| Actuated g/C Ratio | 0.07 | 0.13 | 0.07 | 0.14 | 0.11 | 0.64 | 0.06 | 0.50 |
| v/c Ratio | 0.31 | 0.36 | 0.34 | 0.31 | 0.67 | 0.15 | 0.07 | 0.11 |
| Control Delay | 51.1 | 20.7 | 51.3 | 37.8 | 59.4 | 8.1 | 49.0 | 10.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.1 | 20.7 | 51.3 | 37.8 | 59.4 | 8.1 | 49.0 | 10.2 |
| LOS | D | C | D | D | E | A | D | B |
| Approach Delay | | 26.1 | | 40.9 | | 22.7 | | 11.6 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 93.7 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.67 | |
| Intersection Signal Delay: 24.7 | Intersection LOS: C |
| Intersection Capacity Utilization 45.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 34 | 75 | 80 | 37 | 117 | 7 | 112 | 206 | 77 | 6 | 99 | 53 |
| Future Volume (veh/h) | 34 | 75 | 80 | 37 | 117 | 7 | 112 | 206 | 77 | 6 | 99 | 53 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 91 | 78 | 45 | 143 | 9 | 137 | 251 | 93 | 7 | 121 | 50 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 64 | 238 | 185 | 68 | 432 | 27 | 170 | 1556 | 562 | 16 | 1299 | 512 |
| Arrive On Green | 0.04 | 0.12 | 0.12 | 0.04 | 0.13 | 0.13 | 0.09 | 0.60 | 0.60 | 0.01 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1810 | 1928 | 1495 | 1810 | 3449 | 215 | 1810 | 2598 | 938 | 1810 | 2529 | 997 |
| Grp Volume(v), veh/h | 41 | 85 | 84 | 45 | 74 | 78 | 137 | 172 | 172 | 7 | 85 | 86 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1618 | 1810 | 1805 | 1859 | 1810 | 1805 | 1731 | 1810 | 1805 | 1721 |
| Q Serve(g_s), s | 2.0 | 3.9 | 4.3 | 2.2 | 3.4 | 3.4 | 6.7 | 3.8 | 4.0 | 0.3 | 2.2 | 2.3 |
| Cycle Q Clear(g_c), s | 2.0 | 3.9 | 4.3 | 2.2 | 3.4 | 3.4 | 6.7 | 3.8 | 4.0 | 0.3 | 2.2 | 2.3 |
| Prop In Lane | 1.00 | | 0.92 | 1.00 | | 0.12 | 1.00 | | 0.54 | 1.00 | | 0.58 |
| Lane Grp Cap(c), veh/h | 64 | 223 | 200 | 68 | 226 | 233 | 170 | 1081 | 1036 | 16 | 928 | 884 |
| V/C Ratio(X) | 0.64 | 0.38 | 0.42 | 0.66 | 0.33 | 0.33 | 0.81 | 0.16 | 0.17 | 0.43 | 0.09 | 0.10 |
| Avail Cap(c_a), veh/h | 229 | 566 | 507 | 270 | 606 | 625 | 229 | 1081 | 1036 | 149 | 928 | 884 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.8 | 36.2 | 36.4 | 42.7 | 35.9 | 35.9 | 39.9 | 8.0 | 8.0 | 44.3 | 11.1 | 11.2 |
| Incr Delay (d2), s/veh | 3.8 | 1.1 | 1.4 | 4.1 | 0.8 | 0.8 | 10.3 | 0.3 | 0.3 | 6.7 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 1.7 | 1.7 | 1.0 | 1.5 | 1.5 | 3.3 | 1.3 | 1.3 | 0.2 | 0.8 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 46.6 | 37.3 | 37.9 | 46.8 | 36.7 | 36.7 | 50.2 | 8.3 | 8.4 | 51.0 | 11.3 | 11.4 |
| LnGrp LOS | D | D | D | D | D | D | D | A | A | D | B | B |
| Approach Vol, veh/h | | 210 | | | 197 | | | 481 | | | 178 | |
| Approach Delay, s/veh | | 39.3 | | | 39.0 | | | 20.3 | | | 12.9 | |
| Approach LOS | | D | | | D | | | C | | | B | |

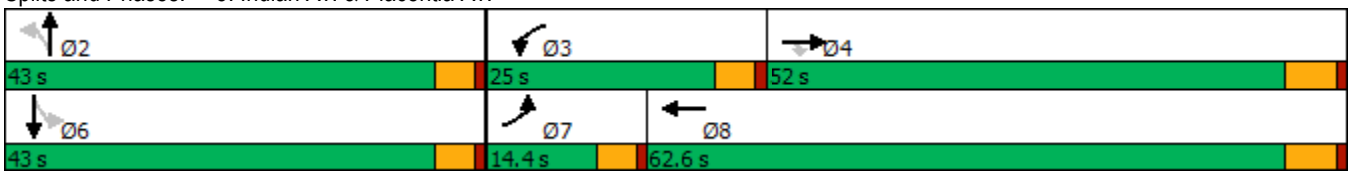
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.4 | 59.6 | 8.0 | 16.9 | 13.0 | 52.0 | 7.8 | 17.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 50.2 | 13.4 | 28.2 | 11.4 | 46.2 | 11.4 | 30.2 |
| Max Q Clear Time (g_c+I1), s | 2.3 | 6.0 | 4.2 | 6.3 | 8.7 | 4.3 | 4.0 | 5.4 |
| Green Ext Time (p_c), s | 0.0 | 1.9 | 0.0 | 0.8 | 0.0 | 0.9 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.3 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 113 | 622 | 138 | 193 | 752 | 40 | 235 | 35 | 145 |
| Future Volume (vph) | 113 | 622 | 138 | 193 | 752 | 40 | 235 | 35 | 145 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 14.4 | 52.0 | 52.0 | 25.0 | 62.6 | 43.0 | 43.0 | 43.0 | 43.0 |
| Total Split (%) | 12.0% | 43.3% | 43.3% | 20.8% | 52.2% | 35.8% | 35.8% | 35.8% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 9.5 | 46.8 | 46.8 | 19.7 | 56.9 | 35.4 | 35.4 | 35.4 | 35.4 |
| Actuated g/C Ratio | 0.08 | 0.40 | 0.40 | 0.17 | 0.49 | 0.30 | 0.30 | 0.30 | 0.30 |
| v/c Ratio | 0.84 | 0.89 | 0.21 | 0.92 | 0.91 | 0.17 | 0.92 | 0.78 | 0.45 |
| Control Delay | 95.2 | 49.1 | 7.6 | 84.5 | 44.3 | 31.5 | 61.2 | 104.5 | 34.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.2 | 49.1 | 7.6 | 84.5 | 44.3 | 31.5 | 61.2 | 104.5 | 34.3 |
| LOS | F | D | A | F | D | C | E | F | C |
| Approach Delay | | 48.5 | | | 54.3 | | 59.0 | | 45.9 |
| Approach LOS | | D | | | D | | E | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 116.9 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.92 | |
| Intersection Signal Delay: 52.5 | Intersection LOS: D |
| Intersection Capacity Utilization 87.2% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 113 | 622 | 138 | 193 | 752 | 17 | 40 | 235 | 123 | 35 | 145 | 42 |
| Future Volume (veh/h) | 113 | 622 | 138 | 193 | 752 | 17 | 40 | 235 | 123 | 35 | 145 | 42 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 123 | 676 | 113 | 280 | 817 | 19 | 43 | 341 | 133 | 51 | 210 | 34 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 149 | 741 | 628 | 306 | 882 | 21 | 304 | 410 | 160 | 128 | 503 | 81 |
| Arrive On Green | 0.08 | 0.39 | 0.39 | 0.17 | 0.48 | 0.48 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1849 | 43 | 1154 | 1301 | 507 | 934 | 1595 | 258 |
| Grp Volume(v), veh/h | 123 | 676 | 113 | 280 | 0 | 836 | 43 | 0 | 474 | 51 | 0 | 244 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1892 | 1154 | 0 | 1809 | 934 | 0 | 1854 |
| Q Serve(g_s), s | 8.0 | 40.1 | 5.5 | 18.1 | 0.0 | 49.3 | 3.6 | 0.0 | 29.0 | 6.4 | 0.0 | 12.4 |
| Cycle Q Clear(g_c), s | 8.0 | 40.1 | 5.5 | 18.1 | 0.0 | 49.3 | 16.0 | 0.0 | 29.0 | 35.4 | 0.0 | 12.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.02 | 1.00 | | 0.28 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 149 | 741 | 628 | 306 | 0 | 902 | 304 | 0 | 570 | 128 | 0 | 584 |
| V/C Ratio(X) | 0.83 | 0.91 | 0.18 | 0.92 | 0.00 | 0.93 | 0.14 | 0.00 | 0.83 | 0.40 | 0.00 | 0.42 |
| Avail Cap(c_a), veh/h | 149 | 741 | 628 | 310 | 0 | 902 | 313 | 0 | 583 | 134 | 0 | 597 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.8 | 34.4 | 23.8 | 48.7 | 0.0 | 29.2 | 38.5 | 0.0 | 37.9 | 54.3 | 0.0 | 32.2 |
| Incr Delay (d2), s/veh | 28.7 | 17.5 | 0.6 | 29.5 | 0.0 | 16.7 | 0.2 | 0.0 | 9.8 | 2.0 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.7 | 21.0 | 2.1 | 10.4 | 0.0 | 24.8 | 1.1 | 0.0 | 14.4 | 1.6 | 0.0 | 5.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 82.5 | 51.9 | 24.5 | 78.2 | 0.0 | 46.0 | 38.7 | 0.0 | 47.6 | 56.3 | 0.0 | 32.7 |
| LnGrp LOS | F | D | C | E | A | D | D | A | D | E | A | C |
| Approach Vol, veh/h | | 912 | | | 1116 | | | 517 | | | 295 | |
| Approach Delay, s/veh | | 52.6 | | | 54.0 | | | 46.9 | | | 36.7 | |
| Approach LOS | | D | | | D | | | D | | | D | |

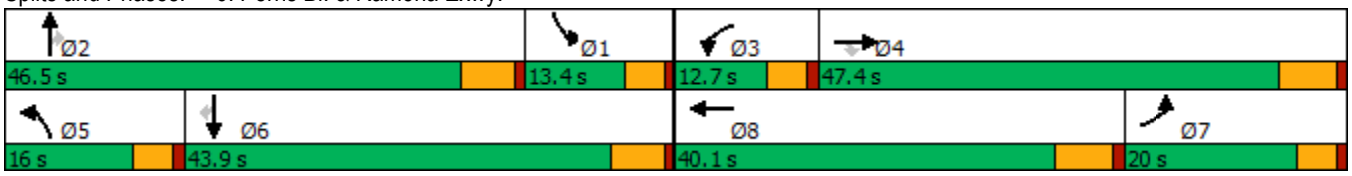
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 42.1 | 24.7 | 52.3 | | 42.1 | 14.4 | 62.6 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 38.4 | 20.4 | 46.2 | | 38.4 | 9.8 | 56.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 31.0 | 20.1 | 42.1 | | 37.4 | 10.0 | 51.3 | | | | |
| Green Ext Time (p_c), s | | 2.0 | 0.0 | 1.7 | | 0.2 | 0.0 | 2.5 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 50.5 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 381 | 590 | 98 | 104 | 1162 | 277 | 738 | 59 | 123 | 364 | 139 |
| Future Volume (vph) | 381 | 590 | 98 | 104 | 1162 | 277 | 738 | 59 | 123 | 364 | 139 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 16.0 | 46.5 | 46.5 | 13.4 | 43.9 | 43.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 13.3% | 38.8% | 38.8% | 11.2% | 36.6% | 36.6% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 14.8 | 41.4 | 41.4 | 7.2 | 33.8 | 11.2 | 29.5 | 29.5 | 7.7 | 26.1 | 26.1 |
| Actuated g/C Ratio | 0.14 | 0.39 | 0.39 | 0.07 | 0.32 | 0.10 | 0.28 | 0.28 | 0.07 | 0.24 | 0.24 |
| v/c Ratio | 0.82 | 0.31 | 0.14 | 0.46 | 0.88 | 0.79 | 0.77 | 0.11 | 0.51 | 0.43 | 0.28 |
| Control Delay | 60.9 | 24.5 | 1.0 | 56.8 | 42.4 | 64.9 | 41.6 | 0.4 | 57.0 | 35.5 | 4.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 60.9 | 24.5 | 1.0 | 56.8 | 42.4 | 64.9 | 41.6 | 0.4 | 57.0 | 35.5 | 4.4 |
| LOS | E | C | A | E | D | E | D | A | E | D | A |
| Approach Delay | | 35.3 | | | 43.4 | | 45.4 | | | 32.8 | |
| Approach LOS | | D | | | D | | D | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 107.2 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.88 | |
| Intersection Signal Delay: 40.3 | Intersection LOS: D |
| Intersection Capacity Utilization 80.6% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 381 | 590 | 98 | 104 | 1162 | 196 | 277 | 738 | 59 | 123 | 364 | 139 |
| Future Volume (veh/h) | 381 | 590 | 98 | 104 | 1162 | 196 | 277 | 738 | 59 | 123 | 364 | 139 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 397 | 615 | 76 | 108 | 1210 | 177 | 289 | 769 | 31 | 128 | 379 | 115 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 464 | 2124 | 659 | 168 | 1413 | 207 | 355 | 967 | 430 | 191 | 841 | 375 |
| Arrive On Green | 0.13 | 0.41 | 0.41 | 0.05 | 0.31 | 0.31 | 0.10 | 0.27 | 0.27 | 0.05 | 0.23 | 0.23 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4569 | 668 | 3510 | 3610 | 1605 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 397 | 615 | 76 | 108 | 916 | 471 | 289 | 769 | 31 | 128 | 379 | 115 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1779 | 1755 | 1805 | 1605 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 11.2 | 8.1 | 3.0 | 3.1 | 25.3 | 25.3 | 8.2 | 20.1 | 1.2 | 3.6 | 9.1 | 4.0 |
| Cycle Q Clear(g_c), s | 11.2 | 8.1 | 3.0 | 3.1 | 25.3 | 25.3 | 8.2 | 20.1 | 1.2 | 3.6 | 9.1 | 4.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 464 | 2124 | 659 | 168 | 1070 | 550 | 355 | 967 | 430 | 191 | 841 | 375 |
| V/C Ratio(X) | 0.86 | 0.29 | 0.12 | 0.64 | 0.86 | 0.86 | 0.81 | 0.80 | 0.07 | 0.67 | 0.45 | 0.31 |
| Avail Cap(c_a), veh/h | 532 | 2124 | 659 | 280 | 1153 | 593 | 394 | 1446 | 643 | 304 | 1353 | 603 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.1 | 20.1 | 18.6 | 47.5 | 33.0 | 33.0 | 44.8 | 34.6 | 17.6 | 47.2 | 33.4 | 14.6 |
| Incr Delay (d2), s/veh | 10.5 | 0.1 | 0.1 | 1.5 | 6.2 | 11.2 | 10.2 | 1.9 | 0.1 | 1.5 | 0.4 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.3 | 3.0 | 1.0 | 1.3 | 10.7 | 11.8 | 3.9 | 8.6 | 0.5 | 1.6 | 3.9 | 2.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.7 | 20.2 | 18.7 | 49.1 | 39.2 | 44.2 | 54.9 | 36.5 | 17.6 | 48.7 | 33.8 | 15.1 |
| LnGrp LOS | D | C | B | D | D | D | D | D | B | D | C | B |
| Approach Vol, veh/h | | 1088 | | | 1495 | | | 1089 | | | 622 | |
| Approach Delay, s/veh | | 32.3 | | | 41.5 | | | 40.9 | | | 33.4 | |
| Approach LOS | | C | | | D | | | D | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.3 | 33.0 | 9.5 | 47.8 | 14.9 | 29.5 | 19.6 | 37.6 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 11.4 | 38.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 5.6 | 22.1 | 5.1 | 10.1 | 10.2 | 11.1 | 13.2 | 27.3 |
| Green Ext Time (p_c), s | 0.1 | 4.7 | 0.0 | 4.2 | 0.1 | 2.6 | 0.2 | 4.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.8 |
| HCM 6th LOS | D |

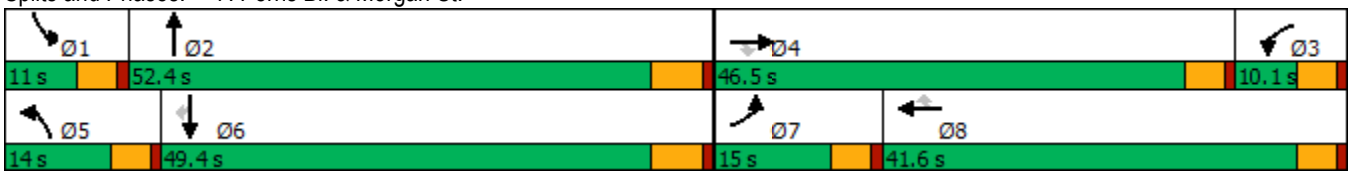
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 83 | 19 | 16 | 45 | 7 | 34 | 975 | 20 | 477 | 99 |
| Future Volume (vph) | 36 | 83 | 19 | 16 | 45 | 7 | 34 | 975 | 20 | 477 | 99 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.7 | 21.5 | 21.5 | 8.8 | 18.0 | 18.0 | 8.6 | 30.1 | 8.0 | 27.5 | 27.5 |
| Actuated g/C Ratio | 0.15 | 0.37 | 0.37 | 0.15 | 0.31 | 0.31 | 0.15 | 0.52 | 0.14 | 0.48 | 0.48 |
| v/c Ratio | 0.15 | 0.07 | 0.03 | 0.07 | 0.09 | 0.01 | 0.14 | 0.42 | 0.09 | 0.31 | 0.14 |
| Control Delay | 36.5 | 20.0 | 0.1 | 34.8 | 23.9 | 0.0 | 36.7 | 16.2 | 39.0 | 18.4 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.5 | 20.0 | 0.1 | 34.8 | 23.9 | 0.0 | 36.7 | 16.2 | 39.0 | 18.4 | 3.3 |
| LOS | D | B | A | C | C | A | D | B | D | B | A |
| Approach Delay | | 21.5 | | | 23.9 | | | 16.9 | | 16.6 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 57.6 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.42 | |
| Intersection Signal Delay: 17.4 | Intersection LOS: B |
| Intersection Capacity Utilization 44.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 83 | 19 | 16 | 45 | 7 | 34 | 975 | 18 | 20 | 477 | 99 |
| Future Volume (veh/h) | 36 | 83 | 19 | 16 | 45 | 7 | 34 | 975 | 18 | 20 | 477 | 99 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 94 | 6 | 18 | 51 | 6 | 39 | 1108 | 18 | 23 | 542 | 101 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 78 | 663 | 296 | 70 | 340 | 288 | 75 | 1932 | 31 | 49 | 1275 | 561 |
| Arrive On Green | 0.04 | 0.18 | 0.18 | 0.04 | 0.18 | 0.18 | 0.04 | 0.37 | 0.37 | 0.03 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5257 | 85 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 41 | 94 | 6 | 18 | 51 | 6 | 39 | 729 | 397 | 23 | 542 | 101 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1885 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.1 | 1.1 | 0.1 | 0.5 | 1.2 | 0.2 | 1.1 | 8.6 | 8.6 | 0.6 | 5.8 | 2.2 |
| Cycle Q Clear(g_c), s | 1.1 | 1.1 | 0.1 | 0.5 | 1.2 | 0.2 | 1.1 | 8.6 | 8.6 | 0.6 | 5.8 | 2.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 78 | 663 | 296 | 70 | 340 | 288 | 75 | 1271 | 693 | 49 | 1275 | 561 |
| V/C Ratio(X) | 0.53 | 0.14 | 0.02 | 0.26 | 0.15 | 0.02 | 0.52 | 0.57 | 0.57 | 0.47 | 0.43 | 0.18 |
| Avail Cap(c_a), veh/h | 368 | 2955 | 1318 | 194 | 1374 | 1164 | 332 | 3148 | 1716 | 226 | 3075 | 1354 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.0 | 17.5 | 9.1 | 23.9 | 17.7 | 17.3 | 24.0 | 13.0 | 13.0 | 24.5 | 12.6 | 11.4 |
| Incr Delay (d2), s/veh | 2.0 | 0.1 | 0.0 | 0.7 | 0.2 | 0.0 | 2.0 | 0.4 | 0.8 | 2.5 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.4 | 0.1 | 0.2 | 0.5 | 0.1 | 0.4 | 2.6 | 2.9 | 0.3 | 1.8 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.0 | 17.6 | 9.1 | 24.6 | 17.9 | 17.3 | 26.1 | 13.4 | 13.7 | 27.1 | 12.8 | 11.6 |
| LnGrp LOS | C | B | A | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 141 | | | 75 | | | 1165 | | | 666 | |
| Approach Delay, s/veh | | 19.7 | | | 19.5 | | | 13.9 | | | 13.1 | |
| Approach LOS | | B | | | B | | | B | | | B | |

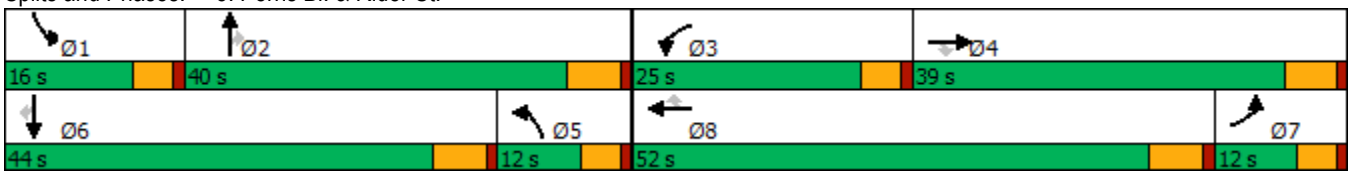
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.0 | 24.6 | 6.6 | 14.0 | 6.7 | 23.9 | 6.8 | 13.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.6 | 10.6 | 2.5 | 3.1 | 3.1 | 7.8 | 3.1 | 3.2 |
| Green Ext Time (p_c), s | 0.0 | 8.1 | 0.0 | 0.6 | 0.0 | 3.9 | 0.0 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.3 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 37 | 146 | 16 | 156 | 295 | 256 | 42 | 792 | 82 | 80 | 378 | 40 |
| Future Volume (vph) | 37 | 146 | 16 | 156 | 295 | 256 | 42 | 792 | 82 | 80 | 378 | 40 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.4 | 13.9 | 13.9 | 11.6 | 22.6 | 22.6 | 9.3 | 19.3 | 19.3 | 8.1 | 22.7 | 22.7 |
| Actuated g/C Ratio | 0.12 | 0.19 | 0.19 | 0.16 | 0.31 | 0.31 | 0.13 | 0.27 | 0.27 | 0.11 | 0.31 | 0.31 |
| v/c Ratio | 0.18 | 0.21 | 0.04 | 0.55 | 0.27 | 0.38 | 0.18 | 0.58 | 0.15 | 0.40 | 0.24 | 0.06 |
| Control Delay | 37.3 | 28.8 | 0.1 | 40.4 | 24.2 | 5.6 | 36.2 | 26.8 | 0.6 | 42.8 | 22.9 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.3 | 28.8 | 0.1 | 40.4 | 24.2 | 5.6 | 36.2 | 26.8 | 0.6 | 42.8 | 22.9 | 0.2 |
| LOS | D | C | A | D | C | A | D | C | A | D | C | A |
| Approach Delay | | 28.1 | | | 21.1 | | | 24.9 | | | 24.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 72.7 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 23.9 | Intersection LOS: C |
| Intersection Capacity Utilization 54.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 37 | 146 | 16 | 156 | 295 | 256 | 42 | 792 | 82 | 80 | 378 | 40 |
| Future Volume (veh/h) | 37 | 146 | 16 | 156 | 295 | 256 | 42 | 792 | 82 | 80 | 378 | 40 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 37 | 147 | 4 | 158 | 298 | 124 | 42 | 800 | 51 | 81 | 382 | 25 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 165 | 648 | 289 | 204 | 648 | 289 | 236 | 1400 | 428 | 116 | 946 | 294 |
| Arrive On Green | 0.09 | 0.18 | 0.18 | 0.11 | 0.18 | 0.18 | 0.13 | 0.27 | 0.27 | 0.06 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 37 | 147 | 4 | 158 | 298 | 124 | 42 | 800 | 51 | 81 | 382 | 25 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.1 | 1.9 | 0.1 | 4.7 | 4.1 | 2.6 | 1.2 | 7.4 | 1.3 | 2.4 | 3.6 | 0.7 |
| Cycle Q Clear(g_c), s | 1.1 | 1.9 | 0.1 | 4.7 | 4.1 | 2.6 | 1.2 | 7.4 | 1.3 | 2.4 | 3.6 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 165 | 648 | 289 | 204 | 648 | 289 | 236 | 1400 | 428 | 116 | 946 | 294 |
| V/C Ratio(X) | 0.22 | 0.23 | 0.01 | 0.77 | 0.46 | 0.43 | 0.18 | 0.57 | 0.12 | 0.70 | 0.40 | 0.09 |
| Avail Cap(c_a), veh/h | 241 | 2153 | 960 | 663 | 2996 | 1336 | 241 | 3186 | 975 | 371 | 3559 | 1105 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.5 | 19.5 | 6.5 | 24.0 | 20.4 | 9.8 | 21.6 | 17.5 | 15.3 | 25.5 | 20.1 | 18.9 |
| Incr Delay (d2), s/veh | 0.3 | 0.2 | 0.0 | 2.4 | 0.5 | 1.0 | 0.1 | 0.4 | 0.1 | 2.8 | 0.3 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.7 | 0.0 | 1.9 | 1.5 | 1.3 | 0.4 | 2.5 | 0.4 | 1.0 | 1.3 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.7 | 19.7 | 6.5 | 26.4 | 20.9 | 10.8 | 21.7 | 17.9 | 15.5 | 28.3 | 20.4 | 19.0 |
| LnGrp LOS | C | B | A | C | C | B | C | B | B | C | C | B |
| Approach Vol, veh/h | | 188 | | | 580 | | | 893 | | | 488 | |
| Approach Delay, s/veh | | 20.2 | | | 20.2 | | | 18.0 | | | 21.6 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 20.8 | 10.9 | 15.8 | 13.0 | 15.9 | 10.9 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 4.4 | 9.4 | 6.7 | 3.9 | 3.2 | 5.6 | 3.1 | 6.1 |
| Green Ext Time (p_c), s | 0.0 | 5.5 | 0.2 | 0.8 | 0.0 | 2.5 | 0.0 | 2.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.6 |
| HCM 6th LOS | B |

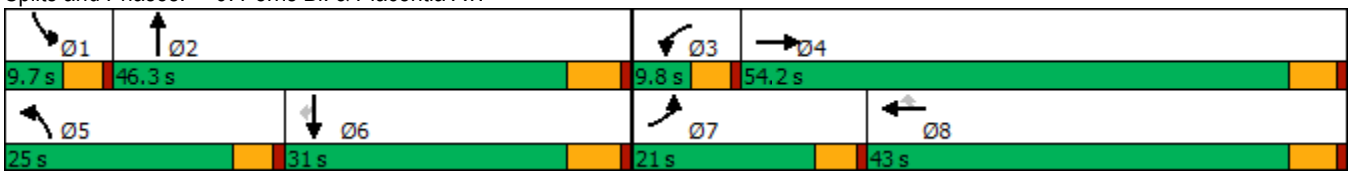
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 171 | 379 | 41 | 478 | 229 | 217 | 929 | 40 | 498 | 212 |
| Future Volume (vph) | 171 | 379 | 41 | 478 | 229 | 217 | 929 | 40 | 498 | 212 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 21.0 | 54.2 | 9.8 | 43.0 | 43.0 | 25.0 | 46.3 | 9.7 | 31.0 | 31.0 |
| Total Split (%) | 17.5% | 45.2% | 8.2% | 35.8% | 35.8% | 20.8% | 38.6% | 8.1% | 25.8% | 25.8% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 14.3 | 44.7 | 5.2 | 33.3 | 33.3 | 17.4 | 41.2 | 5.1 | 26.5 | 26.5 |
| Actuated g/C Ratio | 0.13 | 0.40 | 0.05 | 0.30 | 0.30 | 0.16 | 0.37 | 0.05 | 0.24 | 0.24 |
| v/c Ratio | 0.79 | 0.78 | 0.51 | 0.89 | 0.40 | 0.82 | 0.77 | 0.51 | 0.61 | 0.41 |
| Control Delay | 72.8 | 37.4 | 77.2 | 57.7 | 9.8 | 69.9 | 38.0 | 77.3 | 43.8 | 7.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 72.8 | 37.4 | 77.2 | 57.7 | 9.8 | 69.9 | 38.0 | 77.3 | 43.8 | 7.7 |
| LOS | E | D | E | E | A | E | D | E | D | A |
| Approach Delay | | 45.9 | | 44.1 | | | 43.8 | | 35.4 | |
| Approach LOS | | D | | D | | | D | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.1 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 42.5 | Intersection LOS: D |
| Intersection Capacity Utilization 83.5% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 171 | 379 | 164 | 41 | 478 | 229 | 217 | 929 | 38 | 40 | 498 | 212 |
| Future Volume (veh/h) | 171 | 379 | 164 | 41 | 478 | 229 | 217 | 929 | 38 | 40 | 498 | 212 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 180 | 399 | 168 | 43 | 503 | 139 | 228 | 978 | 33 | 42 | 524 | 214 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 210 | 476 | 201 | 60 | 555 | 469 | 259 | 1322 | 45 | 60 | 943 | 419 |
| Arrive On Green | 0.12 | 0.38 | 0.38 | 0.03 | 0.29 | 0.29 | 0.14 | 0.37 | 0.37 | 0.03 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1810 | 1269 | 534 | 1810 | 1900 | 1604 | 1810 | 3560 | 120 | 1810 | 3610 | 1604 |
| Grp Volume(v), veh/h | 180 | 0 | 567 | 43 | 503 | 139 | 228 | 496 | 515 | 42 | 524 | 214 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1804 | 1810 | 1900 | 1604 | 1810 | 1805 | 1875 | 1810 | 1805 | 1604 |
| Q Serve(g_s), s | 10.6 | 0.0 | 31.2 | 2.6 | 27.8 | 7.3 | 13.5 | 26.0 | 26.0 | 2.5 | 13.7 | 12.4 |
| Cycle Q Clear(g_c), s | 10.6 | 0.0 | 31.2 | 2.6 | 27.8 | 7.3 | 13.5 | 26.0 | 26.0 | 2.5 | 13.7 | 12.4 |
| Prop In Lane | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 210 | 0 | 677 | 60 | 555 | 469 | 259 | 670 | 696 | 60 | 943 | 419 |
| V/C Ratio(X) | 0.86 | 0.00 | 0.84 | 0.71 | 0.91 | 0.30 | 0.88 | 0.74 | 0.74 | 0.70 | 0.56 | 0.51 |
| Avail Cap(c_a), veh/h | 272 | 0 | 807 | 86 | 655 | 553 | 339 | 670 | 696 | 85 | 943 | 419 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.3 | 0.0 | 31.0 | 52.2 | 37.1 | 29.9 | 45.8 | 29.7 | 29.7 | 52.2 | 34.8 | 34.3 |
| Incr Delay (d2), s/veh | 15.5 | 0.0 | 6.7 | 5.7 | 14.7 | 0.3 | 15.8 | 7.2 | 6.9 | 5.5 | 2.4 | 4.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.5 | 0.0 | 14.0 | 1.2 | 14.5 | 2.8 | 7.2 | 12.5 | 13.0 | 1.2 | 6.1 | 5.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 62.8 | 0.0 | 37.8 | 57.8 | 51.8 | 30.2 | 61.6 | 36.9 | 36.6 | 57.7 | 37.2 | 38.7 |
| LnGrp LOS | E | A | D | E | D | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 747 | | | 685 | | | 1239 | | | 780 | |
| Approach Delay, s/veh | | 43.8 | | | 47.8 | | | 41.3 | | | 38.7 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 46.3 | 8.2 | 46.3 | 20.2 | 34.3 | 17.3 | 37.3 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 5.1 | 40.5 | 5.2 | 48.8 | 20.4 | 25.2 | 16.4 | 37.6 |
| Max Q Clear Time (g_c+I1), s | 4.5 | 28.0 | 4.6 | 33.2 | 15.5 | 15.7 | 12.6 | 29.8 |
| Green Ext Time (p_c), s | 0.0 | 5.5 | 0.0 | 3.1 | 0.2 | 2.7 | 0.1 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 42.6 |
| HCM 6th LOS | D |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.7 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 32 | 32 | 51 | 1 | 5 | 1 | 18 | 4 | 0 | 3 | 12 | 46 |
| Future Vol, veh/h | 32 | 32 | 51 | 1 | 5 | 1 | 18 | 4 | 0 | 3 | 12 | 46 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | - | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 55 | 55 | 88 | 2 | 9 | 2 | 31 | 7 | 0 | 5 | 21 | 79 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 146 | 140 | 61 | 211 | 179 | 7 | 100 | 0 | 0 | 7 | 0 | 0 |
| Stage 1 | 71 | 71 | - | 69 | 69 | - | - | - | - | - | - | - |
| Stage 2 | 75 | 69 | - | 142 | 110 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 827 | 755 | 1010 | 750 | 718 | 1081 | 1505 | - | - | 1627 | - | - |
| Stage 1 | 944 | 840 | - | 946 | 841 | - | - | - | - | - | - | - |
| Stage 2 | 939 | 841 | - | 866 | 808 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 803 | 737 | 1010 | 634 | 701 | 1081 | 1505 | - | - | 1627 | - | - |
| Mov Cap-2 Maneuver | 803 | 737 | - | 634 | 701 | - | - | - | - | - | - | - |
| Stage 1 | 924 | 837 | - | 926 | 823 | - | - | - | - | - | - | - |
| Stage 2 | 909 | 823 | - | 736 | 806 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9.9 | 10 | 6.1 | 0.4 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1505 | - | - | 803 | 884 | 727 | 1627 | - | - |
| HCM Lane V/C Ratio | 0.021 | - | - | 0.069 | 0.162 | 0.017 | 0.003 | - | - |
| HCM Control Delay (s) | 7.4 | - | - | 9.8 | 9.9 | 10 | 7.2 | - | - |
| HCM Lane LOS | A | - | - | A | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.2 | 0.6 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 3 | 19 | 0 | 0 | 64 |
| Future Vol, veh/h | 0 | 3 | 19 | 0 | 0 | 64 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 3 | 21 | 0 | 0 | 70 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 11 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1074 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1074 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.4 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1074 | - |
| HCM Lane V/C Ratio | - | - | 0.003 | - |
| HCM Control Delay (s) | - | - | 8.4 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 13 | 3 | 16 | 48 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 13 | 3 | 16 | 48 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 14 | 3 | 17 | 52 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 93 | 103 | 52 | - | - | 9 | - | 0 | 0 | 17 | 0 | 0 |
| Stage 1 | 86 | 86 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 7 | 17 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.5 | 6.2 | - | - | 6.9 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | - | - | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 891 | 791 | 1021 | 0 | 0 | 1077 | 0 | - | - | 1613 | - | - |
| Stage 1 | 927 | 827 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Stage 2 | 1019 | 885 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 879 | 782 | 1021 | - | - | 1077 | - | - | - | 1613 | - | - |
| Mov Cap-2 Maneuver | 879 | 782 | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | 927 | 818 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 1013 | 885 | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 8.4 | 0 | 1.8 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 1077 | 1613 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.006 | 0.011 | - | - |
| HCM Control Delay (s) | - | - | 0 | 8.4 | 7.3 | - | - |
| HCM Lane LOS | - | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | - | 0 | 0 | - | - |

| Lane Group | WBL | NBT | SBL | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 47 | 1 |
| Future Volume (vph) | 2 | 4 | 47 | 1 |
| Turn Type | Prot | NA | Prot | NA |
| Protected Phases | 8 | 2 | 1 | 6 |
| Permitted Phases | | | | |
| Detector Phase | 8 | 2 | 1 | 6 |
| Switch Phase | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 26.6 | 22.4 | 9.6 | 15.4 |
| Total Split (s) | 27.0 | 30.0 | 33.0 | 63.0 |
| Total Split (%) | 30.0% | 33.3% | 36.7% | 70.0% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | |
| Recall Mode | None | Max | None | Max |
| Act Effct Green (s) | 10.1 | 58.1 | 6.6 | 68.2 |
| Actuated g/C Ratio | 0.14 | 0.81 | 0.09 | 0.95 |
| v/c Ratio | 0.06 | 0.00 | 0.31 | 0.00 |
| Control Delay | 16.4 | 4.3 | 34.2 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.4 | 4.3 | 34.2 | 2.0 |
| LOS | B | A | C | A |
| Approach Delay | 16.4 | 4.3 | | 33.6 |
| Approach LOS | B | A | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 71.9 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.31 | |
| Intersection Signal Delay: 27.4 | Intersection LOS: C |
| Intersection Capacity Utilization 25.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 13: Redlands Av. & Driveway 2

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 2 | 12 | 4 | 3 | 47 | 1 |
| Future Volume (veh/h) | 2 | 12 | 4 | 3 | 47 | 1 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 2 | 13 | 4 | 3 | 51 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 8 | 51 | 1471 | 980 | 81 | 1557 |
| Arrive On Green | 0.04 | 0.04 | 0.71 | 0.71 | 0.04 | 0.82 |
| Sat Flow, veh/h | 206 | 1339 | 2170 | 1382 | 1810 | 1900 |
| Grp Volume(v), veh/h | 16 | 0 | 3 | 4 | 51 | 1 |
| Grp Sat Flow(s),veh/h/ln | 1649 | 0 | 1805 | 1651 | 1810 | 1900 |
| Q Serve(g_s), s | 0.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 |
| Cycle Q Clear(g_c), s | 0.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 |
| Prop In Lane | 0.12 | 0.81 | | 0.84 | 1.00 | |
| Lane Grp Cap(c), veh/h | 63 | 0 | 1280 | 1171 | 81 | 1557 |
| V/C Ratio(X) | 0.25 | 0.00 | 0.00 | 0.00 | 0.63 | 0.00 |
| Avail Cap(c_a), veh/h | 525 | 0 | 1280 | 1171 | 731 | 1557 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.8 | 0.0 | 3.0 | 3.0 | 33.0 | 1.1 |
| Incr Delay (d2), s/veh | 2.1 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 34.9 | 0.0 | 3.0 | 3.0 | 35.9 | 1.1 |
| LnGrp LOS | C | A | A | A | D | A |
| Approach Vol, veh/h | 16 | | 7 | | | 52 |
| Approach Delay, s/veh | 34.9 | | 3.0 | | | 35.3 |
| Approach LOS | C | | A | | | D |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.8 | 55.2 | | | | 63.0 | 7.3 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | | | | 5.4 | 4.6 |
| Max Green Setting (Gmax), s | 28.4 | 24.6 | | | | 57.6 | 22.4 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 2.0 | | | | 2.0 | 2.7 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | | | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.2 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1 | 6 | 3 | 0 | 3 |
| Future Vol, veh/h | 0 | 1 | 6 | 3 | 0 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 1 | 7 | 3 | 0 | 3 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 5 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1083 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1083 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

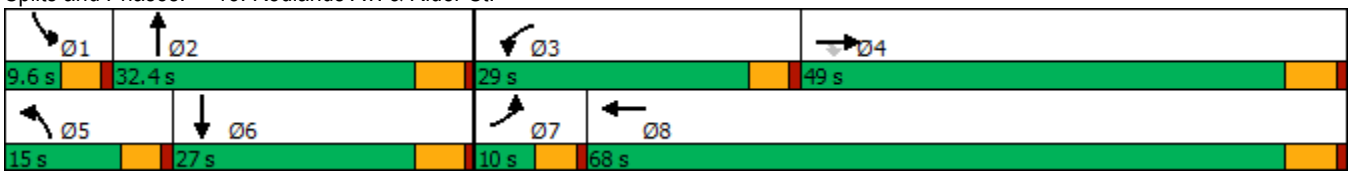
| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.3 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1083 | - |
| HCM Lane V/C Ratio | - | - | 0.001 | - |
| HCM Control Delay (s) | - | - | 8.3 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT | Ø1 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 6 | 345 | 10 | 165 | 688 | 45 | 3 | 1 | |
| Future Volume (vph) | 6 | 345 | 10 | 165 | 688 | 45 | 3 | 1 | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | 6 | 1 |
| Permitted Phases | | | 4 | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 6 | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 22.4 | 9.6 |
| Total Split (s) | 10.0 | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 27.0 | 9.6 |
| Total Split (%) | 8.3% | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 22.5% | 8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 4.4 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | 5.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.2 | 46.8 | 46.8 | 13.0 | 62.9 | 8.5 | 12.5 | 10.1 | |
| Actuated g/C Ratio | 0.06 | 0.53 | 0.53 | 0.15 | 0.71 | 0.10 | 0.14 | 0.11 | |
| v/c Ratio | 0.07 | 0.38 | 0.01 | 0.68 | 0.29 | 0.28 | 0.54 | 0.02 | |
| Control Delay | 45.0 | 15.4 | 0.0 | 49.5 | 6.2 | 43.0 | 10.2 | 32.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 45.0 | 15.4 | 0.0 | 49.5 | 6.2 | 43.0 | 10.2 | 32.0 | |
| LOS | D | B | A | D | A | D | B | C | |
| Approach Delay | | 15.5 | | | 14.6 | | 16.0 | 32.0 | |
| Approach LOS | | B | | | B | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.4 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.68 | |
| Intersection Signal Delay: 15.1 | Intersection LOS: B |
| Intersection Capacity Utilization 53.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 6 | 345 | 10 | 165 | 688 | 0 | 45 | 3 | 204 | 0 | 1 | 2 |
| Future Volume (veh/h) | 6 | 345 | 10 | 165 | 688 | 0 | 45 | 3 | 204 | 0 | 1 | 2 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 7 | 379 | 11 | 181 | 756 | 0 | 49 | 3 | 224 | 0 | 1 | 2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 16 | 1007 | 853 | 216 | 2312 | 0 | 68 | 4 | 299 | 2 | 58 | 116 |
| Arrive On Green | 0.01 | 0.53 | 0.53 | 0.12 | 0.64 | 0.00 | 0.04 | 0.19 | 0.19 | 0.00 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 1810 | 21 | 1592 | 1810 | 565 | 1131 |
| Grp Volume(v), veh/h | 7 | 379 | 11 | 181 | 756 | 0 | 49 | 0 | 227 | 0 | 0 | 3 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1810 | 0 | 1613 | 1810 | 0 | 1696 |
| Q Serve(g_s), s | 0.4 | 11.4 | 0.3 | 9.5 | 9.2 | 0.0 | 2.6 | 0.0 | 12.9 | 0.0 | 0.0 | 0.2 |
| Cycle Q Clear(g_c), s | 0.4 | 11.4 | 0.3 | 9.5 | 9.2 | 0.0 | 2.6 | 0.0 | 12.9 | 0.0 | 0.0 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 0.99 | 1.00 | | 0.67 |
| Lane Grp Cap(c), veh/h | 16 | 1007 | 853 | 216 | 2312 | 0 | 68 | 0 | 303 | 2 | 0 | 174 |
| V/C Ratio(X) | 0.44 | 0.38 | 0.01 | 0.84 | 0.33 | 0.00 | 0.72 | 0.00 | 0.75 | 0.00 | 0.00 | 0.02 |
| Avail Cap(c_a), veh/h | 101 | 1007 | 853 | 455 | 2312 | 0 | 194 | 0 | 449 | 93 | 0 | 377 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.9 | 13.4 | 10.8 | 41.8 | 7.9 | 0.0 | 46.2 | 0.0 | 37.3 | 0.0 | 0.0 | 39.2 |
| Incr Delay (d2), s/veh | 6.8 | 1.1 | 0.0 | 3.3 | 0.4 | 0.0 | 5.2 | 0.0 | 3.9 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 4.6 | 0.1 | 4.3 | 3.1 | 0.0 | 1.2 | 0.0 | 5.2 | 0.0 | 0.0 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.7 | 14.5 | 10.8 | 45.1 | 8.3 | 0.0 | 51.4 | 0.0 | 41.1 | 0.0 | 0.0 | 39.2 |
| LnGrp LOS | D | B | B | D | A | A | D | A | D | A | A | D |
| Approach Vol, veh/h | | 397 | | | 937 | | | 276 | | | 3 | |
| Approach Delay, s/veh | | 15.1 | | | 15.4 | | | 42.9 | | | 39.2 | |
| Approach LOS | | B | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 0.0 | 23.6 | 16.2 | 57.3 | 8.3 | 15.4 | 5.5 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 0.0 | 14.9 | 11.5 | 13.4 | 4.6 | 2.2 | 2.4 | 11.2 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.2 | 2.2 | 0.0 | 0.0 | 0.0 | 5.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.1 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 23.7 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 45 | 195 | 138 | 47 | 158 | 4 | 258 | 196 | 23 | 6 | 143 | 47 |
| Future Vol, veh/h | 45 | 195 | 138 | 47 | 158 | 4 | 258 | 196 | 23 | 6 | 143 | 47 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 58 | 250 | 177 | 60 | 203 | 5 | 331 | 251 | 29 | 8 | 183 | 60 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

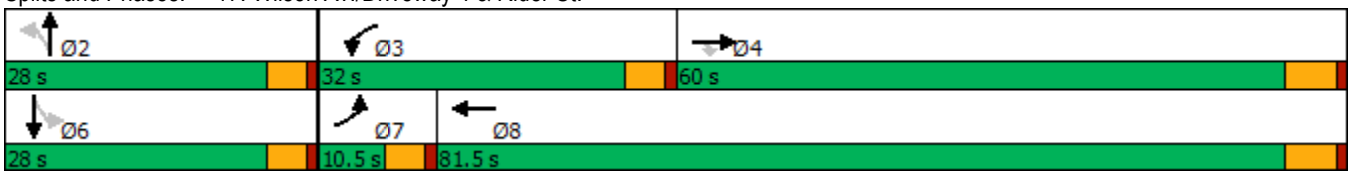
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 20.1 | 19.9 | 30.1 | 18.8 |
| HCM LOS | C | C | D | C |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 74% | 0% | 100% | 0% | 0% | 98% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 26% | 0% | 0% | 100% | 0% | 2% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 258 | 131 | 88 | 45 | 195 | 138 | 47 | 162 | 6 | 143 | 47 |
| LT Vol | 258 | 0 | 0 | 45 | 0 | 0 | 47 | 0 | 6 | 0 | 0 |
| Through Vol | 0 | 131 | 65 | 0 | 195 | 0 | 0 | 158 | 0 | 143 | 0 |
| RT Vol | 0 | 0 | 23 | 0 | 0 | 138 | 0 | 4 | 0 | 0 | 47 |
| Lane Flow Rate | 331 | 168 | 113 | 58 | 250 | 177 | 60 | 208 | 8 | 183 | 60 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.825 | 0.394 | 0.261 | 0.149 | 0.61 | 0.397 | 0.161 | 0.525 | 0.021 | 0.484 | 0.147 |
| Departure Headway (Hd) | 8.984 | 8.472 | 8.286 | 9.299 | 8.791 | 8.08 | 9.609 | 9.092 | 10.013 | 9.498 | 8.777 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 404 | 426 | 434 | 385 | 410 | 446 | 374 | 397 | 357 | 379 | 408 |
| Service Time | 6.737 | 6.225 | 6.039 | 7.056 | 6.548 | 5.837 | 7.367 | 6.85 | 7.777 | 7.262 | 6.541 |
| HCM Lane V/C Ratio | 0.819 | 0.394 | 0.26 | 0.151 | 0.61 | 0.397 | 0.16 | 0.524 | 0.022 | 0.483 | 0.147 |
| HCM Control Delay | 42.4 | 16.7 | 14 | 13.7 | 24.4 | 16.1 | 14.2 | 21.5 | 13 | 20.9 | 13.1 |
| HCM Lane LOS | E | C | B | B | C | C | B | C | B | C | B |
| HCM 95th-tile Q | 7.6 | 1.8 | 1 | 0.5 | 3.9 | 1.9 | 0.6 | 2.9 | 0.1 | 2.5 | 0.5 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 21 | 500 | 18 | 207 | 799 | 32 | 0 | 0 |
| Future Volume (vph) | 21 | 500 | 18 | 207 | 799 | 32 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | 6 |
| Permitted Phases | | | 4 | | | 2 | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 22.8 | 22.8 | 9.6 | 22.8 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.5 | 60.0 | 60.0 | 32.0 | 81.5 | 28.0 | 28.0 | 28.0 |
| Total Split (%) | 8.8% | 50.0% | 50.0% | 26.7% | 67.9% | 23.3% | 23.3% | 23.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 5.5 | 59.3 | 59.3 | 18.2 | 76.1 | | 11.8 | 11.8 |
| Actuated g/C Ratio | 0.05 | 0.57 | 0.57 | 0.17 | 0.73 | | 0.11 | 0.11 |
| v/c Ratio | 0.26 | 0.54 | 0.02 | 0.78 | 0.36 | | 0.68 | 0.02 |
| Control Delay | 57.0 | 18.0 | 0.1 | 58.3 | 6.4 | | 21.0 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 57.0 | 18.0 | 0.1 | 58.3 | 6.4 | | 21.0 | 0.2 |
| LOS | E | B | A | E | A | | C | A |
| Approach Delay | | 18.9 | | | 17.1 | | 21.0 | 0.2 |
| Approach LOS | | B | | | B | | C | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 104.3 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.78 | |
| Intersection Signal Delay: 18.0 | Intersection LOS: B |
| Intersection Capacity Utilization 69.3% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 17: Wilson Av./Driveway 4 & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 21 | 500 | 18 | 207 | 799 | 0 | 32 | 0 | 171 | 0 | 0 | 6 |
| Future Volume (veh/h) | 21 | 500 | 18 | 207 | 799 | 0 | 32 | 0 | 171 | 0 | 0 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 25 | 588 | 21 | 244 | 940 | 0 | 38 | 0 | 201 | 0 | 0 | 7 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 44 | 1037 | 878 | 275 | 2431 | 0 | 68 | 12 | 227 | 0 | 0 | 272 |
| Arrive On Green | 0.02 | 0.55 | 0.55 | 0.15 | 0.67 | 0.00 | 0.17 | 0.00 | 0.17 | 0.00 | 0.00 | 0.17 |
| Sat Flow, veh/h | 1810 | 1900 | 1609 | 1810 | 3705 | 0 | 181 | 73 | 1344 | 0 | 0 | 1610 |
| Grp Volume(v), veh/h | 25 | 588 | 21 | 244 | 940 | 0 | 239 | 0 | 0 | 0 | 0 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1609 | 1810 | 1805 | 0 | 1599 | 0 | 0 | 0 | 0 | 1610 |
| Q Serve(g_s), s | 1.5 | 22.9 | 0.7 | 14.9 | 12.9 | 0.0 | 11.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Cycle Q Clear(g_c), s | 1.5 | 22.9 | 0.7 | 14.9 | 12.9 | 0.0 | 16.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.16 | | 0.84 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 44 | 1037 | 878 | 275 | 2431 | 0 | 307 | 0 | 0 | 0 | 0 | 272 |
| V/C Ratio(X) | 0.57 | 0.57 | 0.02 | 0.89 | 0.39 | 0.00 | 0.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| Avail Cap(c_a), veh/h | 95 | 1037 | 878 | 441 | 2431 | 0 | 369 | 0 | 0 | 0 | 0 | 335 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.3 | 16.8 | 11.8 | 46.7 | 8.1 | 0.0 | 45.5 | 0.0 | 0.0 | 0.0 | 0.0 | 39.0 |
| Incr Delay (d2), s/veh | 4.3 | 2.3 | 0.1 | 7.9 | 0.5 | 0.0 | 8.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 9.7 | 0.2 | 7.1 | 4.4 | 0.0 | 7.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 58.6 | 19.1 | 11.8 | 54.6 | 8.6 | 0.0 | 54.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.0 |
| LnGrp LOS | E | B | B | D | A | A | D | A | A | A | A | D |
| Approach Vol, veh/h | | 634 | | | 1184 | | | 239 | | | 7 | |
| Approach Delay, s/veh | | 20.4 | | | 18.1 | | | 54.0 | | | 39.0 | |
| Approach LOS | | C | | | B | | | D | | | D | |

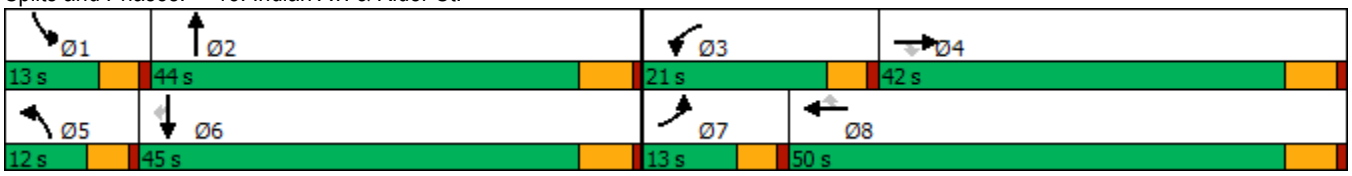
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 23.6 | 21.7 | 67.1 | | 23.6 | 7.3 | 81.5 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 23.4 | 27.4 | 54.2 | | 23.4 | 5.9 | 75.7 | | | | |
| Max Q Clear Time (g_c+I1), s | | 18.4 | 16.9 | 24.9 | | 2.4 | 3.5 | 14.9 | | | | |
| Green Ext Time (p_c), s | | 0.6 | 0.2 | 3.8 | | 0.0 | 0.0 | 7.4 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.0 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 35 | 66 | 7 |
| Future Volume (vph) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 35 | 66 | 7 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 42.0 | 42.0 | 21.0 | 50.0 | 50.0 | 12.0 | 44.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 35.0% | 35.0% | 17.5% | 41.7% | 41.7% | 10.0% | 36.7% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 6.6 | 13.7 | 13.7 | 9.4 | 18.7 | 18.7 | 5.9 | 40.4 | 6.6 | 42.9 | 42.9 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.11 | 0.22 | 0.22 | 0.07 | 0.48 | 0.08 | 0.51 | 0.51 |
| v/c Ratio | 0.29 | 0.27 | 0.10 | 0.50 | 0.37 | 0.35 | 0.17 | 0.12 | 0.29 | 0.05 | 0.01 |
| Control Delay | 48.1 | 33.6 | 0.5 | 48.1 | 32.0 | 6.8 | 46.9 | 14.1 | 48.1 | 16.3 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.1 | 33.6 | 0.5 | 48.1 | 32.0 | 6.8 | 46.9 | 14.1 | 48.1 | 16.3 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 30.5 | | | 25.6 | | | 17.3 | | 25.5 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 84 | |
| Natural Cycle: 95 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.50 | |
| Intersection Signal Delay: 24.9 | Intersection LOS: C |
| Intersection Capacity Utilization 43.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 43 | 35 | 66 | 7 |
| Future Volume (veh/h) | 35 | 134 | 34 | 87 | 134 | 149 | 19 | 132 | 43 | 35 | 66 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1824 | 1900 |
| Adj Flow Rate, veh/h | 41 | 158 | 28 | 102 | 158 | 126 | 22 | 155 | 33 | 41 | 78 | 4 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 68 | 465 | 208 | 132 | 312 | 264 | 44 | 1465 | 305 | 68 | 1753 | 814 |
| Arrive On Green | 0.04 | 0.13 | 0.13 | 0.07 | 0.16 | 0.16 | 0.02 | 0.49 | 0.49 | 0.04 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 2975 | 619 | 1810 | 3466 | 1610 |
| Grp Volume(v), veh/h | 41 | 158 | 28 | 102 | 158 | 126 | 22 | 93 | 95 | 41 | 78 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1789 | 1810 | 1733 | 1610 |
| Q Serve(g_s), s | 1.7 | 3.1 | 1.2 | 4.3 | 5.9 | 5.5 | 0.9 | 2.1 | 2.2 | 1.7 | 0.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.7 | 3.1 | 1.2 | 4.3 | 5.9 | 5.5 | 0.9 | 2.1 | 2.2 | 1.7 | 0.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.35 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 68 | 465 | 208 | 132 | 312 | 264 | 44 | 889 | 881 | 68 | 1753 | 814 |
| V/C Ratio(X) | 0.60 | 0.34 | 0.13 | 0.77 | 0.51 | 0.48 | 0.50 | 0.10 | 0.11 | 0.60 | 0.04 | 0.00 |
| Avail Cap(c_a), veh/h | 196 | 1684 | 751 | 382 | 1082 | 917 | 173 | 889 | 881 | 196 | 1753 | 814 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.8 | 30.8 | 30.0 | 35.3 | 29.6 | 29.4 | 37.4 | 10.5 | 10.6 | 36.8 | 9.7 | 9.5 |
| Incr Delay (d2), s/veh | 3.1 | 0.4 | 0.3 | 3.6 | 1.3 | 1.3 | 3.2 | 0.2 | 0.2 | 3.1 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 1.3 | 0.5 | 1.9 | 2.6 | 2.1 | 0.4 | 0.8 | 0.8 | 0.8 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 39.9 | 31.2 | 30.3 | 38.9 | 30.8 | 30.8 | 40.6 | 10.8 | 10.8 | 39.9 | 9.7 | 9.5 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 227 | | | 386 | | | 210 | | | 123 | |
| Approach Delay, s/veh | | 32.7 | | | 33.0 | | | 13.9 | | | 19.8 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.5 | 44.0 | 10.3 | 15.8 | 6.5 | 45.0 | 7.5 | 18.5 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 8.4 | 38.2 | 16.4 | 36.2 | 7.4 | 39.2 | 8.4 | 44.2 |
| Max Q Clear Time (g_c+I1), s | 3.7 | 4.2 | 6.3 | 5.1 | 2.9 | 2.9 | 3.7 | 7.9 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.1 | 1.0 | 0.0 | 0.4 | 0.0 | 1.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.9 |
| HCM 6th LOS | C |

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 401 | 136 | 505 | 553 | 466 | 0 | 58 |
| Future Volume (vph) | 401 | 136 | 505 | 553 | 466 | 0 | 58 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 26.8 | 26.8 | 9.6 | 26.8 | 23.8 | 23.8 | 23.8 |
| Total Split (s) | 44.6 | 44.6 | 31.6 | 76.2 | 43.8 | 43.8 | 43.8 |
| Total Split (%) | 37.2% | 37.2% | 26.3% | 63.5% | 36.5% | 36.5% | 36.5% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 45.9 | 45.9 | 20.1 | 70.6 | 20.9 | 20.9 | 20.9 |
| Actuated g/C Ratio | 0.44 | 0.44 | 0.19 | 0.68 | 0.20 | 0.20 | 0.20 |
| v/c Ratio | 0.27 | 0.19 | 0.80 | 0.24 | 0.73 | 0.73 | 0.17 |
| Control Delay | 20.7 | 5.0 | 49.6 | 7.1 | 50.8 | 51.0 | 8.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.7 | 5.0 | 49.6 | 7.1 | 50.8 | 51.0 | 8.4 |
| LOS | C | A | D | A | D | D | A |
| Approach Delay | 16.7 | | | 27.4 | | 46.2 | |
| Approach LOS | B | | | C | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 103.2 | |
| Natural Cycle: 65 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.80 | |
| Intersection Signal Delay: 29.4 | Intersection LOS: C |
| Intersection Capacity Utilization 64.7% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 401 | 136 | 505 | 553 | 0 | 0 | 0 | 0 | 466 | 0 | 58 |
| Future Volume (veh/h) | 0 | 401 | 136 | 505 | 553 | 0 | 0 | 0 | 0 | 466 | 0 | 58 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 436 | 148 | 549 | 601 | 0 | | | | 507 | 0 | 63 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 1741 | 777 | 633 | 2559 | 0 | | | | 631 | 0 | 281 |
| Arrive On Green | 0.00 | 0.48 | 0.48 | 0.18 | 0.71 | 0.00 | | | | 0.17 | 0.00 | 0.17 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 436 | 148 | 549 | 601 | 0 | | | | 507 | 0 | 63 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 7.1 | 5.2 | 15.1 | 5.8 | 0.0 | | | | 13.4 | 0.0 | 3.3 |
| Cycle Q Clear(g_c), s | 0.0 | 7.1 | 5.2 | 15.1 | 5.8 | 0.0 | | | | 13.4 | 0.0 | 3.3 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1741 | 777 | 633 | 2559 | 0 | | | | 631 | 0 | 281 |
| V/C Ratio(X) | 0.00 | 0.25 | 0.19 | 0.87 | 0.23 | 0.00 | | | | 0.80 | 0.00 | 0.22 |
| Avail Cap(c_a), veh/h | 0 | 1741 | 777 | 954 | 2559 | 0 | | | | 1385 | 0 | 616 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 15.1 | 14.7 | 39.5 | 5.0 | 0.0 | | | | 39.4 | 0.0 | 35.2 |
| Incr Delay (d2), s/veh | 0.0 | 0.3 | 0.5 | 3.8 | 0.2 | 0.0 | | | | 2.5 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 2.7 | 1.9 | 6.5 | 1.7 | 0.0 | | | | 5.9 | 0.0 | 1.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 15.5 | 15.2 | 43.4 | 5.3 | 0.0 | | | | 41.8 | 0.0 | 35.6 |
| LnGrp LOS | A | B | B | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 584 | | | 1150 | | | | | | 570 | |
| Approach Delay, s/veh | | 15.4 | | | 23.5 | | | | | | 41.1 | |
| Approach LOS | | B | | | C | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 22.5 | 53.7 | | 23.1 | | 76.2 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 27.0 | 38.8 | | 38.0 | | 70.4 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 17.1 | 9.1 | | 15.4 | | 7.8 | | | | | |
| Green Ext Time (p_c), s | | 0.8 | 3.2 | | 1.9 | | 4.1 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.8 |
| HCM 6th LOS | C |

**Notes**

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 67 | 800 | 942 | 625 | 116 | 0 | 267 |
| Future Volume (vph) | 67 | 800 | 942 | 625 | 116 | 0 | 267 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.6 | 75.6 | 66.4 | 66.4 | 14.5 | 14.5 | 14.5 |
| Actuated g/C Ratio | 0.06 | 0.74 | 0.65 | 0.65 | 0.14 | 0.14 | 0.14 |
| v/c Ratio | 0.32 | 0.32 | 0.43 | 0.59 | 0.26 | 0.26 | 0.76 |
| Control Delay | 50.3 | 5.3 | 10.6 | 9.5 | 40.7 | 40.7 | 29.6 |
| Queue Delay | 0.0 | 0.0 | 1.4 | 3.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.3 | 5.3 | 12.0 | 12.6 | 40.7 | 40.7 | 29.6 |
| LOS | D | A | B | B | D | D | C |
| Approach Delay | | 8.8 | 12.2 | | | 33.0 | |
| Approach LOS | | A | B | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 101.7 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 14.0 | Intersection LOS: B |
| Intersection Capacity Utilization 64.7% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 67 | 800 | 0 | 0 | 942 | 625 | 116 | 0 | 267 | 0 | 0 | 0 |
| Future Volume (veh/h) | 67 | 800 | 0 | 0 | 942 | 625 | 116 | 0 | 267 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 73 | 870 | 0 | 0 | 1024 | 679 | 126 | 0 | 290 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 161 | 2492 | 0 | 0 | 2175 | 970 | 736 | 0 | 328 | | | |
| Arrive On Green | 0.05 | 0.69 | 0.00 | 0.00 | 0.60 | 0.60 | 0.20 | 0.00 | 0.20 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 73 | 870 | 0 | 0 | 1024 | 679 | 126 | 0 | 290 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.2 | 10.7 | 0.0 | 0.0 | 17.2 | 31.7 | 3.1 | 0.0 | 19.1 | | | |
| Cycle Q Clear(g_c), s | 2.2 | 10.7 | 0.0 | 0.0 | 17.2 | 31.7 | 3.1 | 0.0 | 19.1 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 161 | 2492 | 0 | 0 | 2175 | 970 | 736 | 0 | 328 | | | |
| V/C Ratio(X) | 0.45 | 0.35 | 0.00 | 0.00 | 0.47 | 0.70 | 0.17 | 0.00 | 0.89 | | | |
| Avail Cap(c_a), veh/h | 1157 | 2492 | 0 | 0 | 2175 | 970 | 1093 | 0 | 487 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 50.8 | 6.9 | 0.0 | 0.0 | 12.0 | 14.9 | 35.9 | 0.0 | 42.3 | | | |
| Incr Delay (d2), s/veh | 0.7 | 0.4 | 0.0 | 0.0 | 0.7 | 4.2 | 0.1 | 0.0 | 12.5 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.0 | 3.5 | 0.0 | 0.0 | 6.3 | 11.1 | 1.4 | 0.0 | 8.4 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.5 | 7.3 | 0.0 | 0.0 | 12.8 | 19.1 | 36.0 | 0.0 | 54.8 | | | |
| LnGrp LOS | D | A | A | A | B | B | D | A | D | | | |
| Approach Vol, veh/h | | 943 | | | 1703 | | | 416 | | | | |
| Approach Delay, s/veh | | 10.7 | | | 15.3 | | | 49.1 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 28.0 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 21.1 | | 12.7 | | | 4.2 | 33.7 | | | | |
| Green Ext Time (p_c), s | | 1.1 | | 6.7 | | | 0.1 | 0.9 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 18.5 |
| HCM 6th LOS | B |

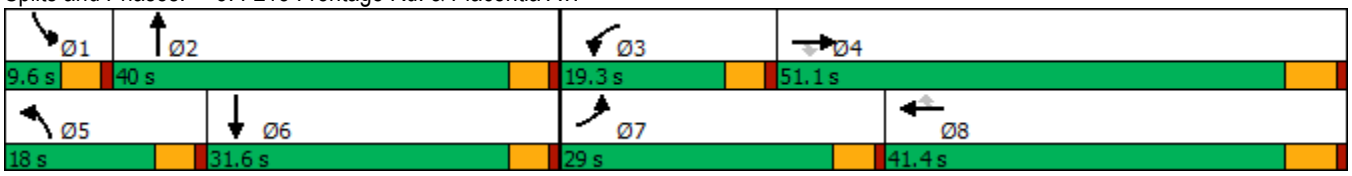
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 177 | 645 | 244 | 10 | 1087 | 10 | 216 | 64 | 10 | 218 |
| Future Volume (vph) | 177 | 645 | 244 | 10 | 1087 | 10 | 216 | 64 | 10 | 218 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 29.0 | 51.1 | 51.1 | 19.3 | 41.4 | 41.4 | 18.0 | 40.0 | 9.6 | 31.6 |
| Total Split (%) | 24.2% | 42.6% | 42.6% | 16.1% | 34.5% | 34.5% | 15.0% | 33.3% | 8.0% | 26.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 16.2 | 54.3 | 54.3 | 5.5 | 35.7 | 35.7 | 13.4 | 43.3 | 5.0 | 27.0 |
| Actuated g/C Ratio | 0.14 | 0.49 | 0.49 | 0.05 | 0.32 | 0.32 | 0.12 | 0.39 | 0.04 | 0.24 |
| v/c Ratio | 0.74 | 0.40 | 0.30 | 0.12 | 0.98 | 0.02 | 1.09 | 0.55 | 0.14 | 1.15 |
| Control Delay | 62.8 | 19.7 | 7.4 | 55.7 | 59.4 | 0.0 | 133.6 | 16.8 | 57.5 | 125.3 |
| Queue Delay | 0.1 | 2.2 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.9 | 21.9 | 8.4 | 55.7 | 59.4 | 0.0 | 133.6 | 16.8 | 57.5 | 125.3 |
| LOS | E | C | A | E | E | A | F | B | E | F |
| Approach Delay | | 25.6 | | | 58.8 | | | 58.6 | | 123.9 |
| Approach LOS | | C | | | E | | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 111.9 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.15 | |
| Intersection Signal Delay: 57.8 | Intersection LOS: E |
| Intersection Capacity Utilization 95.8% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 177 | 645 | 244 | 10 | 1087 | 10 | 216 | 64 | 324 | 10 | 218 | 264 |
| Future Volume (veh/h) | 177 | 645 | 244 | 10 | 1087 | 10 | 216 | 64 | 324 | 10 | 218 | 264 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 192 | 701 | 199 | 11 | 1182 | 8 | 235 | 70 | 341 | 11 | 237 | 215 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 224 | 1578 | 704 | 24 | 1240 | 525 | 222 | 101 | 490 | 24 | 227 | 206 |
| Arrive On Green | 0.12 | 0.44 | 0.44 | 0.01 | 0.33 | 0.33 | 0.12 | 0.36 | 0.36 | 0.01 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3800 | 1610 | 1810 | 282 | 1372 | 1810 | 918 | 832 |
| Grp Volume(v), veh/h | 192 | 701 | 199 | 11 | 1182 | 8 | 235 | 0 | 411 | 11 | 0 | 452 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 0 | 1653 | 1810 | 0 | 1750 |
| Q Serve(g_s), s | 11.3 | 14.8 | 8.7 | 0.7 | 33.2 | 0.4 | 13.4 | 0.0 | 23.2 | 0.7 | 0.0 | 27.0 |
| Cycle Q Clear(g_c), s | 11.3 | 14.8 | 8.7 | 0.7 | 33.2 | 0.4 | 13.4 | 0.0 | 23.2 | 0.7 | 0.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 224 | 1578 | 704 | 24 | 1240 | 525 | 222 | 0 | 591 | 24 | 0 | 433 |
| V/C Ratio(X) | 0.86 | 0.44 | 0.28 | 0.47 | 0.95 | 0.02 | 1.06 | 0.00 | 0.70 | 0.47 | 0.00 | 1.04 |
| Avail Cap(c_a), veh/h | 405 | 1578 | 704 | 244 | 1240 | 525 | 222 | 0 | 591 | 83 | 0 | 433 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.8 | 21.4 | 19.7 | 53.5 | 36.0 | 24.9 | 47.9 | 0.0 | 30.0 | 53.5 | 0.0 | 41.1 |
| Incr Delay (d2), s/veh | 3.6 | 0.9 | 1.0 | 5.3 | 16.6 | 0.1 | 76.4 | 0.0 | 3.6 | 13.8 | 0.0 | 55.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.2 | 6.1 | 3.3 | 0.3 | 17.3 | 0.1 | 10.5 | 0.0 | 9.3 | 0.4 | 0.0 | 17.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.5 | 22.4 | 20.7 | 58.8 | 52.6 | 24.9 | 124.3 | 0.0 | 33.6 | 67.2 | 0.0 | 96.2 |
| LnGrp LOS | D | C | C | E | D | C | F | A | C | E | A | F |
| Approach Vol, veh/h | | 1092 | | | 1201 | | | 646 | | | 463 | |
| Approach Delay, s/veh | | 27.0 | | | 52.4 | | | 66.6 | | | 95.5 | |
| Approach LOS | | C | | | D | | | E | | | F | |

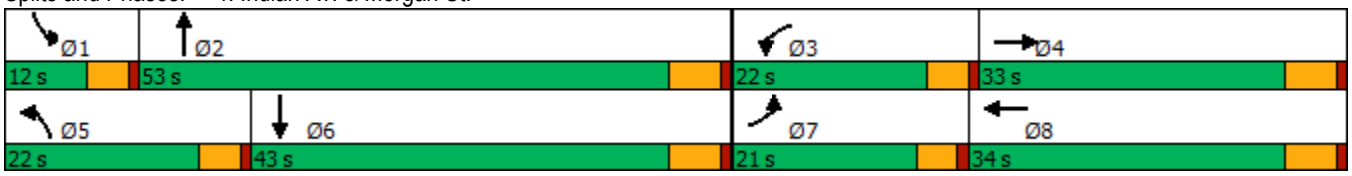
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.0 | 43.6 | 6.0 | 53.5 | 18.0 | 31.6 | 18.1 | 41.4 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 35.4 | 14.7 | 45.3 | 13.4 | 27.0 | 24.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 25.2 | 2.7 | 16.8 | 15.4 | 29.0 | 13.3 | 35.2 |
| Green Ext Time (p_c), s | 0.0 | 1.8 | 0.0 | 5.4 | 0.0 | 0.0 | 0.2 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 52.8 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 64 | 56 | 68 | 27 | 71 | 167 | 7 | 323 |
| Future Volume (vph) | 64 | 56 | 68 | 27 | 71 | 167 | 7 | 323 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 21.0 | 33.0 | 22.0 | 34.0 | 22.0 | 53.0 | 12.0 | 43.0 |
| Total Split (%) | 17.5% | 27.5% | 18.3% | 28.3% | 18.3% | 44.2% | 10.0% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 11.8 | 12.6 | 8.5 | 12.7 | 8.7 | 51.3 | 5.4 | 42.0 |
| Actuated g/C Ratio | 0.13 | 0.14 | 0.10 | 0.14 | 0.10 | 0.58 | 0.06 | 0.48 |
| v/c Ratio | 0.33 | 0.28 | 0.48 | 0.07 | 0.49 | 0.12 | 0.08 | 0.27 |
| Control Delay | 42.7 | 18.8 | 49.6 | 31.5 | 49.7 | 10.2 | 46.7 | 17.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.7 | 18.8 | 49.6 | 31.5 | 49.7 | 10.2 | 46.7 | 17.5 |
| LOS | D | B | D | C | D | B | D | B |
| Approach Delay | | 27.1 | | 44.0 | | 20.3 | | 18.1 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.3 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.49 | |
| Intersection Signal Delay: 23.2 | Intersection LOS: C |
| Intersection Capacity Utilization 45.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 64 | 56 | 66 | 68 | 27 | 3 | 71 | 167 | 40 | 7 | 323 | 48 |
| Future Volume (veh/h) | 64 | 56 | 66 | 68 | 27 | 3 | 71 | 167 | 40 | 7 | 323 | 48 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 78 | 68 | 60 | 83 | 33 | 4 | 87 | 204 | 48 | 9 | 394 | 44 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 101 | 248 | 195 | 108 | 432 | 51 | 113 | 1617 | 372 | 20 | 1650 | 183 |
| Arrive On Green | 0.06 | 0.13 | 0.13 | 0.06 | 0.13 | 0.13 | 0.06 | 0.56 | 0.56 | 0.01 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1913 | 1508 | 1810 | 3247 | 386 | 1810 | 2914 | 671 | 1810 | 3276 | 364 |
| Grp Volume(v), veh/h | 78 | 64 | 64 | 83 | 18 | 19 | 87 | 125 | 127 | 9 | 216 | 222 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1616 | 1810 | 1805 | 1827 | 1810 | 1805 | 1779 | 1810 | 1805 | 1835 |
| Q Serve(g_s), s | 3.6 | 2.7 | 3.1 | 3.8 | 0.7 | 0.8 | 4.0 | 2.8 | 2.9 | 0.4 | 5.7 | 5.8 |
| Cycle Q Clear(g_c), s | 3.6 | 2.7 | 3.1 | 3.8 | 0.7 | 0.8 | 4.0 | 2.8 | 2.9 | 0.4 | 5.7 | 5.8 |
| Prop In Lane | 1.00 | | 0.93 | 1.00 | | 0.21 | 1.00 | | 0.38 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 101 | 234 | 209 | 108 | 240 | 243 | 113 | 1002 | 987 | 20 | 909 | 924 |
| V/C Ratio(X) | 0.77 | 0.27 | 0.31 | 0.77 | 0.08 | 0.08 | 0.77 | 0.12 | 0.13 | 0.44 | 0.24 | 0.24 |
| Avail Cap(c_a), veh/h | 349 | 577 | 517 | 370 | 599 | 606 | 370 | 1002 | 987 | 157 | 909 | 924 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.6 | 33.4 | 33.6 | 39.4 | 32.3 | 32.3 | 39.3 | 9.0 | 9.1 | 41.8 | 11.9 | 11.9 |
| Incr Delay (d2), s/veh | 4.5 | 0.6 | 0.8 | 4.3 | 0.1 | 0.1 | 4.1 | 0.3 | 0.3 | 5.5 | 0.6 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 1.2 | 1.2 | 1.7 | 0.3 | 0.3 | 1.8 | 1.0 | 1.0 | 0.2 | 2.1 | 2.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 44.1 | 34.0 | 34.4 | 43.7 | 32.4 | 32.4 | 43.4 | 9.3 | 9.3 | 47.3 | 12.5 | 12.5 |
| LnGrp LOS | D | C | C | D | C | C | D | A | A | D | B | B |
| Approach Vol, veh/h | | 206 | | | 120 | | | 339 | | | 447 | |
| Approach Delay, s/veh | | 38.0 | | | 40.2 | | | 18.1 | | | 13.2 | |
| Approach LOS | | D | | | D | | | B | | | B | |

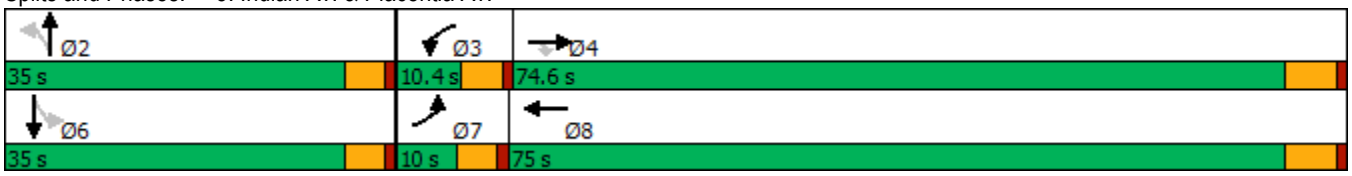
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.6 | 53.0 | 9.7 | 16.8 | 9.9 | 48.6 | 9.4 | 17.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 47.2 | 17.4 | 27.2 | 17.4 | 37.2 | 16.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 4.9 | 5.8 | 5.1 | 6.0 | 7.8 | 5.6 | 2.8 |
| Green Ext Time (p_c), s | 0.0 | 1.4 | 0.1 | 0.6 | 0.1 | 2.4 | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 55 | 832 | 92 | 31 | 887 | 47 | 75 | 43 | 145 |
| Future Volume (vph) | 55 | 832 | 92 | 31 | 887 | 47 | 75 | 43 | 145 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 74.6 | 74.6 | 10.4 | 75.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| Total Split (%) | 8.3% | 62.2% | 62.2% | 8.7% | 62.5% | 29.2% | 29.2% | 29.2% | 29.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.4 | 69.3 | 69.3 | 5.6 | 69.6 | 27.0 | 27.0 | 27.0 | 27.0 |
| Actuated g/C Ratio | 0.05 | 0.60 | 0.60 | 0.05 | 0.61 | 0.24 | 0.24 | 0.24 | 0.24 |
| v/c Ratio | 0.71 | 0.79 | 0.10 | 0.51 | 0.91 | 0.77 | 0.31 | 0.23 | 0.89 |
| Control Delay | 95.9 | 25.3 | 3.5 | 75.6 | 35.0 | 104.5 | 35.5 | 38.4 | 62.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 95.9 | 25.3 | 3.5 | 75.6 | 35.0 | 104.5 | 35.5 | 38.4 | 62.4 |
| LOS | F | C | A | E | C | F | D | D | E |
| Approach Delay | | 27.2 | | | 36.7 | | 54.1 | | 59.2 |
| Approach LOS | | C | | | D | | D | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 114.8 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.91 | |
| Intersection Signal Delay: 37.9 | Intersection LOS: D |
| Intersection Capacity Utilization 84.6% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 55 | 832 | 92 | 31 | 887 | 52 | 47 | 75 | 20 | 43 | 145 | 171 |
| Future Volume (veh/h) | 55 | 832 | 92 | 31 | 887 | 52 | 47 | 75 | 20 | 43 | 145 | 171 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 60 | 904 | 75 | 45 | 964 | 56 | 51 | 109 | 22 | 62 | 210 | 139 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 77 | 1107 | 938 | 76 | 1035 | 60 | 129 | 382 | 77 | 306 | 266 | 176 |
| Arrive On Green | 0.04 | 0.58 | 0.58 | 0.04 | 0.58 | 0.58 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1778 | 103 | 1048 | 1535 | 310 | 1279 | 1067 | 706 |
| Grp Volume(v), veh/h | 60 | 904 | 75 | 45 | 0 | 1020 | 51 | 0 | 131 | 62 | 0 | 349 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1881 | 1048 | 0 | 1844 | 1279 | 0 | 1773 |
| Q Serve(g_s), s | 3.9 | 45.0 | 2.4 | 2.9 | 0.0 | 58.9 | 5.7 | 0.0 | 6.8 | 4.9 | 0.0 | 21.9 |
| Cycle Q Clear(g_c), s | 3.9 | 45.0 | 2.4 | 2.9 | 0.0 | 58.9 | 27.6 | 0.0 | 6.8 | 11.7 | 0.0 | 21.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 0.17 | 1.00 | | 0.40 |
| Lane Grp Cap(c), veh/h | 77 | 1107 | 938 | 76 | 0 | 1095 | 129 | 0 | 460 | 306 | 0 | 442 |
| V/C Ratio(X) | 0.77 | 0.82 | 0.08 | 0.59 | 0.00 | 0.93 | 0.40 | 0.00 | 0.29 | 0.20 | 0.00 | 0.79 |
| Avail Cap(c_a), veh/h | 82 | 1107 | 938 | 88 | 0 | 1095 | 136 | 0 | 471 | 314 | 0 | 453 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.3 | 19.8 | 10.9 | 56.0 | 0.0 | 22.7 | 54.6 | 0.0 | 36.1 | 40.8 | 0.0 | 41.7 |
| Incr Delay (d2), s/veh | 30.9 | 6.7 | 0.2 | 3.3 | 0.0 | 15.1 | 2.0 | 0.0 | 0.3 | 0.3 | 0.0 | 9.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 19.7 | 0.8 | 1.4 | 0.0 | 27.4 | 1.5 | 0.0 | 3.0 | 1.5 | 0.0 | 10.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 87.2 | 26.5 | 11.0 | 59.3 | 0.0 | 37.8 | 56.6 | 0.0 | 36.4 | 41.1 | 0.0 | 50.7 |
| LnGrp LOS | F | C | B | E | A | D | E | A | D | D | A | D |
| Approach Vol, veh/h | | 1039 | | | 1065 | | | 182 | | | 411 | |
| Approach Delay, s/veh | | 28.8 | | | 38.7 | | | 42.1 | | | 49.3 | |
| Approach LOS | | C | | | D | | | D | | | D | |

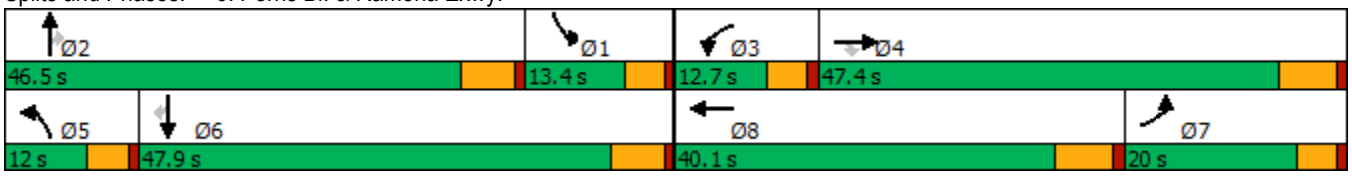
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 34.2 | 9.6 | 75.1 | | 34.2 | 9.7 | 75.0 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 30.4 | 5.8 | 68.8 | | 30.4 | 5.4 | 69.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 29.6 | 4.9 | 47.0 | | 23.9 | 5.9 | 60.9 | | | | |
| Green Ext Time (p_c), s | | 0.1 | 0.0 | 6.8 | | 1.2 | 0.0 | 4.5 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 36.7 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 241 | 1030 | 145 | 96 | 784 | 284 | 437 | 96 | 326 | 606 | 264 |
| Future Volume (vph) | 241 | 1030 | 145 | 96 | 784 | 284 | 437 | 96 | 326 | 606 | 264 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 12.0 | 46.5 | 46.5 | 13.4 | 47.9 | 47.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 10.0% | 38.8% | 38.8% | 11.2% | 39.9% | 39.9% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 11.3 | 29.9 | 29.9 | 6.9 | 23.0 | 7.6 | 18.7 | 18.7 | 12.4 | 23.5 | 23.5 |
| Actuated g/C Ratio | 0.13 | 0.34 | 0.34 | 0.08 | 0.26 | 0.09 | 0.21 | 0.21 | 0.14 | 0.27 | 0.27 |
| v/c Ratio | 0.56 | 0.60 | 0.23 | 0.36 | 0.68 | 0.97 | 0.59 | 0.21 | 0.68 | 0.65 | 0.44 |
| Control Delay | 42.9 | 26.7 | 4.3 | 46.2 | 31.7 | 88.1 | 34.6 | 1.0 | 46.6 | 32.2 | 6.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.9 | 26.7 | 4.3 | 46.2 | 31.7 | 88.1 | 34.6 | 1.0 | 46.6 | 32.2 | 6.3 |
| LOS | D | C | A | D | C | F | C | A | D | C | A |
| Approach Delay | | 27.2 | | | 33.1 | | 49.2 | | | 30.4 | |
| Approach LOS | | C | | | C | | D | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 87.3 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.97 | |
| Intersection Signal Delay: 33.5 | Intersection LOS: C |
| Intersection Capacity Utilization 67.4% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 241 | 1030 | 145 | 96 | 784 | 98 | 284 | 437 | 96 | 326 | 606 | 264 |
| Future Volume (veh/h) | 241 | 1030 | 145 | 96 | 784 | 98 | 284 | 437 | 96 | 326 | 606 | 264 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 251 | 1073 | 125 | 100 | 817 | 75 | 296 | 455 | 70 | 340 | 631 | 245 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 346 | 1608 | 499 | 202 | 1199 | 110 | 340 | 698 | 310 | 514 | 933 | 416 |
| Arrive On Green | 0.10 | 0.31 | 0.31 | 0.06 | 0.25 | 0.25 | 0.10 | 0.19 | 0.19 | 0.15 | 0.26 | 0.26 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4836 | 442 | 3510 | 3610 | 1603 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 251 | 1073 | 125 | 100 | 583 | 309 | 296 | 455 | 70 | 340 | 631 | 245 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1820 | 1755 | 1805 | 1603 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 5.3 | 13.8 | 4.4 | 2.1 | 11.7 | 11.8 | 6.4 | 8.9 | 2.1 | 7.0 | 12.0 | 6.7 |
| Cycle Q Clear(g_c), s | 5.3 | 13.8 | 4.4 | 2.1 | 11.7 | 11.8 | 6.4 | 8.9 | 2.1 | 7.0 | 12.0 | 6.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.24 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 346 | 1608 | 499 | 202 | 857 | 451 | 340 | 698 | 310 | 514 | 933 | 416 |
| V/C Ratio(X) | 0.72 | 0.67 | 0.25 | 0.49 | 0.68 | 0.68 | 0.87 | 0.65 | 0.23 | 0.66 | 0.68 | 0.59 |
| Avail Cap(c_a), veh/h | 707 | 2795 | 868 | 372 | 1533 | 807 | 340 | 1921 | 853 | 514 | 1988 | 885 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 33.5 | 23.0 | 19.7 | 35.0 | 26.0 | 26.0 | 34.1 | 28.5 | 15.0 | 30.8 | 25.5 | 10.7 |
| Incr Delay (d2), s/veh | 1.1 | 0.5 | 0.3 | 0.7 | 1.0 | 1.8 | 20.3 | 1.0 | 0.4 | 2.5 | 0.9 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.1 | 5.0 | 1.5 | 0.9 | 4.4 | 4.8 | 3.5 | 3.6 | 1.0 | 2.9 | 4.8 | 3.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 34.5 | 23.4 | 20.0 | 35.7 | 27.0 | 27.9 | 54.3 | 29.5 | 15.4 | 33.4 | 26.3 | 12.0 |
| LnGrp LOS | C | C | B | D | C | C | D | C | B | C | C | B |
| Approach Vol, veh/h | | 1449 | | | 992 | | | 821 | | | 1216 | |
| Approach Delay, s/veh | | 25.1 | | | 28.1 | | | 37.3 | | | 25.4 | |
| Approach LOS | | C | | | C | | | D | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.0 | 20.6 | 9.0 | 29.9 | 12.0 | 25.6 | 13.7 | 25.2 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 7.4 | 42.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 9.0 | 10.9 | 4.1 | 15.8 | 8.4 | 14.0 | 7.3 | 13.8 |
| Green Ext Time (p_c), s | 0.0 | 3.1 | 0.0 | 7.8 | 0.0 | 5.0 | 0.3 | 5.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 28.1 |
| HCM 6th LOS | C |

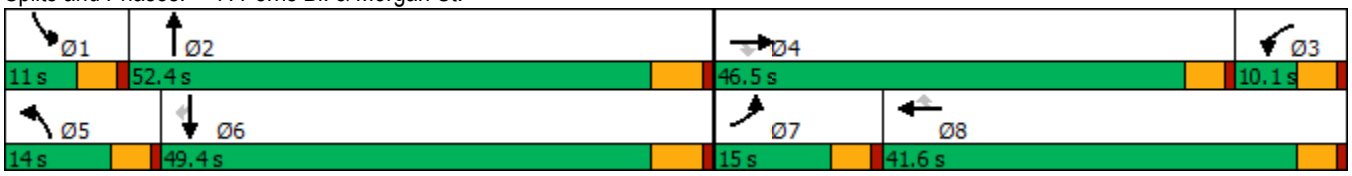
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 36 | 46 | 29 | 33 | 64 | 36 | 13 | 737 | 15 | 911 | 15 |
| Future Volume (vph) | 36 | 46 | 29 | 33 | 64 | 36 | 13 | 737 | 15 | 911 | 15 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.8 | 17.2 | 17.2 | 9.3 | 17.8 | 17.8 | 7.9 | 32.3 | 7.9 | 32.2 | 32.2 |
| Actuated g/C Ratio | 0.15 | 0.30 | 0.30 | 0.16 | 0.31 | 0.31 | 0.14 | 0.56 | 0.14 | 0.56 | 0.56 |
| v/c Ratio | 0.15 | 0.05 | 0.06 | 0.13 | 0.13 | 0.07 | 0.06 | 0.30 | 0.07 | 0.52 | 0.02 |
| Control Delay | 36.5 | 25.1 | 0.2 | 33.9 | 24.1 | 0.2 | 39.1 | 13.3 | 39.2 | 16.6 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 36.5 | 25.1 | 0.2 | 33.9 | 24.1 | 0.2 | 39.1 | 13.3 | 39.2 | 16.6 | 0.1 |
| LOS | D | C | A | C | C | A | D | B | D | B | A |
| Approach Delay | | 22.3 | | | 20.1 | | | 13.7 | | 16.7 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 58 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 16.1 | Intersection LOS: B |
| Intersection Capacity Utilization 50.2% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 46 | 29 | 33 | 64 | 36 | 13 | 737 | 11 | 15 | 911 | 15 |
| Future Volume (veh/h) | 36 | 46 | 29 | 33 | 64 | 36 | 13 | 737 | 11 | 15 | 911 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 52 | 17 | 38 | 73 | 39 | 15 | 838 | 10 | 17 | 1035 | 6 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 76 | 629 | 281 | 76 | 331 | 280 | 34 | 2165 | 26 | 38 | 1487 | 655 |
| Arrive On Green | 0.04 | 0.17 | 0.17 | 0.04 | 0.17 | 0.17 | 0.02 | 0.41 | 0.41 | 0.02 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5284 | 63 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 41 | 52 | 17 | 38 | 73 | 39 | 15 | 548 | 300 | 17 | 1035 | 6 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1889 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.2 | 0.7 | 0.4 | 1.1 | 1.8 | 1.1 | 0.5 | 6.2 | 6.2 | 0.5 | 13.1 | 0.1 |
| Cycle Q Clear(g_c), s | 1.2 | 0.7 | 0.4 | 1.1 | 1.8 | 1.1 | 0.5 | 6.2 | 6.2 | 0.5 | 13.1 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 76 | 629 | 281 | 76 | 331 | 280 | 34 | 1417 | 774 | 38 | 1487 | 655 |
| V/C Ratio(X) | 0.54 | 0.08 | 0.06 | 0.50 | 0.22 | 0.14 | 0.45 | 0.39 | 0.39 | 0.45 | 0.70 | 0.01 |
| Avail Cap(c_a), veh/h | 339 | 2726 | 1216 | 179 | 1267 | 1074 | 307 | 2904 | 1586 | 209 | 2837 | 1249 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.0 | 19.2 | 11.5 | 26.0 | 19.7 | 19.4 | 26.9 | 11.5 | 11.5 | 26.9 | 13.5 | 9.6 |
| Incr Delay (d2), s/veh | 2.2 | 0.1 | 0.1 | 1.9 | 0.3 | 0.2 | 3.4 | 0.2 | 0.3 | 3.1 | 0.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.3 | 0.2 | 0.5 | 0.8 | 0.4 | 0.2 | 1.8 | 2.0 | 0.2 | 4.1 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 28.2 | 19.2 | 11.6 | 27.9 | 20.0 | 19.6 | 30.3 | 11.7 | 11.8 | 30.0 | 14.1 | 9.6 |
| LnGrp LOS | C | B | B | C | C | B | C | B | B | C | B | A |
| Approach Vol, veh/h | | 110 | | | 150 | | | 863 | | | 1058 | |
| Approach Delay, s/veh | | 21.4 | | | 21.9 | | | 12.0 | | | 14.3 | |
| Approach LOS | | C | | | C | | | B | | | B | |

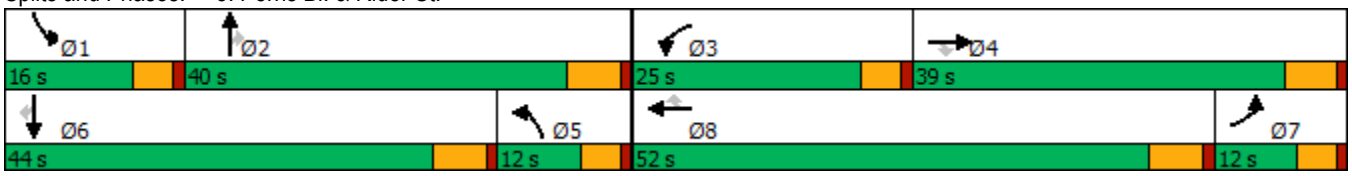
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.8 | 28.5 | 6.9 | 14.3 | 5.6 | 28.7 | 6.9 | 14.3 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.5 | 8.2 | 3.1 | 2.7 | 2.5 | 15.1 | 3.2 | 3.8 |
| Green Ext Time (p_c), s | 0.0 | 5.6 | 0.0 | 0.4 | 0.0 | 7.7 | 0.0 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.3 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 182 | 49 | 166 | 63 | 133 | 18 | 584 | 189 | 121 | 848 | 15 |
| Future Volume (vph) | 38 | 182 | 49 | 166 | 63 | 133 | 18 | 584 | 189 | 121 | 848 | 15 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.8 | 13.7 | 13.7 | 11.9 | 24.1 | 24.1 | 6.0 | 16.3 | 16.3 | 9.7 | 29.1 | 29.1 |
| Actuated g/C Ratio | 0.12 | 0.19 | 0.19 | 0.16 | 0.33 | 0.33 | 0.08 | 0.22 | 0.22 | 0.13 | 0.39 | 0.39 |
| v/c Ratio | 0.18 | 0.27 | 0.11 | 0.58 | 0.05 | 0.21 | 0.12 | 0.52 | 0.38 | 0.52 | 0.42 | 0.02 |
| Control Delay | 35.5 | 28.3 | 0.5 | 40.3 | 22.8 | 2.8 | 41.4 | 28.0 | 7.2 | 43.5 | 19.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.5 | 28.3 | 0.5 | 40.3 | 22.8 | 2.8 | 41.4 | 28.0 | 7.2 | 43.5 | 19.5 | 0.1 |
| LOS | D | C | A | D | C | A | D | C | A | D | B | A |
| Approach Delay | | 24.3 | | | 23.5 | | | 23.4 | | | 22.2 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 73.7 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 23.0 | Intersection LOS: C |
| Intersection Capacity Utilization 55.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 182 | 49 | 166 | 63 | 133 | 18 | 584 | 189 | 121 | 848 | 15 |
| Future Volume (veh/h) | 38 | 182 | 49 | 166 | 63 | 133 | 18 | 584 | 189 | 121 | 848 | 15 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 38 | 184 | 37 | 168 | 64 | -1 | 18 | 590 | 159 | 122 | 857 | 0 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 175 | 643 | 287 | 216 | 647 | 289 | 39 | 1255 | 384 | 158 | 1483 | 461 |
| Arrive On Green | 0.10 | 0.18 | 0.18 | 0.12 | 0.18 | 0.00 | 0.02 | 0.24 | 0.24 | 0.09 | 0.29 | 0.00 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1587 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 38 | 184 | 37 | 168 | 64 | -1 | 18 | 590 | 159 | 122 | 857 | 0 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1587 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.1 | 2.5 | 0.8 | 5.0 | 0.8 | 0.0 | 0.5 | 5.4 | 4.7 | 3.7 | 7.9 | 0.0 |
| Cycle Q Clear(g_c), s | 1.1 | 2.5 | 0.8 | 5.0 | 0.8 | 0.0 | 0.5 | 5.4 | 4.7 | 3.7 | 7.9 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 175 | 643 | 287 | 216 | 647 | 289 | 39 | 1255 | 384 | 158 | 1483 | 461 |
| V/C Ratio(X) | 0.22 | 0.29 | 0.13 | 0.78 | 0.10 | 0.00 | 0.46 | 0.47 | 0.41 | 0.77 | 0.58 | 0.00 |
| Avail Cap(c_a), veh/h | 240 | 2150 | 959 | 662 | 2992 | 1334 | 240 | 3182 | 974 | 370 | 3554 | 1103 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh | 23.2 | 19.8 | 10.0 | 23.8 | 19.1 | 0.0 | 26.9 | 18.1 | 17.8 | 24.9 | 17.0 | 0.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.2 | 0.2 | 2.3 | 0.1 | 0.0 | 3.0 | 0.3 | 0.7 | 3.0 | 0.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.9 | 0.4 | 2.0 | 0.3 | 0.0 | 0.2 | 1.8 | 1.5 | 1.5 | 2.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.5 | 20.1 | 10.2 | 26.1 | 19.2 | 0.0 | 30.0 | 18.3 | 18.5 | 27.9 | 17.4 | 0.0 |
| LnGrp LOS | C | C | B | C | B | A | C | B | B | C | B | A |
| Approach Vol, veh/h | | 259 | | | 231 | | | 767 | | | 979 | |
| Approach Delay, s/veh | | 19.2 | | | 24.3 | | | 18.7 | | | 18.7 | |
| Approach LOS | | B | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.5 | 19.3 | 11.3 | 15.7 | 7.0 | 21.7 | 11.2 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 5.7 | 7.4 | 7.0 | 4.5 | 2.5 | 9.9 | 3.1 | 2.8 |
| Green Ext Time (p_c), s | 0.1 | 4.4 | 0.2 | 1.1 | 0.0 | 6.0 | 0.0 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.3 |
| HCM 6th LOS | B |

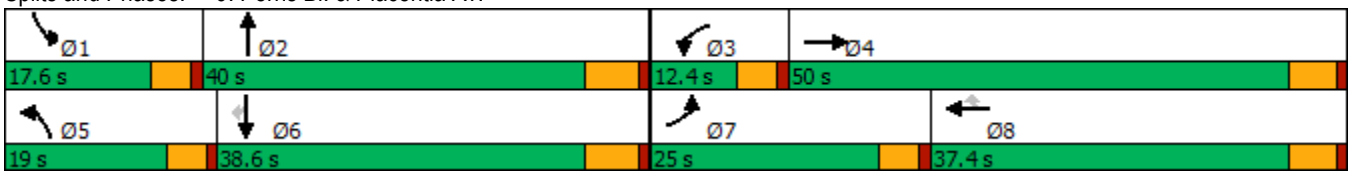
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 220 | 465 | 57 | 460 | 88 | 221 | 736 | 134 | 982 | 226 |
| Future Volume (vph) | 220 | 465 | 57 | 460 | 88 | 221 | 736 | 134 | 982 | 226 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 25.0 | 50.0 | 12.4 | 37.4 | 37.4 | 19.0 | 40.0 | 17.6 | 38.6 | 38.6 |
| Total Split (%) | 20.8% | 41.7% | 10.3% | 31.2% | 31.2% | 15.8% | 33.3% | 14.7% | 32.2% | 32.2% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 18.1 | 44.9 | 7.0 | 31.8 | 31.8 | 14.4 | 35.5 | 11.8 | 32.9 | 32.9 |
| Actuated g/C Ratio | 0.15 | 0.38 | 0.06 | 0.27 | 0.27 | 0.12 | 0.30 | 0.10 | 0.28 | 0.28 |
| v/c Ratio | 0.84 | 1.04 | 0.56 | 0.94 | 0.17 | 1.05 | 0.74 | 0.78 | 0.97 | 0.42 |
| Control Delay | 74.0 | 80.5 | 74.2 | 70.7 | 1.4 | 125.7 | 42.0 | 80.0 | 64.7 | 13.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 74.0 | 80.5 | 74.2 | 70.7 | 1.4 | 125.7 | 42.0 | 80.0 | 64.7 | 13.4 |
| LOS | E | F | E | E | A | F | D | F | E | B |
| Approach Delay | | 78.9 | | 60.9 | | | 60.2 | | 57.6 | |
| Approach LOS | | E | | E | | | E | | E | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117.6 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.05 | |
| Intersection Signal Delay: 63.8 | Intersection LOS: E |
| Intersection Capacity Utilization 99.1% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 220 | 465 | 231 | 57 | 460 | 88 | 221 | 736 | 61 | 134 | 982 | 226 |
| Future Volume (veh/h) | 220 | 465 | 231 | 57 | 460 | 88 | 221 | 736 | 61 | 134 | 982 | 226 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 232 | 489 | 90 | 60 | 484 | 24 | 233 | 775 | 32 | 141 | 1034 | 101 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 261 | 579 | 106 | 78 | 512 | 432 | 226 | 1145 | 47 | 169 | 1081 | 457 |
| Arrive On Green | 0.14 | 0.44 | 0.37 | 0.04 | 0.32 | 0.27 | 0.12 | 0.38 | 0.32 | 0.09 | 0.34 | 0.28 |
| Sat Flow, veh/h | 1810 | 1561 | 287 | 1810 | 1900 | 1603 | 1810 | 3620 | 149 | 1810 | 3800 | 1605 |
| Grp Volume(v), veh/h | 232 | 0 | 579 | 60 | 484 | 24 | 233 | 407 | 400 | 141 | 1034 | 101 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1848 | 1810 | 1900 | 1603 | 1810 | 1900 | 1869 | 1810 | 1900 | 1605 |
| Q Serve(g_s), s | 14.5 | 0.0 | 32.3 | 3.8 | 28.6 | 1.3 | 14.4 | 20.6 | 20.7 | 8.8 | 30.7 | 5.5 |
| Cycle Q Clear(g_c), s | 14.5 | 0.0 | 32.3 | 3.8 | 28.6 | 1.3 | 14.4 | 20.6 | 20.7 | 8.8 | 30.7 | 5.5 |
| Prop In Lane | 1.00 | | 0.16 | 1.00 | | 1.00 | 1.00 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 261 | 0 | 685 | 78 | 512 | 432 | 226 | 601 | 591 | 169 | 1081 | 457 |
| V/C Ratio(X) | 0.89 | 0.00 | 0.85 | 0.77 | 0.95 | 0.06 | 1.03 | 0.68 | 0.68 | 0.84 | 0.96 | 0.22 |
| Avail Cap(c_a), veh/h | 320 | 0 | 715 | 122 | 527 | 445 | 226 | 601 | 591 | 204 | 1081 | 457 |
| HCM Platoon Ratio | 1.00 | 1.20 | 1.00 | 1.00 | 1.20 | 1.00 | 1.00 | 1.20 | 1.00 | 1.00 | 1.20 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.4 | 0.0 | 29.7 | 54.6 | 38.2 | 31.2 | 50.4 | 30.8 | 31.1 | 51.4 | 37.3 | 31.5 |
| Incr Delay (d2), s/veh | 19.6 | 0.0 | 8.9 | 6.0 | 25.9 | 0.1 | 68.1 | 6.0 | 6.1 | 18.7 | 18.7 | 1.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.8 | 0.0 | 14.7 | 1.8 | 16.0 | 0.5 | 10.6 | 9.6 | 9.5 | 4.8 | 15.7 | 2.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.0 | 0.0 | 38.6 | 60.6 | 64.1 | 31.3 | 118.5 | 36.9 | 37.3 | 70.1 | 55.9 | 32.6 |
| LnGrp LOS | E | A | D | E | E | C | F | D | D | E | E | C |
| Approach Vol, veh/h | | 811 | | | 568 | | | 1040 | | | 1276 | |
| Approach Delay, s/veh | | 47.0 | | | 62.3 | | | 55.3 | | | 55.6 | |
| Approach LOS | | D | | | E | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.3 | 42.3 | 9.5 | 48.1 | 19.0 | 38.6 | 21.2 | 36.4 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 13.0 | 34.2 | 7.8 | 44.6 | 14.4 | 32.8 | 20.4 | 32.0 |
| Max Q Clear Time (g_c+I1), s | 10.8 | 22.7 | 5.8 | 34.3 | 16.4 | 32.7 | 16.5 | 30.6 |
| Green Ext Time (p_c), s | 0.0 | 3.5 | 0.0 | 2.6 | 0.0 | 0.1 | 0.1 | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 54.7 |
| HCM 6th LOS | D |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 42 | 13 | 17 | 4 | 22 | 4 | 55 | 17 | 0 | 2 | 8 | 32 |
| Future Vol, veh/h | 42 | 13 | 17 | 4 | 22 | 4 | 55 | 17 | 0 | 2 | 8 | 32 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | - | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 60 | 19 | 24 | 6 | 31 | 6 | 79 | 24 | 0 | 3 | 11 | 46 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 241 | 222 | 35 | 245 | 245 | 24 | 57 | 0 | 0 | 24 | 0 | 0 |
| Stage 1 | 40 | 40 | - | 182 | 182 | - | - | - | - | - | - | - |
| Stage 2 | 201 | 182 | - | 63 | 63 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 717 | 680 | 1044 | 713 | 661 | 1058 | 1560 | - | - | 1604 | - | - |
| Stage 1 | 980 | 866 | - | 824 | 753 | - | - | - | - | - | - | - |
| Stage 2 | 805 | 753 | - | 953 | 846 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 658 | 644 | 1043 | 653 | 626 | 1058 | 1560 | - | - | 1604 | - | - |
| Mov Cap-2 Maneuver | 658 | 644 | - | 653 | 626 | - | - | - | - | - | - | - |
| Stage 1 | 930 | 864 | - | 782 | 715 | - | - | - | - | - | - | - |
| Stage 2 | 727 | 715 | - | 908 | 844 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 10.4 | 10.8 | 5.7 | 0.3 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1560 | - | - | 658 | 822 | 666 | 1604 | - | - |
| HCM Lane V/C Ratio | 0.05 | - | - | 0.091 | 0.052 | 0.064 | 0.002 | - | - |
| HCM Control Delay (s) | 7.4 | - | - | 11 | 9.6 | 10.8 | 7.2 | - | - |
| HCM Lane LOS | A | - | - | B | A | B | A | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.3 | 0.2 | 0.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 9 | 64 | 0 | 0 | 29 |
| Future Vol, veh/h | 0 | 9 | 64 | 0 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 10 | 70 | 0 | 0 | 32 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 35 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1037 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1037 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.5 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1037 | - |
| HCM Lane V/C Ratio | - | - | 0.009 | - |
| HCM Control Delay (s) | - | - | 8.5 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 19 | 0 | 43 | 2 | 7 | 21 | 2 |
| Future Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 19 | 0 | 43 | 2 | 7 | 21 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | - | - | - | 100 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 0 | 0 | 0 | 0 | 21 | 0 | 47 | 2 | 8 | 23 | 2 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 64 | 89 | 24 | - | - | 25 | - | 0 | 0 | 49 | 0 | 0 |
| Stage 1 | 40 | 40 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 24 | 49 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.5 | 6.2 | - | - | 6.9 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | - | - | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 932 | 805 | 1058 | 0 | 0 | 1052 | 0 | - | - | 1571 | - | - |
| Stage 1 | 980 | 866 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Stage 2 | 996 | 858 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 911 | 801 | 1058 | - | - | 1052 | - | - | - | 1571 | - | - |
| Mov Cap-2 Maneuver | 911 | 801 | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | 980 | 862 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 976 | 858 | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9 | 8.5 | 0 | 1.7 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 911 | 1052 | 1571 | - | - |
| HCM Lane V/C Ratio | - | - | 0.002 | 0.02 | 0.005 | - | - |
| HCM Control Delay (s) | - | - | 9 | 8.5 | 7.3 | - | - |
| HCM Lane LOS | - | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | 0 | 0.1 | 0 | - | - |

| Lane Group | WBL | NBT | SBL | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 8 | 5 | 17 | 4 |
| Future Volume (vph) | 8 | 5 | 17 | 4 |
| Turn Type | Prot | NA | Prot | NA |
| Protected Phases | 8 | 2 | 1 | 6 |
| Permitted Phases | | | | |
| Detector Phase | 8 | 2 | 1 | 6 |
| Switch Phase | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 26.6 | 22.4 | 9.6 | 15.4 |
| Total Split (s) | 27.0 | 30.0 | 33.0 | 63.0 |
| Total Split (%) | 30.0% | 33.3% | 36.7% | 70.0% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | |
| Recall Mode | None | Max | None | Max |
| Act Effct Green (s) | 10.0 | 63.5 | 5.5 | 65.8 |
| Actuated g/C Ratio | 0.13 | 0.82 | 0.07 | 0.85 |
| v/c Ratio | 0.20 | 0.00 | 0.14 | 0.00 |
| Control Delay | 14.9 | 4.3 | 36.0 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.9 | 4.3 | 36.0 | 2.5 |
| LOS | B | A | D | A |
| Approach Delay | 14.9 | 4.3 | | 29.9 |
| Approach LOS | B | A | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 77.8 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.20 | |
| Intersection Signal Delay: 18.1 | Intersection LOS: B |
| Intersection Capacity Utilization 25.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 13: Redlands Av. & Driveway 2

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 8 | 39 | 5 | 2 | 17 | 4 |
| Future Volume (veh/h) | 8 | 39 | 5 | 2 | 17 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 9 | 42 | 5 | 2 | 18 | 4 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 25 | 118 | 1782 | 668 | 38 | 1475 |
| Arrive On Green | 0.09 | 0.09 | 0.69 | 0.69 | 0.02 | 0.78 |
| Sat Flow, veh/h | 285 | 1330 | 2664 | 963 | 1810 | 1900 |
| Grp Volume(v), veh/h | 52 | 0 | 3 | 4 | 18 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1646 | 0 | 1805 | 1727 | 1810 | 1900 |
| Q Serve(g_s), s | 2.2 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| Cycle Q Clear(g_c), s | 2.2 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| Prop In Lane | 0.17 | 0.81 | | 0.56 | 1.00 | |
| Lane Grp Cap(c), veh/h | 146 | 0 | 1252 | 1198 | 38 | 1475 |
| V/C Ratio(X) | 0.36 | 0.00 | 0.00 | 0.00 | 0.48 | 0.00 |
| Avail Cap(c_a), veh/h | 497 | 0 | 1252 | 1198 | 693 | 1475 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.8 | 0.0 | 3.5 | 3.5 | 35.9 | 1.9 |
| Incr Delay (d2), s/veh | 1.5 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 33.3 | 0.0 | 3.5 | 3.5 | 39.3 | 1.9 |
| LnGrp LOS | C | A | A | A | D | A |
| Approach Vol, veh/h | 52 | | 7 | | | 22 |
| Approach Delay, s/veh | 33.3 | | 3.5 | | | 32.5 |
| Approach LOS | C | | A | | | C |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 56.9 | | | | 63.0 | 11.2 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | | | | 5.4 | 4.6 |
| Max Green Setting (Gmax), s | 28.4 | 24.6 | | | | 57.6 | 22.4 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 2.0 | | | | 2.0 | 4.2 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | | | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.5 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 4 | 3 | 2 | 0 | 12 |
| Future Vol, veh/h | 0 | 4 | 3 | 2 | 0 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 4 | 3 | 2 | 0 | 13 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 3 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1086 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1086 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

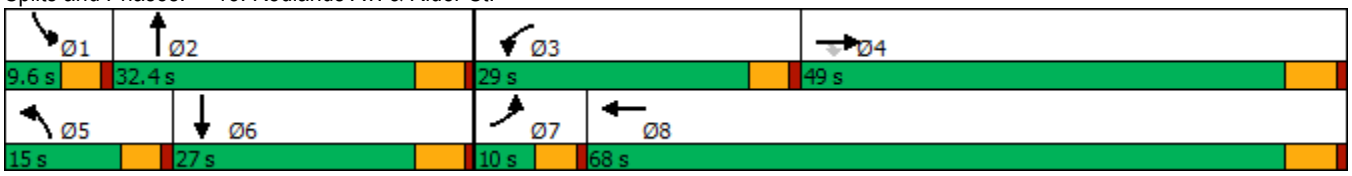
| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.3 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1086 | - |
| HCM Lane V/C Ratio | - | - | 0.004 | - |
| HCM Control Delay (s) | - | - | 8.3 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT | Ø1 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 3 | 471 | 35 | 99 | 371 | 27 | 2 | 4 | |
| Future Volume (vph) | 3 | 471 | 35 | 99 | 371 | 27 | 2 | 4 | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | 6 | 1 |
| Permitted Phases | | | 4 | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 6 | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 22.4 | 9.6 |
| Total Split (s) | 10.0 | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 27.0 | 9.6 |
| Total Split (%) | 8.3% | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 22.5% | 8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 4.4 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | 5.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.1 | 50.9 | 50.9 | 10.2 | 64.0 | 7.1 | 12.3 | 10.1 | |
| Actuated g/C Ratio | 0.06 | 0.57 | 0.57 | 0.11 | 0.72 | 0.08 | 0.14 | 0.11 | |
| v/c Ratio | 0.03 | 0.50 | 0.04 | 0.56 | 0.16 | 0.22 | 0.41 | 0.07 | |
| Control Delay | 44.0 | 15.0 | 0.1 | 48.3 | 5.3 | 43.4 | 10.3 | 27.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 44.0 | 15.0 | 0.1 | 48.3 | 5.3 | 43.4 | 10.3 | 27.1 | |
| LOS | D | B | A | D | A | D | B | C | |
| Approach Delay | | 14.2 | | | 14.4 | | 16.4 | 27.1 | |
| Approach LOS | | B | | | B | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 89.3 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.56 | |
| Intersection Signal Delay: 14.7 | Intersection LOS: B |
| Intersection Capacity Utilization 51.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 3 | 471 | 35 | 99 | 371 | 0 | 27 | 2 | 119 | 0 | 4 | 8 |
| Future Volume (veh/h) | 3 | 471 | 35 | 99 | 371 | 0 | 27 | 2 | 119 | 0 | 4 | 8 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 3 | 541 | 40 | 114 | 426 | 0 | 31 | 2 | 137 | 0 | 5 | 9 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 7 | 1092 | 925 | 144 | 2348 | 0 | 53 | 4 | 287 | 2 | 63 | 113 |
| Arrive On Green | 0.00 | 0.57 | 0.57 | 0.08 | 0.65 | 0.00 | 0.03 | 0.18 | 0.18 | 0.00 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 1810 | 23 | 1590 | 1810 | 608 | 1095 |
| Grp Volume(v), veh/h | 3 | 541 | 40 | 114 | 426 | 0 | 31 | 0 | 139 | 0 | 0 | 14 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1810 | 0 | 1614 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 0.2 | 16.2 | 1.0 | 5.9 | 4.5 | 0.0 | 1.6 | 0.0 | 7.4 | 0.0 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 0.2 | 16.2 | 1.0 | 5.9 | 4.5 | 0.0 | 1.6 | 0.0 | 7.4 | 0.0 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 0.99 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 7 | 1092 | 925 | 144 | 2348 | 0 | 53 | 0 | 291 | 2 | 0 | 175 |
| V/C Ratio(X) | 0.41 | 0.50 | 0.04 | 0.79 | 0.18 | 0.00 | 0.58 | 0.00 | 0.48 | 0.00 | 0.00 | 0.08 |
| Avail Cap(c_a), veh/h | 102 | 1092 | 925 | 462 | 2348 | 0 | 197 | 0 | 456 | 95 | 0 | 385 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.5 | 12.1 | 8.9 | 43.2 | 6.6 | 0.0 | 45.8 | 0.0 | 35.2 | 0.0 | 0.0 | 38.8 |
| Incr Delay (d2), s/veh | 13.4 | 1.6 | 0.1 | 3.6 | 0.2 | 0.0 | 3.7 | 0.0 | 1.2 | 0.0 | 0.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 6.3 | 0.3 | 2.7 | 1.4 | 0.0 | 0.8 | 0.0 | 2.9 | 0.0 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.9 | 13.7 | 9.0 | 46.8 | 6.8 | 0.0 | 49.6 | 0.0 | 36.4 | 0.0 | 0.0 | 39.0 |
| LnGrp LOS | E | B | A | D | A | A | D | A | D | A | A | D |
| Approach Vol, veh/h | | 584 | | | 540 | | | 170 | | | 14 | |
| Approach Delay, s/veh | | 13.6 | | | 15.2 | | | 38.8 | | | 39.0 | |
| Approach LOS | | B | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 0.0 | 22.6 | 12.2 | 60.7 | 7.4 | 15.2 | 5.0 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 0.0 | 9.4 | 7.9 | 18.2 | 3.6 | 2.7 | 2.2 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 0.6 | 0.1 | 3.4 | 0.0 | 0.0 | 0.0 | 2.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 17.8 |
| HCM 6th LOS | B |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 12.5 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 37 | 199 | 178 | 20 | 171 | 0 | 173 | 112 | 23 | 4 | 105 | 27 |
| Future Vol, veh/h | 37 | 199 | 178 | 20 | 171 | 0 | 173 | 112 | 23 | 4 | 105 | 27 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 39 | 207 | 185 | 21 | 178 | 0 | 180 | 117 | 24 | 4 | 109 | 28 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

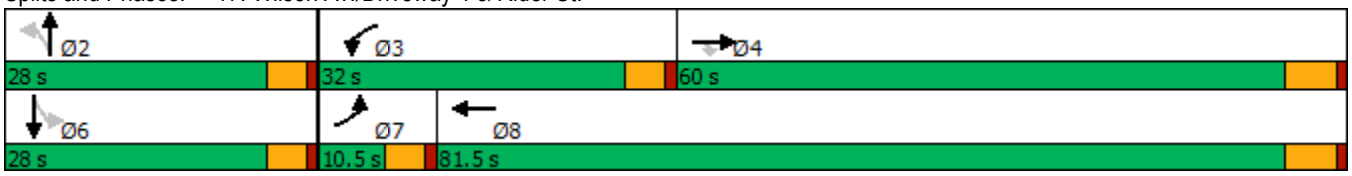
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 12.3 | 13.2 | 12.8 | 11.8 |
| HCM LOS | B | B | B | B |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 62% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 38% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 173 | 75 | 60 | 37 | 199 | 178 | 20 | 171 | 4 | 105 | 27 |
| LT Vol | 173 | 0 | 0 | 37 | 0 | 0 | 20 | 0 | 4 | 0 | 0 |
| Through Vol | 0 | 75 | 37 | 0 | 199 | 0 | 0 | 171 | 0 | 105 | 0 |
| RT Vol | 0 | 0 | 23 | 0 | 0 | 178 | 0 | 0 | 0 | 0 | 27 |
| Lane Flow Rate | 180 | 78 | 63 | 39 | 207 | 185 | 21 | 178 | 4 | 109 | 28 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.37 | 0.149 | 0.115 | 0.076 | 0.381 | 0.305 | 0.043 | 0.346 | 0.009 | 0.226 | 0.053 |
| Departure Headway (Hd) | 7.389 | 6.883 | 6.613 | 7.126 | 6.624 | 5.921 | 7.49 | 6.99 | 7.963 | 7.455 | 6.744 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 483 | 517 | 537 | 499 | 539 | 601 | 475 | 511 | 452 | 485 | 534 |
| Service Time | 5.185 | 4.679 | 4.408 | 4.921 | 4.419 | 3.716 | 5.29 | 4.79 | 5.663 | 5.155 | 4.444 |
| HCM Lane V/C Ratio | 0.373 | 0.151 | 0.117 | 0.078 | 0.384 | 0.308 | 0.044 | 0.348 | 0.009 | 0.225 | 0.052 |
| HCM Control Delay | 14.5 | 10.9 | 10.3 | 10.5 | 13.5 | 11.3 | 10.6 | 13.5 | 10.7 | 12.3 | 9.8 |
| HCM Lane LOS | B | B | B | B | B | B | B | B | B | B | A |
| HCM 95th-tile Q | 1.7 | 0.5 | 0.4 | 0.2 | 1.8 | 1.3 | 0.1 | 1.5 | 0 | 0.9 | 0.2 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 11 | 519 | 48 | 104 | 399 | 36 | 0 | 0 |
| Future Volume (vph) | 11 | 519 | 48 | 104 | 399 | 36 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | 6 |
| Permitted Phases | | | 4 | | | 2 | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 22.8 | 22.8 | 9.6 | 22.8 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.5 | 60.0 | 60.0 | 32.0 | 81.5 | 28.0 | 28.0 | 28.0 |
| Total Split (%) | 8.8% | 50.0% | 50.0% | 26.7% | 67.9% | 23.3% | 23.3% | 23.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 5.3 | 63.3 | 63.3 | 10.8 | 76.8 | | 11.1 | 11.1 |
| Actuated g/C Ratio | 0.05 | 0.63 | 0.63 | 0.11 | 0.77 | | 0.11 | 0.11 |
| v/c Ratio | 0.12 | 0.47 | 0.05 | 0.58 | 0.16 | | 0.56 | 0.05 |
| Control Delay | 49.9 | 12.1 | 0.3 | 54.7 | 3.8 | | 22.7 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 49.9 | 12.1 | 0.3 | 54.7 | 3.8 | | 22.7 | 0.1 |
| LOS | D | B | A | D | A | | C | A |
| Approach Delay | | 11.8 | | | 14.3 | | 22.7 | 0.1 |
| Approach LOS | | B | | | B | | C | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 100.2 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 13.8 | Intersection LOS: B |
| Intersection Capacity Utilization 60.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 17: Wilson Av./Driveway 4 & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 11 | 519 | 48 | 104 | 399 | 0 | 36 | 0 | 101 | 0 | 0 | 27 |
| Future Volume (veh/h) | 11 | 519 | 48 | 104 | 399 | 0 | 36 | 0 | 101 | 0 | 0 | 27 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 12 | 564 | 52 | 113 | 434 | 0 | 39 | 0 | 110 | 0 | 0 | 29 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 25 | 1257 | 1065 | 142 | 2621 | 0 | 80 | 12 | 135 | 0 | 0 | 187 |
| Arrive On Green | 0.01 | 0.66 | 0.66 | 0.08 | 0.73 | 0.00 | 0.12 | 0.00 | 0.12 | 0.00 | 0.00 | 0.12 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 313 | 101 | 1166 | 0 | 0 | 1610 |
| Grp Volume(v), veh/h | 12 | 564 | 52 | 113 | 434 | 0 | 149 | 0 | 0 | 0 | 0 | 29 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1579 | 0 | 0 | 0 | 0 | 1610 |
| Q Serve(g_s), s | 0.7 | 14.9 | 1.2 | 6.4 | 3.9 | 0.0 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| Cycle Q Clear(g_c), s | 0.7 | 14.9 | 1.2 | 6.4 | 3.9 | 0.0 | 9.5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.26 | | 0.74 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 25 | 1257 | 1065 | 142 | 2621 | 0 | 227 | 0 | 0 | 0 | 0 | 187 |
| V/C Ratio(X) | 0.47 | 0.45 | 0.05 | 0.79 | 0.17 | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 |
| Avail Cap(c_a), veh/h | 102 | 1257 | 1065 | 476 | 2621 | 0 | 395 | 0 | 0 | 0 | 0 | 361 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.0 | 8.5 | 6.2 | 47.2 | 4.4 | 0.0 | 44.9 | 0.0 | 0.0 | 0.0 | 0.0 | 41.5 |
| Incr Delay (d2), s/veh | 4.9 | 1.2 | 0.1 | 3.8 | 0.1 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 5.4 | 0.4 | 2.9 | 1.1 | 0.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.0 | 9.6 | 6.3 | 51.0 | 4.6 | 0.0 | 48.1 | 0.0 | 0.0 | 0.0 | 0.0 | 41.9 |
| LnGrp LOS | E | A | A | D | A | A | D | A | A | A | A | D |
| Approach Vol, veh/h | | 628 | | | 547 | | | 149 | | | 29 | |
| Approach Delay, s/veh | | 10.3 | | | 14.2 | | | 48.1 | | | 41.9 | |
| Approach LOS | | B | | | B | | | D | | | D | |

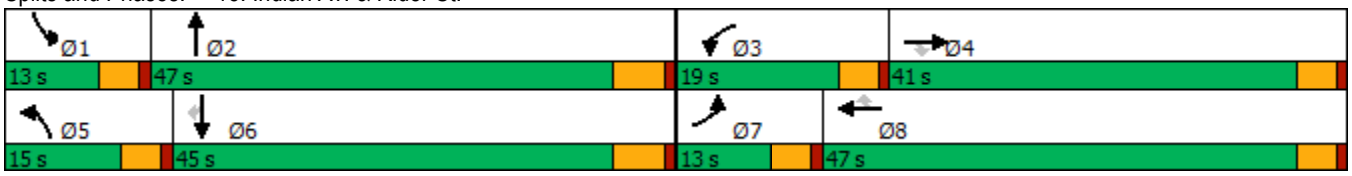
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 16.7 | 12.8 | 74.8 | | 16.7 | 6.1 | 81.5 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 23.4 | 27.4 | 54.2 | | 23.4 | 5.9 | 75.7 | | | | |
| Max Q Clear Time (g_c+I1), s | | 11.5 | 8.4 | 16.9 | | 3.7 | 2.7 | 5.9 | | | | |
| Green Ext Time (p_c), s | | 0.6 | 0.1 | 3.8 | | 0.1 | 0.0 | 2.8 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.7 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 74 | 223 | 20 |
| Future Volume (vph) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 74 | 223 | 20 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 37.6 | 37.6 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 41.0 | 41.0 | 19.0 | 47.0 | 47.0 | 15.0 | 47.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 34.2% | 34.2% | 15.8% | 39.2% | 39.2% | 12.5% | 39.2% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.5 | 14.4 | 14.4 | 7.2 | 22.1 | 22.1 | 6.0 | 41.9 | 8.2 | 50.6 | 50.6 |
| Actuated g/C Ratio | 0.06 | 0.16 | 0.16 | 0.08 | 0.25 | 0.25 | 0.07 | 0.47 | 0.09 | 0.57 | 0.57 |
| v/c Ratio | 0.12 | 0.43 | 0.16 | 0.36 | 0.23 | 0.17 | 0.20 | 0.09 | 0.63 | 0.15 | 0.03 |
| Control Delay | 47.0 | 36.2 | 0.9 | 49.1 | 27.7 | 3.6 | 47.6 | 13.1 | 60.3 | 13.2 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.0 | 36.2 | 0.9 | 49.1 | 27.7 | 3.6 | 47.6 | 13.1 | 60.3 | 13.2 | 0.1 |
| LOS | D | D | A | D | C | A | D | B | E | B | A |
| Approach Delay | | 29.8 | | | 24.2 | | | 18.0 | | 23.4 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 89.3 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.63 | |
| Intersection Signal Delay: 24.5 | Intersection LOS: C |
| Intersection Capacity Utilization 39.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 22 | 74 | 223 | 20 |
| Future Volume (veh/h) | 9 | 176 | 44 | 37 | 78 | 58 | 17 | 80 | 22 | 74 | 223 | 20 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 13 | 248 | 31 | 52 | 110 | 44 | 24 | 113 | 17 | 104 | 314 | 13 |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 28 | 451 | 201 | 77 | 289 | 245 | 47 | 1622 | 239 | 133 | 2029 | 905 |
| Arrive On Green | 0.02 | 0.12 | 0.12 | 0.04 | 0.15 | 0.15 | 0.03 | 0.51 | 0.51 | 0.07 | 0.56 | 0.56 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 3155 | 466 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 13 | 248 | 31 | 52 | 110 | 44 | 24 | 64 | 66 | 104 | 314 | 13 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1816 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 0.6 | 5.2 | 1.4 | 2.3 | 4.2 | 1.9 | 1.0 | 1.4 | 1.5 | 4.5 | 3.3 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 5.2 | 1.4 | 2.3 | 4.2 | 1.9 | 1.0 | 1.4 | 1.5 | 4.5 | 3.3 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 28 | 451 | 201 | 77 | 289 | 245 | 47 | 928 | 934 | 133 | 2029 | 905 |
| V/C Ratio(X) | 0.46 | 0.55 | 0.15 | 0.67 | 0.38 | 0.18 | 0.51 | 0.07 | 0.07 | 0.78 | 0.15 | 0.01 |
| Avail Cap(c_a), veh/h | 190 | 1640 | 731 | 325 | 1005 | 852 | 235 | 928 | 934 | 190 | 2029 | 905 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.1 | 33.0 | 31.3 | 37.8 | 30.6 | 29.6 | 38.5 | 9.8 | 9.8 | 36.5 | 8.4 | 7.7 |
| Incr Delay (d2), s/veh | 4.2 | 1.1 | 0.4 | 3.7 | 0.8 | 0.3 | 3.2 | 0.1 | 0.1 | 7.6 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 2.3 | 0.6 | 1.1 | 2.0 | 0.8 | 0.5 | 0.5 | 0.5 | 2.2 | 1.1 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.3 | 34.0 | 31.6 | 41.5 | 31.4 | 30.0 | 41.7 | 9.9 | 10.0 | 44.0 | 8.6 | 7.8 |
| LnGrp LOS | D | C | C | D | C | C | D | A | A | D | A | A |
| Approach Vol, veh/h | | 292 | | | 206 | | | 154 | | | 431 | |
| Approach Delay, s/veh | | 34.2 | | | 33.7 | | | 14.9 | | | 17.1 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.5 | 47.0 | 8.0 | 14.6 | 6.7 | 50.8 | 5.9 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 8.4 | 41.2 | 14.4 | 36.4 | 10.4 | 39.2 | 8.4 | 42.4 |
| Max Q Clear Time (g_c+I1), s | 6.5 | 3.5 | 4.3 | 7.2 | 3.0 | 5.3 | 2.6 | 6.2 |
| Green Ext Time (p_c), s | 0.0 | 0.6 | 0.0 | 1.8 | 0.0 | 2.0 | 0.0 | 0.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 24.5 |
| HCM 6th LOS | C |

# APPENDIX 6.2:

# E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | E+P |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | City of Perris | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | Placentia Av. | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | I-215 SB Ramps | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **22,532** vpd  Minor Street Future ADT = **4,608** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **22,532** | *1* **4,608** | 9,600 | 6,720 * | 2,400 | 1,680 * |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **22,532** | *1* **4,608** | 14,400 | 10,080 * | 1,200 | 850 * |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| XX | | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | A / B | | | | |
| | 100% / 100% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | E+P |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | City of Perris | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | Placentia Av. | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | I-215 NB Ramps | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **33,551** vpd  Minor Street Future ADT = **5,043** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or  **RURAL (R)**

In built up area of isolated community of < 10,000 population …… [ ]

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **33,551** | *1* **5,043** | 9,600 | 6,720 * | 2,400 | 1,680 * |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **33,551** | *1* **5,043** | 14,400 | 10,080 * | 1,200 | 850 * |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| XX | | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | A / B | | | | |
| | 100% / 100% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | E+P |
|---|---|---|---|---|---|---|
| | | | | CALC CH | DATE | 11/06/19 |
| Jurisdiction: City of Perris | | | | CHK CH | DATE | 11/06/19 |
| Major Street: I-215 Frontage Rd. | | | | Critical Approach Speed (Major) | | 45 mph |
| Minor Street: Placentia Av. | | | | Critical Approach Speed (Minor) | | 25 mph |

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **34,833** vpd

Minor Street Future ADT = **7,871** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **34,833** | *1* **7,871** | 9,600 | 6,720 * | 2,400 | 1,680 * |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **34,833** | *1* **7,871** | 14,400 | 10,080 * | 1,200 | 850 * |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| XX | | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | A 100% / B 100% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | E+P |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | City of Perris | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | Placentia Av. | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | Indian Av. | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **29,006** vpd  Minor Street Future ADT = **4,153** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..  [√]

or  **RURAL (R)**

In built up area of isolated community of < 10,000 population ……..  [ ]

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **29,006** | *1* **4,153** | 9,600 | 6,720 * | 2,400 | 1,680 * |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| XX | | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **29,006** | *1* **4,153** | 14,400 | 10,080 * | 1,200 | 850 * |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| XX | | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | A / B | | | | |
| | 100% / 100% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P - Weekday PM Peak Hour**

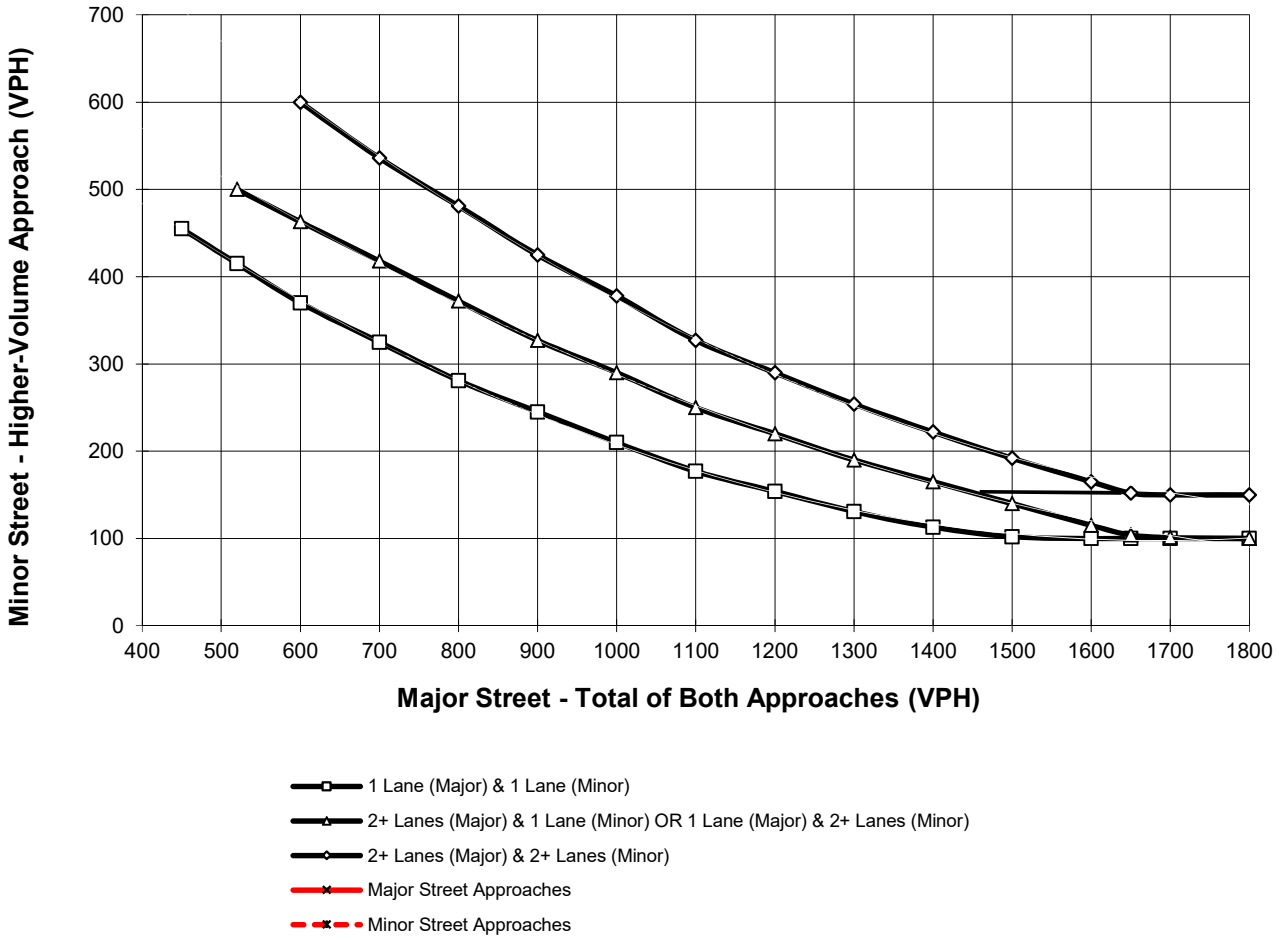
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **114**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Morgan St.**

High Volume Approach (VPH) = **72**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | E+P |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | City of Perris | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | Redlands Av. | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | Driveway 1 | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,602** vpd  Minor Street Future ADT = **59** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **1,602** | *1* **59** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **1,602** | *1* **59** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** / **B** | | | | |
| | 4% / 7% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P - Weekday PM Peak Hour**

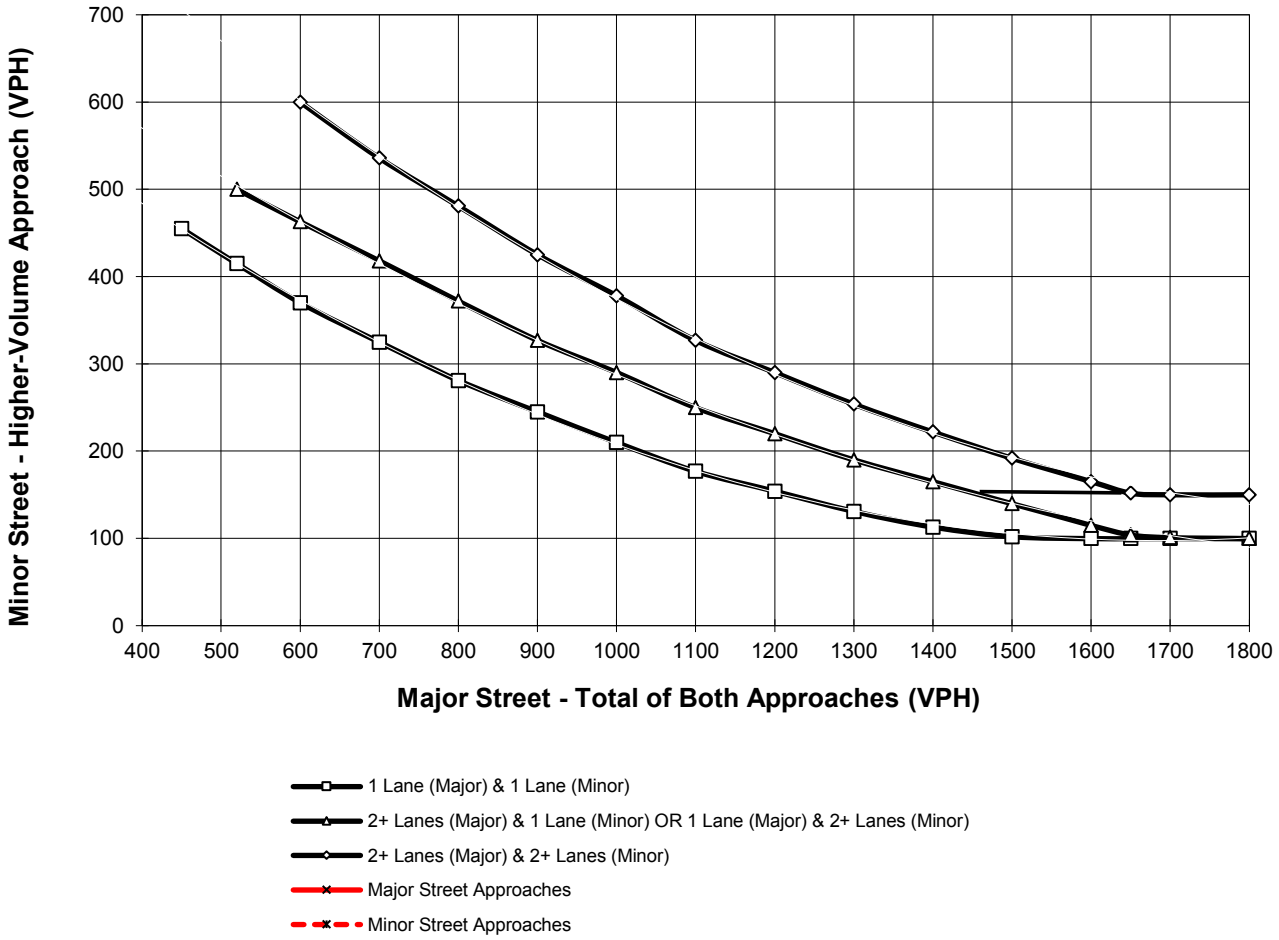
Major Street Name = **Sinclair St.**

Total of Both Approaches (VPH) = **75**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **19**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | E+P |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | City of Perris | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | Redlands Av. | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | Driveway 2 | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **669** vpd  Minor Street Future ADT = **571** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **669** | *1* **571** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **669** | *1* **571** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 10% / **B** 7% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM |
|---|---|---|---|
| | | | |

TRAFFIC CONDITIONS **E+P**

CALC CH DATE 11/06/19

CHK CH DATE 11/06/19

Jurisdiction: **City of Perris**

Major Street: **Redlands Av.**

Minor Street: **Driveway 3**

Critical Approach Speed (Major) 45 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **196** vpd

Minor Street Future ADT = **33** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **196** | *1* **33** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **196** | *1* **33** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 2% **B** 2% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P - Weekday AM Peak Hour**

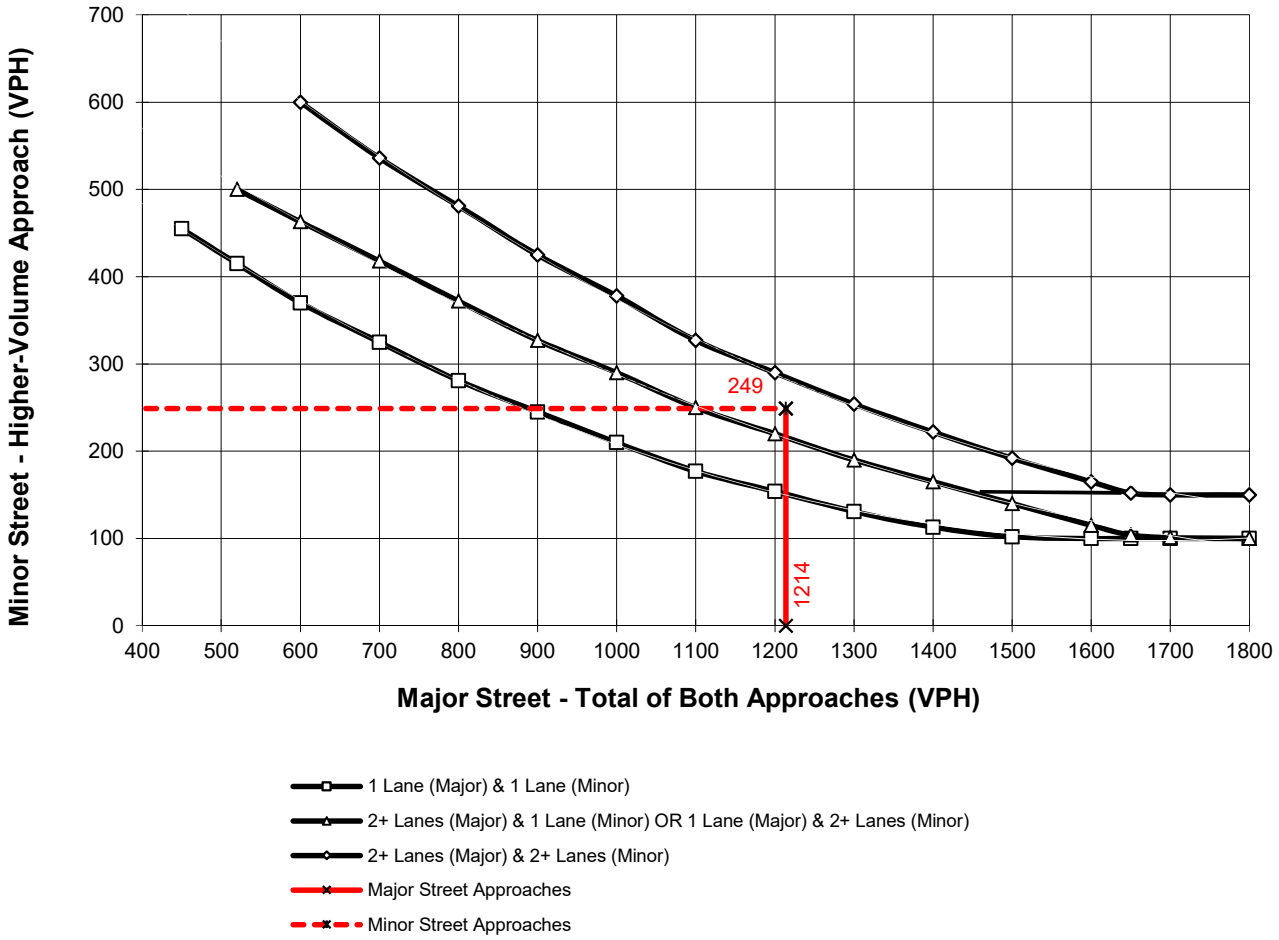
Major Street Name = **Rider St.**

Total of Both Approaches (VPH) = **1214**
Number of Approach Lanes on Major Street = **3**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **249**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# APPENDIX 6.3:

# E+P CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/07/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 275 | 130 | 266 | 468 | 158 | 159 | 76 |
| v/c Ratio | 0.14 | 0.14 | 0.63 | 0.18 | 0.61 | 0.61 | 0.25 |
| Control Delay | 11.4 | 2.9 | 46.4 | 4.6 | 47.5 | 47.7 | 10.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.4 | 2.9 | 46.4 | 4.6 | 47.5 | 47.7 | 10.3 |
| Queue Length 50th (ft) | 38 | 0 | 78 | 38 | 93 | 94 | 0 |
| Queue Length 95th (ft) | 74 | 30 | 122 | 70 | 161 | 162 | 38 |
| Internal Link Dist (ft) | 860 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 2002 | 953 | 1094 | 2616 | 732 | 732 | 733 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.14 | 0.24 | 0.18 | 0.22 | 0.22 | 0.10 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 61 | 532 | 585 | 521 | 75 | 75 | 309 |
| v/c Ratio | 0.28 | 0.19 | 0.24 | 0.43 | 0.38 | 0.38 | 0.67 |
| Control Delay | 47.5 | 3.5 | 7.2 | 3.8 | 45.7 | 45.7 | 12.5 |
| Queue Delay | 0.0 | 0.0 | 0.5 | 1.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.5 | 3.5 | 7.7 | 4.9 | 45.7 | 45.7 | 12.5 |
| Queue Length 50th (ft) | 19 | 35 | 67 | 33 | 46 | 46 | 0 |
| Queue Length 95th (ft) | 40 | 65 | 114 | 100 | 92 | 92 | 77 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1279 | 2763 | 2438 | 1206 | 574 | 574 | 746 |
| Starvation Cap Reductn | 0 | 0 | 1328 | 440 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.19 | 0.53 | 0.68 | 0.13 | 0.13 | 0.41 |

Intersection Summary

# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/07/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 436 | 148 | 549 | 601 | 253 | 254 | 63 |
| v/c Ratio | 0.27 | 0.19 | 0.80 | 0.24 | 0.73 | 0.73 | 0.17 |
| Control Delay | 20.7 | 5.0 | 49.6 | 7.1 | 50.8 | 51.0 | 8.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.7 | 5.0 | 49.6 | 7.1 | 50.8 | 51.0 | 8.4 |
| Queue Length 50th (ft) | 93 | 2 | 179 | 70 | 165 | 165 | 0 |
| Queue Length 95th (ft) | 166 | 46 | 244 | 124 | 253 | 254 | 31 |
| Internal Link Dist (ft) | 436 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1605 | 797 | 919 | 2470 | 633 | 633 | 638 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.27 | 0.19 | 0.60 | 0.24 | 0.40 | 0.40 | 0.10 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 73 | 870 | 1024 | 679 | 63 | 63 | 290 |
| v/c Ratio | 0.32 | 0.32 | 0.43 | 0.59 | 0.26 | 0.26 | 0.76 |
| Control Delay | 50.3 | 5.3 | 10.6 | 9.5 | 40.7 | 40.7 | 29.6 |
| Queue Delay | 0.0 | 0.0 | 1.4 | 3.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.3 | 5.3 | 12.0 | 12.6 | 40.7 | 40.7 | 29.6 |
| Queue Length 50th (ft) | 23 | 78 | 155 | 128 | 38 | 38 | 69 |
| Queue Length 95th (ft) | 49 | 155 | 277 | 322 | 78 | 78 | 161 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1242 | 2682 | 2355 | 1146 | 557 | 557 | 644 |
| Starvation Cap Reductn | 0 | 0 | 1064 | 351 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.32 | 0.79 | 0.85 | 0.11 | 0.11 | 0.45 |

Intersection Summary

# APPENDIX 6.4:

# E+P CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3420 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1276 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.53 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.9 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 18.3 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3443 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1297 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.54 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.9 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 18.6 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

## Geometric Data

| | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

## Adjustment Factors

| | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

## Demand and Capacity

| | | | |
|---|---|---|---|
| Demand Volume veh/h | 4435 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1670 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.70 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

## Speed and Density

| | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 67.4 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 24.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4312 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1624 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.68 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 67.9 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 23.9 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | APM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

## Geometric Data

| | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

## Adjustment Factors

| | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

## Demand and Capacity

| | | | |
|---|---|---|---|
| Demand Volume veh/h | 5019 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1837 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.77 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

## Speed and Density

| | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 65.3 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 28.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5131 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1878 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.78 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 64.7 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 29.0 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4052 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1498 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.62 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.7 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3758 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1389 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.58 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.6 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 20.0 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# APPENDIX 6.5:

# E+P CONDITIONS MERGE/DIVERGE ANALYSIS WORKSHEETS

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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3420 | 338 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 15.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.870 |
| Flow Rate (vi),pc/h | 3828 | 422 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.53 | 0.20 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 25.0 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.336 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1209 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.6 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.645 | Outer Lanes Freeway Speed (SO), mi/h | 76.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2619 | Ramp Junction Speed (S), mi/h | 64.7 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 19.7 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3082 | 361 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.901 |
| Flow Rate (vi),pc/h | 3482 | 436 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.54 | 0.21 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 905.3 | Density in Ramp Influence Area (DR), pc/mi/ln | 23.0 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.344 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1445 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 60.4 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.585 | Outer Lanes Freeway Speed (SO), mi/h | 66.6 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2037 | Ramp Junction Speed (S), mi/h | 62.5 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 2473 | Average Density (D), pc/mi/ln | 20.9 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3906 | 529 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.901 |
| Flow Rate (vi),pc/h | 4413 | 638 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.70 | 0.30 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1165.5 | Density in Ramp Influence Area (DR), pc/mi/ln | 28.5 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.392 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1827 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 59.0 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 65.2 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2586 | Ramp Junction Speed (S), mi/h | 61.1 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3224 | Average Density (D), pc/mi/ln | 27.6 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4312 | 406 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 12.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.893 |
| Flow Rate (vi),pc/h | 4872 | 494 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.68 | 0.24 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 29.1 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.342 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1686 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.4 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.615 | Outer Lanes Freeway Speed (SO), mi/h | 74.1 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3186 | Ramp Junction Speed (S), mi/h | 64.5 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 25.2 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5019 | 516 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 1.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.990 | 0.901 |
| Flow Rate (vi),pc/h | 5511 | 622 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.77 | 0.30 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 32.8 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.354 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1985 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.1 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.594 | Outer Lanes Freeway Speed (SO), mi/h | 72.9 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3526 | Ramp Junction Speed (S), mi/h | 64.2 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 28.6 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume ($V_i$) | 4503 | 628 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 1.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 | 0.901 |
| Flow Rate ($v_i$),pc/h | 4944 | 758 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.79 | 0.36 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | 1287.1 | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 32.0 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1420 | Speed Index (M) | 0.448 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | - | Flow Outer Lanes ($v_{OA}$), pc/mi/ln | 2052 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | - | On-Ramp Influenece Area Speed ($S_R$), mi/h | 57.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_M$) | 0.585 | Outer Lanes Freeway Speed ($S_O$), mi/h | 64.4 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 2892 | Ramp Junction Speed (S), mi/h | 59.8 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 3650 | Average Density (D), pc/mi/ln | 31.8 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3381 | 671 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 12.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.893 |
| Flow Rate (vi),pc/h | 3750 | 817 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.63 | 0.39 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1061.9 | Density in Ramp Influence Area (DR), pc/mi/ln | 26.8 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.374 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1552 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 59.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 66.2 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2198 | Ramp Junction Speed (S), mi/h | 61.6 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3015 | Average Density (D), pc/mi/ln | 24.7 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | E+P |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3758 | 377 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.901 |
| Flow Rate (vi),pc/h | 4168 | 455 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.58 | 0.22 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 25.9 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.339 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1355 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.635 | Outer Lanes Freeway Speed (SO), mi/h | 75.4 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2813 | Ramp Junction Speed (S), mi/h | 64.7 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 21.5 |
| Level of Service (LOS) | C | | |


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# APPENDIX 7.1:

# EA (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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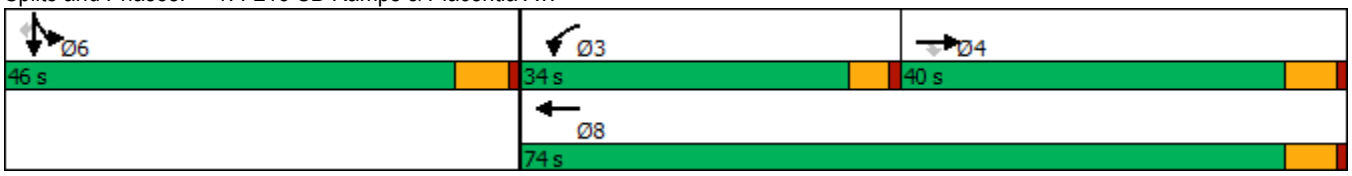
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 268 | 127 | 246 | 457 | 266 | 0 | 74 |
| Future Volume (vph) | 268 | 127 | 246 | 457 | 266 | 0 | 74 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.8 | 25.8 | 9.6 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.0 | 40.0 | 34.0 | 74.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 33.3% | 33.3% | 28.3% | 61.7% | 38.3% | 38.3% | 38.3% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 52.3 | 52.3 | 11.4 | 68.3 | 13.6 | 13.6 | 13.6 |
| Actuated g/C Ratio | 0.56 | 0.56 | 0.12 | 0.73 | 0.15 | 0.15 | 0.15 |
| v/c Ratio | 0.14 | 0.14 | 0.63 | 0.19 | 0.58 | 0.58 | 0.26 |
| Control Delay | 11.1 | 2.7 | 46.1 | 4.4 | 46.8 | 46.9 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.1 | 2.7 | 46.1 | 4.4 | 46.8 | 46.9 | 10.5 |
| LOS | B | A | D | A | D | D | B |
| Approach Delay | 8.4 | | | 19.0 | | 39.0 | |
| Approach LOS | A | | | B | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 93.5 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.63 | |
| Intersection Signal Delay: 20.8 | Intersection LOS: C |
| Intersection Capacity Utilization 56.8% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 268 | 127 | 246 | 457 | 0 | 0 | 0 | 0 | 266 | 0 | 74 |
| Future Volume (veh/h) | 0 | 268 | 127 | 246 | 457 | 0 | 0 | 0 | 0 | 266 | 0 | 74 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 291 | 138 | 267 | 497 | 0 | | | | 289 | 0 | 80 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 2188 | 976 | 354 | 2737 | 0 | | | | 409 | 0 | 182 |
| Arrive On Green | 0.00 | 0.61 | 0.61 | 0.10 | 0.76 | 0.00 | | | | 0.11 | 0.00 | 0.11 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 291 | 138 | 267 | 497 | 0 | | | | 289 | 0 | 80 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 3.1 | 3.3 | 6.7 | 3.5 | 0.0 | | | | 6.9 | 0.0 | 4.2 |
| Cycle Q Clear(g_c), s | 0.0 | 3.1 | 3.3 | 6.7 | 3.5 | 0.0 | | | | 6.9 | 0.0 | 4.2 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 2188 | 976 | 354 | 2737 | 0 | | | | 409 | 0 | 182 |
| V/C Ratio(X) | 0.00 | 0.13 | 0.14 | 0.75 | 0.18 | 0.00 | | | | 0.71 | 0.00 | 0.44 |
| Avail Cap(c_a), veh/h | 0 | 2188 | 976 | 1147 | 2737 | 0 | | | | 1617 | 0 | 720 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 7.6 | 7.6 | 39.4 | 3.1 | 0.0 | | | | 38.5 | 0.0 | 37.2 |
| Incr Delay (d2), s/veh | 0.0 | 0.1 | 0.3 | 1.2 | 0.1 | 0.0 | | | | 2.3 | 0.0 | 1.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 1.0 | 1.0 | 2.8 | 0.8 | 0.0 | | | | 3.0 | 0.0 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 7.7 | 7.9 | 40.6 | 3.2 | 0.0 | | | | 40.7 | 0.0 | 38.9 |
| LnGrp LOS | A | A | A | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 429 | | | 764 | | | | | | 369 | |
| Approach Delay, s/veh | | 7.8 | | | 16.3 | | | | | | 40.3 | |
| Approach LOS | | A | | | B | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 13.7 | 60.3 | | 16.0 | | 74.0 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 29.4 | 34.2 | | 40.2 | | 68.2 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 8.7 | 5.3 | | 8.9 | | 5.5 | | | | | |
| Green Ext Time (p_c), s | | 0.4 | 2.2 | | 1.2 | | 3.3 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.6 |
| HCM 6th LOS | B |

Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 59 | 475 | 557 | 497 | 146 | 0 | 254 |
| Future Volume (vph) | 59 | 475 | 557 | 497 | 146 | 0 | 254 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.3 | 75.5 | 66.5 | 66.5 | 11.2 | 11.2 | 11.2 |
| Actuated g/C Ratio | 0.06 | 0.77 | 0.68 | 0.68 | 0.11 | 0.11 | 0.11 |
| v/c Ratio | 0.29 | 0.19 | 0.25 | 0.45 | 0.41 | 0.41 | 0.64 |
| Control Delay | 47.3 | 3.4 | 7.2 | 3.9 | 46.8 | 46.9 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.5 | 1.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 3.4 | 7.6 | 5.2 | 46.8 | 46.9 | 12.6 |
| LOS | D | A | A | A | D | D | B |
| Approach Delay | | 8.2 | 6.5 | | | 25.1 | |
| Approach LOS | | A | A | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.3 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.64 | |
| Intersection Signal Delay: 10.7 | Intersection LOS: B |
| Intersection Capacity Utilization 56.8% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 59 | 475 | 0 | 0 | 557 | 497 | 146 | 0 | 254 | 0 | 0 | 0 |
| Future Volume (veh/h) | 59 | 475 | 0 | 0 | 557 | 497 | 146 | 0 | 254 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 64 | 516 | 0 | 0 | 605 | 540 | 159 | 0 | 276 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 162 | 2516 | 0 | 0 | 2195 | 979 | 709 | 0 | 316 | | | |
| Arrive On Green | 0.05 | 0.70 | 0.00 | 0.00 | 0.61 | 0.61 | 0.20 | 0.00 | 0.20 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 64 | 516 | 0 | 0 | 605 | 540 | 159 | 0 | 276 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 1.9 | 5.5 | 0.0 | 0.0 | 8.5 | 21.4 | 4.0 | 0.0 | 18.0 | | | |
| Cycle Q Clear(g_c), s | 1.9 | 5.5 | 0.0 | 0.0 | 8.5 | 21.4 | 4.0 | 0.0 | 18.0 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 162 | 2516 | 0 | 0 | 2195 | 979 | 709 | 0 | 316 | | | |
| V/C Ratio(X) | 0.39 | 0.21 | 0.00 | 0.00 | 0.28 | 0.55 | 0.22 | 0.00 | 0.87 | | | |
| Avail Cap(c_a), veh/h | 1168 | 2516 | 0 | 0 | 2195 | 979 | 1104 | 0 | 491 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 50.1 | 5.8 | 0.0 | 0.0 | 10.0 | 12.5 | 36.6 | 0.0 | 42.2 | | | |
| Incr Delay (d2), s/veh | 0.6 | 0.2 | 0.0 | 0.0 | 0.3 | 2.2 | 0.2 | 0.0 | 10.5 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 0.8 | 1.7 | 0.0 | 0.0 | 3.1 | 7.3 | 1.7 | 0.0 | 7.8 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 50.7 | 6.0 | 0.0 | 0.0 | 10.3 | 14.7 | 36.7 | 0.0 | 52.7 | | | |
| LnGrp LOS | D | A | A | A | B | B | D | A | D | | | |
| Approach Vol, veh/h | | 580 | | | 1145 | | | 435 | | | | |
| Approach Delay, s/veh | | 10.9 | | | 12.4 | | | 46.9 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 27.0 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 20.0 | | 7.5 | | | 3.9 | 23.4 | | | | |
| Green Ext Time (p_c), s | | 1.2 | | 3.5 | | | 0.1 | 4.5 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 18.9 | | | | | | | | | |
| HCM 6th LOS | | | B | | | | | | | | | |

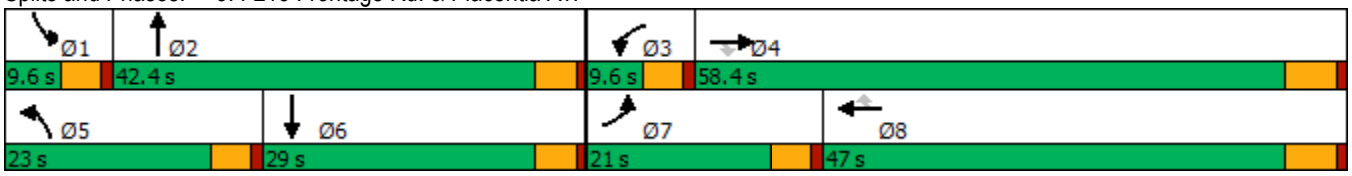
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 58.4 | 58.4 | 9.6 | 47.0 | 47.0 | 23.0 | 42.4 | 9.6 | 29.0 |
| Total Split (%) | 17.5% | 48.7% | 48.7% | 8.0% | 39.2% | 39.2% | 19.2% | 35.3% | 8.0% | 24.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 11.8 | 56.5 | 56.5 | 5.1 | 41.6 | 41.6 | 13.7 | 29.0 | 5.1 | 12.2 |
| Actuated g/C Ratio | 0.12 | 0.57 | 0.57 | 0.05 | 0.42 | 0.42 | 0.14 | 0.29 | 0.05 | 0.12 |
| v/c Ratio | 0.66 | 0.29 | 0.07 | 0.13 | 0.61 | 0.02 | 0.65 | 0.62 | 0.13 | 0.43 |
| Control Delay | 58.2 | 13.1 | 0.2 | 53.4 | 26.3 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| Queue Delay | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.2 | 13.7 | 0.2 | 53.4 | 26.3 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| LOS | E | B | A | D | C | A | D | B | D | C |
| Approach Delay | | 20.3 | | | 26.3 | | | 29.7 | | 27.8 |
| Approach LOS | | C | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 99.2 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 25.2 | Intersection LOS: C |
| Intersection Capacity Utilization 64.0% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 588 | 73 | 12 | 921 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 79 | 359 | 85 | 124 | 221 |
| Arrive On Green | 0.10 | 0.49 | 0.49 | 0.01 | 0.41 | 0.41 | 0.11 | 0.26 | 0.26 | 0.05 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 588 | 73 | 12 | 921 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.2 | 10.6 | 2.6 | 0.7 | 21.6 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.2 | 10.6 | 2.6 | 0.7 | 21.6 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 0 | 437 | 85 | 0 | 345 |
| V/C Ratio(X) | 0.81 | 0.33 | 0.09 | 0.47 | 0.62 | 0.02 | 0.83 | 0.00 | 0.89 | 0.14 | 0.00 | 0.34 |
| Avail Cap(c_a), veh/h | 277 | 1776 | 792 | 85 | 1480 | 660 | 311 | 0 | 585 | 85 | 0 | 389 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.4 | 16.5 | 14.5 | 52.3 | 25.0 | 18.8 | 46.7 | 0.0 | 37.8 | 48.9 | 0.0 | 36.5 |
| Incr Delay (d2), s/veh | 4.1 | 0.5 | 0.2 | 5.0 | 2.0 | 0.1 | 9.6 | 0.0 | 12.6 | 0.8 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 4.2 | 0.9 | 0.3 | 9.0 | 0.2 | 4.8 | 0.0 | 11.3 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.5 | 17.0 | 14.7 | 57.3 | 27.0 | 18.8 | 56.2 | 0.0 | 50.4 | 49.7 | 0.0 | 37.1 |
| LnGrp LOS | D | B | B | E | C | B | E | A | D | D | A | D |
| Approach Vol, veh/h | | 802 | | | 945 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 22.9 | | | 27.3 | | | 52.1 | | | 38.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |

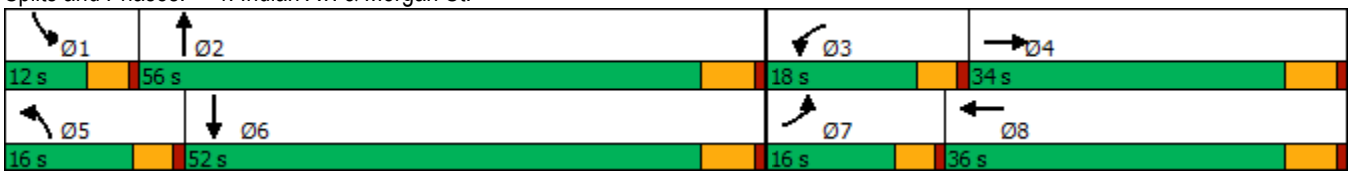
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 32.8 | 6.1 | 58.4 | 16.2 | 26.2 | 14.9 | 49.6 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 18.4 | 24.4 | 16.4 | 41.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 26.2 | 2.7 | 12.6 | 11.4 | 8.3 | 10.2 | 23.6 |
| Green Ext Time (p_c), s | 0.0 | 2.1 | 0.0 | 4.2 | 0.2 | 0.5 | 0.1 | 5.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.0 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 36 | 80 | 19 | 124 | 119 | 219 | 6 | 105 |
| Future Volume (vph) | 36 | 80 | 19 | 124 | 119 | 219 | 6 | 105 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 16.0 | 34.0 | 18.0 | 36.0 | 16.0 | 56.0 | 12.0 | 52.0 |
| Total Split (%) | 13.3% | 28.3% | 15.0% | 30.0% | 13.3% | 46.7% | 10.0% | 43.3% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 7.0 | 15.6 | 6.0 | 12.7 | 10.9 | 60.7 | 5.3 | 46.9 |
| Actuated g/C Ratio | 0.07 | 0.17 | 0.06 | 0.14 | 0.12 | 0.65 | 0.06 | 0.50 |
| v/c Ratio | 0.33 | 0.32 | 0.20 | 0.33 | 0.69 | 0.12 | 0.07 | 0.11 |
| Control Delay | 51.3 | 18.7 | 50.2 | 38.3 | 60.7 | 9.2 | 49.2 | 10.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.3 | 18.7 | 50.2 | 38.3 | 60.7 | 9.2 | 49.2 | 10.3 |
| LOS | D | B | D | D | E | A | D | B |
| Approach Delay | | 24.5 | | 39.7 | | 26.9 | | 11.6 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 94 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 25.6 | Intersection LOS: C |
| Intersection Capacity Utilization 45.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 80 | 85 | 19 | 124 | 7 | 119 | 219 | 9 | 6 | 105 | 56 |
| Future Volume (veh/h) | 36 | 80 | 85 | 19 | 124 | 7 | 119 | 219 | 9 | 6 | 105 | 56 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 44 | 98 | 84 | 23 | 151 | 9 | 145 | 267 | 10 | 7 | 128 | 53 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 67 | 261 | 203 | 44 | 426 | 25 | 178 | 2132 | 80 | 16 | 1292 | 511 |
| Arrive On Green | 0.04 | 0.14 | 0.14 | 0.02 | 0.12 | 0.12 | 0.10 | 0.60 | 0.60 | 0.01 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1810 | 1925 | 1498 | 1810 | 3462 | 205 | 1810 | 3549 | 132 | 1810 | 2526 | 999 |
| Grp Volume(v), veh/h | 44 | 91 | 91 | 23 | 78 | 82 | 145 | 135 | 142 | 7 | 90 | 91 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1618 | 1810 | 1805 | 1861 | 1810 | 1805 | 1876 | 1810 | 1805 | 1720 |
| Q Serve(g_s), s | 2.2 | 4.2 | 4.6 | 1.1 | 3.6 | 3.6 | 7.1 | 2.9 | 2.9 | 0.3 | 2.3 | 2.5 |
| Cycle Q Clear(g_c), s | 2.2 | 4.2 | 4.6 | 1.1 | 3.6 | 3.6 | 7.1 | 2.9 | 2.9 | 0.3 | 2.3 | 2.5 |
| Prop In Lane | 1.00 | | 0.93 | 1.00 | | 0.11 | 1.00 | | 0.07 | 1.00 | | 0.58 |
| Lane Grp Cap(c), veh/h | 67 | 245 | 220 | 44 | 222 | 229 | 178 | 1085 | 1127 | 16 | 923 | 880 |
| V/C Ratio(X) | 0.66 | 0.37 | 0.41 | 0.52 | 0.35 | 0.36 | 0.81 | 0.12 | 0.13 | 0.43 | 0.10 | 0.10 |
| Avail Cap(c_a), veh/h | 228 | 563 | 505 | 268 | 603 | 622 | 228 | 1085 | 1127 | 148 | 923 | 880 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.9 | 35.5 | 35.7 | 43.6 | 36.3 | 36.3 | 39.9 | 7.8 | 7.8 | 44.5 | 11.3 | 11.4 |
| Incr Delay (d2), s/veh | 4.0 | 0.9 | 1.2 | 3.6 | 1.0 | 0.9 | 12.6 | 0.2 | 0.2 | 6.7 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 1.8 | 1.8 | 0.5 | 1.6 | 1.6 | 3.6 | 1.0 | 1.1 | 0.2 | 0.9 | 0.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 47.0 | 36.5 | 37.0 | 47.1 | 37.3 | 37.3 | 52.5 | 8.0 | 8.0 | 51.2 | 11.6 | 11.6 |
| LnGrp LOS | D | D | D | D | D | D | D | A | A | D | B | B |
| Approach Vol, veh/h | | 226 | | | 183 | | | 422 | | | 188 | |
| Approach Delay, s/veh | | 38.7 | | | 38.5 | | | 23.3 | | | 13.1 | |
| Approach LOS | | D | | | D | | | C | | | B | |

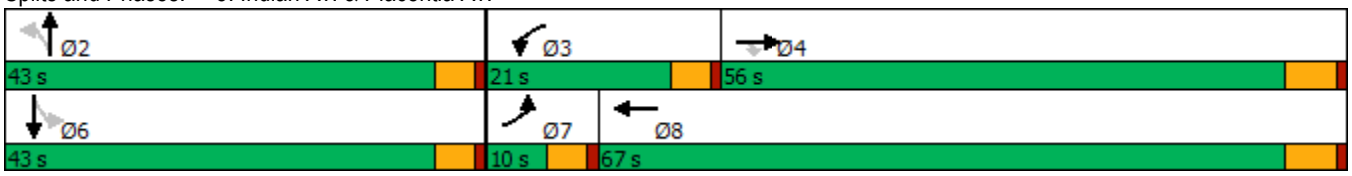
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.4 | 60.1 | 6.8 | 18.1 | 13.5 | 52.0 | 7.9 | 16.9 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 50.2 | 13.4 | 28.2 | 11.4 | 46.2 | 11.4 | 30.2 |
| Max Q Clear Time (g_c+I1), s | 2.3 | 4.9 | 3.1 | 6.6 | 9.1 | 4.5 | 4.2 | 5.6 |
| Green Ext Time (p_c), s | 0.0 | 1.5 | 0.0 | 0.9 | 0.0 | 1.0 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.6 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 48 | 641 | 146 | 205 | 792 | 42 | 249 | 37 | 154 |
| Future Volume (vph) | 48 | 641 | 146 | 205 | 792 | 42 | 249 | 37 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 56.0 | 56.0 | 21.0 | 67.0 | 43.0 | 43.0 | 43.0 | 43.0 |
| Total Split (%) | 8.3% | 46.7% | 46.7% | 17.5% | 55.8% | 35.8% | 35.8% | 35.8% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.3 | 50.2 | 50.2 | 16.4 | 63.4 | 36.9 | 36.9 | 36.9 | 36.9 |
| Actuated g/C Ratio | 0.04 | 0.42 | 0.42 | 0.14 | 0.53 | 0.31 | 0.31 | 0.31 | 0.31 |
| v/c Ratio | 0.64 | 0.87 | 0.21 | 1.19 | 0.88 | 0.17 | 0.95 | 0.86 | 0.43 |
| Control Delay | 90.3 | 44.4 | 6.5 | 163.2 | 37.0 | 31.5 | 66.1 | 119.6 | 34.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 90.3 | 44.4 | 6.5 | 163.2 | 37.0 | 31.5 | 66.1 | 119.6 | 34.2 |
| LOS | F | D | A | F | D | C | E | F | C |
| Approach Delay | | 40.4 | | | 68.7 | | 63.4 | | 49.5 |
| Approach LOS | | D | | | E | | E | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 118.6 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.19 | |
| Intersection Signal Delay: 57.1 | Intersection LOS: E |
| Intersection Capacity Utilization 88.5% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 48 | 641 | 146 | 205 | 792 | 18 | 42 | 249 | 130 | 37 | 154 | 24 |
| Future Volume (veh/h) | 48 | 641 | 146 | 205 | 792 | 18 | 42 | 249 | 130 | 37 | 154 | 24 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 52 | 697 | 122 | 297 | 861 | 20 | 46 | 361 | 143 | 54 | 223 | 14 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 67 | 795 | 674 | 247 | 958 | 22 | 318 | 414 | 164 | 112 | 566 | 36 |
| Arrive On Green | 0.04 | 0.42 | 0.42 | 0.14 | 0.52 | 0.52 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1849 | 43 | 1161 | 1295 | 513 | 909 | 1769 | 111 |
| Grp Volume(v), veh/h | 52 | 697 | 122 | 297 | 0 | 881 | 46 | 0 | 504 | 54 | 0 | 237 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1892 | 1161 | 0 | 1808 | 909 | 0 | 1880 |
| Q Serve(g_s), s | 3.4 | 40.4 | 5.7 | 16.4 | 0.0 | 50.4 | 3.9 | 0.0 | 31.5 | 6.9 | 0.0 | 11.8 |
| Cycle Q Clear(g_c), s | 3.4 | 40.4 | 5.7 | 16.4 | 0.0 | 50.4 | 15.6 | 0.0 | 31.5 | 38.4 | 0.0 | 11.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.02 | 1.00 | | 0.28 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 67 | 795 | 674 | 247 | 0 | 980 | 318 | 0 | 578 | 112 | 0 | 602 |
| V/C Ratio(X) | 0.77 | 0.88 | 0.18 | 1.20 | 0.00 | 0.90 | 0.14 | 0.00 | 0.87 | 0.48 | 0.00 | 0.39 |
| Avail Cap(c_a), veh/h | 81 | 795 | 674 | 247 | 0 | 980 | 318 | 0 | 578 | 112 | 0 | 602 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 32.1 | 22.0 | 51.8 | 0.0 | 26.1 | 37.8 | 0.0 | 38.5 | 56.7 | 0.0 | 31.7 |
| Incr Delay (d2), s/veh | 24.6 | 13.1 | 0.6 | 122.5 | 0.0 | 12.8 | 0.2 | 0.0 | 13.6 | 3.2 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.0 | 20.3 | 2.2 | 15.6 | 0.0 | 24.1 | 1.1 | 0.0 | 16.2 | 1.8 | 0.0 | 5.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 81.9 | 45.1 | 22.6 | 174.3 | 0.0 | 38.9 | 38.0 | 0.0 | 52.1 | 59.9 | 0.0 | 32.2 |
| LnGrp LOS | F | D | C | F | A | D | D | A | D | E | A | C |
| Approach Vol, veh/h | | 871 | | | 1178 | | | 550 | | | 291 | |
| Approach Delay, s/veh | | 44.2 | | | 73.0 | | | 50.9 | | | 37.3 | |
| Approach LOS | | D | | | E | | | D | | | D | |

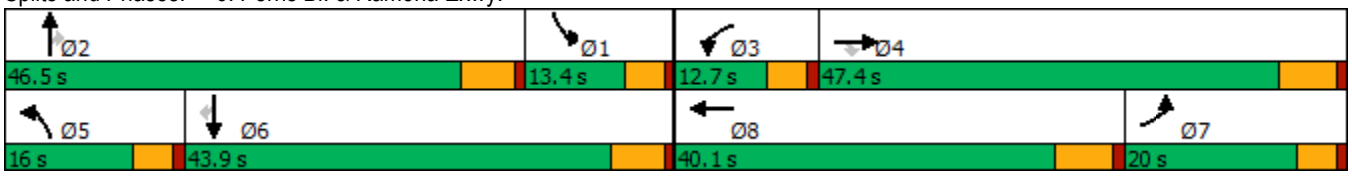
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.0 | 21.0 | 56.0 | | 43.0 | 9.1 | 67.9 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 38.4 | 16.4 | 50.2 | | 38.4 | 5.4 | 61.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 33.5 | 18.4 | 42.4 | | 40.4 | 5.4 | 52.4 | | | | |
| Green Ext Time (p_c), s | | 1.6 | 0.0 | 2.9 | | 0.0 | 0.0 | 3.8 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 56.5 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 404 | 620 | 91 | 110 | 1230 | 290 | 780 | 63 | 130 | 377 | 148 |
| Future Volume (vph) | 404 | 620 | 91 | 110 | 1230 | 290 | 780 | 63 | 130 | 377 | 148 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 16.0 | 46.5 | 46.5 | 13.4 | 43.9 | 43.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 13.3% | 38.8% | 38.8% | 11.2% | 36.6% | 36.6% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 15.2 | 41.9 | 41.9 | 7.3 | 34.1 | 11.3 | 31.3 | 31.3 | 7.9 | 27.8 | 27.8 |
| Actuated g/C Ratio | 0.14 | 0.38 | 0.38 | 0.07 | 0.31 | 0.10 | 0.29 | 0.29 | 0.07 | 0.25 | 0.25 |
| v/c Ratio | 0.87 | 0.33 | 0.13 | 0.49 | 0.94 | 0.84 | 0.79 | 0.11 | 0.54 | 0.43 | 0.29 |
| Control Delay | 66.5 | 25.6 | 0.4 | 58.5 | 49.8 | 69.8 | 42.3 | 0.4 | 58.8 | 35.3 | 5.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.5 | 25.6 | 0.4 | 58.5 | 49.8 | 69.8 | 42.3 | 0.4 | 58.8 | 35.3 | 5.0 |
| LOS | E | C | A | E | D | E | D | A | E | D | A |
| Approach Delay | | 38.4 | | | 50.4 | | 47.0 | | | 33.1 | |
| Approach LOS | | D | | | D | | D | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 109.7 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.94 | |
| Intersection Signal Delay: 44.0 | Intersection LOS: D |
| Intersection Capacity Utilization 83.9% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 404 | 620 | 91 | 110 | 1230 | 208 | 290 | 780 | 63 | 130 | 377 | 148 |
| Future Volume (veh/h) | 404 | 620 | 91 | 110 | 1230 | 208 | 290 | 780 | 63 | 130 | 377 | 148 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 421 | 646 | 69 | 115 | 1281 | 190 | 302 | 812 | 36 | 135 | 393 | 124 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 481 | 2131 | 662 | 174 | 1406 | 209 | 362 | 994 | 442 | 196 | 863 | 384 |
| Arrive On Green | 0.14 | 0.41 | 0.41 | 0.05 | 0.31 | 0.31 | 0.10 | 0.28 | 0.28 | 0.06 | 0.24 | 0.24 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4559 | 676 | 3510 | 3610 | 1605 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 421 | 646 | 69 | 115 | 972 | 499 | 302 | 812 | 36 | 135 | 393 | 124 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1778 | 1755 | 1805 | 1605 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 12.6 | 9.0 | 2.8 | 3.5 | 29.0 | 29.0 | 9.1 | 22.6 | 1.4 | 4.1 | 10.0 | 4.6 |
| Cycle Q Clear(g_c), s | 12.6 | 9.0 | 2.8 | 3.5 | 29.0 | 29.0 | 9.1 | 22.6 | 1.4 | 4.1 | 10.0 | 4.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 481 | 2131 | 662 | 174 | 1067 | 548 | 362 | 994 | 442 | 196 | 863 | 384 |
| V/C Ratio(X) | 0.88 | 0.30 | 0.10 | 0.66 | 0.91 | 0.91 | 0.83 | 0.82 | 0.08 | 0.69 | 0.46 | 0.32 |
| Avail Cap(c_a), veh/h | 503 | 2131 | 662 | 265 | 1091 | 561 | 373 | 1368 | 608 | 288 | 1280 | 570 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.5 | 21.3 | 19.5 | 50.2 | 35.7 | 35.7 | 47.3 | 36.4 | 18.4 | 49.8 | 34.9 | 15.3 |
| Incr Delay (d2), s/veh | 14.6 | 0.1 | 0.1 | 1.6 | 11.2 | 18.9 | 13.7 | 2.8 | 0.1 | 1.6 | 0.4 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.2 | 3.4 | 1.0 | 1.5 | 13.0 | 14.6 | 4.5 | 9.8 | 0.7 | 1.8 | 4.3 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.0 | 21.4 | 19.5 | 51.8 | 46.9 | 54.6 | 60.9 | 39.2 | 18.5 | 51.4 | 35.3 | 15.8 |
| LnGrp LOS | E | C | B | D | D | D | E | D | B | D | D | B |
| Approach Vol, veh/h | | 1136 | | | 1586 | | | 1150 | | | 652 | |
| Approach Delay, s/veh | | 35.6 | | | 49.7 | | | 44.3 | | | 34.9 | |
| Approach LOS | | D | | | D | | | D | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.8 | 35.4 | 9.9 | 50.3 | 15.7 | 31.5 | 20.9 | 39.3 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 11.4 | 38.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 6.1 | 24.6 | 5.5 | 11.0 | 11.1 | 12.0 | 14.6 | 31.0 |
| Green Ext Time (p_c), s | 0.1 | 4.8 | 0.0 | 4.4 | 0.0 | 2.8 | 0.1 | 2.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 42.6 |
| HCM 6th LOS | D |

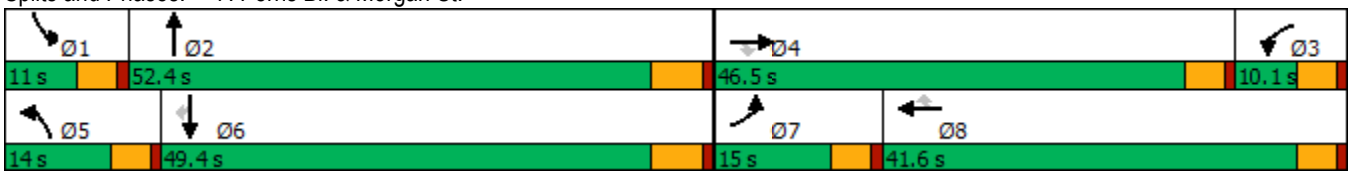
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 16 | 21 | 17 | 27 | 3 | 36 | 1032 | 5 | 499 | 105 |
| Future Volume (vph) | 38 | 16 | 21 | 17 | 27 | 3 | 36 | 1032 | 5 | 499 | 105 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 10.0 | 19.8 | 19.8 | 9.1 | 18.4 | 18.4 | 8.9 | 34.0 | 8.1 | 31.8 | 31.8 |
| Actuated g/C Ratio | 0.20 | 0.39 | 0.39 | 0.18 | 0.36 | 0.36 | 0.18 | 0.67 | 0.16 | 0.63 | 0.63 |
| v/c Ratio | 0.12 | 0.01 | 0.03 | 0.06 | 0.05 | 0.00 | 0.13 | 0.35 | 0.02 | 0.25 | 0.11 |
| Control Delay | 32.7 | 21.2 | 0.1 | 32.6 | 22.0 | 0.0 | 33.9 | 12.2 | 38.2 | 14.8 | 3.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 32.7 | 21.2 | 0.1 | 32.6 | 22.0 | 0.0 | 33.9 | 12.2 | 38.2 | 14.8 | 3.7 |
| LOS | C | C | A | C | C | A | C | B | D | B | A |
| Approach Delay | | 21.1 | | | 24.6 | | | 12.9 | | 13.1 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 50.8 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.35 | |
| Intersection Signal Delay: 13.6 | Intersection LOS: B |
| Intersection Capacity Utilization 45.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 16 | 21 | 17 | 27 | 3 | 36 | 1032 | 19 | 5 | 499 | 105 |
| Future Volume (veh/h) | 38 | 16 | 21 | 17 | 27 | 3 | 36 | 1032 | 19 | 5 | 499 | 105 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 18 | 8 | 19 | 31 | 1 | 41 | 1173 | 20 | 6 | 567 | 108 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 82 | 559 | 249 | 45 | 255 | 216 | 80 | 2104 | 36 | 14 | 1316 | 580 |
| Arrive On Green | 0.05 | 0.15 | 0.15 | 0.02 | 0.13 | 0.13 | 0.04 | 0.40 | 0.40 | 0.01 | 0.36 | 0.36 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5252 | 90 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 18 | 8 | 19 | 31 | 1 | 41 | 772 | 421 | 6 | 567 | 108 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1884 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.1 | 0.2 | 0.1 | 0.5 | 0.7 | 0.0 | 1.1 | 8.2 | 8.2 | 0.2 | 5.6 | 2.2 |
| Cycle Q Clear(g_c), s | 1.1 | 0.2 | 0.1 | 0.5 | 0.7 | 0.0 | 1.1 | 8.2 | 8.2 | 0.2 | 5.6 | 2.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 82 | 559 | 249 | 45 | 255 | 216 | 80 | 1385 | 755 | 14 | 1316 | 580 |
| V/C Ratio(X) | 0.52 | 0.03 | 0.03 | 0.42 | 0.12 | 0.00 | 0.52 | 0.56 | 0.56 | 0.41 | 0.43 | 0.19 |
| Avail Cap(c_a), veh/h | 395 | 3177 | 1417 | 209 | 1477 | 1252 | 357 | 3385 | 1844 | 243 | 3306 | 1456 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.2 | 17.1 | 8.8 | 22.9 | 18.1 | 17.9 | 22.3 | 11.0 | 11.0 | 23.5 | 11.4 | 10.3 |
| Incr Delay (d2), s/veh | 1.9 | 0.0 | 0.1 | 2.3 | 0.2 | 0.0 | 1.9 | 0.4 | 0.6 | 6.9 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.1 | 0.1 | 0.2 | 0.3 | 0.0 | 0.4 | 2.2 | 2.5 | 0.1 | 1.7 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.1 | 17.1 | 8.9 | 25.2 | 18.3 | 17.9 | 24.2 | 11.4 | 11.7 | 30.4 | 11.6 | 10.5 |
| LnGrp LOS | C | B | A | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 69 | | | 51 | | | 1234 | | | 681 | |
| Approach Delay, s/veh | | 20.5 | | | 20.9 | | | 11.9 | | | 11.6 | |
| Approach LOS | | C | | | C | | | B | | | B | |

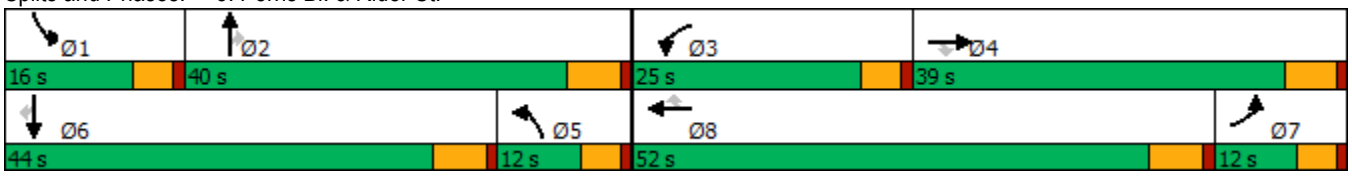
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.0 | 24.9 | 5.8 | 12.0 | 6.7 | 23.2 | 6.8 | 11.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.2 | 10.2 | 2.5 | 2.2 | 3.1 | 7.6 | 3.1 | 2.7 |
| Green Ext Time (p_c), s | 0.0 | 8.8 | 0.0 | 0.1 | 0.0 | 4.1 | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 12.3 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 39 | 155 | 17 | 162 | 313 | 269 | 44 | 840 | 78 | 78 | 401 | 42 |
| Future Volume (vph) | 39 | 155 | 17 | 162 | 313 | 269 | 44 | 840 | 78 | 78 | 401 | 42 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.4 | 13.9 | 13.9 | 12.0 | 23.0 | 23.0 | 11.9 | 20.5 | 20.5 | 8.1 | 19.1 | 19.1 |
| Actuated g/C Ratio | 0.11 | 0.19 | 0.19 | 0.16 | 0.31 | 0.31 | 0.16 | 0.28 | 0.28 | 0.11 | 0.26 | 0.26 |
| v/c Ratio | 0.19 | 0.23 | 0.04 | 0.56 | 0.28 | 0.40 | 0.15 | 0.59 | 0.14 | 0.40 | 0.30 | 0.08 |
| Control Delay | 38.4 | 29.9 | 0.2 | 41.4 | 25.0 | 5.7 | 33.9 | 26.8 | 0.5 | 44.1 | 26.9 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.4 | 29.9 | 0.2 | 41.4 | 25.0 | 5.7 | 33.9 | 26.8 | 0.5 | 44.1 | 26.9 | 0.3 |
| LOS | D | C | A | D | C | A | C | C | A | D | C | A |
| Approach Delay | | 29.1 | | | 21.6 | | | 25.0 | | | 27.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 74.3 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.59 | |
| Intersection Signal Delay: 24.8 | Intersection LOS: C |
| Intersection Capacity Utilization 55.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 155 | 17 | 162 | 313 | 269 | 44 | 840 | 78 | 78 | 401 | 42 |
| Future Volume (veh/h) | 39 | 155 | 17 | 162 | 313 | 269 | 44 | 840 | 78 | 78 | 401 | 42 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 39 | 157 | 5 | 164 | 316 | 137 | 44 | 848 | 47 | 79 | 405 | 27 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 173 | 634 | 283 | 211 | 634 | 283 | 259 | 1452 | 445 | 113 | 925 | 287 |
| Arrive On Green | 0.10 | 0.18 | 0.18 | 0.12 | 0.18 | 0.18 | 0.14 | 0.28 | 0.28 | 0.06 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 39 | 157 | 5 | 164 | 316 | 137 | 44 | 848 | 47 | 79 | 405 | 27 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.1 | 2.1 | 0.1 | 5.0 | 4.5 | 3.1 | 1.2 | 8.0 | 1.3 | 2.4 | 4.0 | 0.8 |
| Cycle Q Clear(g_c), s | 1.1 | 2.1 | 0.1 | 5.0 | 4.5 | 3.1 | 1.2 | 8.0 | 1.3 | 2.4 | 4.0 | 0.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 173 | 634 | 283 | 211 | 634 | 283 | 259 | 1452 | 445 | 113 | 925 | 287 |
| V/C Ratio(X) | 0.23 | 0.25 | 0.02 | 0.78 | 0.50 | 0.48 | 0.17 | 0.58 | 0.11 | 0.70 | 0.44 | 0.09 |
| Avail Cap(c_a), veh/h | 235 | 2105 | 939 | 648 | 2929 | 1306 | 259 | 3115 | 954 | 362 | 3479 | 1080 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.8 | 20.2 | 6.5 | 24.4 | 21.2 | 10.4 | 21.4 | 17.6 | 15.2 | 26.2 | 20.9 | 19.6 |
| Incr Delay (d2), s/veh | 0.2 | 0.2 | 0.0 | 2.3 | 0.6 | 1.3 | 0.1 | 0.4 | 0.1 | 2.9 | 0.3 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.8 | 0.0 | 2.0 | 1.7 | 1.5 | 0.5 | 2.7 | 0.4 | 1.0 | 1.4 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.1 | 20.4 | 6.5 | 26.8 | 21.8 | 11.7 | 21.5 | 18.0 | 15.3 | 29.0 | 21.2 | 19.7 |
| LnGrp LOS | C | C | A | C | C | B | C | B | B | C | C | B |
| Approach Vol, veh/h | | 201 | | | 617 | | | 939 | | | 511 | |
| Approach Delay, s/veh | | 20.8 | | | 20.9 | | | 18.1 | | | 22.3 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 21.7 | 11.2 | 15.8 | 14.0 | 16.0 | 11.2 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 4.4 | 10.0 | 7.0 | 4.1 | 3.2 | 6.0 | 3.1 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 5.8 | 0.2 | 0.9 | 0.0 | 2.7 | 0.0 | 2.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.0 |
| HCM 6th LOS | C |

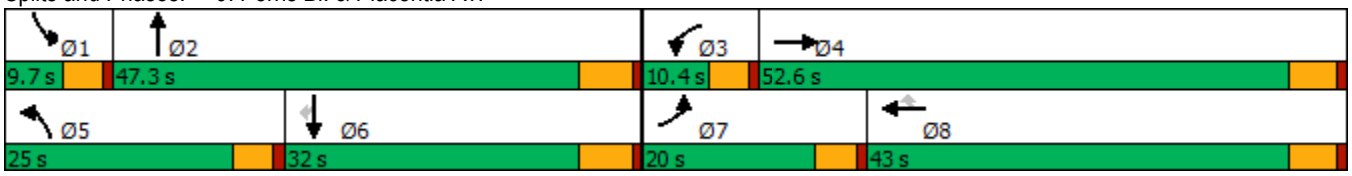
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 175 | 389 | 43 | 502 | 242 | 230 | 982 | 42 | 527 | 223 |
| Future Volume (vph) | 175 | 389 | 43 | 502 | 242 | 230 | 982 | 42 | 527 | 223 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 20.0 | 52.6 | 10.4 | 43.0 | 43.0 | 25.0 | 47.3 | 9.7 | 32.0 | 32.0 |
| Total Split (%) | 16.7% | 43.8% | 8.7% | 35.8% | 35.8% | 20.8% | 39.4% | 8.1% | 26.7% | 26.7% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 14.1 | 45.5 | 5.7 | 34.7 | 34.7 | 18.1 | 42.2 | 5.1 | 26.9 | 26.9 |
| Actuated g/C Ratio | 0.12 | 0.40 | 0.05 | 0.30 | 0.30 | 0.16 | 0.37 | 0.04 | 0.24 | 0.24 |
| v/c Ratio | 0.83 | 0.81 | 0.51 | 0.92 | 0.41 | 0.85 | 0.81 | 0.55 | 0.65 | 0.43 |
| Control Delay | 79.2 | 40.4 | 75.5 | 61.3 | 11.0 | 73.7 | 39.9 | 81.3 | 45.2 | 7.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 79.2 | 40.4 | 75.5 | 61.3 | 11.0 | 73.7 | 39.9 | 81.3 | 45.2 | 7.6 |
| LOS | E | D | E | E | B | E | D | F | D | A |
| Approach Delay | | 49.6 | | 46.5 | | | 46.1 | | 36.5 | |
| Approach LOS | | D | | D | | | D | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 114.4 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.92 | |
| Intersection Signal Delay: 44.8 | Intersection LOS: D |
| Intersection Capacity Utilization 85.7% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 175 | 389 | 174 | 43 | 502 | 242 | 230 | 982 | 40 | 42 | 527 | 223 |
| Future Volume (veh/h) | 175 | 389 | 174 | 43 | 502 | 242 | 230 | 982 | 40 | 42 | 527 | 223 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 184 | 409 | 178 | 45 | 528 | 153 | 242 | 1034 | 35 | 44 | 555 | 226 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 213 | 484 | 211 | 61 | 573 | 483 | 271 | 1307 | 44 | 60 | 904 | 401 |
| Arrive On Green | 0.12 | 0.39 | 0.39 | 0.03 | 0.30 | 0.30 | 0.15 | 0.37 | 0.37 | 0.03 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 1255 | 546 | 1810 | 1900 | 1604 | 1810 | 3560 | 120 | 1810 | 3610 | 1604 |
| Grp Volume(v), veh/h | 184 | 0 | 587 | 45 | 528 | 153 | 242 | 524 | 545 | 44 | 555 | 226 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1802 | 1810 | 1900 | 1604 | 1810 | 1805 | 1875 | 1810 | 1805 | 1604 |
| Q Serve(g_s), s | 11.3 | 0.0 | 33.6 | 2.8 | 30.4 | 8.3 | 14.8 | 29.3 | 29.3 | 2.7 | 15.4 | 13.9 |
| Cycle Q Clear(g_c), s | 11.3 | 0.0 | 33.6 | 2.8 | 30.4 | 8.3 | 14.8 | 29.3 | 29.3 | 2.7 | 15.4 | 13.9 |
| Prop In Lane | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 213 | 0 | 695 | 61 | 573 | 483 | 271 | 663 | 689 | 60 | 904 | 401 |
| V/C Ratio(X) | 0.86 | 0.00 | 0.84 | 0.74 | 0.92 | 0.32 | 0.89 | 0.79 | 0.79 | 0.73 | 0.61 | 0.56 |
| Avail Cap(c_a), veh/h | 247 | 0 | 753 | 93 | 632 | 534 | 327 | 663 | 689 | 82 | 904 | 401 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.0 | 0.0 | 31.6 | 54.1 | 38.2 | 30.5 | 47.1 | 31.9 | 31.9 | 54.1 | 37.5 | 37.0 |
| Incr Delay (d2), s/veh | 21.3 | 0.0 | 8.3 | 6.5 | 18.1 | 0.4 | 20.2 | 9.3 | 9.0 | 11.5 | 3.1 | 5.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.2 | 0.0 | 15.3 | 1.3 | 16.3 | 3.2 | 8.2 | 14.4 | 14.9 | 1.4 | 6.9 | 5.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 70.2 | 0.0 | 39.9 | 60.7 | 56.3 | 30.9 | 67.3 | 41.2 | 40.9 | 65.6 | 40.6 | 42.6 |
| LnGrp LOS | E | A | D | E | E | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 771 | | | 726 | | | 1311 | | | 825 | |
| Approach Delay, s/veh | | 47.1 | | | 51.2 | | | 45.9 | | | 42.5 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.3 | 47.3 | 8.4 | 49.0 | 21.6 | 34.1 | 17.9 | 39.5 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 5.1 | 41.5 | 5.8 | 47.2 | 20.4 | 26.2 | 15.4 | 37.6 |
| Max Q Clear Time (g_c+I1), s | 4.7 | 31.3 | 4.8 | 35.6 | 16.8 | 17.4 | 13.3 | 32.4 |
| Green Ext Time (p_c), s | 0.0 | 5.1 | 0.0 | 2.8 | 0.1 | 2.8 | 0.1 | 1.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 46.5 |
| HCM 6th LOS | D |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.6 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| Future Vol, veh/h | 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| Peak Hour Factor | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 59 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 84 |
| Number of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 1 | 2 |
| HCM Control Delay | 8.4 | 0 | 0 | 7.1 |
| HCM LOS | A | - | - | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 0% | 0% | 0% |
| Vol Thru, % | 100% | 0% | 100% | 100% | 100% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 0 | 34 | 0 | 0 | 0 | 49 |
| LT Vol | 0 | 34 | 0 | 0 | 0 | 0 |
| Through Vol | 0 | 0 | 0 | 0 | 0 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 0 | 49 |
| Lane Flow Rate | 0 | 59 | 0 | 0 | 0 | 84 |
| Geometry Grp | 6 | 7 | 7 | 6 | 7 | 7 |
| Degree of Util (X) | 0 | 0.084 | 0 | 0 | 0 | 0.092 |
| Departure Headway (Hd) | 4.668 | 5.149 | 4.648 | 4.694 | 4.603 | 3.902 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 0 | 695 | 0 | 0 | 0 | 909 |
| Service Time | 2.747 | 2.883 | 2.382 | 2.756 | 2.366 | 1.665 |
| HCM Lane V/C Ratio | 0 | 0.085 | 0 | 0 | 0 | 0.092 |
| HCM Control Delay | 7.7 | 8.4 | 7.4 | 7.8 | 7.4 | 7.1 |
| HCM Lane LOS | N | A | N | N | N | A |
| HCM 95th-tile Q | 0 | 0.3 | 0 | 0 | 0 | 0.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 357 | 11 | 171 | 727 | 0 | 48 | 0 | 203 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 357 | 11 | 171 | 727 | 0 | 48 | 0 | 203 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | 0 | 120 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 392 | 12 | 188 | 799 | 0 | 53 | 0 | 223 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 799 | 0 | 0 | 404 | 0 | 0 | 1168 | 1567 | 392 | 1685 | 1579 | 400 |
| Stage 1 | - | - | - | - | - | - | 392 | 392 | - | 1175 | 1175 | - |
| Stage 2 | - | - | - | - | - | - | 776 | 1175 | - | 510 | 404 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 833 | - | - | 1166 | - | - | 161 | 112 | 661 | 69 | 110 | 605 |
| Stage 1 | - | - | - | - | - | - | 637 | 610 | - | 207 | 268 | - |
| Stage 2 | - | - | - | - | - | - | 361 | 268 | - | 550 | 603 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 833 | - | - | 1166 | - | - | 141 | 94 | 661 | 40 | 92 | 605 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 141 | 94 | - | 40 | 92 | - |
| Stage 1 | - | - | - | - | - | - | 637 | 610 | - | 207 | 225 | - |
| Stage 2 | - | - | - | - | - | - | 303 | 225 | - | 364 | 603 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.7 | 19.3 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 141 | 661 | 833 | - | - | 1166 | - | - | - | - |
| HCM Lane V/C Ratio | 0.374 | 0.337 | - | - | - | 0.161 | - | - | - | - |
| HCM Control Delay (s) | 45 | 13.2 | 0 | - | - | 8.7 | - | - | 0 | 0 |
| HCM Lane LOS | E | B | A | - | - | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 1.6 | 1.5 | 0 | - | - | 0.6 | - | - | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 28.1 |
| Intersection LOS | D |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 34 | 206 | 146 | 50 | 168 | 4 | 274 | 204 | 24 | 6 | 151 | 46 |
| Future Vol, veh/h | 34 | 206 | 146 | 50 | 168 | 4 | 274 | 204 | 24 | 6 | 151 | 46 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 44 | 264 | 187 | 64 | 215 | 5 | 351 | 262 | 31 | 8 | 194 | 59 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 23 | 22 | 37.7 | 20.7 |
| HCM LOS | C | C | E | C |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 74% | 0% | 100% | 0% | 0% | 98% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 26% | 0% | 0% | 100% | 0% | 2% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 274 | 136 | 92 | 34 | 206 | 146 | 50 | 172 | 6 | 151 | 46 |
| LT Vol | 274 | 0 | 0 | 34 | 0 | 0 | 50 | 0 | 6 | 0 | 0 |
| Through Vol | 0 | 136 | 68 | 0 | 206 | 0 | 0 | 168 | 0 | 151 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 146 | 0 | 4 | 0 | 0 | 46 |
| Lane Flow Rate | 351 | 174 | 118 | 44 | 264 | 187 | 64 | 221 | 8 | 194 | 59 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.902 | 0.423 | 0.28 | 0.116 | 0.668 | 0.436 | 0.176 | 0.574 | 0.022 | 0.529 | 0.149 |
| Departure Headway (Hd) | 9.241 | 8.728 | 8.541 | 9.611 | 9.103 | 8.39 | 9.888 | 9.372 | 10.352 | 9.836 | 9.113 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 393 | 411 | 420 | 373 | 396 | 429 | 362 | 384 | 345 | 366 | 393 |
| Service Time | 7.008 | 6.495 | 6.307 | 7.382 | 6.873 | 6.16 | 7.66 | 7.143 | 8.132 | 7.616 | 6.893 |
| HCM Lane V/C Ratio | 0.893 | 0.423 | 0.281 | 0.118 | 0.667 | 0.436 | 0.177 | 0.576 | 0.023 | 0.53 | 0.15 |
| HCM Control Delay | 55.3 | 17.8 | 14.6 | 13.6 | 28.5 | 17.5 | 14.8 | 24.1 | 13.4 | 23.2 | 13.5 |
| HCM Lane LOS | F | C | B | B | D | C | B | C | B | C | B |
| HCM 95th-tile Q | 9.3 | 2.1 | 1.1 | 0.4 | 4.7 | 2.2 | 0.6 | 3.5 | 0.1 | 3 | 0.5 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 530 | 19 | 220 | 847 | 0 | 33 | 0 | 181 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 530 | 19 | 220 | 847 | 0 | 33 | 0 | 181 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | 50 | 185 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 624 | 22 | 259 | 996 | 0 | 39 | 0 | 213 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 996 | 0 | 0 | 647 | 0 | 0 | 1641 | 2139 | 625 | 2256 | 2161 | 498 |
| Stage 1 | - | - | - | - | - | - | 625 | 625 | - | 1514 | 1514 | - |
| Stage 2 | - | - | - | - | - | - | 1016 | 1514 | - | 742 | 647 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 703 | - | - | 948 | - | - | 74 | 50 | 488 | 26 | 48 | 523 |
| Stage 1 | - | - | - | - | - | - | 476 | 480 | - | 128 | 184 | - |
| Stage 2 | - | - | - | - | - | - | 259 | 184 | - | 411 | 470 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 703 | - | - | 947 | - | - | 58 | 36 | 488 | 12 | 35 | 523 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 143 | 106 | - | ~ -43 | 90 | - |
| Stage 1 | - | - | - | - | - | - | 476 | 480 | - | 128 | 134 | - |
| Stage 2 | - | - | - | - | - | - | 188 | 134 | - | 232 | 470 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 2.1 | 36.2 | 0 |
| HCM LOS | | | E | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 356 | 703 | - | - | 947 | - | - | - |
| HCM Lane V/C Ratio | 0.707 | - | - | - | 0.273 | - | - | - |
| HCM Control Delay (s) | 36.2 | 0 | - | - | 10.2 | - | - | 0 |
| HCM Lane LOS | E | A | - | - | B | - | - | A |
| HCM 95th %tile Q(veh) | 5.2 | 0 | - | - | 1.1 | - | - | - |

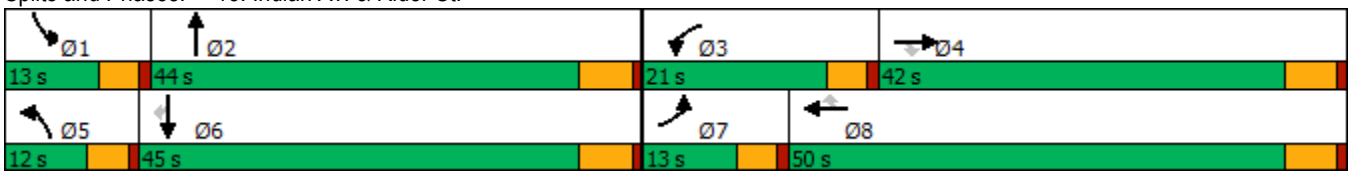
Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Future Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 42.0 | 42.0 | 21.0 | 50.0 | 50.0 | 12.0 | 44.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 35.0% | 35.0% | 17.5% | 41.7% | 41.7% | 10.0% | 36.7% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 6.6 | 13.8 | 13.8 | 9.8 | 19.1 | 19.1 | 5.9 | 40.4 | 6.6 | 43.0 | 43.0 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.12 | 0.23 | 0.23 | 0.07 | 0.48 | 0.08 | 0.51 | 0.51 |
| v/c Ratio | 0.31 | 0.28 | 0.11 | 0.52 | 0.39 | 0.37 | 0.19 | 0.13 | 0.31 | 0.05 | 0.01 |
| Control Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 30.9 | | | 25.7 | | | 17.8 | | 26.1 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 84.4 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 25.2 | Intersection LOS: C |
| Intersection Capacity Utilization 43.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Future Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1824 | 1900 |
| Adj Flow Rate, veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 165 | 35 | 44 | 82 | 4 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 1456 | 302 | 71 | 1742 | 809 |
| Arrive On Green | 0.04 | 0.13 | 0.13 | 0.08 | 0.17 | 0.17 | 0.03 | 0.49 | 0.49 | 0.04 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 2977 | 617 | 1810 | 3466 | 1610 |
| Grp Volume(v), veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 99 | 101 | 44 | 82 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1789 | 1810 | 1733 | 1610 |
| Q Serve(g_s), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.35 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 883 | 875 | 71 | 1742 | 809 |
| V/C Ratio(X) | 0.62 | 0.36 | 0.15 | 0.78 | 0.53 | 0.51 | 0.51 | 0.11 | 0.12 | 0.62 | 0.05 | 0.00 |
| Avail Cap(c_a), veh/h | 195 | 1674 | 746 | 380 | 1075 | 911 | 171 | 883 | 875 | 195 | 1742 | 809 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.9 | 31.1 | 30.2 | 35.4 | 29.8 | 29.7 | 37.5 | 10.8 | 10.8 | 36.9 | 9.9 | 9.7 |
| Incr Delay (d2), s/veh | 3.2 | 0.5 | 0.3 | 3.5 | 1.4 | 1.5 | 3.2 | 0.3 | 0.3 | 3.2 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 1.4 | 0.5 | 2.0 | 2.8 | 2.3 | 0.5 | 0.8 | 0.9 | 0.8 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.1 | 31.6 | 30.6 | 38.8 | 31.2 | 31.2 | 40.7 | 11.0 | 11.1 | 40.1 | 9.9 | 9.7 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 241 | | | 412 | | | 224 | | | 130 | |
| Approach Delay, s/veh | | 33.0 | | | 33.2 | | | 14.2 | | | 20.2 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.7 | 44.0 | 10.6 | 15.8 | 6.6 | 45.0 | 7.7 | 18.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 8.4 | 38.2 | 16.4 | 36.2 | 7.4 | 39.2 | 8.4 | 44.2 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 4.4 | 6.6 | 5.3 | 3.0 | 2.9 | 3.9 | 8.3 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.1 | 1.0 | 0.0 | 0.4 | 0.0 | 1.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.3 |
| HCM 6th LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 425 | 144 | 487 | 587 | 0 | 0 | 0 | 0 | 480 | 0 | 62 |
| Future Volume (veh/h) | 0 | 425 | 144 | 487 | 587 | 0 | 0 | 0 | 0 | 480 | 0 | 62 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 462 | 157 | 529 | 638 | 0 | | | | 522 | 0 | 67 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 1750 | 780 | 612 | 2546 | 0 | | | | 646 | 0 | 288 |
| Arrive On Green | 0.00 | 0.48 | 0.48 | 0.17 | 0.71 | 0.00 | | | | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 462 | 157 | 529 | 638 | 0 | | | | 522 | 0 | 67 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 7.6 | 5.6 | 14.6 | 6.3 | 0.0 | | | | 13.8 | 0.0 | 3.6 |
| Cycle Q Clear(g_c), s | 0.0 | 7.6 | 5.6 | 14.6 | 6.3 | 0.0 | | | | 13.8 | 0.0 | 3.6 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1750 | 780 | 612 | 2546 | 0 | | | | 646 | 0 | 288 |
| V/C Ratio(X) | 0.00 | 0.26 | 0.20 | 0.86 | 0.25 | 0.00 | | | | 0.81 | 0.00 | 0.23 |
| Avail Cap(c_a), veh/h | 0 | 1750 | 780 | 949 | 2546 | 0 | | | | 1378 | 0 | 613 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 15.2 | 14.7 | 40.1 | 5.3 | 0.0 | | | | 39.4 | 0.0 | 35.1 |
| Incr Delay (d2), s/veh | 0.0 | 0.4 | 0.6 | 3.3 | 0.2 | 0.0 | | | | 2.5 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 2.9 | 2.0 | 6.3 | 1.9 | 0.0 | | | | 6.1 | 0.0 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 15.6 | 15.3 | 43.3 | 5.5 | 0.0 | | | | 41.8 | 0.0 | 35.5 |
| LnGrp LOS | A | B | B | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 619 | | | 1167 | | | | | | 589 | |
| Approach Delay, s/veh | | 15.5 | | | 22.7 | | | | | | 41.1 | |
| Approach LOS | | B | | | C | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 22.0 | 54.2 | | 23.6 | | 76.2 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 27.0 | 38.8 | | 38.0 | | 70.4 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 16.6 | 9.6 | | 15.8 | | 8.3 | | | | | |
| Green Ext Time (p_c), s | | 0.8 | 3.4 | | 2.0 | | 4.4 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.4 |
| HCM 6th LOS | C |

**Notes**

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 71 | 834 | 951 | 626 | 123 | 0 | 263 |
| Future Volume (vph) | 71 | 834 | 951 | 626 | 123 | 0 | 263 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.7 | 75.6 | 66.3 | 66.3 | 14.9 | 14.9 | 14.9 |
| Actuated g/C Ratio | 0.07 | 0.74 | 0.65 | 0.65 | 0.15 | 0.15 | 0.15 |
| v/c Ratio | 0.34 | 0.34 | 0.44 | 0.60 | 0.27 | 0.27 | 0.76 |
| Control Delay | 50.6 | 5.5 | 11.0 | 9.8 | 40.7 | 40.7 | 31.3 |
| Queue Delay | 0.0 | 0.0 | 1.5 | 3.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.6 | 5.5 | 12.4 | 12.9 | 40.7 | 40.7 | 31.3 |
| LOS | D | A | B | B | D | D | C |
| Approach Delay | | 9.1 | 12.6 | | | 34.3 | |
| Approach LOS | | A | B | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 102.1 | |
| Natural Cycle: 55 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.76 | |
| Intersection Signal Delay: 14.4 | Intersection LOS: B |
| Intersection Capacity Utilization 64.8% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 71 | 834 | 0 | 0 | 951 | 626 | 123 | 0 | 263 | 0 | 0 | 0 |
| Future Volume (veh/h) | 71 | 834 | 0 | 0 | 951 | 626 | 123 | 0 | 263 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 77 | 907 | 0 | 0 | 1034 | 680 | 134 | 0 | 286 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 161 | 2499 | 0 | 0 | 2181 | 973 | 728 | 0 | 324 | | | |
| Arrive On Green | 0.05 | 0.69 | 0.00 | 0.00 | 0.60 | 0.60 | 0.20 | 0.00 | 0.20 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 77 | 907 | 0 | 0 | 1034 | 680 | 134 | 0 | 286 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.3 | 11.2 | 0.0 | 0.0 | 17.3 | 31.5 | 3.3 | 0.0 | 18.8 | | | |
| Cycle Q Clear(g_c), s | 2.3 | 11.2 | 0.0 | 0.0 | 17.3 | 31.5 | 3.3 | 0.0 | 18.8 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 161 | 2499 | 0 | 0 | 2181 | 973 | 728 | 0 | 324 | | | |
| V/C Ratio(X) | 0.48 | 0.36 | 0.00 | 0.00 | 0.47 | 0.70 | 0.18 | 0.00 | 0.88 | | | |
| Avail Cap(c_a), veh/h | 1160 | 2499 | 0 | 0 | 2181 | 973 | 1096 | 0 | 488 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 50.7 | 6.9 | 0.0 | 0.0 | 12.0 | 14.8 | 36.1 | 0.0 | 42.2 | | | |
| Incr Delay (d2), s/veh | 0.8 | 0.4 | 0.0 | 0.0 | 0.7 | 4.2 | 0.1 | 0.0 | 12.0 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.0 | 3.6 | 0.0 | 0.0 | 6.3 | 11.0 | 1.4 | 0.0 | 8.2 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.5 | 7.3 | 0.0 | 0.0 | 12.7 | 18.9 | 36.2 | 0.0 | 54.2 | | | |
| LnGrp LOS | D | A | A | A | B | B | D | A | D | | | |
| Approach Vol, veh/h | | 984 | | | 1714 | | | 420 | | | | |
| Approach Delay, s/veh | | 10.8 | | | 15.2 | | | 48.5 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 27.7 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 20.8 | | 13.2 | | | 4.3 | 33.5 | | | | |
| Green Ext Time (p_c), s | | 1.1 | | 7.1 | | | 0.1 | 1.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 18.3 |
| HCM 6th LOS | B |

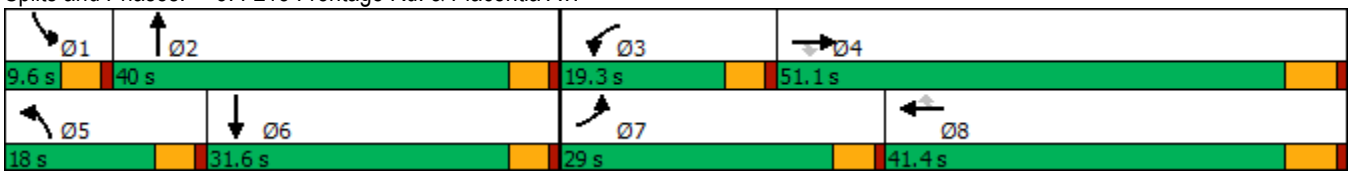
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 29.0 | 51.1 | 51.1 | 19.3 | 41.4 | 41.4 | 18.0 | 40.0 | 9.6 | 31.6 |
| Total Split (%) | 24.2% | 42.6% | 42.6% | 16.1% | 34.5% | 34.5% | 15.0% | 33.3% | 8.0% | 26.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 17.0 | 55.1 | 55.1 | 5.5 | 35.7 | 35.7 | 13.4 | 43.3 | 5.0 | 27.0 |
| Actuated g/C Ratio | 0.15 | 0.49 | 0.49 | 0.05 | 0.32 | 0.32 | 0.12 | 0.38 | 0.04 | 0.24 |
| v/c Ratio | 0.75 | 0.40 | 0.32 | 0.14 | 0.97 | 0.02 | 1.16 | 0.58 | 0.15 | 1.22 |
| Control Delay | 63.2 | 19.6 | 7.4 | 56.5 | 57.6 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| Queue Delay | 0.2 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 21.9 | 8.5 | 56.5 | 57.6 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| LOS | E | C | A | E | E | A | F | B | E | F |
| Approach Delay | | 25.8 | | | 57.0 | | | 67.8 | | 151.5 |
| Approach LOS | | C | | | E | | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.7 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.22 | |
| Intersection Signal Delay: 63.6 | Intersection LOS: E |
| Intersection Capacity Utilization 98.2% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 707 | 216 | 12 | 1160 | 9 | 249 | 74 | 363 | 12 | 251 | 232 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 99 | 485 | 25 | 223 | 206 |
| Arrive On Green | 0.13 | 0.44 | 0.44 | 0.01 | 0.32 | 0.32 | 0.12 | 0.35 | 0.35 | 0.01 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3800 | 1610 | 1810 | 280 | 1373 | 1810 | 909 | 840 |
| Grp Volume(v), veh/h | 204 | 707 | 216 | 12 | 1160 | 9 | 249 | 0 | 437 | 12 | 0 | 483 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 0 | 1653 | 1810 | 0 | 1749 |
| Q Serve(g_s), s | 12.1 | 15.0 | 9.5 | 0.7 | 32.7 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Cycle Q Clear(g_c), s | 12.1 | 15.0 | 9.5 | 0.7 | 32.7 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 0 | 584 | 25 | 0 | 430 |
| V/C Ratio(X) | 0.86 | 0.44 | 0.30 | 0.48 | 0.94 | 0.02 | 1.13 | 0.00 | 0.75 | 0.48 | 0.00 | 1.12 |
| Avail Cap(c_a), veh/h | 402 | 1589 | 709 | 242 | 1231 | 521 | 221 | 0 | 584 | 82 | 0 | 430 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.8 | 21.4 | 19.9 | 53.8 | 36.2 | 25.3 | 48.3 | 0.0 | 31.2 | 53.8 | 0.0 | 41.5 |
| Incr Delay (d2), s/veh | 4.3 | 0.9 | 1.1 | 5.1 | 15.2 | 0.1 | 99.6 | 0.0 | 5.3 | 13.2 | 0.0 | 81.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 6.1 | 3.6 | 0.4 | 16.8 | 0.2 | 11.9 | 0.0 | 10.5 | 0.4 | 0.0 | 20.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.2 | 22.3 | 21.0 | 58.9 | 51.3 | 25.3 | 147.9 | 0.0 | 36.5 | 67.0 | 0.0 | 123.4 |
| LnGrp LOS | D | C | C | E | D | C | F | A | D | E | A | F |
| Approach Vol, veh/h | | 1127 | | | 1181 | | | 686 | | | 495 | |
| Approach Delay, s/veh | | 27.3 | | | 51.2 | | | 76.9 | | | 122.0 | |
| Approach LOS | | C | | | D | | | E | | | F | |

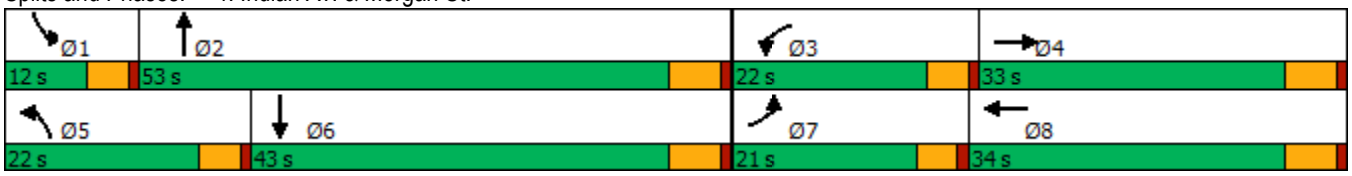
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 43.5 | 6.1 | 54.2 | 18.0 | 31.6 | 18.9 | 41.4 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 35.4 | 14.7 | 45.3 | 13.4 | 27.0 | 24.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.5 | 2.7 | 17.0 | 15.4 | 29.0 | 14.1 | 34.7 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 5.5 | 0.0 | 0.0 | 0.2 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 58.6 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 68 | 59 | 10 | 28 | 75 | 177 | 7 | 342 |
| Future Volume (vph) | 68 | 59 | 10 | 28 | 75 | 177 | 7 | 342 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 21.0 | 33.0 | 22.0 | 34.0 | 22.0 | 53.0 | 12.0 | 43.0 |
| Total Split (%) | 17.5% | 27.5% | 18.3% | 28.3% | 18.3% | 44.2% | 10.0% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 9.6 | 19.1 | 5.5 | 12.6 | 8.9 | 52.2 | 5.4 | 42.6 |
| Actuated g/C Ratio | 0.11 | 0.22 | 0.06 | 0.15 | 0.10 | 0.60 | 0.06 | 0.49 |
| v/c Ratio | 0.41 | 0.20 | 0.11 | 0.07 | 0.49 | 0.11 | 0.08 | 0.27 |
| Control Delay | 45.6 | 13.8 | 46.8 | 31.6 | 48.6 | 10.4 | 46.7 | 16.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.6 | 13.8 | 46.8 | 31.6 | 48.6 | 10.4 | 46.7 | 16.9 |
| LOS | D | B | D | C | D | B | D | B |
| Approach Delay | | 24.9 | | 35.3 | | 21.0 | | 17.4 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 86.6 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.49 | |
| Intersection Signal Delay: 20.9 | Intersection LOS: C |
| Intersection Capacity Utilization 40.2% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 68 | 59 | 69 | 10 | 28 | 3 | 75 | 177 | 18 | 7 | 342 | 51 |
| Future Volume (veh/h) | 68 | 59 | 69 | 10 | 28 | 3 | 75 | 177 | 18 | 7 | 342 | 51 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 83 | 72 | 64 | 12 | 34 | 4 | 91 | 216 | 21 | 9 | 417 | 47 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 108 | 331 | 264 | 26 | 419 | 48 | 118 | 1849 | 178 | 20 | 1642 | 184 |
| Arrive On Green | 0.06 | 0.17 | 0.17 | 0.01 | 0.13 | 0.13 | 0.07 | 0.56 | 0.56 | 0.01 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1905 | 1517 | 1810 | 3258 | 376 | 1810 | 3327 | 320 | 1810 | 3272 | 367 |
| Grp Volume(v), veh/h | 83 | 68 | 68 | 12 | 19 | 19 | 91 | 116 | 121 | 9 | 229 | 235 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1618 | 1810 | 1805 | 1829 | 1810 | 1805 | 1842 | 1810 | 1805 | 1834 |
| Q Serve(g_s), s | 3.8 | 2.7 | 3.1 | 0.6 | 0.8 | 0.8 | 4.2 | 2.6 | 2.6 | 0.4 | 6.2 | 6.2 |
| Cycle Q Clear(g_c), s | 3.8 | 2.7 | 3.1 | 0.6 | 0.8 | 0.8 | 4.2 | 2.6 | 2.6 | 0.4 | 6.2 | 6.2 |
| Prop In Lane | 1.00 | | 0.94 | 1.00 | | 0.21 | 1.00 | | 0.17 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 108 | 314 | 281 | 26 | 232 | 235 | 118 | 1003 | 1024 | 20 | 906 | 920 |
| V/C Ratio(X) | 0.77 | 0.22 | 0.24 | 0.46 | 0.08 | 0.08 | 0.77 | 0.12 | 0.12 | 0.44 | 0.25 | 0.26 |
| Avail Cap(c_a), veh/h | 349 | 578 | 518 | 371 | 599 | 607 | 371 | 1003 | 1024 | 158 | 906 | 920 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.4 | 30.1 | 30.3 | 41.5 | 32.6 | 32.6 | 39.1 | 9.0 | 9.0 | 41.7 | 12.1 | 12.1 |
| Incr Delay (d2), s/veh | 4.3 | 0.3 | 0.4 | 4.5 | 0.1 | 0.1 | 4.0 | 0.2 | 0.2 | 5.5 | 0.7 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 1.1 | 1.2 | 0.3 | 0.3 | 0.3 | 1.9 | 0.9 | 1.0 | 0.2 | 2.3 | 2.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.7 | 30.5 | 30.7 | 46.1 | 32.7 | 32.7 | 43.1 | 9.2 | 9.2 | 47.2 | 12.8 | 12.8 |
| LnGrp LOS | D | C | C | D | C | C | D | A | A | D | B | B |
| Approach Vol, veh/h | | 219 | | | 50 | | | 328 | | | 473 | |
| Approach Delay, s/veh | | 35.5 | | | 35.9 | | | 18.6 | | | 13.4 | |
| Approach LOS | | D | | | D | | | B | | | B | |

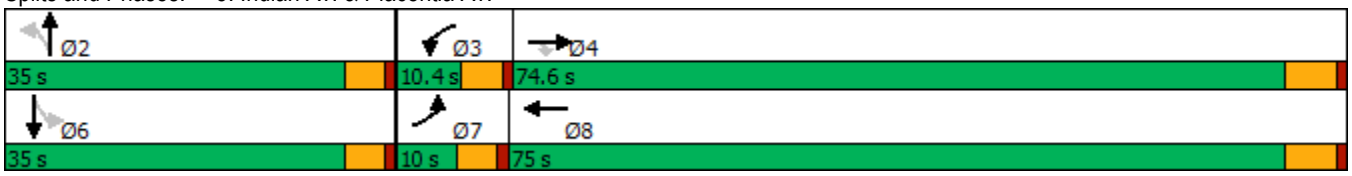
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.6 | 53.0 | 5.8 | 20.6 | 10.1 | 48.4 | 9.7 | 16.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 47.2 | 17.4 | 27.2 | 17.4 | 37.2 | 16.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 4.6 | 2.6 | 5.1 | 6.2 | 8.2 | 5.8 | 2.8 |
| Green Ext Time (p_c), s | 0.0 | 1.3 | 0.0 | 0.6 | 0.1 | 2.5 | 0.1 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.6 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 34 | 873 | 98 | 33 | 917 | 50 | 80 | 46 | 154 |
| Future Volume (vph) | 34 | 873 | 98 | 33 | 917 | 50 | 80 | 46 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 74.6 | 74.6 | 10.4 | 75.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| Total Split (%) | 8.3% | 62.2% | 62.2% | 8.7% | 62.5% | 29.2% | 29.2% | 29.2% | 29.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.3 | 69.4 | 69.4 | 5.7 | 71.7 | 25.0 | 25.0 | 25.0 | 25.0 |
| Actuated g/C Ratio | 0.05 | 0.61 | 0.61 | 0.05 | 0.64 | 0.22 | 0.22 | 0.22 | 0.22 |
| v/c Ratio | 0.44 | 0.81 | 0.10 | 0.53 | 0.90 | 0.76 | 0.35 | 0.28 | 0.85 |
| Control Delay | 71.2 | 26.0 | 3.7 | 76.5 | 32.1 | 99.3 | 37.0 | 39.9 | 59.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 71.2 | 26.0 | 3.7 | 76.5 | 32.1 | 99.3 | 37.0 | 39.9 | 59.0 |
| LOS | E | C | A | E | C | F | D | D | E |
| Approach Delay | | 25.3 | | | 34.0 | | 53.8 | | 55.9 |
| Approach LOS | | C | | | C | | D | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.9 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.90 | |
| Intersection Signal Delay: 35.3 | Intersection LOS: D |
| Intersection Capacity Utilization 83.7% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 34 | 873 | 98 | 33 | 917 | 55 | 50 | 80 | 21 | 46 | 154 | 120 |
| Future Volume (veh/h) | 34 | 873 | 98 | 33 | 917 | 55 | 50 | 80 | 21 | 46 | 154 | 120 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 37 | 949 | 82 | 48 | 997 | 61 | 54 | 116 | 23 | 67 | 223 | 83 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 55 | 1139 | 965 | 79 | 1086 | 66 | 138 | 348 | 69 | 270 | 298 | 111 |
| Arrive On Green | 0.03 | 0.60 | 0.60 | 0.04 | 0.61 | 0.61 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1772 | 108 | 1090 | 1540 | 305 | 1270 | 1320 | 491 |
| Grp Volume(v), veh/h | 37 | 949 | 82 | 48 | 0 | 1058 | 54 | 0 | 139 | 67 | 0 | 306 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1880 | 1090 | 0 | 1845 | 1270 | 0 | 1812 |
| Q Serve(g_s), s | 2.3 | 45.8 | 2.5 | 3.0 | 0.0 | 57.1 | 5.6 | 0.0 | 7.2 | 5.3 | 0.0 | 18.0 |
| Cycle Q Clear(g_c), s | 2.3 | 45.8 | 2.5 | 3.0 | 0.0 | 57.1 | 23.6 | 0.0 | 7.2 | 12.6 | 0.0 | 18.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.17 | 1.00 | | 0.27 |
| Lane Grp Cap(c), veh/h | 55 | 1139 | 965 | 79 | 0 | 1153 | 138 | 0 | 417 | 270 | 0 | 410 |
| V/C Ratio(X) | 0.68 | 0.83 | 0.08 | 0.61 | 0.00 | 0.92 | 0.39 | 0.00 | 0.33 | 0.25 | 0.00 | 0.75 |
| Avail Cap(c_a), veh/h | 85 | 1139 | 965 | 91 | 0 | 1153 | 180 | 0 | 489 | 319 | 0 | 480 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.1 | 18.4 | 9.7 | 53.9 | 0.0 | 19.6 | 52.3 | 0.0 | 37.2 | 42.4 | 0.0 | 41.3 |
| Incr Delay (d2), s/veh | 5.4 | 7.2 | 0.2 | 4.4 | 0.0 | 12.9 | 1.8 | 0.0 | 0.5 | 0.5 | 0.0 | 5.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 19.7 | 0.8 | 1.4 | 0.0 | 25.4 | 1.6 | 0.0 | 3.2 | 1.7 | 0.0 | 8.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.4 | 25.6 | 9.9 | 58.3 | 0.0 | 32.6 | 54.1 | 0.0 | 37.6 | 42.9 | 0.0 | 46.7 |
| LnGrp LOS | E | C | A | E | A | C | D | A | D | D | A | D |
| Approach Vol, veh/h | | 1068 | | | 1106 | | | 193 | | | 373 | |
| Approach Delay, s/veh | | 25.6 | | | 33.7 | | | 42.2 | | | 46.0 | |
| Approach LOS | | C | | | C | | | D | | | D | |

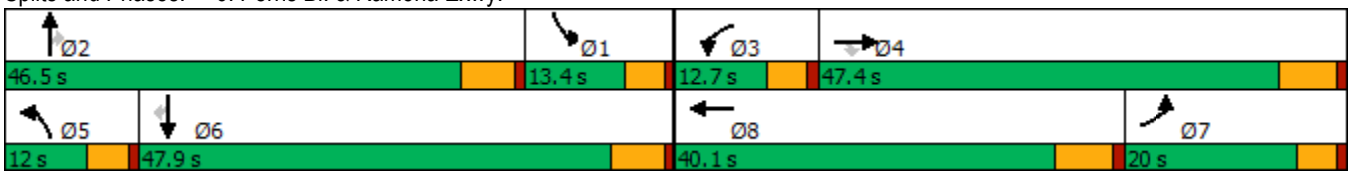
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 30.5 | 9.6 | 74.6 | | 30.5 | 8.1 | 76.1 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 30.4 | 5.8 | 68.8 | | 30.4 | 5.4 | 69.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 25.6 | 5.0 | 47.8 | | 20.0 | 4.3 | 59.1 | | | | |
| Green Ext Time (p_c), s | | 0.3 | 0.0 | 7.2 | | 1.3 | 0.0 | 5.4 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.8 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 256 | 1089 | 148 | 102 | 823 | 286 | 451 | 102 | 346 | 638 | 280 |
| Future Volume (vph) | 256 | 1089 | 148 | 102 | 823 | 286 | 451 | 102 | 346 | 638 | 280 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 12.0 | 46.5 | 46.5 | 13.4 | 47.9 | 47.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 10.0% | 38.8% | 38.8% | 11.2% | 39.9% | 39.9% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 11.9 | 29.4 | 29.4 | 7.0 | 24.5 | 7.6 | 19.5 | 19.5 | 13.2 | 25.0 | 25.0 |
| Actuated g/C Ratio | 0.13 | 0.32 | 0.32 | 0.08 | 0.27 | 0.08 | 0.21 | 0.21 | 0.15 | 0.28 | 0.28 |
| v/c Ratio | 0.58 | 0.68 | 0.24 | 0.39 | 0.70 | 1.02 | 0.61 | 0.22 | 0.71 | 0.67 | 0.46 |
| Control Delay | 44.9 | 29.2 | 4.5 | 48.3 | 32.7 | 101.8 | 36.2 | 1.0 | 48.6 | 33.3 | 7.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 44.9 | 29.2 | 4.5 | 48.3 | 32.7 | 101.8 | 36.2 | 1.0 | 48.6 | 33.3 | 7.2 |
| LOS | D | C | A | D | C | F | D | A | D | C | A |
| Approach Delay | | 29.4 | | | 34.3 | | 54.3 | | | 31.7 | |
| Approach LOS | | C | | | C | | D | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 90.8 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.02 | |
| Intersection Signal Delay: 35.7 | Intersection LOS: D |
| Intersection Capacity Utilization 69.6% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 256 | 1089 | 148 | 102 | 823 | 104 | 286 | 451 | 102 | 346 | 638 | 280 |
| Future Volume (veh/h) | 256 | 1089 | 148 | 102 | 823 | 104 | 286 | 451 | 102 | 346 | 638 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 267 | 1134 | 128 | 106 | 857 | 81 | 298 | 470 | 76 | 360 | 665 | 262 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 359 | 1659 | 515 | 199 | 1226 | 115 | 325 | 705 | 313 | 520 | 960 | 428 |
| Arrive On Green | 0.10 | 0.32 | 0.32 | 0.06 | 0.25 | 0.25 | 0.09 | 0.20 | 0.20 | 0.15 | 0.27 | 0.27 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4822 | 454 | 3510 | 3610 | 1603 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 267 | 1134 | 128 | 106 | 614 | 324 | 298 | 470 | 76 | 360 | 665 | 262 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1818 | 1755 | 1805 | 1603 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 5.9 | 15.2 | 4.7 | 2.3 | 12.9 | 13.0 | 6.7 | 9.6 | 2.5 | 7.8 | 13.3 | 7.5 |
| Cycle Q Clear(g_c), s | 5.9 | 15.2 | 4.7 | 2.3 | 12.9 | 13.0 | 6.7 | 9.6 | 2.5 | 7.8 | 13.3 | 7.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.25 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 359 | 1659 | 515 | 199 | 879 | 462 | 325 | 705 | 313 | 520 | 960 | 428 |
| V/C Ratio(X) | 0.74 | 0.68 | 0.25 | 0.53 | 0.70 | 0.70 | 0.92 | 0.67 | 0.24 | 0.69 | 0.69 | 0.61 |
| Avail Cap(c_a), veh/h | 676 | 2671 | 829 | 355 | 1465 | 770 | 325 | 1837 | 815 | 520 | 1900 | 846 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 34.9 | 23.7 | 20.1 | 36.7 | 27.0 | 27.1 | 36.0 | 29.8 | 16.0 | 32.3 | 26.4 | 11.1 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.2 | 0.8 | 1.0 | 2.0 | 29.3 | 1.1 | 0.4 | 3.3 | 0.9 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 5.6 | 1.6 | 1.0 | 4.9 | 5.3 | 4.0 | 4.0 | 1.1 | 3.3 | 5.3 | 3.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.1 | 24.2 | 20.3 | 37.5 | 28.1 | 29.0 | 65.3 | 30.9 | 16.4 | 35.6 | 27.3 | 12.5 |
| LnGrp LOS | D | C | C | D | C | C | E | C | B | D | C | B |
| Approach Vol, veh/h | | 1529 | | | 1044 | | | 844 | | | 1287 | |
| Approach Delay, s/veh | | 25.9 | | | 29.3 | | | 41.7 | | | 26.6 | |
| Approach LOS | | C | | | C | | | D | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.7 | 21.4 | 9.1 | 31.8 | 12.0 | 27.1 | 14.4 | 26.5 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 7.4 | 42.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 9.8 | 11.6 | 4.3 | 17.2 | 8.7 | 15.3 | 7.9 | 15.0 |
| Green Ext Time (p_c), s | 0.0 | 3.2 | 0.0 | 8.2 | 0.0 | 5.3 | 0.3 | 5.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 29.7 |
| HCM 6th LOS | C |

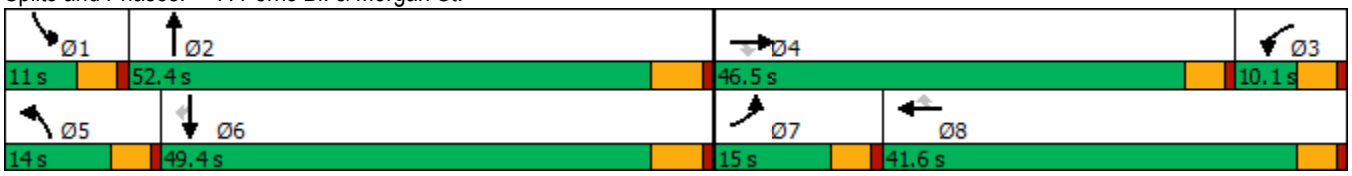
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 25 | 31 | 35 | 6 | 18 | 14 | 773 | 8 | 963 | 16 |
| Future Volume (vph) | 38 | 25 | 31 | 35 | 6 | 18 | 14 | 773 | 8 | 963 | 16 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 11.9 | 17.8 | 17.8 | 9.6 | 18.4 | 18.4 | 8.3 | 37.6 | 8.1 | 37.5 | 37.5 |
| Actuated g/C Ratio | 0.21 | 0.32 | 0.32 | 0.17 | 0.33 | 0.33 | 0.15 | 0.67 | 0.14 | 0.66 | 0.66 |
| v/c Ratio | 0.11 | 0.02 | 0.06 | 0.13 | 0.01 | 0.03 | 0.06 | 0.26 | 0.03 | 0.46 | 0.02 |
| Control Delay | 34.0 | 26.6 | 0.2 | 34.3 | 25.3 | 0.1 | 39.5 | 12.1 | 40.2 | 15.2 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.0 | 26.6 | 0.2 | 34.3 | 25.3 | 0.1 | 39.5 | 12.1 | 40.2 | 15.2 | 0.0 |
| LOS | C | C | A | C | C | A | D | B | D | B | A |
| Approach Delay | | 20.9 | | | 23.1 | | | 12.6 | | 15.2 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 56.4 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.46 | |
| Intersection Signal Delay: 14.6 | Intersection LOS: B |
| Intersection Capacity Utilization 51.6% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 25 | 31 | 35 | 6 | 18 | 14 | 773 | 12 | 8 | 963 | 16 |
| Future Volume (veh/h) | 38 | 25 | 31 | 35 | 6 | 18 | 14 | 773 | 12 | 8 | 963 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 28 | 19 | 40 | 7 | 18 | 16 | 878 | 12 | 9 | 1094 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 79 | 542 | 242 | 76 | 282 | 239 | 36 | 2325 | 32 | 21 | 1562 | 688 |
| Arrive On Green | 0.04 | 0.15 | 0.15 | 0.04 | 0.15 | 0.15 | 0.02 | 0.44 | 0.44 | 0.01 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5273 | 72 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 28 | 19 | 40 | 7 | 18 | 16 | 576 | 314 | 9 | 1094 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1887 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.3 | 0.4 | 0.4 | 1.2 | 0.2 | 0.5 | 0.5 | 6.2 | 6.2 | 0.3 | 13.6 | 0.1 |
| Cycle Q Clear(g_c), s | 1.3 | 0.4 | 0.4 | 1.2 | 0.2 | 0.5 | 0.5 | 6.2 | 6.2 | 0.3 | 13.6 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 79 | 542 | 242 | 76 | 282 | 239 | 36 | 1524 | 832 | 21 | 1562 | 688 |
| V/C Ratio(X) | 0.54 | 0.05 | 0.08 | 0.52 | 0.02 | 0.08 | 0.45 | 0.38 | 0.38 | 0.43 | 0.70 | 0.01 |
| Avail Cap(c_a), veh/h | 341 | 2740 | 1222 | 180 | 1274 | 1079 | 308 | 2919 | 1593 | 210 | 2852 | 1256 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.9 | 20.1 | 12.3 | 25.9 | 20.1 | 20.2 | 26.8 | 10.4 | 10.4 | 27.1 | 12.7 | 8.9 |
| Incr Delay (d2), s/veh | 2.1 | 0.0 | 0.1 | 2.1 | 0.0 | 0.1 | 3.3 | 0.2 | 0.3 | 5.0 | 0.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.1 | 0.2 | 0.5 | 0.1 | 0.2 | 0.2 | 1.8 | 2.0 | 0.1 | 4.2 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 28.0 | 20.1 | 12.4 | 27.9 | 20.1 | 20.4 | 30.0 | 10.5 | 10.6 | 32.1 | 13.3 | 8.9 |
| LnGrp LOS | C | C | B | C | C | C | C | B | B | C | B | A |
| Approach Vol, veh/h | | 90 | | | 65 | | | 906 | | | 1110 | |
| Approach Delay, s/veh | | 22.3 | | | 25.0 | | | 10.9 | | | 13.4 | |
| Approach LOS | | C | | | C | | | B | | | B | |

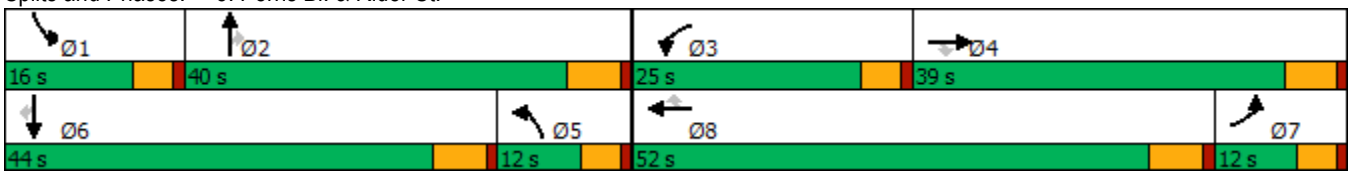
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.2 | 30.1 | 6.9 | 12.9 | 5.7 | 29.7 | 7.0 | 12.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.3 | 8.2 | 3.2 | 2.4 | 2.5 | 15.6 | 3.3 | 2.5 |
| Green Ext Time (p_c), s | 0.0 | 6.0 | 0.0 | 0.2 | 0.0 | 8.2 | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.1 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 40 | 193 | 52 | 163 | 67 | 133 | 19 | 620 | 195 | 125 | 899 | 16 |
| Future Volume (vph) | 40 | 193 | 52 | 163 | 67 | 133 | 19 | 620 | 195 | 125 | 899 | 16 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 10.0 | 13.8 | 13.8 | 11.8 | 20.6 | 20.6 | 6.2 | 16.9 | 16.9 | 9.9 | 27.7 | 27.7 |
| Actuated g/C Ratio | 0.13 | 0.18 | 0.18 | 0.16 | 0.28 | 0.28 | 0.08 | 0.23 | 0.23 | 0.13 | 0.37 | 0.37 |
| v/c Ratio | 0.17 | 0.29 | 0.12 | 0.58 | 0.07 | 0.23 | 0.13 | 0.53 | 0.38 | 0.53 | 0.47 | 0.02 |
| Control Delay | 34.5 | 28.8 | 0.6 | 40.8 | 25.7 | 3.0 | 41.8 | 28.2 | 7.1 | 44.2 | 21.7 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.5 | 28.8 | 0.6 | 40.8 | 25.7 | 3.0 | 41.8 | 28.2 | 7.1 | 44.2 | 21.7 | 0.1 |
| LOS | C | C | A | D | C | A | D | C | A | D | C | A |
| Approach Delay | | 24.4 | | | 24.2 | | | 23.6 | | | 24.1 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 74.6 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 24.0 | Intersection LOS: C |
| Intersection Capacity Utilization 56.2% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 40 | 193 | 52 | 163 | 67 | 133 | 19 | 620 | 195 | 125 | 899 | 16 |
| Future Volume (veh/h) | 40 | 193 | 52 | 163 | 67 | 133 | 19 | 620 | 195 | 125 | 899 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 40 | 195 | 41 | 165 | 68 | -1 | 19 | 626 | 165 | 126 | 908 | 1 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 173 | 632 | 282 | 212 | 635 | 283 | 41 | 1305 | 399 | 163 | 1545 | 480 |
| Arrive On Green | 0.10 | 0.18 | 0.18 | 0.12 | 0.18 | 0.00 | 0.02 | 0.25 | 0.25 | 0.09 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 40 | 195 | 41 | 165 | 68 | -1 | 19 | 626 | 165 | 126 | 908 | 1 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.2 | 2.7 | 0.9 | 5.0 | 0.9 | 0.0 | 0.6 | 5.8 | 4.9 | 3.9 | 8.5 | 0.0 |
| Cycle Q Clear(g_c), s | 1.2 | 2.7 | 0.9 | 5.0 | 0.9 | 0.0 | 0.6 | 5.8 | 4.9 | 3.9 | 8.5 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 173 | 632 | 282 | 212 | 635 | 283 | 41 | 1305 | 399 | 163 | 1545 | 480 |
| V/C Ratio(X) | 0.23 | 0.31 | 0.15 | 0.78 | 0.11 | 0.00 | 0.46 | 0.48 | 0.41 | 0.77 | 0.59 | 0.00 |
| Avail Cap(c_a), veh/h | 236 | 2108 | 940 | 649 | 2934 | 1309 | 236 | 3121 | 955 | 363 | 3486 | 1082 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.8 | 20.4 | 10.4 | 24.4 | 19.7 | 0.0 | 27.4 | 18.1 | 17.8 | 25.3 | 17.0 | 14.0 |
| Incr Delay (d2), s/veh | 0.3 | 0.3 | 0.2 | 2.3 | 0.1 | 0.0 | 3.0 | 0.3 | 0.7 | 2.9 | 0.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 1.0 | 0.4 | 2.0 | 0.3 | 0.0 | 0.3 | 2.0 | 1.6 | 1.6 | 2.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.0 | 20.7 | 10.7 | 26.7 | 19.8 | 0.0 | 30.4 | 18.4 | 18.4 | 28.2 | 17.3 | 14.0 |
| LnGrp LOS | C | C | B | C | B | A | C | B | B | C | B | B |
| Approach Vol, veh/h | | 276 | | | 232 | | | 810 | | | 1035 | |
| Approach Delay, s/veh | | 19.7 | | | 24.8 | | | 18.7 | | | 18.7 | |
| Approach LOS | | B | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.7 | 20.1 | 11.3 | 15.8 | 7.1 | 22.7 | 11.2 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 5.9 | 7.8 | 7.0 | 4.7 | 2.6 | 10.5 | 3.2 | 2.9 |
| Green Ext Time (p_c), s | 0.1 | 4.7 | 0.2 | 1.2 | 0.0 | 6.4 | 0.0 | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.4 |
| HCM 6th LOS | B |

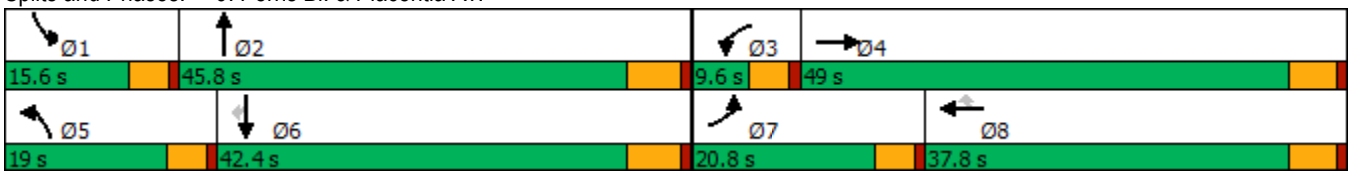
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 230 | 487 | 60 | 472 | 93 | 234 | 778 | 142 | 1037 | 231 |
| Future Volume (vph) | 230 | 487 | 60 | 472 | 93 | 234 | 778 | 142 | 1037 | 231 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 20.8 | 49.0 | 9.6 | 37.8 | 37.8 | 19.0 | 45.8 | 15.6 | 42.4 | 42.4 |
| Total Split (%) | 17.3% | 40.8% | 8.0% | 31.5% | 31.5% | 15.8% | 38.2% | 13.0% | 35.3% | 35.3% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 16.2 | 43.6 | 5.0 | 32.4 | 32.4 | 14.4 | 40.0 | 11.0 | 36.6 | 36.6 |
| Actuated g/C Ratio | 0.14 | 0.36 | 0.04 | 0.27 | 0.27 | 0.12 | 0.33 | 0.09 | 0.30 | 0.30 |
| v/c Ratio | 1.00 | 1.15 | 0.84 | 0.97 | 0.18 | 1.14 | 0.74 | 0.90 | 0.99 | 0.41 |
| Control Delay | 109.0 | 118.4 | 123.5 | 76.6 | 1.9 | 151.0 | 39.7 | 102.7 | 67.0 | 13.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 109.0 | 118.4 | 123.5 | 76.6 | 1.9 | 151.0 | 39.7 | 102.7 | 67.0 | 13.3 |
| LOS | F | F | F | E | A | F | D | F | E | B |
| Approach Delay | | 116.1 | | 69.9 | | | 63.9 | | 61.8 | |
| Approach LOS | | F | | E | | | E | | E | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.15 | |
| Intersection Signal Delay: 76.4 | Intersection LOS: E |
| Intersection Capacity Utilization 103.4% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 230 | 487 | 245 | 60 | 472 | 93 | 234 | 778 | 64 | 142 | 1037 | 231 |
| Future Volume (veh/h) | 230 | 487 | 245 | 60 | 472 | 93 | 234 | 778 | 64 | 142 | 1037 | 231 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 242 | 513 | 253 | 63 | 497 | -4 | 246 | 819 | 60 | 149 | 1092 | 234 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 244 | 436 | 215 | 75 | 513 | 435 | 217 | 1135 | 83 | 166 | 1101 | 489 |
| Arrive On Green | 0.14 | 0.36 | 0.36 | 0.04 | 0.27 | 0.00 | 0.12 | 0.33 | 0.33 | 0.09 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1810 | 1201 | 592 | 1810 | 1900 | 1610 | 1810 | 3404 | 249 | 1810 | 3610 | 1605 |
| Grp Volume(v), veh/h | 242 | 0 | 766 | 63 | 497 | -4 | 246 | 434 | 445 | 149 | 1092 | 234 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1793 | 1810 | 1900 | 1610 | 1810 | 1805 | 1848 | 1810 | 1805 | 1605 |
| Q Serve(g_s), s | 16.0 | 0.0 | 43.6 | 4.1 | 31.0 | 0.0 | 14.4 | 25.3 | 25.4 | 9.8 | 36.2 | 14.2 |
| Cycle Q Clear(g_c), s | 16.0 | 0.0 | 43.6 | 4.1 | 31.0 | 0.0 | 14.4 | 25.3 | 25.4 | 9.8 | 36.2 | 14.2 |
| Prop In Lane | 1.00 | | 0.33 | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 244 | 0 | 652 | 75 | 513 | 435 | 217 | 602 | 616 | 166 | 1101 | 489 |
| V/C Ratio(X) | 0.99 | 0.00 | 1.18 | 0.84 | 0.97 | -0.01 | 1.13 | 0.72 | 0.72 | 0.90 | 0.99 | 0.48 |
| Avail Cap(c_a), veh/h | 244 | 0 | 652 | 75 | 513 | 435 | 217 | 602 | 616 | 166 | 1101 | 489 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 0.0 | 38.2 | 57.1 | 43.3 | 0.0 | 52.8 | 35.1 | 35.1 | 53.9 | 41.6 | 33.9 |
| Incr Delay (d2), s/veh | 54.8 | 0.0 | 94.5 | 50.4 | 31.8 | 0.0 | 101.5 | 7.3 | 7.2 | 41.1 | 25.2 | 3.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.0 | 0.0 | 36.1 | 3.0 | 19.1 | 0.0 | 12.7 | 12.4 | 12.7 | 6.2 | 19.2 | 6.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 106.6 | 0.0 | 132.7 | 107.4 | 75.1 | 0.0 | 154.3 | 42.4 | 42.3 | 95.0 | 66.8 | 37.2 |
| LnGrp LOS | F | A | F | F | E | A | F | D | D | F | E | D |
| Approach Vol, veh/h | | 1008 | | | 556 | | | 1125 | | | 1475 | |
| Approach Delay, s/veh | | 126.4 | | | 79.3 | | | 66.8 | | | 64.9 | |
| Approach LOS | | F | | | E | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.6 | 45.8 | 9.6 | 49.0 | 19.0 | 42.4 | 20.8 | 37.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 11.0 | 40.0 | 5.0 | 43.6 | 14.4 | 36.6 | 16.2 | 32.4 |
| Max Q Clear Time (g_c+I1), s | 11.8 | 27.4 | 6.1 | 45.6 | 16.4 | 38.2 | 18.0 | 33.0 |
| Green Ext Time (p_c), s | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 82.2 |
| HCM 6th LOS | F |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 7.7 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 34 |
| Future Vol, veh/h | 44 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 34 |
| Peak Hour Factor | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 63 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 3 | 49 |
| Number of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 1 | 2 |
| HCM Control Delay | 8.3 | 0 | 7.7 | 6.9 |
| HCM LOS | A | - | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 0% | 100% | 0% | 0% | 0% | 0% |
| Vol Thru, % | 100% | 0% | 100% | 100% | 100% | 0% |
| Vol Right, % | 0% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 2 | 44 | 0 | 0 | 2 | 34 |
| LT Vol | 0 | 44 | 0 | 0 | 0 | 0 |
| Through Vol | 2 | 0 | 0 | 0 | 2 | 0 |
| RT Vol | 0 | 0 | 0 | 0 | 0 | 34 |
| Lane Flow Rate | 3 | 63 | 0 | 0 | 3 | 49 |
| Geometry Grp | 6 | 7 | 7 | 6 | 7 | 7 |
| Degree of Util (X) | 0.004 | 0.089 | 0 | 0 | 0.004 | 0.053 |
| Departure Headway (Hd) | 4.651 | 5.095 | 4.595 | 4.643 | 4.613 | 3.912 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 762 | 705 | 0 | 0 | 769 | 906 |
| Service Time | 2.727 | 2.818 | 2.318 | 2.695 | 2.379 | 1.678 |
| HCM Lane V/C Ratio | 0.004 | 0.089 | 0 | 0 | 0.004 | 0.054 |
| HCM Control Delay | 7.7 | 8.3 | 7.3 | 7.7 | 7.4 | 6.9 |
| HCM Lane LOS | A | A | N | N | A | A |
| HCM 95th-tile Q | 0 | 0.3 | 0 | 0 | 0 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.3 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 2 |
| Future Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 0 | 0 | 0 | 0 | 2 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 1 | 1 | 2 | 0 | - | 0 |
| Stage 1 | 1 | - | - | - | - | - |
| Stage 2 | 0 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 1027 | 1090 | 1634 | - | - | - |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 1027 | 1090 | 1634 | - | - | - |
| Mov Cap-2 Maneuver | 1027 | - | - | - | - | - |
| Stage 1 | 1028 | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.5 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1634 | - | 1027 | - | - |
| HCM Lane V/C Ratio | - | - | 0.002 | - | - |
| HCM Control Delay (s) | 0 | - | 8.5 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 494 | 37 | 89 | 381 | 0 | 28 | 0 | 120 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 494 | 37 | 89 | 381 | 0 | 28 | 0 | 120 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | 0 | 120 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 568 | 43 | 102 | 438 | 0 | 32 | 0 | 138 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 438 | 0 | 0 | 611 | 0 | 0 | 991 | 1210 | 568 | 1301 | 1253 | 219 |
| Stage 1 | - | - | - | - | - | - | 568 | 568 | - | 642 | 642 | - |
| Stage 2 | - | - | - | - | - | - | 423 | 642 | - | 659 | 611 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1133 | - | - | 978 | - | - | 215 | 184 | 526 | 130 | 174 | 791 |
| Stage 1 | - | - | - | - | - | - | 511 | 510 | - | 434 | 472 | - |
| Stage 2 | - | - | - | - | - | - | 585 | 472 | - | 456 | 487 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1133 | - | - | 978 | - | - | 198 | 165 | 526 | 88 | 156 | 791 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 198 | 165 | - | 88 | 156 | - |
| Stage 1 | - | - | - | - | - | - | 511 | 510 | - | 434 | 423 | - |
| Stage 2 | - | - | - | - | - | - | 524 | 423 | - | 336 | 487 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.7 | 16.6 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 198 | 526 | 1133 | - | - | 978 | - | - | - | - |
| HCM Lane V/C Ratio | 0.163 | 0.262 | - | - | - | 0.105 | - | - | - | - |
| HCM Control Delay (s) | 26.7 | 14.3 | 0 | - | - | 9.1 | - | - | 0 | 0 |
| HCM Lane LOS | D | B | A | - | - | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.6 | 1 | 0 | - | - | 0.3 | - | - | - | - |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 13.1 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 32 | 211 | 188 | 21 | 181 | 0 | 183 | 117 | 24 | 4 | 107 | 13 |
| Future Vol, veh/h | 32 | 211 | 188 | 21 | 181 | 0 | 183 | 117 | 24 | 4 | 107 | 13 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 33 | 220 | 196 | 22 | 189 | 0 | 191 | 122 | 25 | 4 | 111 | 14 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 12.9 | 13.8 | 13.4 | 12.3 |
| HCM LOS | B | B | B | B |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 62% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 38% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 183 | 78 | 63 | 32 | 211 | 188 | 21 | 181 | 4 | 107 | 13 |
| LT Vol | 183 | 0 | 0 | 32 | 0 | 0 | 21 | 0 | 4 | 0 | 0 |
| Through Vol | 0 | 78 | 39 | 0 | 211 | 0 | 0 | 181 | 0 | 107 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 13 |
| Lane Flow Rate | 191 | 81 | 66 | 33 | 220 | 196 | 22 | 189 | 4 | 111 | 14 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.4 | 0.159 | 0.124 | 0.068 | 0.416 | 0.332 | 0.047 | 0.375 | 0.009 | 0.236 | 0.026 |
| Departure Headway (Hd) | 7.562 | 7.056 | 6.802 | 7.317 | 6.815 | 6.112 | 7.666 | 7.166 | 8.127 | 7.619 | 6.907 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 477 | 509 | 529 | 492 | 532 | 591 | 468 | 503 | 441 | 471 | 518 |
| Service Time | 5.298 | 4.792 | 4.521 | 5.02 | 4.518 | 3.814 | 5.402 | 4.902 | 5.87 | 5.362 | 4.65 |
| HCM Lane V/C Ratio | 0.4 | 0.159 | 0.125 | 0.067 | 0.414 | 0.332 | 0.047 | 0.376 | 0.009 | 0.236 | 0.027 |
| HCM Control Delay | 15.3 | 11.1 | 10.5 | 10.6 | 14.3 | 11.8 | 10.8 | 14.2 | 10.9 | 12.7 | 9.8 |
| HCM Lane LOS | C | B | B | B | B | B | B | B | B | B | A |
| HCM 95th-tile Q | 1.9 | 0.6 | 0.4 | 0.2 | 2 | 1.4 | 0.1 | 1.7 | 0 | 0.9 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 551 | 51 | 110 | 423 | 0 | 38 | 0 | 107 | 0 | 0 | 0 |
| Future Vol, veh/h | 0 | 551 | 51 | 110 | 423 | 0 | 38 | 0 | 107 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | 50 | 185 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 599 | 55 | 120 | 460 | 0 | 41 | 0 | 116 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 460 | 0 | 0 | 654 | 0 | 0 | 1069 | 1299 | 599 | 1385 | 1354 | 230 |
| Stage 1 | - | - | - | - | - | - | 599 | 599 | - | 700 | 700 | - |
| Stage 2 | - | - | - | - | - | - | 470 | 700 | - | 685 | 654 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1112 | - | - | 943 | - | - | 189 | 163 | 505 | 113 | 151 | 779 |
| Stage 1 | - | - | - | - | - | - | 492 | 494 | - | 401 | 444 | - |
| Stage 2 | - | - | - | - | - | - | 548 | 444 | - | 441 | 466 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1112 | - | - | 943 | - | - | 170 | 142 | 505 | 79 | 132 | 779 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 299 | 262 | - | 161 | 227 | - |
| Stage 1 | - | - | - | - | - | - | 492 | 494 | - | 401 | 388 | - |
| Stage 2 | - | - | - | - | - | - | 478 | 388 | - | 339 | 466 | - |

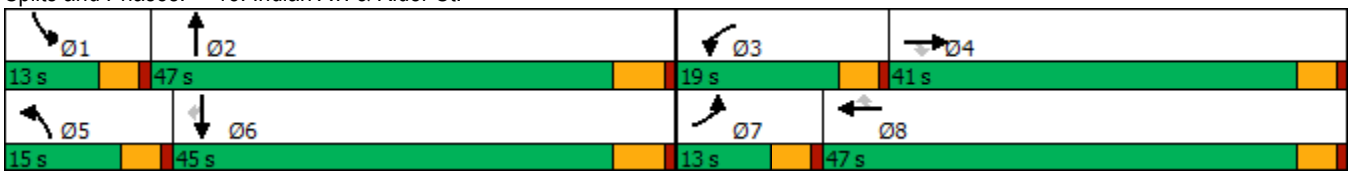
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 1.9 | 18.2 | 0 |
| HCM LOS | | | C | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 428 | 1112 | - | - | 943 | - | - | - |
| HCM Lane V/C Ratio | 0.368 | - | - | - | 0.127 | - | - | - |
| HCM Control Delay (s) | 18.2 | 0 | - | - | 9.4 | - | - | 0 |
| HCM Lane LOS | C | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 1.7 | 0 | - | - | 0.4 | - | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Future Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 37.6 | 37.6 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 41.0 | 41.0 | 19.0 | 47.0 | 47.0 | 15.0 | 47.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 34.2% | 34.2% | 15.8% | 39.2% | 39.2% | 12.5% | 39.2% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.5 | 14.6 | 14.6 | 7.3 | 22.4 | 22.4 | 6.0 | 41.9 | 8.4 | 50.7 | 50.7 |
| Actuated g/C Ratio | 0.06 | 0.16 | 0.16 | 0.08 | 0.25 | 0.25 | 0.07 | 0.47 | 0.09 | 0.56 | 0.56 |
| v/c Ratio | 0.13 | 0.45 | 0.17 | 0.38 | 0.25 | 0.18 | 0.21 | 0.09 | 0.66 | 0.16 | 0.03 |
| Control Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| LOS | D | D | A | D | C | A | D | B | E | B | A |
| Approach Delay | | 30.1 | | | 24.6 | | | 18.3 | | 24.0 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 89.8 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 25.0 | Intersection LOS: C |
| Intersection Capacity Utilization 40.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Future Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 120 | 18 | 111 | 332 | 15 |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 1613 | 237 | 141 | 2030 | 906 |
| Arrive On Green | 0.02 | 0.12 | 0.12 | 0.04 | 0.15 | 0.15 | 0.03 | 0.51 | 0.51 | 0.08 | 0.56 | 0.56 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 3157 | 465 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 68 | 70 | 111 | 332 | 15 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1816 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 922 | 928 | 141 | 2030 | 906 |
| V/C Ratio(X) | 0.46 | 0.59 | 0.18 | 0.69 | 0.41 | 0.20 | 0.52 | 0.07 | 0.08 | 0.78 | 0.16 | 0.02 |
| Avail Cap(c_a), veh/h | 188 | 1629 | 727 | 323 | 999 | 847 | 233 | 922 | 928 | 188 | 2030 | 906 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.3 | 33.4 | 31.6 | 38.0 | 31.0 | 30.0 | 38.7 | 10.0 | 10.0 | 36.5 | 8.5 | 7.8 |
| Incr Delay (d2), s/veh | 4.1 | 1.2 | 0.4 | 4.0 | 0.9 | 0.4 | 3.2 | 0.2 | 0.2 | 10.2 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 2.5 | 0.6 | 1.2 | 2.1 | 0.9 | 0.5 | 0.6 | 0.6 | 2.4 | 1.2 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.4 | 34.6 | 32.0 | 42.0 | 31.9 | 30.4 | 41.9 | 10.2 | 10.2 | 46.7 | 8.7 | 7.8 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 311 | | | 221 | | | 163 | | | 458 | |
| Approach Delay, s/veh | | 34.7 | | | 34.1 | | | 15.1 | | | 17.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.9 | 47.0 | 8.1 | 14.6 | 6.7 | 51.2 | 5.9 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 8.4 | 41.2 | 14.4 | 36.4 | 10.4 | 39.2 | 8.4 | 42.4 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 3.6 | 4.4 | 7.5 | 3.1 | 5.6 | 2.6 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 0.7 | 0.0 | 1.9 | 0.0 | 2.1 | 0.0 | 0.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.1 |
| HCM 6th LOS | C |

# APPENDIX 7.2:

# EAP (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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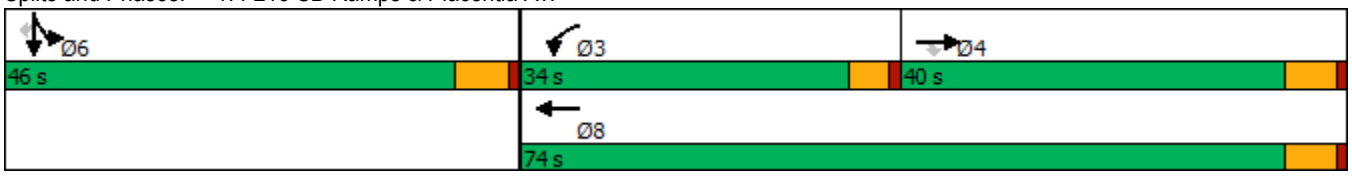
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 268 | 127 | 259 | 457 | 307 | 0 | 74 |
| Future Volume (vph) | 268 | 127 | 259 | 457 | 307 | 0 | 74 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.8 | 25.8 | 9.6 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.0 | 40.0 | 34.0 | 74.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 33.3% | 33.3% | 28.3% | 61.7% | 38.3% | 38.3% | 38.3% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 51.8 | 51.8 | 11.8 | 68.3 | 14.7 | 14.7 | 14.7 |
| Actuated g/C Ratio | 0.55 | 0.55 | 0.12 | 0.72 | 0.16 | 0.16 | 0.16 |
| v/c Ratio | 0.15 | 0.15 | 0.64 | 0.19 | 0.63 | 0.63 | 0.25 |
| Control Delay | 11.9 | 2.9 | 46.7 | 4.8 | 48.1 | 48.1 | 10.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.9 | 2.9 | 46.7 | 4.8 | 48.1 | 48.1 | 10.1 |
| LOS | B | A | D | A | D | D | B |
| Approach Delay | 9.0 | | | 20.0 | | 40.8 | |
| Approach LOS | A | | | B | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 94.6 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.64 | |
| Intersection Signal Delay: 22.4 | Intersection LOS: C |
| Intersection Capacity Utilization 57.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 268 | 127 | 259 | 457 | 0 | 0 | 0 | 0 | 307 | 0 | 74 |
| Future Volume (veh/h) | 0 | 268 | 127 | 259 | 457 | 0 | 0 | 0 | 0 | 307 | 0 | 74 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 291 | 138 | 282 | 497 | 0 | | | | 334 | 0 | 80 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 2136 | 953 | 369 | 2696 | 0 | | | | 456 | 0 | 203 |
| Arrive On Green | 0.00 | 0.59 | 0.59 | 0.10 | 0.75 | 0.00 | | | | 0.13 | 0.00 | 0.13 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 291 | 138 | 282 | 497 | 0 | | | | 334 | 0 | 80 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 3.3 | 3.5 | 7.1 | 3.7 | 0.0 | | | | 8.1 | 0.0 | 4.2 |
| Cycle Q Clear(g_c), s | 0.0 | 3.3 | 3.5 | 7.1 | 3.7 | 0.0 | | | | 8.1 | 0.0 | 4.2 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 2136 | 953 | 369 | 2696 | 0 | | | | 456 | 0 | 203 |
| V/C Ratio(X) | 0.00 | 0.14 | 0.14 | 0.77 | 0.18 | 0.00 | | | | 0.73 | 0.00 | 0.39 |
| Avail Cap(c_a), veh/h | 0 | 2136 | 953 | 1130 | 2696 | 0 | | | | 1593 | 0 | 709 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 8.3 | 8.3 | 39.8 | 3.4 | 0.0 | | | | 38.4 | 0.0 | 36.7 |
| Incr Delay (d2), s/veh | 0.0 | 0.1 | 0.3 | 1.3 | 0.2 | 0.0 | | | | 2.3 | 0.0 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 1.1 | 1.1 | 3.0 | 0.9 | 0.0 | | | | 3.6 | 0.0 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 8.4 | 8.6 | 41.0 | 3.5 | 0.0 | | | | 40.7 | 0.0 | 37.9 |
| LnGrp LOS | A | A | A | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 429 | | | 779 | | | | | | 414 | |
| Approach Delay, s/veh | | 8.5 | | | 17.1 | | | | | | 40.2 | |
| Approach LOS | | A | | | B | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 14.2 | 59.8 | | 17.3 | | 74.0 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 29.4 | 34.2 | | 40.2 | | 68.2 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 9.1 | 5.5 | | 10.1 | | 5.7 | | | | | |
| Green Ext Time (p_c), s | | 0.5 | 2.2 | | 1.4 | | 3.3 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.7 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 59 | 516 | 570 | 508 | 146 | 0 | 299 |
| Future Volume (vph) | 59 | 516 | 570 | 508 | 146 | 0 | 299 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.3 | 75.4 | 66.5 | 66.5 | 11.6 | 11.6 | 11.6 |
| Actuated g/C Ratio | 0.06 | 0.76 | 0.67 | 0.67 | 0.12 | 0.12 | 0.12 |
| v/c Ratio | 0.29 | 0.20 | 0.25 | 0.46 | 0.39 | 0.40 | 0.68 |
| Control Delay | 47.7 | 3.6 | 7.4 | 4.3 | 46.0 | 46.1 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.5 | 1.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.7 | 3.6 | 7.9 | 5.5 | 46.0 | 46.1 | 12.6 |
| LOS | D | A | A | A | D | D | B |
| Approach Delay | | 8.1 | 6.8 | | | 23.6 | |
| Approach LOS | | A | A | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.7 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.68 | |
| Intersection Signal Delay: 10.7 | Intersection LOS: B |
| Intersection Capacity Utilization 57.5% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 59 | 516 | 0 | 0 | 570 | 508 | 146 | 0 | 299 | 0 | 0 | 0 |
| Future Volume (veh/h) | 59 | 516 | 0 | 0 | 570 | 508 | 146 | 0 | 299 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 64 | 561 | 0 | 0 | 620 | 552 | 159 | 0 | 325 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 156 | 2427 | 0 | 0 | 2118 | 945 | 812 | 0 | 361 | | | |
| Arrive On Green | 0.04 | 0.67 | 0.00 | 0.00 | 0.59 | 0.59 | 0.22 | 0.00 | 0.22 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 64 | 561 | 0 | 0 | 620 | 552 | 159 | 0 | 325 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.0 | 6.8 | 0.0 | 0.0 | 9.6 | 24.2 | 4.0 | 0.0 | 22.0 | | | |
| Cycle Q Clear(g_c), s | 2.0 | 6.8 | 0.0 | 0.0 | 9.6 | 24.2 | 4.0 | 0.0 | 22.0 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 156 | 2427 | 0 | 0 | 2118 | 945 | 812 | 0 | 361 | | | |
| V/C Ratio(X) | 0.41 | 0.23 | 0.00 | 0.00 | 0.29 | 0.58 | 0.20 | 0.00 | 0.90 | | | |
| Avail Cap(c_a), veh/h | 1127 | 2427 | 0 | 0 | 2118 | 945 | 1065 | 0 | 474 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 52.1 | 7.1 | 0.0 | 0.0 | 11.6 | 14.6 | 35.3 | 0.0 | 42.3 | | | |
| Incr Delay (d2), s/veh | 0.6 | 0.2 | 0.0 | 0.0 | 0.4 | 2.6 | 0.1 | 0.0 | 16.6 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 0.9 | 2.3 | 0.0 | 0.0 | 3.6 | 8.5 | 1.7 | 0.0 | 10.0 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.8 | 7.4 | 0.0 | 0.0 | 11.9 | 17.2 | 35.4 | 0.0 | 58.9 | | | |
| LnGrp LOS | D | A | A | A | B | B | D | A | E | | | |
| Approach Vol, veh/h | | 625 | | | 1172 | | | 484 | | | | |
| Approach Delay, s/veh | | 12.0 | | | 14.4 | | | 51.2 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 31.0 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 24.0 | | 8.8 | | | 4.0 | 26.2 | | | | |
| Green Ext Time (p_c), s | | 1.2 | | 3.8 | | | 0.1 | 3.9 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 21.6 |
| HCM 6th LOS | C |

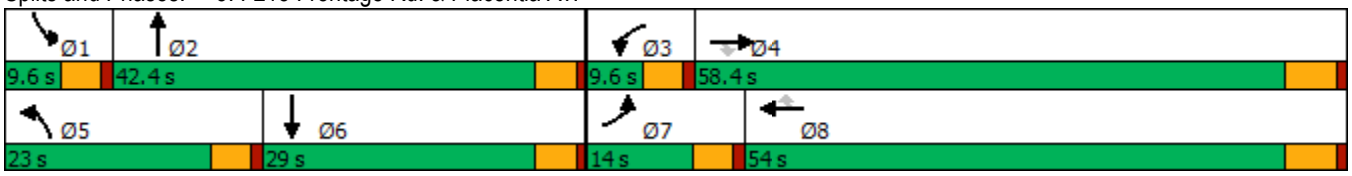
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 14.0 | 58.4 | 58.4 | 9.6 | 54.0 | 54.0 | 23.0 | 42.4 | 9.6 | 29.0 |
| Total Split (%) | 11.7% | 48.7% | 48.7% | 8.0% | 45.0% | 45.0% | 19.2% | 35.3% | 8.0% | 24.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -0.6 | -1.8 | -1.8 | -0.6 | -1.8 | -1.8 | -0.6 | -0.6 | -0.6 | -0.6 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 10.0 | 62.6 | 62.6 | 5.6 | 50.2 | 50.2 | 14.6 | 29.8 | 5.6 | 12.8 |
| Actuated g/C Ratio | 0.10 | 0.60 | 0.60 | 0.05 | 0.48 | 0.48 | 0.14 | 0.29 | 0.05 | 0.12 |
| v/c Ratio | 0.81 | 0.31 | 0.07 | 0.12 | 0.54 | 0.01 | 0.64 | 0.63 | 0.12 | 0.43 |
| Control Delay | 80.3 | 12.2 | 0.1 | 53.2 | 21.2 | 0.0 | 54.8 | 20.0 | 53.2 | 24.8 |
| Queue Delay | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 80.3 | 13.0 | 0.1 | 53.2 | 21.2 | 0.0 | 54.8 | 20.0 | 53.2 | 24.8 |
| LOS | F | B | A | D | C | A | D | B | D | C |
| Approach Delay | | 22.6 | | | 21.3 | | | 30.2 | | 27.5 |
| Approach LOS | | C | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 103.8 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.81 | |
| Intersection Signal Delay: 24.0 | Intersection LOS: C |
| Intersection Capacity Utilization 62.2% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 682 | 73 | 12 | 947 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 163 | 1877 | 837 | 35 | 1622 | 724 | 204 | 79 | 362 | 91 | 125 | 223 |
| Arrive On Green | 0.09 | 0.52 | 0.52 | 0.02 | 0.45 | 0.45 | 0.11 | 0.27 | 0.26 | 0.05 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 682 | 73 | 12 | 947 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.6 | 12.4 | 2.5 | 0.7 | 21.8 | 0.5 | 9.7 | 0.0 | 25.1 | 0.7 | 0.0 | 6.5 |
| Cycle Q Clear(g_c), s | 8.6 | 12.4 | 2.5 | 0.7 | 21.8 | 0.5 | 9.7 | 0.0 | 25.1 | 0.7 | 0.0 | 6.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 163 | 1877 | 837 | 35 | 1622 | 724 | 204 | 0 | 441 | 91 | 0 | 348 |
| V/C Ratio(X) | 0.87 | 0.36 | 0.09 | 0.34 | 0.58 | 0.02 | 0.79 | 0.00 | 0.88 | 0.13 | 0.00 | 0.34 |
| Avail Cap(c_a), veh/h | 163 | 1877 | 837 | 91 | 1622 | 724 | 309 | 0 | 571 | 91 | 0 | 383 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.0 | 15.8 | 13.4 | 53.9 | 22.9 | 17.0 | 48.1 | 0.0 | 39.4 | 50.5 | 0.0 | 38.0 |
| Incr Delay (d2), s/veh | 34.5 | 0.5 | 0.2 | 2.1 | 1.5 | 0.0 | 8.0 | 0.0 | 12.3 | 0.6 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.3 | 4.9 | 0.9 | 0.3 | 9.0 | 0.2 | 4.9 | 0.0 | 11.7 | 0.3 | 0.0 | 2.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 84.5 | 16.4 | 13.6 | 56.0 | 24.4 | 17.0 | 56.1 | 0.0 | 51.6 | 51.2 | 0.0 | 38.6 |
| LnGrp LOS | F | B | B | E | C | B | E | A | D | D | A | D |
| Approach Vol, veh/h | | 896 | | | 971 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 26.9 | | | 24.7 | | | 53.0 | | | 39.7 | |
| Approach LOS | | C | | | C | | | D | | | D | |

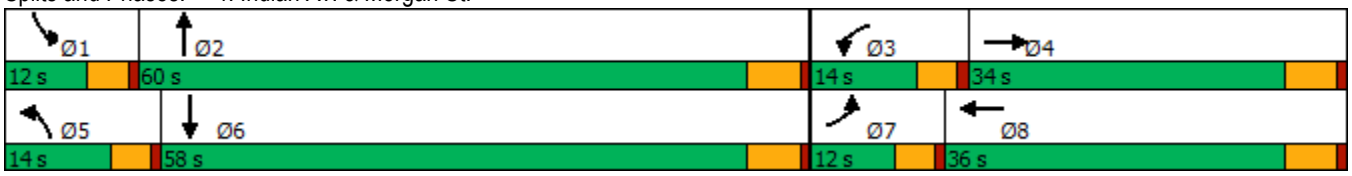
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 33.7 | 6.1 | 61.9 | 16.5 | 26.7 | 14.0 | 54.0 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 18.4 | 24.4 | 9.4 | 48.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.1 | 2.7 | 14.4 | 11.7 | 8.5 | 10.6 | 23.8 |
| Green Ext Time (p_c), s | 0.0 | 2.0 | 0.0 | 5.0 | 0.2 | 0.5 | 0.0 | 6.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.3 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 36 | 80 | 38 | 124 | 119 | 219 | 6 | 105 |
| Future Volume (vph) | 36 | 80 | 38 | 124 | 119 | 219 | 6 | 105 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 12.0 | 34.0 | 14.0 | 36.0 | 14.0 | 60.0 | 12.0 | 58.0 |
| Total Split (%) | 10.0% | 28.3% | 11.7% | 30.0% | 11.7% | 50.0% | 10.0% | 48.3% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -0.6 | -1.8 | -0.6 | -1.8 | -0.6 | -1.8 | -0.6 | -1.8 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 7.1 | 14.5 | 7.6 | 14.9 | 10.1 | 66.9 | 5.9 | 54.6 |
| Actuated g/C Ratio | 0.07 | 0.15 | 0.08 | 0.15 | 0.10 | 0.68 | 0.06 | 0.55 |
| v/c Ratio | 0.34 | 0.35 | 0.33 | 0.29 | 0.78 | 0.15 | 0.06 | 0.10 |
| Control Delay | 54.2 | 20.6 | 52.6 | 37.6 | 74.1 | 7.1 | 50.2 | 8.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 54.2 | 20.6 | 52.6 | 37.6 | 74.1 | 7.1 | 50.2 | 8.5 |
| LOS | D | C | D | D | E | A | D | A |
| Approach Delay | | 26.6 | | 40.9 | | 26.3 | | 9.9 |
| Approach LOS | | C | | D | | C | | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.4 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.78 | |
| Intersection Signal Delay: 26.1 | Intersection LOS: C |
| Intersection Capacity Utilization 41.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 80 | 85 | 38 | 124 | 7 | 119 | 219 | 77 | 6 | 105 | 56 |
| Future Volume (veh/h) | 36 | 80 | 85 | 38 | 124 | 7 | 119 | 219 | 77 | 6 | 105 | 56 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 44 | 98 | 84 | 46 | 151 | 9 | 145 | 267 | 93 | 7 | 128 | 53 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 76 | 257 | 200 | 77 | 466 | 28 | 186 | 1702 | 579 | 27 | 1404 | 555 |
| Arrive On Green | 0.04 | 0.13 | 0.12 | 0.04 | 0.13 | 0.12 | 0.10 | 0.64 | 0.63 | 0.02 | 0.56 | 0.54 |
| Sat Flow, veh/h | 1810 | 1925 | 1497 | 1810 | 3461 | 205 | 1810 | 2644 | 900 | 1810 | 2526 | 999 |
| Grp Volume(v), veh/h | 44 | 91 | 91 | 46 | 78 | 82 | 145 | 180 | 180 | 7 | 90 | 91 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1617 | 1810 | 1805 | 1861 | 1810 | 1805 | 1738 | 1810 | 1805 | 1720 |
| Q Serve(g_s), s | 2.3 | 4.5 | 5.1 | 2.4 | 3.8 | 3.9 | 7.6 | 3.8 | 4.1 | 0.4 | 2.3 | 2.5 |
| Cycle Q Clear(g_c), s | 2.3 | 4.5 | 5.1 | 2.4 | 3.8 | 3.9 | 7.6 | 3.8 | 4.1 | 0.4 | 2.3 | 2.5 |
| Prop In Lane | 1.00 | | 0.93 | 1.00 | | 0.11 | 1.00 | | 0.52 | 1.00 | | 0.58 |
| Lane Grp Cap(c), veh/h | 76 | 241 | 216 | 77 | 243 | 250 | 186 | 1162 | 1119 | 27 | 1003 | 956 |
| V/C Ratio(X) | 0.58 | 0.38 | 0.42 | 0.59 | 0.32 | 0.33 | 0.78 | 0.16 | 0.16 | 0.26 | 0.09 | 0.10 |
| Avail Cap(c_a), veh/h | 149 | 557 | 499 | 186 | 595 | 613 | 186 | 1162 | 1119 | 149 | 1003 | 956 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.7 | 38.4 | 39.4 | 45.7 | 38.0 | 38.1 | 42.5 | 6.8 | 7.1 | 47.3 | 10.1 | 10.4 |
| Incr Delay (d2), s/veh | 2.6 | 1.0 | 1.3 | 2.7 | 0.8 | 0.8 | 17.2 | 0.3 | 0.3 | 1.8 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 2.0 | 2.0 | 1.1 | 1.7 | 1.7 | 4.1 | 1.3 | 1.3 | 0.2 | 0.8 | 0.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 48.3 | 39.4 | 40.7 | 48.4 | 38.8 | 38.9 | 59.7 | 7.1 | 7.4 | 49.1 | 10.3 | 10.6 |
| LnGrp LOS | D | D | D | D | D | D | E | A | A | D | B | B |
| Approach Vol, veh/h | | 226 | | | 206 | | | 505 | | | 188 | |
| Approach Delay, s/veh | | 41.6 | | | 41.0 | | | 22.3 | | | 11.9 | |
| Approach LOS | | D | | | D | | | C | | | B | |

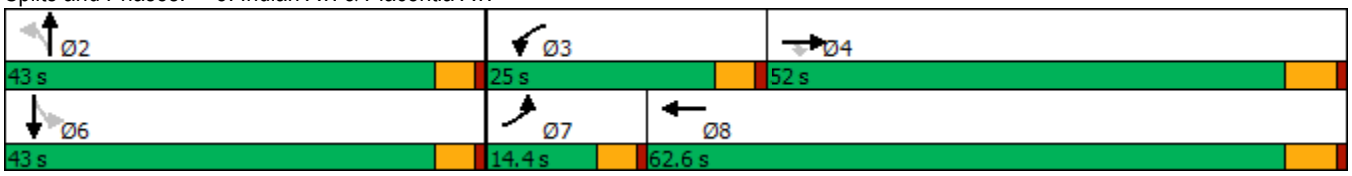
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.5 | 66.5 | 8.2 | 17.0 | 14.0 | 58.0 | 8.1 | 17.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 54.2 | 9.4 | 28.2 | 9.4 | 52.2 | 7.4 | 30.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 6.1 | 4.4 | 7.1 | 9.6 | 4.5 | 4.3 | 5.9 |
| Green Ext Time (p_c), s | 0.0 | 2.0 | 0.0 | 0.8 | 0.0 | 1.0 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.9 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 116 | 659 | 146 | 205 | 797 | 42 | 249 | 37 | 154 |
| Future Volume (vph) | 116 | 659 | 146 | 205 | 797 | 42 | 249 | 37 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 14.4 | 52.0 | 52.0 | 25.0 | 62.6 | 43.0 | 43.0 | 43.0 | 43.0 |
| Total Split (%) | 12.0% | 43.3% | 43.3% | 20.8% | 52.2% | 35.8% | 35.8% | 35.8% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 9.6 | 46.2 | 46.2 | 20.4 | 57.0 | 36.9 | 36.9 | 36.9 | 36.9 |
| Actuated g/C Ratio | 0.08 | 0.39 | 0.39 | 0.17 | 0.48 | 0.31 | 0.31 | 0.31 | 0.31 |
| v/c Ratio | 0.86 | 0.97 | 0.23 | 0.96 | 0.98 | 0.18 | 0.95 | 0.86 | 0.46 |
| Control Delay | 99.7 | 62.3 | 8.4 | 91.0 | 56.6 | 31.8 | 66.1 | 119.6 | 34.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 99.7 | 62.3 | 8.4 | 91.0 | 56.6 | 31.8 | 66.1 | 119.6 | 34.6 |
| LOS | F | E | A | F | E | C | E | F | C |
| Approach Delay | | 58.5 | | | 65.2 | | 63.4 | | 48.8 |
| Approach LOS | | E | | | E | | E | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 118.6 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.98 | |
| Intersection Signal Delay: 61.0 | Intersection LOS: E |
| Intersection Capacity Utilization 91.0% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 116 | 659 | 146 | 205 | 797 | 18 | 42 | 249 | 130 | 37 | 154 | 43 |
| Future Volume (veh/h) | 116 | 659 | 146 | 205 | 797 | 18 | 42 | 249 | 130 | 37 | 154 | 43 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 126 | 716 | 122 | 297 | 866 | 20 | 46 | 361 | 143 | 54 | 223 | 35 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 148 | 732 | 620 | 308 | 875 | 20 | 299 | 414 | 164 | 112 | 513 | 81 |
| Arrive On Green | 0.08 | 0.38 | 0.38 | 0.17 | 0.47 | 0.47 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1850 | 43 | 1139 | 1295 | 513 | 909 | 1603 | 252 |
| Grp Volume(v), veh/h | 126 | 716 | 122 | 297 | 0 | 886 | 46 | 0 | 504 | 54 | 0 | 258 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1892 | 1139 | 0 | 1808 | 909 | 0 | 1855 |
| Q Serve(g_s), s | 8.2 | 44.6 | 6.1 | 19.6 | 0.0 | 55.6 | 4.0 | 0.0 | 31.5 | 6.9 | 0.0 | 13.2 |
| Cycle Q Clear(g_c), s | 8.2 | 44.6 | 6.1 | 19.6 | 0.0 | 55.6 | 17.2 | 0.0 | 31.5 | 38.4 | 0.0 | 13.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.02 | 1.00 | | 0.28 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 148 | 732 | 620 | 308 | 0 | 896 | 299 | 0 | 578 | 112 | 0 | 594 |
| V/C Ratio(X) | 0.85 | 0.98 | 0.20 | 0.97 | 0.00 | 0.99 | 0.15 | 0.00 | 0.87 | 0.48 | 0.00 | 0.43 |
| Avail Cap(c_a), veh/h | 148 | 732 | 620 | 308 | 0 | 896 | 299 | 0 | 578 | 112 | 0 | 594 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 54.4 | 36.4 | 24.6 | 49.5 | 0.0 | 31.3 | 39.0 | 0.0 | 38.5 | 56.7 | 0.0 | 32.2 |
| Incr Delay (d2), s/veh | 34.0 | 28.5 | 0.7 | 41.6 | 0.0 | 27.6 | 0.2 | 0.0 | 13.6 | 3.2 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.1 | 25.2 | 2.4 | 12.1 | 0.0 | 30.1 | 1.2 | 0.0 | 16.2 | 1.8 | 0.0 | 6.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 88.4 | 64.9 | 25.3 | 91.1 | 0.0 | 58.9 | 39.2 | 0.0 | 52.1 | 59.9 | 0.0 | 32.7 |
| LnGrp LOS | F | E | C | F | A | E | D | A | D | E | A | C |
| Approach Vol, veh/h | | 964 | | | 1183 | | | 550 | | | 312 | |
| Approach Delay, s/veh | | 63.0 | | | 67.0 | | | 51.0 | | | 37.4 | |
| Approach LOS | | E | | | E | | | D | | | D | |

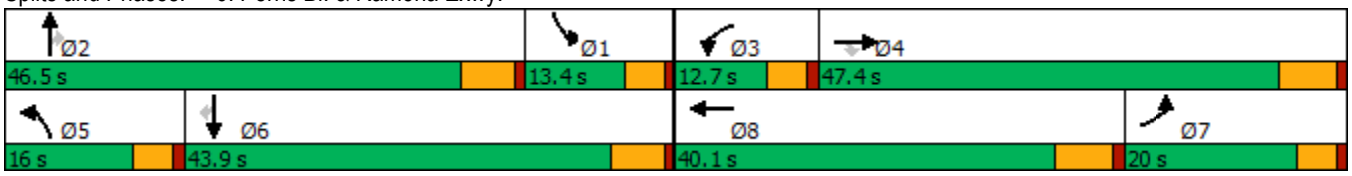
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.0 | 25.0 | 52.0 | | 43.0 | 14.4 | 62.6 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 38.4 | 20.4 | 46.2 | | 38.4 | 9.8 | 56.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 33.5 | 21.6 | 46.6 | | 40.4 | 10.2 | 57.6 | | | | |
| Green Ext Time (p_c), s | | 1.6 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 59.7 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 404 | 626 | 103 | 110 | 1232 | 294 | 783 | 63 | 130 | 386 | 148 |
| Future Volume (vph) | 404 | 626 | 103 | 110 | 1232 | 294 | 783 | 63 | 130 | 386 | 148 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 16.0 | 46.5 | 46.5 | 13.4 | 43.9 | 43.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 13.3% | 38.8% | 38.8% | 11.2% | 36.6% | 36.6% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 15.2 | 41.9 | 41.9 | 7.3 | 34.1 | 11.4 | 31.4 | 31.4 | 7.9 | 27.9 | 27.9 |
| Actuated g/C Ratio | 0.14 | 0.38 | 0.38 | 0.07 | 0.31 | 0.10 | 0.29 | 0.29 | 0.07 | 0.25 | 0.25 |
| v/c Ratio | 0.87 | 0.33 | 0.15 | 0.49 | 0.94 | 0.84 | 0.79 | 0.11 | 0.54 | 0.44 | 0.29 |
| Control Delay | 66.6 | 25.7 | 1.3 | 58.5 | 50.1 | 70.4 | 42.3 | 0.4 | 58.9 | 35.5 | 5.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 66.6 | 25.7 | 1.3 | 58.5 | 50.1 | 70.4 | 42.3 | 0.4 | 58.9 | 35.5 | 5.0 |
| LOS | E | C | A | E | D | E | D | A | E | D | A |
| Approach Delay | | 38.1 | | | 50.7 | | 47.2 | | | 33.3 | |
| Approach LOS | | D | | | D | | D | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 109.8 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.94 | |
| Intersection Signal Delay: 44.1 | Intersection LOS: D |
| Intersection Capacity Utilization 84.0% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 404 | 626 | 103 | 110 | 1232 | 208 | 294 | 783 | 63 | 130 | 386 | 148 |
| Future Volume (veh/h) | 404 | 626 | 103 | 110 | 1232 | 208 | 294 | 783 | 63 | 130 | 386 | 148 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 421 | 652 | 81 | 115 | 1283 | 190 | 306 | 816 | 36 | 135 | 402 | 124 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 481 | 2129 | 661 | 174 | 1405 | 208 | 366 | 997 | 443 | 196 | 862 | 384 |
| Arrive On Green | 0.14 | 0.41 | 0.41 | 0.05 | 0.31 | 0.31 | 0.10 | 0.28 | 0.28 | 0.06 | 0.24 | 0.24 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4560 | 675 | 3510 | 3610 | 1605 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 421 | 652 | 81 | 115 | 973 | 500 | 306 | 816 | 36 | 135 | 402 | 124 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1778 | 1755 | 1805 | 1605 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 12.7 | 9.1 | 3.4 | 3.5 | 29.2 | 29.2 | 9.2 | 22.8 | 1.4 | 4.1 | 10.3 | 4.6 |
| Cycle Q Clear(g_c), s | 12.7 | 9.1 | 3.4 | 3.5 | 29.2 | 29.2 | 9.2 | 22.8 | 1.4 | 4.1 | 10.3 | 4.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.38 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 481 | 2129 | 661 | 174 | 1066 | 548 | 366 | 997 | 443 | 196 | 862 | 384 |
| V/C Ratio(X) | 0.88 | 0.31 | 0.12 | 0.66 | 0.91 | 0.91 | 0.84 | 0.82 | 0.08 | 0.69 | 0.47 | 0.32 |
| Avail Cap(c_a), veh/h | 502 | 2129 | 661 | 264 | 1089 | 560 | 372 | 1365 | 607 | 287 | 1278 | 569 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.6 | 21.4 | 19.7 | 50.3 | 35.8 | 35.8 | 47.3 | 36.4 | 18.4 | 49.9 | 35.1 | 15.3 |
| Incr Delay (d2), s/veh | 14.7 | 0.1 | 0.1 | 1.6 | 11.4 | 19.2 | 14.2 | 2.9 | 0.1 | 1.6 | 0.4 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.2 | 3.5 | 1.2 | 1.5 | 13.1 | 14.7 | 4.6 | 9.9 | 0.7 | 1.8 | 4.4 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.2 | 21.5 | 19.8 | 51.9 | 47.3 | 55.1 | 61.5 | 39.3 | 18.5 | 51.5 | 35.5 | 15.8 |
| LnGrp LOS | E | C | B | D | D | E | E | D | B | D | D | B |
| Approach Vol, veh/h | | 1154 | | | 1588 | | | 1158 | | | 661 | |
| Approach Delay, s/veh | | 35.5 | | | 50.1 | | | 44.6 | | | 35.1 | |
| Approach LOS | | D | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.8 | 35.5 | 9.9 | 50.4 | 15.8 | 31.5 | 20.9 | 39.4 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 11.4 | 38.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 6.1 | 24.8 | 5.5 | 11.1 | 11.2 | 12.3 | 14.7 | 31.2 |
| Green Ext Time (p_c), s | 0.1 | 4.8 | 0.0 | 4.5 | 0.0 | 2.8 | 0.1 | 2.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 42.8 |
| HCM 6th LOS | D |

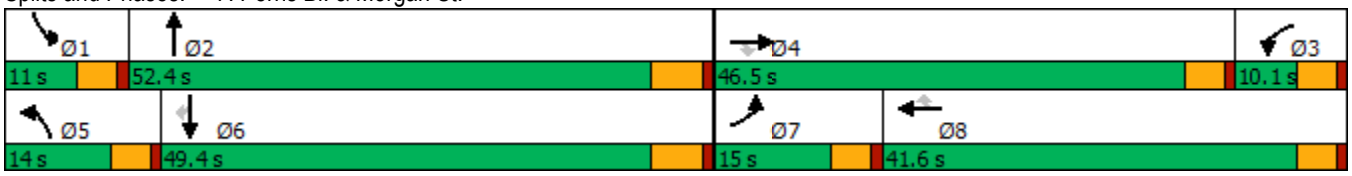
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 84 | 21 | 17 | 46 | 7 | 36 | 1034 | 20 | 505 | 105 |
| Future Volume (vph) | 38 | 84 | 21 | 17 | 46 | 7 | 36 | 1034 | 20 | 505 | 105 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.8 | 21.6 | 21.6 | 8.8 | 17.9 | 17.9 | 8.7 | 31.6 | 8.0 | 28.9 | 28.9 |
| Actuated g/C Ratio | 0.15 | 0.36 | 0.36 | 0.15 | 0.30 | 0.30 | 0.15 | 0.53 | 0.14 | 0.49 | 0.49 |
| v/c Ratio | 0.16 | 0.07 | 0.04 | 0.07 | 0.09 | 0.01 | 0.16 | 0.43 | 0.10 | 0.33 | 0.14 |
| Control Delay | 37.4 | 20.9 | 0.1 | 35.8 | 24.9 | 0.0 | 37.8 | 16.1 | 40.0 | 18.2 | 3.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.4 | 20.9 | 0.1 | 35.8 | 24.9 | 0.0 | 37.8 | 16.1 | 40.0 | 18.2 | 3.6 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 22.2 | | | 25.0 | | | 16.8 | | 16.5 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 59.2 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.43 | |
| Intersection Signal Delay: 17.4 | Intersection LOS: B |
| Intersection Capacity Utilization 45.8% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 84 | 21 | 17 | 46 | 7 | 36 | 1034 | 19 | 20 | 505 | 105 |
| Future Volume (veh/h) | 38 | 84 | 21 | 17 | 46 | 7 | 36 | 1034 | 19 | 20 | 505 | 105 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 95 | 8 | 19 | 52 | 6 | 41 | 1175 | 20 | 23 | 574 | 108 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 80 | 648 | 289 | 73 | 334 | 283 | 77 | 2009 | 34 | 49 | 1324 | 583 |
| Arrive On Green | 0.04 | 0.18 | 0.18 | 0.04 | 0.18 | 0.18 | 0.04 | 0.38 | 0.38 | 0.03 | 0.37 | 0.37 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5252 | 89 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 95 | 8 | 19 | 52 | 6 | 41 | 773 | 422 | 23 | 574 | 108 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1884 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.2 | 1.2 | 0.2 | 0.5 | 1.2 | 0.2 | 1.2 | 9.4 | 9.4 | 0.7 | 6.3 | 2.4 |
| Cycle Q Clear(g_c), s | 1.2 | 1.2 | 0.2 | 0.5 | 1.2 | 0.2 | 1.2 | 9.4 | 9.4 | 0.7 | 6.3 | 2.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.05 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 80 | 648 | 289 | 73 | 334 | 283 | 77 | 1323 | 720 | 49 | 1324 | 583 |
| V/C Ratio(X) | 0.54 | 0.15 | 0.03 | 0.26 | 0.16 | 0.02 | 0.53 | 0.58 | 0.59 | 0.47 | 0.43 | 0.19 |
| Avail Cap(c_a), veh/h | 356 | 2860 | 1275 | 188 | 1329 | 1126 | 322 | 3046 | 1660 | 219 | 2976 | 1310 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.7 | 18.3 | 9.7 | 24.6 | 18.5 | 18.0 | 24.8 | 13.0 | 13.0 | 25.4 | 12.6 | 11.4 |
| Incr Delay (d2), s/veh | 2.1 | 0.1 | 0.0 | 0.7 | 0.2 | 0.0 | 2.1 | 0.4 | 0.8 | 2.6 | 0.2 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 0.5 | 0.1 | 0.2 | 0.5 | 0.1 | 0.5 | 2.8 | 3.1 | 0.3 | 2.0 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.8 | 18.4 | 9.7 | 25.3 | 18.7 | 18.1 | 26.9 | 13.4 | 13.8 | 27.9 | 12.8 | 11.5 |
| LnGrp LOS | C | B | A | C | B | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 146 | | | 77 | | | 1236 | | | 705 | |
| Approach Delay, s/veh | | 20.4 | | | 20.3 | | | 14.0 | | | 13.1 | |
| Approach LOS | | C | | | C | | | B | | | B | |

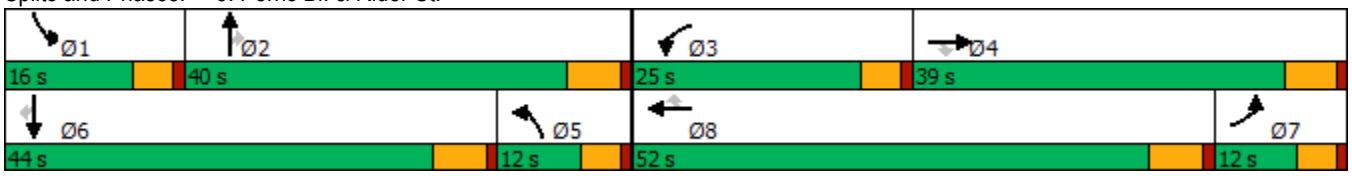
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.0 | 26.0 | 6.7 | 14.1 | 6.9 | 25.2 | 6.9 | 13.9 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 11.4 | 2.5 | 3.2 | 3.2 | 8.3 | 3.2 | 3.2 |
| Green Ext Time (p_c), s | 0.0 | 8.8 | 0.0 | 0.6 | 0.0 | 4.2 | 0.0 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.4 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 39 | 155 | 17 | 165 | 313 | 271 | 44 | 840 | 87 | 84 | 401 | 42 |
| Future Volume (vph) | 39 | 155 | 17 | 165 | 313 | 271 | 44 | 840 | 87 | 84 | 401 | 42 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.5 | 13.9 | 13.9 | 12.1 | 23.1 | 23.1 | 12.0 | 20.6 | 20.6 | 8.3 | 19.2 | 19.2 |
| Actuated g/C Ratio | 0.11 | 0.19 | 0.19 | 0.16 | 0.31 | 0.31 | 0.16 | 0.28 | 0.28 | 0.11 | 0.26 | 0.26 |
| v/c Ratio | 0.19 | 0.23 | 0.04 | 0.57 | 0.28 | 0.40 | 0.15 | 0.59 | 0.16 | 0.42 | 0.30 | 0.08 |
| Control Delay | 38.5 | 30.1 | 0.2 | 41.7 | 25.1 | 5.7 | 33.9 | 27.0 | 0.6 | 44.6 | 27.0 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.5 | 30.1 | 0.2 | 41.7 | 25.1 | 5.7 | 33.9 | 27.0 | 0.6 | 44.6 | 27.0 | 0.3 |
| LOS | D | C | A | D | C | A | C | C | A | D | C | A |
| Approach Delay | | 29.2 | | | 21.7 | | | 24.9 | | | 27.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 74.7 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.59 | |
| Intersection Signal Delay: 24.9 | Intersection LOS: C |
| Intersection Capacity Utilization 56.0% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 39 | 155 | 17 | 165 | 313 | 271 | 44 | 840 | 87 | 84 | 401 | 42 |
| Future Volume (veh/h) | 39 | 155 | 17 | 165 | 313 | 271 | 44 | 840 | 87 | 84 | 401 | 42 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 39 | 157 | 5 | 167 | 316 | 139 | 44 | 848 | 56 | 85 | 405 | 27 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 176 | 630 | 281 | 214 | 630 | 281 | 265 | 1450 | 444 | 117 | 919 | 285 |
| Arrive On Green | 0.10 | 0.17 | 0.17 | 0.12 | 0.17 | 0.17 | 0.15 | 0.28 | 0.28 | 0.06 | 0.18 | 0.18 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 39 | 157 | 5 | 167 | 316 | 139 | 44 | 848 | 56 | 85 | 405 | 27 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.1 | 2.2 | 0.1 | 5.1 | 4.5 | 3.1 | 1.2 | 8.1 | 1.5 | 2.6 | 4.0 | 0.8 |
| Cycle Q Clear(g_c), s | 1.1 | 2.2 | 0.1 | 5.1 | 4.5 | 3.1 | 1.2 | 8.1 | 1.5 | 2.6 | 4.0 | 0.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 176 | 630 | 281 | 214 | 630 | 281 | 265 | 1450 | 444 | 117 | 919 | 285 |
| V/C Ratio(X) | 0.22 | 0.25 | 0.02 | 0.78 | 0.50 | 0.49 | 0.17 | 0.58 | 0.13 | 0.73 | 0.44 | 0.09 |
| Avail Cap(c_a), veh/h | 234 | 2091 | 932 | 644 | 2909 | 1298 | 265 | 3094 | 947 | 360 | 3456 | 1073 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.9 | 20.4 | 6.5 | 24.5 | 21.4 | 10.5 | 21.4 | 17.8 | 15.4 | 26.3 | 21.1 | 19.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.2 | 0.0 | 2.3 | 0.6 | 1.3 | 0.1 | 0.4 | 0.1 | 3.2 | 0.3 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.4 | 0.8 | 0.0 | 2.1 | 1.7 | 1.5 | 0.5 | 2.7 | 0.5 | 1.1 | 1.4 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 24.1 | 20.6 | 6.6 | 26.9 | 22.0 | 11.9 | 21.5 | 18.2 | 15.5 | 29.5 | 21.4 | 19.9 |
| LnGrp LOS | C | C | A | C | C | B | C | B | B | C | C | B |
| Approach Vol, veh/h | | 201 | | | 622 | | | 948 | | | 517 | |
| Approach Delay, s/veh | | 21.0 | | | 21.1 | | | 18.2 | | | 22.6 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.3 | 21.8 | 11.4 | 15.8 | 14.2 | 16.0 | 11.4 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 4.6 | 10.1 | 7.1 | 4.2 | 3.2 | 6.0 | 3.1 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 5.9 | 0.2 | 0.9 | 0.0 | 2.7 | 0.0 | 2.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.2 |
| HCM 6th LOS | C |

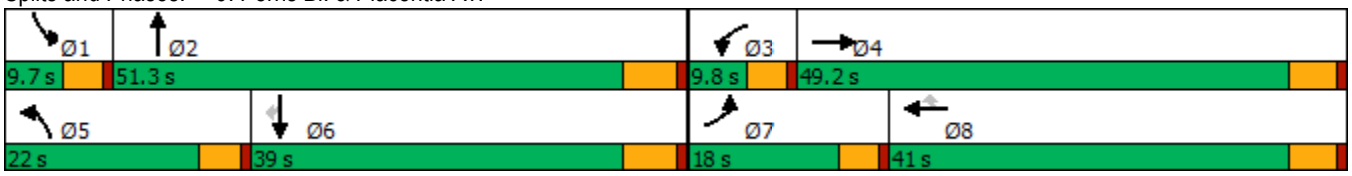
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 181 | 401 | 43 | 506 | 242 | 230 | 985 | 42 | 528 | 225 |
| Future Volume (vph) | 181 | 401 | 43 | 506 | 242 | 230 | 985 | 42 | 528 | 225 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 22.4 | 22.4 | 9.6 | 38.8 | 9.6 | 37.8 | 37.8 |
| Total Split (s) | 18.0 | 49.2 | 9.8 | 41.0 | 41.0 | 22.0 | 51.3 | 9.7 | 39.0 | 39.0 |
| Total Split (%) | 15.0% | 41.0% | 8.2% | 34.2% | 34.2% | 18.3% | 42.8% | 8.1% | 32.5% | 32.5% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 | -0.6 |
| Total Lost Time (s) | 4.0 | 4.8 | 4.0 | 4.8 | 4.8 | 4.0 | 5.2 | 4.0 | 5.2 | 5.2 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 13.9 | 45.3 | 5.8 | 35.1 | 35.1 | 17.5 | 47.7 | 5.7 | 33.8 | 33.8 |
| Actuated g/C Ratio | 0.12 | 0.38 | 0.05 | 0.30 | 0.30 | 0.15 | 0.40 | 0.05 | 0.29 | 0.29 |
| v/c Ratio | 0.90 | 0.86 | 0.51 | 0.95 | 0.42 | 0.91 | 0.75 | 0.51 | 0.54 | 0.38 |
| Control Delay | 93.4 | 46.6 | 76.3 | 68.1 | 11.3 | 86.5 | 34.8 | 76.6 | 38.3 | 6.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 93.4 | 46.6 | 76.3 | 68.1 | 11.3 | 86.5 | 34.8 | 76.6 | 38.3 | 6.1 |
| LOS | F | D | E | E | B | F | C | E | D | A |
| Approach Delay | | 57.8 | | 51.1 | | | 44.3 | | 31.2 | |
| Approach LOS | | E | | D | | | D | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 118.3 | |
| Natural Cycle: 105 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.95 | |
| Intersection Signal Delay: 45.8 | Intersection LOS: D |
| Intersection Capacity Utilization 91.1% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 181 | 401 | 174 | 43 | 506 | 242 | 230 | 985 | 40 | 42 | 528 | 225 |
| Future Volume (veh/h) | 181 | 401 | 174 | 43 | 506 | 242 | 230 | 985 | 40 | 42 | 528 | 225 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 191 | 422 | 178 | 45 | 533 | 153 | 242 | 1037 | 35 | 44 | 556 | 228 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 212 | 480 | 202 | 68 | 567 | 479 | 273 | 1412 | 48 | 67 | 1022 | 454 |
| Arrive On Green | 0.12 | 0.38 | 0.37 | 0.04 | 0.30 | 0.30 | 0.15 | 0.40 | 0.39 | 0.04 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1810 | 1269 | 535 | 1810 | 1900 | 1604 | 1810 | 3560 | 120 | 1810 | 3610 | 1604 |
| Grp Volume(v), veh/h | 191 | 0 | 600 | 45 | 533 | 153 | 242 | 526 | 546 | 44 | 556 | 228 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1804 | 1810 | 1900 | 1604 | 1810 | 1805 | 1875 | 1810 | 1805 | 1604 |
| Q Serve(g_s), s | 12.4 | 0.0 | 37.0 | 2.9 | 32.7 | 8.8 | 15.7 | 29.6 | 29.6 | 2.9 | 15.6 | 14.2 |
| Cycle Q Clear(g_c), s | 12.4 | 0.0 | 37.0 | 2.9 | 32.7 | 8.8 | 15.7 | 29.6 | 29.6 | 2.9 | 15.6 | 14.2 |
| Prop In Lane | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 212 | 0 | 682 | 68 | 567 | 479 | 273 | 716 | 743 | 67 | 1022 | 454 |
| V/C Ratio(X) | 0.90 | 0.00 | 0.88 | 0.66 | 0.94 | 0.32 | 0.89 | 0.73 | 0.73 | 0.65 | 0.54 | 0.50 |
| Avail Cap(c_a), veh/h | 212 | 0 | 682 | 88 | 576 | 486 | 273 | 716 | 743 | 86 | 1022 | 454 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.0 | 0.0 | 34.7 | 56.7 | 40.9 | 32.5 | 49.7 | 30.7 | 30.7 | 56.7 | 36.3 | 35.8 |
| Incr Delay (d2), s/veh | 35.2 | 0.0 | 12.7 | 5.2 | 23.5 | 0.4 | 26.9 | 6.6 | 6.4 | 4.8 | 2.1 | 3.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.6 | 0.0 | 17.8 | 1.4 | 18.3 | 3.4 | 9.2 | 14.2 | 14.7 | 1.4 | 6.9 | 5.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 87.2 | 0.0 | 47.4 | 61.9 | 64.3 | 32.9 | 76.7 | 37.3 | 37.1 | 61.6 | 38.4 | 39.7 |
| LnGrp LOS | F | A | D | E | E | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 791 | | | 731 | | | 1314 | | | 828 | |
| Approach Delay, s/veh | | 57.0 | | | 57.6 | | | 44.5 | | | 40.0 | |
| Approach LOS | | E | | | E | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.4 | 52.6 | 8.5 | 50.0 | 22.0 | 39.0 | 18.0 | 40.4 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 5.1 | 45.5 | 5.2 | 43.8 | 17.4 | 33.2 | 13.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 4.9 | 31.6 | 4.9 | 39.0 | 17.7 | 17.6 | 14.4 | 34.7 |
| Green Ext Time (p_c), s | 0.0 | 6.3 | 0.0 | 1.6 | 0.0 | 3.7 | 0.0 | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 48.8 |
| HCM 6th LOS | D |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 34 | 32 | 51 | 1 | 5 | 1 | 18 | 4 | 0 | 3 | 12 | 49 |
| Future Vol, veh/h | 34 | 32 | 51 | 1 | 5 | 1 | 18 | 4 | 0 | 3 | 12 | 49 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | - | - | - | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 59 | 55 | 88 | 2 | 9 | 2 | 31 | 7 | 0 | 5 | 21 | 84 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 106 | 100 | 21 | 214 | 184 | 7 | 105 | 0 | 0 | 7 | 0 | 0 |
| Stage 1 | 31 | 31 | - | 69 | 69 | - | - | - | - | - | - | - |
| Stage 2 | 75 | 69 | - | 145 | 115 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 878 | 794 | 1062 | 747 | 714 | 1081 | 1499 | - | - | 1627 | - | - |
| Stage 1 | 991 | 873 | - | 946 | 841 | - | - | - | - | - | - | - |
| Stage 2 | 939 | 841 | - | 863 | 804 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 853 | 775 | 1062 | 636 | 697 | 1081 | 1499 | - | - | 1627 | - | - |
| Mov Cap-2 Maneuver | 853 | 775 | - | 636 | 697 | - | - | - | - | - | - | - |
| Stage 1 | 970 | 870 | - | 926 | 823 | - | - | - | - | - | - | - |
| Stage 2 | 908 | 823 | - | 739 | 802 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9.6 | 10.1 | 6.1 | 0.3 |
| HCM LOS | A | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1499 | - | - | 853 | 929 | 724 | 1627 | - | - |
| HCM Lane V/C Ratio | 0.021 | - | - | 0.069 | 0.154 | 0.017 | 0.003 | - | - |
| HCM Control Delay (s) | 7.5 | - | - | 9.5 | 9.6 | 10.1 | 7.2 | 0 | - |
| HCM Lane LOS | A | - | - | A | A | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.2 | 0.5 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 3 | 19 | 0 | 0 | 64 |
| Future Vol, veh/h | 0 | 3 | 19 | 0 | 0 | 64 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 3 | 21 | 0 | 0 | 70 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 11 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1074 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1074 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.4 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1074 | - |
| HCM Lane V/C Ratio | - | - | 0.003 | - |
| HCM Control Delay (s) | - | - | 8.4 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 13 | 3 | 16 | 48 | 0 |
| Future Vol, veh/h | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 13 | 3 | 16 | 48 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 14 | 3 | 17 | 52 | 0 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 93 | 103 | 52 | - | - | 9 | - | 0 | 0 | 17 | 0 | 0 |
| Stage 1 | 86 | 86 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 7 | 17 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.5 | 6.2 | - | - | 6.9 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | - | - | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 891 | 791 | 1021 | 0 | 0 | 1077 | 0 | - | - | 1613 | - | - |
| Stage 1 | 927 | 827 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Stage 2 | 1019 | 885 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 879 | 782 | 1021 | - | - | 1077 | - | - | - | 1613 | - | - |
| Mov Cap-2 Maneuver | 879 | 782 | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | 927 | 818 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 1013 | 885 | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0 | 8.4 | 0 | 1.8 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | - | 1077 | 1613 | - | - |
| HCM Lane V/C Ratio | - | - | - | 0.006 | 0.011 | - | - |
| HCM Control Delay (s) | - | - | 0 | 8.4 | 7.3 | - | - |
| HCM Lane LOS | - | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | - | 0 | 0 | - | - |

| Lane Group | WBL | NBT | SBL | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 2 | 4 | 47 | 1 |
| Future Volume (vph) | 2 | 4 | 47 | 1 |
| Turn Type | Prot | NA | Prot | NA |
| Protected Phases | 8 | 2 | 1 | 6 |
| Permitted Phases | | | | |
| Detector Phase | 8 | 2 | 1 | 6 |
| Switch Phase | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 26.6 | 22.4 | 9.6 | 15.4 |
| Total Split (s) | 27.0 | 30.0 | 33.0 | 63.0 |
| Total Split (%) | 30.0% | 33.3% | 36.7% | 70.0% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | |
| Recall Mode | None | Max | None | Max |
| Act Effct Green (s) | 10.1 | 58.1 | 6.6 | 68.2 |
| Actuated g/C Ratio | 0.14 | 0.81 | 0.09 | 0.95 |
| v/c Ratio | 0.06 | 0.00 | 0.31 | 0.00 |
| Control Delay | 16.4 | 4.3 | 34.2 | 2.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 16.4 | 4.3 | 34.2 | 2.0 |
| LOS | B | A | C | A |
| Approach Delay | 16.4 | 4.3 | | 33.6 |
| Approach LOS | B | A | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 71.9 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.31 | |
| Intersection Signal Delay: 27.4 | Intersection LOS: C |
| Intersection Capacity Utilization 25.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 13: Redlands Av. & Driveway 2

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 2 | 12 | 4 | 3 | 47 | 1 |
| Future Volume (veh/h) | 2 | 12 | 4 | 3 | 47 | 1 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 2 | 13 | 4 | 3 | 51 | 1 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 8 | 51 | 1471 | 980 | 81 | 1557 |
| Arrive On Green | 0.04 | 0.04 | 0.71 | 0.71 | 0.04 | 0.82 |
| Sat Flow, veh/h | 206 | 1339 | 2170 | 1382 | 1810 | 1900 |
| Grp Volume(v), veh/h | 16 | 0 | 3 | 4 | 51 | 1 |
| Grp Sat Flow(s),veh/h/ln | 1649 | 0 | 1805 | 1651 | 1810 | 1900 |
| Q Serve(g_s), s | 0.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 |
| Cycle Q Clear(g_c), s | 0.7 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 |
| Prop In Lane | 0.12 | 0.81 | | 0.84 | 1.00 | |
| Lane Grp Cap(c), veh/h | 63 | 0 | 1280 | 1171 | 81 | 1557 |
| V/C Ratio(X) | 0.25 | 0.00 | 0.00 | 0.00 | 0.63 | 0.00 |
| Avail Cap(c_a), veh/h | 525 | 0 | 1280 | 1171 | 731 | 1557 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 32.8 | 0.0 | 3.0 | 3.0 | 33.0 | 1.1 |
| Incr Delay (d2), s/veh | 2.1 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.0 | 0.0 | 0.0 | 0.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 34.9 | 0.0 | 3.0 | 3.0 | 35.9 | 1.1 |
| LnGrp LOS | C | A | A | A | D | A |
| Approach Vol, veh/h | 16 | | 7 | | | 52 |
| Approach Delay, s/veh | 34.9 | | 3.0 | | | 35.3 |
| Approach LOS | C | | A | | | D |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.8 | 55.2 | | | | 63.0 | 7.3 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | | | | 5.4 | 4.6 |
| Max Green Setting (Gmax), s | 28.4 | 24.6 | | | | 57.6 | 22.4 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 2.0 | | | | 2.0 | 2.7 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | | | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.2 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 1 | 6 | 3 | 0 | 3 |
| Future Vol, veh/h | 0 | 1 | 6 | 3 | 0 | 3 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 1 | 7 | 3 | 0 | 3 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 5 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1083 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1083 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

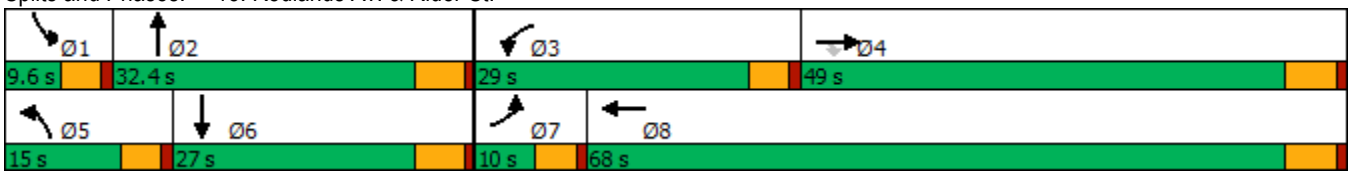
| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.3 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1083 | - |
| HCM Lane V/C Ratio | - | - | 0.001 | - |
| HCM Control Delay (s) | - | - | 8.3 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT | Ø1 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 6 | 366 | 11 | 175 | 730 | 48 | 3 | 1 | |
| Future Volume (vph) | 6 | 366 | 11 | 175 | 730 | 48 | 3 | 1 | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | 6 | 1 |
| Permitted Phases | | | 4 | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 6 | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 22.4 | 9.6 |
| Total Split (s) | 10.0 | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 27.0 | 9.6 |
| Total Split (%) | 8.3% | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 22.5% | 8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 4.4 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | 5.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.2 | 46.4 | 46.4 | 13.6 | 63.0 | 8.6 | 12.6 | 10.1 | |
| Actuated g/C Ratio | 0.06 | 0.52 | 0.52 | 0.15 | 0.71 | 0.10 | 0.14 | 0.11 | |
| v/c Ratio | 0.07 | 0.40 | 0.01 | 0.69 | 0.31 | 0.30 | 0.55 | 0.02 | |
| Control Delay | 45.2 | 16.2 | 0.0 | 49.4 | 6.3 | 43.5 | 10.2 | 32.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 45.2 | 16.2 | 0.0 | 49.4 | 6.3 | 43.5 | 10.2 | 32.0 | |
| LOS | D | B | A | D | A | D | B | C | |
| Approach Delay | | 16.2 | | | 14.7 | | 16.3 | 32.0 | |
| Approach LOS | | B | | | B | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.5 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 15.3 | Intersection LOS: B |
| Intersection Capacity Utilization 55.6% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 6 | 366 | 11 | 175 | 730 | 0 | 48 | 3 | 215 | 0 | 1 | 2 |
| Future Volume (veh/h) | 6 | 366 | 11 | 175 | 730 | 0 | 48 | 3 | 215 | 0 | 1 | 2 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 7 | 402 | 12 | 192 | 802 | 0 | 53 | 3 | 236 | 0 | 1 | 2 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 16 | 993 | 842 | 227 | 2309 | 0 | 71 | 4 | 301 | 2 | 58 | 116 |
| Arrive On Green | 0.01 | 0.52 | 0.52 | 0.13 | 0.64 | 0.00 | 0.04 | 0.19 | 0.19 | 0.00 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 1810 | 20 | 1593 | 1810 | 565 | 1131 |
| Grp Volume(v), veh/h | 7 | 402 | 12 | 192 | 802 | 0 | 53 | 0 | 239 | 0 | 0 | 3 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1810 | 0 | 1613 | 1810 | 0 | 1696 |
| Q Serve(g_s), s | 0.4 | 12.5 | 0.3 | 10.1 | 10.0 | 0.0 | 2.8 | 0.0 | 13.7 | 0.0 | 0.0 | 0.2 |
| Cycle Q Clear(g_c), s | 0.4 | 12.5 | 0.3 | 10.1 | 10.0 | 0.0 | 2.8 | 0.0 | 13.7 | 0.0 | 0.0 | 0.2 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 0.99 | 1.00 | | 0.67 |
| Lane Grp Cap(c), veh/h | 16 | 993 | 842 | 227 | 2309 | 0 | 71 | 0 | 305 | 2 | 0 | 174 |
| V/C Ratio(X) | 0.44 | 0.40 | 0.01 | 0.84 | 0.35 | 0.00 | 0.75 | 0.00 | 0.78 | 0.00 | 0.00 | 0.02 |
| Avail Cap(c_a), veh/h | 100 | 993 | 842 | 454 | 2309 | 0 | 194 | 0 | 448 | 93 | 0 | 377 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.0 | 14.0 | 11.2 | 41.6 | 8.1 | 0.0 | 46.2 | 0.0 | 37.5 | 0.0 | 0.0 | 39.2 |
| Incr Delay (d2), s/veh | 6.8 | 1.2 | 0.0 | 3.3 | 0.4 | 0.0 | 5.8 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.2 | 5.1 | 0.1 | 4.5 | 3.3 | 0.0 | 1.3 | 0.0 | 5.7 | 0.0 | 0.0 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.8 | 15.3 | 11.2 | 44.9 | 8.5 | 0.0 | 52.0 | 0.0 | 43.0 | 0.0 | 0.0 | 39.3 |
| LnGrp LOS | D | B | B | D | A | A | D | A | D | A | A | D |
| Approach Vol, veh/h | | 421 | | | 994 | | | 292 | | | 3 | |
| Approach Delay, s/veh | | 15.8 | | | 15.6 | | | 44.6 | | | 39.3 | |
| Approach LOS | | B | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 0.0 | 23.8 | 16.8 | 56.6 | 8.4 | 15.4 | 5.5 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 0.0 | 15.7 | 12.1 | 14.5 | 4.8 | 2.2 | 2.4 | 12.0 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.2 | 2.3 | 0.0 | 0.0 | 0.0 | 5.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.6 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 28.7 |
| Intersection LOS | D |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 46 | 206 | 146 | 50 | 168 | 4 | 274 | 207 | 24 | 6 | 152 | 50 |
| Future Vol, veh/h | 46 | 206 | 146 | 50 | 168 | 4 | 274 | 207 | 24 | 6 | 152 | 50 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 59 | 264 | 187 | 64 | 215 | 5 | 351 | 265 | 31 | 8 | 195 | 64 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

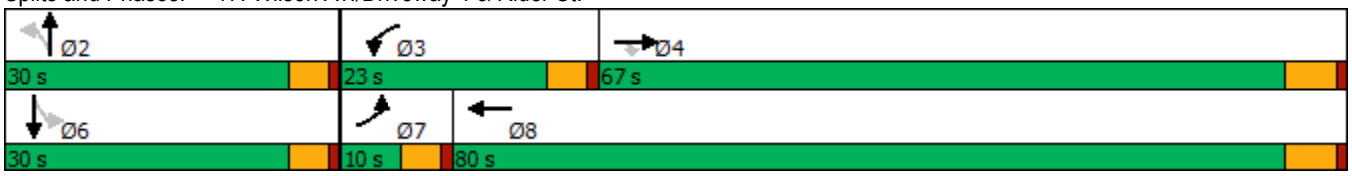
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 23.2 | 22.5 | 38.9 | 21.1 |
| HCM LOS | C | C | E | C |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 74% | 0% | 100% | 0% | 0% | 98% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 26% | 0% | 0% | 100% | 0% | 2% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 274 | 138 | 93 | 46 | 206 | 146 | 50 | 172 | 6 | 152 | 50 |
| LT Vol | 274 | 0 | 0 | 46 | 0 | 0 | 50 | 0 | 6 | 0 | 0 |
| Through Vol | 0 | 138 | 69 | 0 | 206 | 0 | 0 | 168 | 0 | 152 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 146 | 0 | 4 | 0 | 0 | 50 |
| Lane Flow Rate | 351 | 177 | 119 | 59 | 264 | 187 | 64 | 221 | 8 | 195 | 64 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.912 | 0.434 | 0.286 | 0.159 | 0.673 | 0.44 | 0.178 | 0.581 | 0.022 | 0.538 | 0.164 |
| Departure Headway (Hd) | 9.343 | 8.83 | 8.645 | 9.688 | 9.179 | 8.466 | 10.003 | 9.487 | 10.457 | 9.94 | 9.217 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 386 | 407 | 415 | 370 | 394 | 425 | 358 | 379 | 342 | 362 | 388 |
| Service Time | 7.112 | 6.598 | 6.413 | 7.461 | 6.951 | 6.238 | 7.779 | 7.262 | 8.241 | 7.725 | 7.001 |
| HCM Lane V/C Ratio | 0.909 | 0.435 | 0.287 | 0.159 | 0.67 | 0.44 | 0.179 | 0.583 | 0.023 | 0.539 | 0.165 |
| HCM Control Delay | 57.5 | 18.2 | 14.9 | 14.3 | 29 | 17.8 | 14.9 | 24.7 | 13.5 | 23.8 | 13.8 |
| HCM Lane LOS | F | C | B | B | D | C | B | C | B | C | B |
| HCM 95th-tile Q | 9.5 | 2.1 | 1.2 | 0.6 | 4.8 | 2.2 | 0.6 | 3.5 | 0.1 | 3 | 0.6 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 21 | 530 | 19 | 220 | 847 | 33 | 0 | 0 |
| Future Volume (vph) | 21 | 530 | 19 | 220 | 847 | 33 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | 6 |
| Permitted Phases | | | 4 | | | 2 | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 22.8 | 22.8 | 9.6 | 22.8 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 67.0 | 67.0 | 23.0 | 80.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 8.3% | 55.8% | 55.8% | 19.2% | 66.7% | 25.0% | 25.0% | 25.0% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 5.3 | 61.3 | 61.3 | 18.0 | 77.9 | | 11.9 | 11.9 |
| Actuated g/C Ratio | 0.05 | 0.58 | 0.58 | 0.17 | 0.73 | | 0.11 | 0.11 |
| v/c Ratio | 0.28 | 0.57 | 0.02 | 0.85 | 0.38 | | 0.70 | 0.02 |
| Control Delay | 58.0 | 17.2 | 0.1 | 68.4 | 6.5 | | 21.1 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 58.0 | 17.2 | 0.1 | 68.4 | 6.5 | | 21.1 | 0.2 |
| LOS | E | B | A | E | A | | C | A |
| Approach Delay | | 18.2 | | | 19.2 | | 21.1 | 0.2 |
| Approach LOS | | B | | | B | | C | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 106.1 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.85 | |
| Intersection Signal Delay: 19.1 | Intersection LOS: B |
| Intersection Capacity Utilization 72.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 17: Wilson Av./Driveway 4 & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 21 | 530 | 19 | 220 | 847 | 0 | 33 | 0 | 181 | 0 | 0 | 6 |
| Future Volume (veh/h) | 21 | 530 | 19 | 220 | 847 | 0 | 33 | 0 | 181 | 0 | 0 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 25 | 624 | 22 | 259 | 996 | 0 | 39 | 0 | 213 | 0 | 0 | 7 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 43 | 1014 | 858 | 286 | 2411 | 0 | 68 | 12 | 240 | 0 | 0 | 286 |
| Arrive On Green | 0.02 | 0.53 | 0.53 | 0.16 | 0.67 | 0.00 | 0.18 | 0.00 | 0.18 | 0.00 | 0.00 | 0.18 |
| Sat Flow, veh/h | 1810 | 1900 | 1609 | 1810 | 3705 | 0 | 177 | 70 | 1351 | 0 | 0 | 1610 |
| Grp Volume(v), veh/h | 25 | 624 | 22 | 259 | 996 | 0 | 252 | 0 | 0 | 0 | 0 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1609 | 1810 | 1805 | 0 | 1599 | 0 | 0 | 0 | 0 | 1610 |
| Q Serve(g_s), s | 1.6 | 26.2 | 0.7 | 16.1 | 14.5 | 0.0 | 12.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Cycle Q Clear(g_c), s | 1.6 | 26.2 | 0.7 | 16.1 | 14.5 | 0.0 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.15 | | 0.85 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 43 | 1014 | 858 | 286 | 2411 | 0 | 320 | 0 | 0 | 0 | 0 | 286 |
| V/C Ratio(X) | 0.58 | 0.62 | 0.03 | 0.91 | 0.41 | 0.00 | 0.79 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| Avail Cap(c_a), veh/h | 85 | 1014 | 858 | 290 | 2411 | 0 | 389 | 0 | 0 | 0 | 0 | 357 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.4 | 18.6 | 12.6 | 47.4 | 8.7 | 0.0 | 46.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.0 |
| Incr Delay (d2), s/veh | 4.4 | 2.8 | 0.1 | 28.8 | 0.5 | 0.0 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 11.3 | 0.3 | 9.3 | 5.0 | 0.0 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 59.8 | 21.4 | 12.7 | 76.2 | 9.3 | 0.0 | 54.5 | 0.0 | 0.0 | 0.0 | 0.0 | 39.0 |
| LnGrp LOS | E | C | B | E | A | A | D | A | A | A | A | D |
| Approach Vol, veh/h | | 671 | | | 1255 | | | 252 | | | 7 | |
| Approach Delay, s/veh | | 22.5 | | | 23.1 | | | 54.5 | | | 39.0 | |
| Approach LOS | | C | | | C | | | D | | | D | |

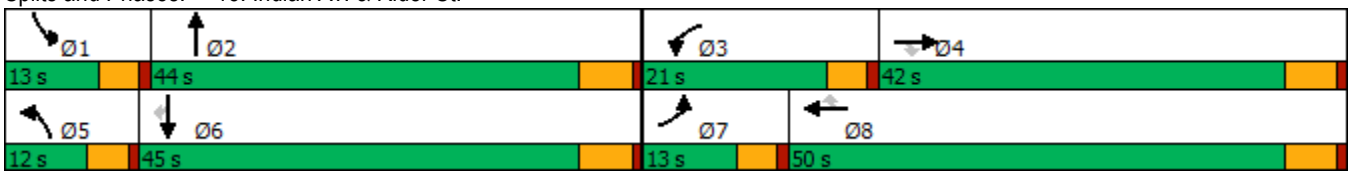
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 25.0 | 22.7 | 67.0 | | 25.0 | 7.3 | 82.4 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 25.4 | 18.4 | 61.2 | | 25.4 | 5.4 | 74.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 19.6 | 18.1 | 28.2 | | 2.4 | 3.6 | 16.5 | | | | |
| Green Ext Time (p_c), s | | 0.7 | 0.0 | 4.2 | | 0.0 | 0.0 | 8.1 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.6 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Future Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 42.0 | 42.0 | 21.0 | 50.0 | 50.0 | 12.0 | 44.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 35.0% | 35.0% | 17.5% | 41.7% | 41.7% | 10.0% | 36.7% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 6.6 | 13.8 | 13.8 | 9.8 | 19.1 | 19.1 | 5.9 | 40.4 | 6.6 | 43.0 | 43.0 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.12 | 0.23 | 0.23 | 0.07 | 0.48 | 0.08 | 0.51 | 0.51 |
| v/c Ratio | 0.31 | 0.28 | 0.11 | 0.52 | 0.39 | 0.37 | 0.19 | 0.13 | 0.31 | 0.05 | 0.01 |
| Control Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 30.9 | | | 25.7 | | | 17.8 | | 26.1 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 84.4 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 25.2 | Intersection LOS: C |
| Intersection Capacity Utilization 43.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Future Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1824 | 1900 |
| Adj Flow Rate, veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 165 | 35 | 44 | 82 | 4 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 1456 | 302 | 71 | 1742 | 809 |
| Arrive On Green | 0.04 | 0.13 | 0.13 | 0.08 | 0.17 | 0.17 | 0.03 | 0.49 | 0.49 | 0.04 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 2977 | 617 | 1810 | 3466 | 1610 |
| Grp Volume(v), veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 99 | 101 | 44 | 82 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1789 | 1810 | 1733 | 1610 |
| Q Serve(g_s), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.35 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 883 | 875 | 71 | 1742 | 809 |
| V/C Ratio(X) | 0.62 | 0.36 | 0.15 | 0.78 | 0.53 | 0.51 | 0.51 | 0.11 | 0.12 | 0.62 | 0.05 | 0.00 |
| Avail Cap(c_a), veh/h | 195 | 1674 | 746 | 380 | 1075 | 911 | 171 | 883 | 875 | 195 | 1742 | 809 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.9 | 31.1 | 30.2 | 35.4 | 29.8 | 29.7 | 37.5 | 10.8 | 10.8 | 36.9 | 9.9 | 9.7 |
| Incr Delay (d2), s/veh | 3.2 | 0.5 | 0.3 | 3.5 | 1.4 | 1.5 | 3.2 | 0.3 | 0.3 | 3.2 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 1.4 | 0.5 | 2.0 | 2.8 | 2.3 | 0.5 | 0.8 | 0.9 | 0.8 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.1 | 31.6 | 30.6 | 38.8 | 31.2 | 31.2 | 40.7 | 11.0 | 11.1 | 40.1 | 9.9 | 9.7 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 241 | | | 412 | | | 224 | | | 130 | |
| Approach Delay, s/veh | | 33.0 | | | 33.2 | | | 14.2 | | | 20.2 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.7 | 44.0 | 10.6 | 15.8 | 6.6 | 45.0 | 7.7 | 18.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 8.4 | 38.2 | 16.4 | 36.2 | 7.4 | 39.2 | 8.4 | 44.2 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 4.4 | 6.6 | 5.3 | 3.0 | 2.9 | 3.9 | 8.3 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.1 | 1.0 | 0.0 | 0.4 | 0.0 | 1.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.3 |
| HCM 6th LOS | C |

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 425 | 144 | 533 | 587 | 494 | 0 | 62 |
| Future Volume (vph) | 425 | 144 | 533 | 587 | 494 | 0 | 62 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 26.8 | 26.8 | 9.6 | 26.8 | 23.8 | 23.8 | 23.8 |
| Total Split (s) | 44.6 | 44.6 | 31.6 | 76.2 | 43.8 | 43.8 | 43.8 |
| Total Split (%) | 37.2% | 37.2% | 26.3% | 63.5% | 36.5% | 36.5% | 36.5% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 45.2 | 45.2 | 20.9 | 70.7 | 22.0 | 22.0 | 22.0 |
| Actuated g/C Ratio | 0.43 | 0.43 | 0.20 | 0.68 | 0.21 | 0.21 | 0.21 |
| v/c Ratio | 0.30 | 0.20 | 0.83 | 0.26 | 0.74 | 0.75 | 0.17 |
| Control Delay | 21.9 | 5.8 | 51.0 | 7.6 | 51.2 | 51.4 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.9 | 5.8 | 51.0 | 7.6 | 51.2 | 51.4 | 8.9 |
| LOS | C | A | D | A | D | D | A |
| Approach Delay | 17.8 | | | 28.2 | | 46.6 | |
| Approach LOS | B | | | C | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 104.3 | |
| Natural Cycle: 65 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.83 | |
| Intersection Signal Delay: 30.1 | Intersection LOS: C |
| Intersection Capacity Utilization 66.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 425 | 144 | 533 | 587 | 0 | 0 | 0 | 0 | 494 | 0 | 62 |
| Future Volume (veh/h) | 0 | 425 | 144 | 533 | 587 | 0 | 0 | 0 | 0 | 494 | 0 | 62 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 462 | 157 | 579 | 638 | 0 | | | | 537 | 0 | 67 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 1687 | 752 | 662 | 2533 | 0 | | | | 662 | 0 | 294 |
| Arrive On Green | 0.00 | 0.47 | 0.47 | 0.19 | 0.70 | 0.00 | | | | 0.18 | 0.00 | 0.18 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 462 | 157 | 579 | 638 | 0 | | | | 537 | 0 | 67 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 7.8 | 5.8 | 16.1 | 6.4 | 0.0 | | | | 14.3 | 0.0 | 3.6 |
| Cycle Q Clear(g_c), s | 0.0 | 7.8 | 5.8 | 16.1 | 6.4 | 0.0 | | | | 14.3 | 0.0 | 3.6 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1687 | 752 | 662 | 2533 | 0 | | | | 662 | 0 | 294 |
| V/C Ratio(X) | 0.00 | 0.27 | 0.21 | 0.87 | 0.25 | 0.00 | | | | 0.81 | 0.00 | 0.23 |
| Avail Cap(c_a), veh/h | 0 | 1687 | 752 | 945 | 2533 | 0 | | | | 1370 | 0 | 610 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 16.3 | 15.8 | 39.6 | 5.4 | 0.0 | | | | 39.3 | 0.0 | 35.0 |
| Incr Delay (d2), s/veh | 0.0 | 0.4 | 0.6 | 5.0 | 0.2 | 0.0 | | | | 2.5 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 3.1 | 2.1 | 7.1 | 1.9 | 0.0 | | | | 6.3 | 0.0 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 16.7 | 16.4 | 44.6 | 5.7 | 0.0 | | | | 41.8 | 0.0 | 35.3 |
| LnGrp LOS | A | B | B | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 619 | | | 1217 | | | | | | 604 | |
| Approach Delay, s/veh | | 16.7 | | | 24.2 | | | | | | 41.1 | |
| Approach LOS | | B | | | C | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 23.5 | 52.7 | | 24.2 | | 76.2 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 27.0 | 38.8 | | 38.0 | | 70.4 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 18.1 | 9.8 | | 16.3 | | 8.4 | | | | | |
| Green Ext Time (p_c), s | | 0.8 | 3.4 | | 2.1 | | 4.4 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.5 |
| HCM 6th LOS | C |

**Notes**

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 71 | 848 | 997 | 661 | 123 | 0 | 282 |
| Future Volume (vph) | 71 | 848 | 997 | 661 | 123 | 0 | 282 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.7 | 75.6 | 66.3 | 66.3 | 16.5 | 16.5 | 16.5 |
| Actuated g/C Ratio | 0.06 | 0.73 | 0.64 | 0.64 | 0.16 | 0.16 | 0.16 |
| v/c Ratio | 0.34 | 0.35 | 0.47 | 0.64 | 0.25 | 0.25 | 0.79 |
| Control Delay | 51.8 | 6.2 | 12.2 | 11.4 | 39.4 | 39.4 | 34.5 |
| Queue Delay | 0.0 | 0.0 | 1.8 | 4.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.8 | 6.2 | 14.0 | 15.7 | 39.4 | 39.4 | 34.5 |
| LOS | D | A | B | B | D | D | C |
| Approach Delay | | 9.7 | 14.7 | | | 36.0 | |
| Approach LOS | | A | B | | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 103.8 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.79 | |
| Intersection Signal Delay: 16.1 | Intersection LOS: B |
| Intersection Capacity Utilization 66.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 71 | 848 | 0 | 0 | 997 | 661 | 123 | 0 | 282 | 0 | 0 | 0 |
| Future Volume (veh/h) | 71 | 848 | 0 | 0 | 997 | 661 | 123 | 0 | 282 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 77 | 922 | 0 | 0 | 1084 | 718 | 134 | 0 | 307 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 159 | 2461 | 0 | 0 | 2147 | 958 | 773 | 0 | 344 | | | |
| Arrive On Green | 0.05 | 0.68 | 0.00 | 0.00 | 0.59 | 0.59 | 0.21 | 0.00 | 0.21 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 77 | 922 | 0 | 0 | 1084 | 718 | 134 | 0 | 307 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.4 | 12.1 | 0.0 | 0.0 | 19.2 | 36.1 | 3.3 | 0.0 | 20.5 | | | |
| Cycle Q Clear(g_c), s | 2.4 | 12.1 | 0.0 | 0.0 | 19.2 | 36.1 | 3.3 | 0.0 | 20.5 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 159 | 2461 | 0 | 0 | 2147 | 958 | 773 | 0 | 344 | | | |
| V/C Ratio(X) | 0.49 | 0.37 | 0.00 | 0.00 | 0.50 | 0.75 | 0.17 | 0.00 | 0.89 | | | |
| Avail Cap(c_a), veh/h | 1142 | 2461 | 0 | 0 | 2147 | 958 | 1080 | 0 | 480 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 51.6 | 7.5 | 0.0 | 0.0 | 13.0 | 16.4 | 35.5 | 0.0 | 42.3 | | | |
| Incr Delay (d2), s/veh | 0.9 | 0.4 | 0.0 | 0.0 | 0.9 | 5.4 | 0.1 | 0.0 | 14.6 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.0 | 4.0 | 0.0 | 0.0 | 7.1 | 13.0 | 1.4 | 0.0 | 9.2 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.4 | 8.0 | 0.0 | 0.0 | 13.8 | 21.8 | 35.6 | 0.0 | 56.8 | | | |
| LnGrp LOS | D | A | A | A | B | C | D | A | E | | | |
| Approach Vol, veh/h | | 999 | | | 1802 | | | 441 | | | | |
| Approach Delay, s/veh | | 11.4 | | | 17.0 | | | 50.4 | | | | |
| Approach LOS | | B | | | B | | | D | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 29.4 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 22.5 | | 14.1 | | | 4.4 | 38.1 | | | | |
| Green Ext Time (p_c), s | | 1.1 | | 7.2 | | | 0.1 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.8 |
| HCM 6th LOS | B |

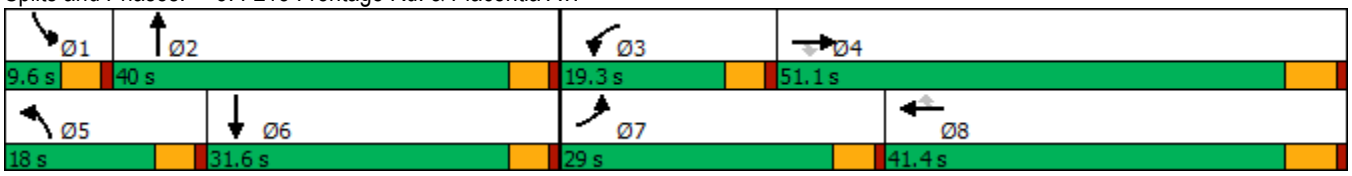
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 29.0 | 51.1 | 51.1 | 19.3 | 41.4 | 41.4 | 18.0 | 40.0 | 9.6 | 31.6 |
| Total Split (%) | 24.2% | 42.6% | 42.6% | 16.1% | 34.5% | 34.5% | 15.0% | 33.3% | 8.0% | 26.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 17.0 | 55.1 | 55.1 | 5.5 | 35.7 | 35.7 | 13.4 | 43.3 | 5.0 | 27.0 |
| Actuated g/C Ratio | 0.15 | 0.49 | 0.49 | 0.05 | 0.32 | 0.32 | 0.12 | 0.38 | 0.04 | 0.24 |
| v/c Ratio | 0.75 | 0.42 | 0.32 | 0.14 | 1.04 | 0.02 | 1.16 | 0.58 | 0.15 | 1.22 |
| Control Delay | 63.2 | 19.9 | 7.9 | 56.5 | 74.9 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| Queue Delay | 0.2 | 2.8 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 22.7 | 9.0 | 56.5 | 74.9 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| LOS | E | C | A | E | E | A | F | B | E | F |
| Approach Delay | | 26.3 | | | 74.0 | | | 67.8 | | 151.5 |
| Approach LOS | | C | | | E | | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.7 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.22 | |
| Intersection Signal Delay: 69.0 | Intersection LOS: E |
| Intersection Capacity Utilization 100.5% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 741 | 216 | 12 | 1248 | 9 | 249 | 74 | 363 | 12 | 251 | 232 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 99 | 485 | 25 | 223 | 206 |
| Arrive On Green | 0.13 | 0.44 | 0.44 | 0.01 | 0.32 | 0.32 | 0.12 | 0.35 | 0.35 | 0.01 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3800 | 1610 | 1810 | 280 | 1373 | 1810 | 909 | 840 |
| Grp Volume(v), veh/h | 204 | 741 | 216 | 12 | 1248 | 9 | 249 | 0 | 437 | 12 | 0 | 483 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 0 | 1653 | 1810 | 0 | 1749 |
| Q Serve(g_s), s | 12.1 | 15.9 | 9.5 | 0.7 | 35.6 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Cycle Q Clear(g_c), s | 12.1 | 15.9 | 9.5 | 0.7 | 35.6 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 0 | 584 | 25 | 0 | 430 |
| V/C Ratio(X) | 0.86 | 0.47 | 0.30 | 0.48 | 1.01 | 0.02 | 1.13 | 0.00 | 0.75 | 0.48 | 0.00 | 1.12 |
| Avail Cap(c_a), veh/h | 402 | 1589 | 709 | 242 | 1231 | 521 | 221 | 0 | 584 | 82 | 0 | 430 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.8 | 21.7 | 19.9 | 53.8 | 37.2 | 25.3 | 48.3 | 0.0 | 31.2 | 53.8 | 0.0 | 41.5 |
| Incr Delay (d2), s/veh | 4.3 | 1.0 | 1.1 | 5.1 | 29.2 | 0.1 | 99.6 | 0.0 | 5.3 | 13.2 | 0.0 | 81.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 6.5 | 3.6 | 0.4 | 20.5 | 0.2 | 11.9 | 0.0 | 10.5 | 0.4 | 0.0 | 20.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.2 | 22.7 | 21.0 | 58.9 | 66.4 | 25.3 | 147.9 | 0.0 | 36.5 | 67.0 | 0.0 | 123.4 |
| LnGrp LOS | D | C | C | E | F | C | F | A | D | E | A | F |
| Approach Vol, veh/h | | 1161 | | | 1269 | | | 686 | | | 495 | |
| Approach Delay, s/veh | | 27.4 | | | 66.0 | | | 76.9 | | | 122.0 | |
| Approach LOS | | C | | | E | | | E | | | F | |

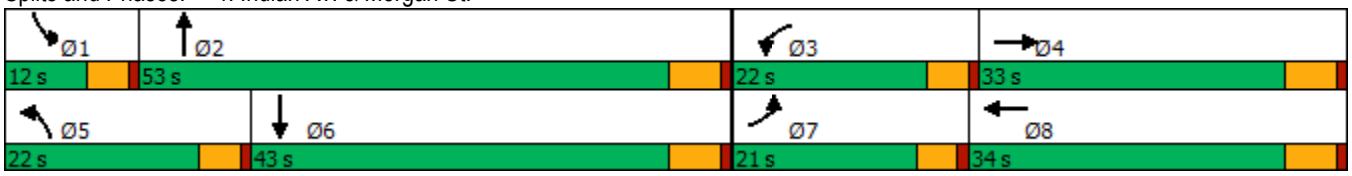
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 43.5 | 6.1 | 54.2 | 18.0 | 31.6 | 18.9 | 41.4 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 35.4 | 14.7 | 45.3 | 13.4 | 27.0 | 24.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.5 | 2.7 | 17.9 | 15.4 | 29.0 | 14.1 | 37.6 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 5.8 | 0.0 | 0.0 | 0.2 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 63.3 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 68 | 59 | 68 | 28 | 75 | 177 | 7 | 342 |
| Future Volume (vph) | 68 | 59 | 68 | 28 | 75 | 177 | 7 | 342 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 21.0 | 33.0 | 22.0 | 34.0 | 22.0 | 53.0 | 12.0 | 43.0 |
| Total Split (%) | 17.5% | 27.5% | 18.3% | 28.3% | 18.3% | 44.2% | 10.0% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 11.9 | 12.6 | 8.5 | 12.6 | 8.9 | 51.1 | 5.4 | 41.6 |
| Actuated g/C Ratio | 0.14 | 0.14 | 0.10 | 0.14 | 0.10 | 0.58 | 0.06 | 0.47 |
| v/c Ratio | 0.34 | 0.29 | 0.47 | 0.07 | 0.50 | 0.13 | 0.08 | 0.29 |
| Control Delay | 42.7 | 18.9 | 49.6 | 32.0 | 49.6 | 10.4 | 46.7 | 17.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.7 | 18.9 | 49.6 | 32.0 | 49.6 | 10.4 | 46.7 | 17.8 |
| LOS | D | B | D | C | D | B | D | B |
| Approach Delay | | 27.2 | | 44.1 | | 20.4 | | 18.4 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.1 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.50 | |
| Intersection Signal Delay: 23.3 | Intersection LOS: C |
| Intersection Capacity Utilization 46.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 68 | 59 | 69 | 68 | 28 | 3 | 75 | 177 | 41 | 7 | 342 | 51 |
| Future Volume (veh/h) | 68 | 59 | 69 | 68 | 28 | 3 | 75 | 177 | 41 | 7 | 342 | 51 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 83 | 72 | 64 | 83 | 34 | 4 | 91 | 216 | 49 | 9 | 417 | 47 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 108 | 247 | 196 | 108 | 422 | 49 | 118 | 1629 | 362 | 20 | 1639 | 184 |
| Arrive On Green | 0.06 | 0.13 | 0.13 | 0.06 | 0.13 | 0.13 | 0.07 | 0.55 | 0.55 | 0.01 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1905 | 1515 | 1810 | 3258 | 376 | 1810 | 2935 | 652 | 1810 | 3272 | 367 |
| Grp Volume(v), veh/h | 83 | 68 | 68 | 83 | 19 | 19 | 91 | 131 | 134 | 9 | 229 | 235 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1615 | 1810 | 1805 | 1829 | 1810 | 1805 | 1783 | 1810 | 1805 | 1834 |
| Q Serve(g_s), s | 3.8 | 2.9 | 3.3 | 3.8 | 0.8 | 0.8 | 4.2 | 3.0 | 3.1 | 0.4 | 6.2 | 6.2 |
| Cycle Q Clear(g_c), s | 3.8 | 2.9 | 3.3 | 3.8 | 0.8 | 0.8 | 4.2 | 3.0 | 3.1 | 0.4 | 6.2 | 6.2 |
| Prop In Lane | 1.00 | | 0.94 | 1.00 | | 0.21 | 1.00 | | 0.37 | 1.00 | | 0.20 |
| Lane Grp Cap(c), veh/h | 108 | 234 | 209 | 108 | 234 | 237 | 118 | 1002 | 989 | 20 | 904 | 919 |
| V/C Ratio(X) | 0.77 | 0.29 | 0.33 | 0.77 | 0.08 | 0.08 | 0.77 | 0.13 | 0.14 | 0.44 | 0.25 | 0.26 |
| Avail Cap(c_a), veh/h | 349 | 577 | 516 | 370 | 598 | 606 | 370 | 1002 | 989 | 157 | 904 | 919 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.4 | 33.5 | 33.6 | 39.4 | 32.5 | 32.6 | 39.1 | 9.1 | 9.1 | 41.8 | 12.1 | 12.1 |
| Incr Delay (d2), s/veh | 4.3 | 0.7 | 0.9 | 4.3 | 0.1 | 0.1 | 4.0 | 0.3 | 0.3 | 5.5 | 0.7 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 1.2 | 1.3 | 1.7 | 0.3 | 0.3 | 1.9 | 1.1 | 1.1 | 0.2 | 2.3 | 2.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.7 | 34.2 | 34.5 | 43.7 | 32.7 | 32.7 | 43.1 | 9.4 | 9.4 | 47.3 | 12.8 | 12.8 |
| LnGrp LOS | D | C | C | D | C | C | D | A | A | D | B | B |
| Approach Vol, veh/h | | 219 | | | 121 | | | 356 | | | 473 | |
| Approach Delay, s/veh | | 37.9 | | | 40.2 | | | 18.0 | | | 13.5 | |
| Approach LOS | | D | | | D | | | B | | | B | |

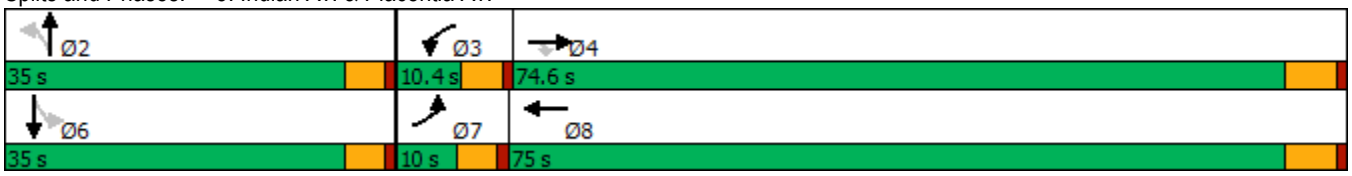
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.6 | 53.0 | 9.7 | 16.8 | 10.1 | 48.4 | 9.7 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 47.2 | 17.4 | 27.2 | 17.4 | 37.2 | 16.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.1 | 5.8 | 5.3 | 6.2 | 8.2 | 5.8 | 2.8 |
| Green Ext Time (p_c), s | 0.0 | 1.4 | 0.1 | 0.6 | 0.1 | 2.5 | 0.1 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 57 | 882 | 98 | 33 | 940 | 50 | 80 | 46 | 154 |
| Future Volume (vph) | 57 | 882 | 98 | 33 | 940 | 50 | 80 | 46 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 74.6 | 74.6 | 10.4 | 75.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| Total Split (%) | 8.3% | 62.2% | 62.2% | 8.7% | 62.5% | 29.2% | 29.2% | 29.2% | 29.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.4 | 69.2 | 69.2 | 5.6 | 69.5 | 28.1 | 28.1 | 28.1 | 28.1 |
| Actuated g/C Ratio | 0.05 | 0.60 | 0.60 | 0.05 | 0.60 | 0.24 | 0.24 | 0.24 | 0.24 |
| v/c Ratio | 0.74 | 0.84 | 0.11 | 0.55 | 0.98 | 0.83 | 0.32 | 0.25 | 0.92 |
| Control Delay | 100.8 | 29.2 | 3.8 | 78.9 | 46.2 | 115.8 | 36.0 | 38.7 | 65.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 100.8 | 29.2 | 3.8 | 78.9 | 46.2 | 115.8 | 36.0 | 38.7 | 65.5 |
| LOS | F | C | A | E | D | F | D | D | E |
| Approach Delay | | 30.7 | | | 47.6 | | 57.5 | | 61.8 |
| Approach LOS | | C | | | D | | E | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 115.8 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.98 | |
| Intersection Signal Delay: 44.1 | Intersection LOS: D |
| Intersection Capacity Utilization 88.5% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 57 | 882 | 98 | 33 | 940 | 55 | 50 | 80 | 21 | 46 | 154 | 178 |
| Future Volume (veh/h) | 57 | 882 | 98 | 33 | 940 | 55 | 50 | 80 | 21 | 46 | 154 | 178 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 62 | 959 | 82 | 48 | 1022 | 61 | 54 | 116 | 23 | 67 | 223 | 146 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 80 | 1099 | 932 | 77 | 1024 | 61 | 119 | 390 | 77 | 305 | 272 | 178 |
| Arrive On Green | 0.04 | 0.58 | 0.58 | 0.04 | 0.58 | 0.58 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1775 | 106 | 1029 | 1540 | 305 | 1270 | 1072 | 702 |
| Grp Volume(v), veh/h | 62 | 959 | 82 | 48 | 0 | 1083 | 54 | 0 | 139 | 67 | 0 | 369 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1881 | 1029 | 0 | 1845 | 1270 | 0 | 1774 |
| Q Serve(g_s), s | 4.1 | 51.5 | 2.7 | 3.1 | 0.0 | 68.8 | 6.3 | 0.0 | 7.3 | 5.4 | 0.0 | 23.5 |
| Cycle Q Clear(g_c), s | 4.1 | 51.5 | 2.7 | 3.1 | 0.0 | 68.8 | 29.8 | 0.0 | 7.3 | 12.7 | 0.0 | 23.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.17 | 1.00 | | 0.40 |
| Lane Grp Cap(c), veh/h | 80 | 1099 | 932 | 77 | 0 | 1086 | 119 | 0 | 468 | 305 | 0 | 450 |
| V/C Ratio(X) | 0.78 | 0.87 | 0.09 | 0.62 | 0.00 | 1.00 | 0.45 | 0.00 | 0.30 | 0.22 | 0.00 | 0.82 |
| Avail Cap(c_a), veh/h | 81 | 1099 | 932 | 88 | 0 | 1086 | 119 | 0 | 468 | 305 | 0 | 450 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.7 | 21.5 | 11.2 | 56.4 | 0.0 | 25.3 | 56.2 | 0.0 | 36.1 | 41.2 | 0.0 | 42.2 |
| Incr Delay (d2), s/veh | 32.9 | 9.6 | 0.2 | 6.2 | 0.0 | 26.8 | 2.7 | 0.0 | 0.4 | 0.4 | 0.0 | 11.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.5 | 23.3 | 1.0 | 1.5 | 0.0 | 34.9 | 1.7 | 0.0 | 3.2 | 1.7 | 0.0 | 11.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 89.6 | 31.1 | 11.4 | 62.6 | 0.0 | 52.0 | 58.9 | 0.0 | 36.5 | 41.6 | 0.0 | 53.7 |
| LnGrp LOS | F | C | B | E | A | D | E | A | D | D | A | D |
| Approach Vol, veh/h | | 1103 | | | 1131 | | | 193 | | | 436 | |
| Approach Delay, s/veh | | 32.9 | | | 52.5 | | | 42.7 | | | 51.8 | |
| Approach LOS | | C | | | D | | | D | | | D | |

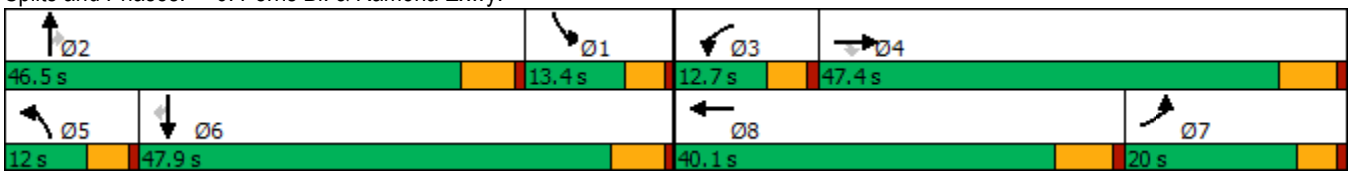
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.0 | 9.7 | 75.2 | | 35.0 | 9.9 | 75.0 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 30.4 | 5.8 | 68.8 | | 30.4 | 5.4 | 69.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 31.8 | 5.1 | 53.5 | | 25.5 | 6.1 | 70.8 | | | | |
| Green Ext Time (p_c), s | | 0.0 | 0.0 | 6.3 | | 1.0 | 0.0 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 44.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 256 | 1092 | 154 | 102 | 831 | 301 | 463 | 102 | 346 | 643 | 280 |
| Future Volume (vph) | 256 | 1092 | 154 | 102 | 831 | 301 | 463 | 102 | 346 | 643 | 280 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 12.0 | 46.5 | 46.5 | 13.4 | 47.9 | 47.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 10.0% | 38.8% | 38.8% | 11.2% | 39.9% | 39.9% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 11.9 | 29.5 | 29.5 | 7.0 | 24.7 | 7.6 | 19.7 | 19.7 | 13.1 | 25.2 | 25.2 |
| Actuated g/C Ratio | 0.13 | 0.32 | 0.32 | 0.08 | 0.27 | 0.08 | 0.22 | 0.22 | 0.14 | 0.28 | 0.28 |
| v/c Ratio | 0.59 | 0.68 | 0.25 | 0.39 | 0.70 | 1.08 | 0.62 | 0.22 | 0.72 | 0.67 | 0.46 |
| Control Delay | 45.2 | 29.2 | 4.9 | 48.5 | 32.9 | 117.1 | 36.4 | 1.0 | 49.2 | 33.5 | 7.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.2 | 29.2 | 4.9 | 48.5 | 32.9 | 117.1 | 36.4 | 1.0 | 49.2 | 33.5 | 7.4 |
| LOS | D | C | A | D | C | F | D | A | D | C | A |
| Approach Delay | | 29.5 | | | 34.4 | | 60.3 | | | 32.0 | |
| Approach LOS | | C | | | C | | E | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 91.1 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.08 | |
| Intersection Signal Delay: 37.0 | Intersection LOS: D |
| Intersection Capacity Utilization 70.3% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 256 | 1092 | 154 | 102 | 831 | 104 | 301 | 463 | 102 | 346 | 643 | 280 |
| Future Volume (veh/h) | 256 | 1092 | 154 | 102 | 831 | 104 | 301 | 463 | 102 | 346 | 643 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 267 | 1138 | 134 | 106 | 866 | 81 | 314 | 482 | 76 | 360 | 670 | 262 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 358 | 1666 | 517 | 198 | 1234 | 115 | 323 | 718 | 319 | 510 | 964 | 430 |
| Arrive On Green | 0.10 | 0.32 | 0.32 | 0.06 | 0.26 | 0.26 | 0.09 | 0.20 | 0.20 | 0.15 | 0.27 | 0.27 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4827 | 450 | 3510 | 3610 | 1603 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 267 | 1138 | 134 | 106 | 619 | 328 | 314 | 482 | 76 | 360 | 670 | 262 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1818 | 1755 | 1805 | 1603 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 5.9 | 15.4 | 5.0 | 2.4 | 13.1 | 13.2 | 7.2 | 9.9 | 2.5 | 7.9 | 13.4 | 7.5 |
| Cycle Q Clear(g_c), s | 5.9 | 15.4 | 5.0 | 2.4 | 13.1 | 13.2 | 7.2 | 9.9 | 2.5 | 7.9 | 13.4 | 7.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.25 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 358 | 1666 | 517 | 198 | 884 | 465 | 323 | 718 | 319 | 510 | 964 | 430 |
| V/C Ratio(X) | 0.75 | 0.68 | 0.26 | 0.54 | 0.70 | 0.70 | 0.97 | 0.67 | 0.24 | 0.71 | 0.69 | 0.61 |
| Avail Cap(c_a), veh/h | 672 | 2655 | 824 | 353 | 1457 | 766 | 323 | 1826 | 811 | 510 | 1888 | 841 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 35.1 | 23.7 | 20.2 | 37.0 | 27.2 | 27.2 | 36.4 | 29.8 | 16.0 | 32.8 | 26.5 | 11.2 |
| Incr Delay (d2), s/veh | 1.2 | 0.5 | 0.3 | 0.8 | 1.0 | 2.0 | 42.4 | 1.1 | 0.4 | 3.8 | 0.9 | 1.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 5.6 | 1.7 | 1.0 | 5.0 | 5.4 | 4.8 | 4.1 | 1.1 | 3.4 | 5.4 | 3.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 36.3 | 24.3 | 20.5 | 37.8 | 28.2 | 29.2 | 78.9 | 30.9 | 16.4 | 36.5 | 27.5 | 12.6 |
| LnGrp LOS | D | C | C | D | C | C | E | C | B | D | C | B |
| Approach Vol, veh/h | | 1539 | | | 1053 | | | 872 | | | 1292 | |
| Approach Delay, s/veh | | 26.0 | | | 29.5 | | | 46.9 | | | 27.0 | |
| Approach LOS | | C | | | C | | | D | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 17.5 | 21.8 | 9.1 | 32.1 | 12.0 | 27.3 | 14.4 | 26.8 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 7.4 | 42.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 9.9 | 11.9 | 4.4 | 17.4 | 9.2 | 15.4 | 7.9 | 15.2 |
| Green Ext Time (p_c), s | 0.0 | 3.3 | 0.0 | 8.3 | 0.0 | 5.4 | 0.3 | 5.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.9 |
| HCM 6th LOS | C |

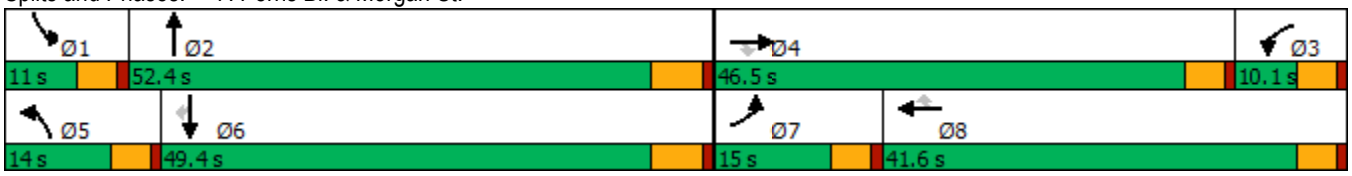
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 48 | 31 | 35 | 64 | 37 | 14 | 781 | 16 | 966 | 16 |
| Future Volume (vph) | 38 | 48 | 31 | 35 | 64 | 37 | 14 | 781 | 16 | 966 | 16 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.8 | 17.2 | 17.2 | 9.4 | 17.8 | 17.8 | 7.9 | 34.0 | 7.9 | 33.9 | 33.9 |
| Actuated g/C Ratio | 0.15 | 0.29 | 0.29 | 0.16 | 0.30 | 0.30 | 0.13 | 0.57 | 0.13 | 0.57 | 0.57 |
| v/c Ratio | 0.16 | 0.05 | 0.06 | 0.14 | 0.13 | 0.08 | 0.07 | 0.31 | 0.08 | 0.54 | 0.02 |
| Control Delay | 37.3 | 26.0 | 0.2 | 34.8 | 25.1 | 0.3 | 39.9 | 13.2 | 40.2 | 16.9 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 37.3 | 26.0 | 0.2 | 34.8 | 25.1 | 0.3 | 39.9 | 13.2 | 40.2 | 16.9 | 0.1 |
| LOS | D | C | A | C | C | A | D | B | D | B | A |
| Approach Delay | | 22.9 | | | 20.9 | | | 13.7 | | 17.0 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 59.7 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.54 | |
| Intersection Signal Delay: 16.3 | Intersection LOS: B |
| Intersection Capacity Utilization 51.7% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 48 | 31 | 35 | 64 | 37 | 14 | 781 | 12 | 16 | 966 | 16 |
| Future Volume (veh/h) | 38 | 48 | 31 | 35 | 64 | 37 | 14 | 781 | 12 | 16 | 966 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 55 | 19 | 40 | 73 | 40 | 16 | 888 | 12 | 18 | 1098 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 78 | 611 | 273 | 78 | 321 | 272 | 35 | 2245 | 30 | 39 | 1545 | 680 |
| Arrive On Green | 0.04 | 0.17 | 0.17 | 0.04 | 0.17 | 0.17 | 0.02 | 0.43 | 0.43 | 0.02 | 0.43 | 0.43 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5274 | 71 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 55 | 19 | 40 | 73 | 40 | 16 | 582 | 318 | 18 | 1098 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1887 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.3 | 0.7 | 0.4 | 1.2 | 1.9 | 1.2 | 0.5 | 6.7 | 6.7 | 0.6 | 14.4 | 0.1 |
| Cycle Q Clear(g_c), s | 1.3 | 0.7 | 0.4 | 1.2 | 1.9 | 1.2 | 0.5 | 6.7 | 6.7 | 0.6 | 14.4 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 78 | 611 | 273 | 78 | 321 | 272 | 35 | 1472 | 803 | 39 | 1545 | 680 |
| V/C Ratio(X) | 0.55 | 0.09 | 0.07 | 0.51 | 0.23 | 0.15 | 0.45 | 0.40 | 0.40 | 0.46 | 0.71 | 0.01 |
| Avail Cap(c_a), veh/h | 327 | 2626 | 1171 | 173 | 1221 | 1034 | 295 | 2798 | 1527 | 201 | 2733 | 1204 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 27.0 | 20.2 | 12.4 | 27.0 | 20.7 | 20.4 | 27.9 | 11.4 | 11.4 | 27.8 | 13.5 | 9.5 |
| Incr Delay (d2), s/veh | 2.2 | 0.1 | 0.1 | 2.0 | 0.4 | 0.2 | 3.3 | 0.2 | 0.3 | 3.1 | 0.6 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.3 | 0.2 | 0.6 | 0.8 | 0.5 | 0.2 | 2.0 | 2.2 | 0.3 | 4.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 29.2 | 20.2 | 12.5 | 28.9 | 21.0 | 20.6 | 31.2 | 11.6 | 11.7 | 30.9 | 14.2 | 9.5 |
| LnGrp LOS | C | C | B | C | C | C | C | B | B | C | B | A |
| Approach Vol, veh/h | | 117 | | | 153 | | | 916 | | | 1123 | |
| Approach Delay, s/veh | | 22.3 | | | 23.0 | | | 12.0 | | | 14.4 | |
| Approach LOS | | C | | | C | | | B | | | B | |

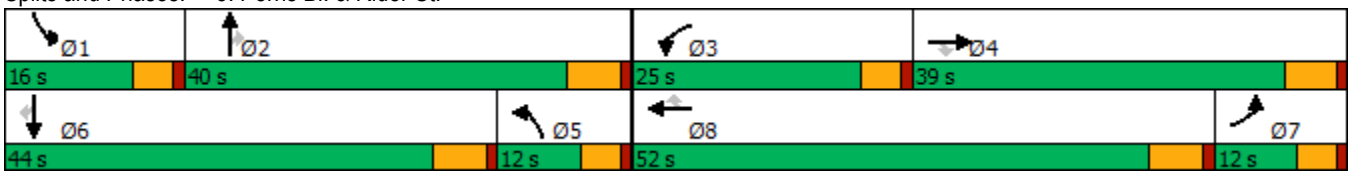
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.9 | 30.3 | 7.1 | 14.3 | 5.7 | 30.4 | 7.1 | 14.3 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.6 | 8.7 | 3.2 | 2.7 | 2.5 | 16.4 | 3.3 | 3.9 |
| Green Ext Time (p_c), s | 0.0 | 6.1 | 0.0 | 0.4 | 0.0 | 8.2 | 0.0 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.4 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 40 | 193 | 52 | 175 | 67 | 141 | 19 | 620 | 200 | 128 | 899 | 16 |
| Future Volume (vph) | 40 | 193 | 52 | 175 | 67 | 141 | 19 | 620 | 200 | 128 | 899 | 16 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 10.3 | 13.8 | 13.8 | 12.3 | 20.8 | 20.8 | 6.2 | 17.2 | 17.2 | 10.0 | 28.1 | 28.1 |
| Actuated g/C Ratio | 0.14 | 0.18 | 0.18 | 0.16 | 0.28 | 0.28 | 0.08 | 0.23 | 0.23 | 0.13 | 0.37 | 0.37 |
| v/c Ratio | 0.16 | 0.30 | 0.12 | 0.60 | 0.07 | 0.25 | 0.13 | 0.53 | 0.39 | 0.54 | 0.47 | 0.02 |
| Control Delay | 34.5 | 29.1 | 0.6 | 41.6 | 25.9 | 3.8 | 42.2 | 28.4 | 7.0 | 44.8 | 21.8 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 34.5 | 29.1 | 0.6 | 41.6 | 25.9 | 3.8 | 42.2 | 28.4 | 7.0 | 44.8 | 21.8 | 0.1 |
| LOS | C | C | A | D | C | A | D | C | A | D | C | A |
| Approach Delay | | 24.6 | | | 25.0 | | | 23.6 | | | 24.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 75.4 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.60 | |
| Intersection Signal Delay: 24.2 | Intersection LOS: C |
| Intersection Capacity Utilization 56.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 40 | 193 | 52 | 175 | 67 | 141 | 19 | 620 | 200 | 128 | 899 | 16 |
| Future Volume (veh/h) | 40 | 193 | 52 | 175 | 67 | 141 | 19 | 620 | 200 | 128 | 899 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 40 | 195 | 41 | 177 | 68 | 7 | 19 | 626 | 170 | 129 | 908 | 1 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 187 | 626 | 279 | 226 | 628 | 280 | 41 | 1286 | 394 | 167 | 1537 | 477 |
| Arrive On Green | 0.10 | 0.17 | 0.17 | 0.12 | 0.17 | 0.17 | 0.02 | 0.25 | 0.25 | 0.09 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1587 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 40 | 195 | 41 | 177 | 68 | 7 | 19 | 626 | 170 | 129 | 908 | 1 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1587 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.2 | 2.7 | 0.9 | 5.5 | 0.9 | 0.1 | 0.6 | 5.9 | 5.2 | 4.0 | 8.6 | 0.0 |
| Cycle Q Clear(g_c), s | 1.2 | 2.7 | 0.9 | 5.5 | 0.9 | 0.1 | 0.6 | 5.9 | 5.2 | 4.0 | 8.6 | 0.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 187 | 626 | 279 | 226 | 628 | 280 | 41 | 1286 | 394 | 167 | 1537 | 477 |
| V/C Ratio(X) | 0.21 | 0.31 | 0.15 | 0.78 | 0.11 | 0.03 | 0.46 | 0.49 | 0.43 | 0.77 | 0.59 | 0.00 |
| Avail Cap(c_a), veh/h | 233 | 2085 | 930 | 642 | 2901 | 1294 | 233 | 3086 | 944 | 359 | 3447 | 1070 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 23.6 | 20.8 | 10.7 | 24.4 | 20.0 | 8.8 | 27.7 | 18.5 | 18.2 | 25.5 | 17.2 | 14.2 |
| Incr Delay (d2), s/veh | 0.2 | 0.3 | 0.2 | 2.3 | 0.1 | 0.0 | 3.0 | 0.3 | 0.7 | 2.9 | 0.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 1.0 | 0.4 | 2.2 | 0.3 | 0.1 | 0.3 | 2.0 | 1.7 | 1.7 | 2.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 23.8 | 21.0 | 10.9 | 26.7 | 20.1 | 8.9 | 30.7 | 18.8 | 19.0 | 28.4 | 17.6 | 14.2 |
| LnGrp LOS | C | C | B | C | C | A | C | B | B | C | B | B |
| Approach Vol, veh/h | | 276 | | | 252 | | | 815 | | | 1038 | |
| Approach Delay, s/veh | | 19.9 | | | 24.4 | | | 19.1 | | | 18.9 | |
| Approach LOS | | B | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.9 | 20.1 | 11.8 | 15.8 | 7.1 | 22.8 | 11.7 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 6.0 | 7.9 | 7.5 | 4.7 | 2.6 | 10.6 | 3.2 | 2.9 |
| Green Ext Time (p_c), s | 0.1 | 4.7 | 0.2 | 1.2 | 0.0 | 6.4 | 0.0 | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.7 |
| HCM 6th LOS | B |

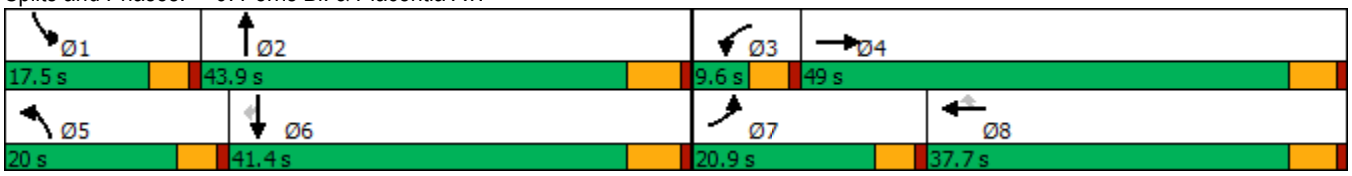
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 233 | 493 | 60 | 487 | 93 | 234 | 780 | 142 | 1041 | 239 |
| Future Volume (vph) | 233 | 493 | 60 | 487 | 93 | 234 | 780 | 142 | 1041 | 239 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 22.4 | 22.4 | 9.6 | 38.8 | 9.6 | 37.8 | 37.8 |
| Total Split (s) | 20.9 | 49.0 | 9.6 | 37.7 | 37.7 | 20.0 | 43.9 | 17.5 | 41.4 | 41.4 |
| Total Split (%) | 17.4% | 40.8% | 8.0% | 31.4% | 31.4% | 16.7% | 36.6% | 14.6% | 34.5% | 34.5% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 16.3 | 43.6 | 5.0 | 32.3 | 32.3 | 15.4 | 38.9 | 12.1 | 35.6 | 35.6 |
| Actuated g/C Ratio | 0.14 | 0.36 | 0.04 | 0.27 | 0.27 | 0.13 | 0.32 | 0.10 | 0.30 | 0.30 |
| v/c Ratio | 1.00 | 1.16 | 0.84 | 1.00 | 0.18 | 1.06 | 0.77 | 0.82 | 1.02 | 0.43 |
| Control Delay | 109.7 | 122.4 | 123.5 | 84.9 | 1.9 | 127.2 | 41.6 | 85.2 | 75.6 | 14.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 109.7 | 122.4 | 123.5 | 84.9 | 1.9 | 127.2 | 41.6 | 85.2 | 75.6 | 14.0 |
| LOS | F | F | F | F | A | F | D | F | E | B |
| Approach Delay | | 119.4 | | 76.5 | | | 60.2 | | 66.2 | |
| Approach LOS | | F | | E | | | E | | E | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Natural Cycle: 115 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.16 | |
| Intersection Signal Delay: 78.8 | Intersection LOS: E |
| Intersection Capacity Utilization 103.8% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 233 | 493 | 245 | 60 | 487 | 93 | 234 | 780 | 64 | 142 | 1041 | 239 |
| Future Volume (veh/h) | 233 | 493 | 245 | 60 | 487 | 93 | 234 | 780 | 64 | 142 | 1041 | 239 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 245 | 519 | 253 | 63 | 513 | -4 | 246 | 821 | 60 | 149 | 1096 | 243 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 246 | 438 | 214 | 75 | 511 | 433 | 232 | 1116 | 82 | 176 | 1071 | 476 |
| Arrive On Green | 0.14 | 0.36 | 0.36 | 0.04 | 0.27 | 0.00 | 0.13 | 0.33 | 0.33 | 0.10 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1810 | 1206 | 588 | 1810 | 1900 | 1610 | 1810 | 3405 | 249 | 1810 | 3610 | 1605 |
| Grp Volume(v), veh/h | 245 | 0 | 772 | 63 | 513 | -4 | 246 | 435 | 446 | 149 | 1096 | 243 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1794 | 1810 | 1900 | 1610 | 1810 | 1805 | 1848 | 1810 | 1805 | 1605 |
| Q Serve(g_s), s | 16.2 | 0.0 | 43.6 | 4.1 | 32.3 | 0.0 | 15.4 | 25.6 | 25.6 | 9.7 | 35.6 | 15.1 |
| Cycle Q Clear(g_c), s | 16.2 | 0.0 | 43.6 | 4.1 | 32.3 | 0.0 | 15.4 | 25.6 | 25.6 | 9.7 | 35.6 | 15.1 |
| Prop In Lane | 1.00 | | 0.33 | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 246 | 0 | 652 | 75 | 511 | 433 | 232 | 592 | 606 | 176 | 1071 | 476 |
| V/C Ratio(X) | 1.00 | 0.00 | 1.18 | 0.84 | 1.00 | -0.01 | 1.06 | 0.74 | 0.74 | 0.85 | 1.02 | 0.51 |
| Avail Cap(c_a), veh/h | 246 | 0 | 652 | 75 | 511 | 433 | 232 | 592 | 606 | 195 | 1071 | 476 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 0.0 | 38.2 | 57.1 | 43.8 | 0.0 | 52.3 | 35.7 | 35.7 | 53.3 | 42.2 | 35.0 |
| Incr Delay (d2), s/veh | 56.4 | 0.0 | 97.9 | 50.4 | 40.6 | 0.0 | 75.6 | 7.9 | 7.8 | 24.0 | 33.6 | 3.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.3 | 0.0 | 36.7 | 3.0 | 21.0 | 0.0 | 11.9 | 12.6 | 12.9 | 5.5 | 20.1 | 6.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 108.2 | 0.0 | 136.1 | 107.4 | 84.4 | 0.0 | 127.9 | 43.7 | 43.5 | 77.3 | 75.8 | 38.9 |
| LnGrp LOS | F | A | F | F | F | A | F | D | D | E | F | D |
| Approach Vol, veh/h | | 1017 | | | 572 | | | 1127 | | | 1488 | |
| Approach Delay, s/veh | | 129.4 | | | 87.5 | | | 62.0 | | | 69.9 | |
| Approach LOS | | F | | | F | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.3 | 45.1 | 9.6 | 49.0 | 20.0 | 41.4 | 20.9 | 37.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 12.9 | 38.1 | 5.0 | 43.6 | 15.4 | 35.6 | 16.3 | 32.3 |
| Max Q Clear Time (g_c+I1), s | 11.7 | 27.6 | 6.1 | 45.6 | 17.4 | 37.6 | 18.2 | 34.3 |
| Green Ext Time (p_c), s | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 84.6 |
| HCM 6th LOS | F |

| Intersection | |
|---|---|
| Int Delay, s/veh | 6.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 13 | 17 | 4 | 22 | 4 | 55 | 17 | 0 | 2 | 8 | 34 |
| Future Vol, veh/h | 44 | 13 | 17 | 4 | 22 | 4 | 55 | 17 | 0 | 2 | 8 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | - | - | - | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 63 | 19 | 24 | 6 | 31 | 6 | 79 | 24 | 0 | 3 | 11 | 49 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 218 | 199 | 12 | 246 | 248 | 24 | 60 | 0 | 0 | 24 | 0 | 0 |
| Stage 1 | 17 | 17 | - | 182 | 182 | - | - | - | - | - | - | - |
| Stage 2 | 201 | 182 | - | 64 | 66 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 743 | 700 | 1074 | 712 | 658 | 1058 | 1556 | - | - | 1604 | - | - |
| Stage 1 | 1008 | 885 | - | 824 | 753 | - | - | - | - | - | - | - |
| Stage 2 | 805 | 753 | - | 952 | 844 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 682 | 663 | 1073 | 653 | 623 | 1058 | 1556 | - | - | 1604 | - | - |
| Mov Cap-2 Maneuver | 682 | 663 | - | 653 | 623 | - | - | - | - | - | - | - |
| Stage 1 | 957 | 883 | - | 782 | 715 | - | - | - | - | - | - | - |
| Stage 2 | 727 | 715 | - | 908 | 842 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 10.3 | 10.8 | 5.7 | 0.3 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1556 | - | - | 682 | 846 | 663 | 1604 | - | - |
| HCM Lane V/C Ratio | 0.05 | - | - | 0.092 | 0.051 | 0.065 | 0.002 | - | - |
| HCM Control Delay (s) | 7.4 | - | - | 10.8 | 9.5 | 10.8 | 7.2 | 0 | - |
| HCM Lane LOS | A | - | - | B | A | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.2 | - | - | 0.3 | 0.2 | 0.2 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 9 | 64 | 0 | 0 | 29 |
| Future Vol, veh/h | 0 | 9 | 64 | 0 | 0 | 29 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 10 | 70 | 0 | 0 | 32 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 35 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1037 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1037 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.5 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1037 | - |
| HCM Lane V/C Ratio | - | - | 0.009 | - |
| HCM Control Delay (s) | - | - | 8.5 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.4 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 19 | 0 | 43 | 2 | 7 | 21 | 2 |
| Future Vol, veh/h | 2 | 0 | 0 | 0 | 0 | 19 | 0 | 43 | 2 | 7 | 21 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 2 | 0 | 0 | 0 | 0 | 21 | 0 | 47 | 2 | 8 | 23 | 2 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 64 | 89 | 24 | - | - | 25 | - | 0 | 0 | 49 | 0 | 0 |
| Stage 1 | 40 | 40 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 24 | 49 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.5 | 6.2 | - | - | 6.9 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | - | - | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 932 | 805 | 1058 | 0 | 0 | 1052 | 0 | - | - | 1571 | - | - |
| Stage 1 | 980 | 866 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Stage 2 | 996 | 858 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 911 | 801 | 1058 | - | - | 1052 | - | - | - | 1571 | - | - |
| Mov Cap-2 Maneuver | 911 | 801 | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | 980 | 862 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 976 | 858 | - | - | - | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9 | 8.5 | 0 | 1.7 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 911 | 1052 | 1571 | - | - |
| HCM Lane V/C Ratio | - | - | 0.002 | 0.02 | 0.005 | - | - |
| HCM Control Delay (s) | - | - | 9 | 8.5 | 7.3 | - | - |
| HCM Lane LOS | - | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | 0 | 0.1 | 0 | - | - |

| Lane Group | WBL | NBT | SBL | SBT |
|---|---|---|---|---|
| Lane Configurations | | | | |
| Traffic Volume (vph) | 8 | 5 | 17 | 4 |
| Future Volume (vph) | 8 | 5 | 17 | 4 |
| Turn Type | Prot | NA | Prot | NA |
| Protected Phases | 8 | 2 | 1 | 6 |
| Permitted Phases | | | | |
| Detector Phase | 8 | 2 | 1 | 6 |
| Switch Phase | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 26.6 | 22.4 | 9.6 | 15.4 |
| Total Split (s) | 27.0 | 30.0 | 33.0 | 63.0 |
| Total Split (%) | 30.0% | 33.3% | 36.7% | 70.0% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | | Lag | Lead | |
| Lead-Lag Optimize? | | Yes | Yes | |
| Recall Mode | None | Max | None | Max |
| Act Effct Green (s) | 10.0 | 63.5 | 5.5 | 65.8 |
| Actuated g/C Ratio | 0.13 | 0.82 | 0.07 | 0.85 |
| v/c Ratio | 0.20 | 0.00 | 0.14 | 0.00 |
| Control Delay | 14.9 | 4.3 | 36.0 | 2.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.9 | 4.3 | 36.0 | 2.5 |
| LOS | B | A | D | A |
| Approach Delay | 14.9 | 4.3 | | 29.9 |
| Approach LOS | B | A | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 77.8 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.20 | |
| Intersection Signal Delay: 18.1 | Intersection LOS: B |
| Intersection Capacity Utilization 25.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 13: Redlands Av. & Driveway 2

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Volume (veh/h) | 8 | 39 | 5 | 2 | 17 | 4 |
| Future Volume (veh/h) | 8 | 39 | 5 | 2 | 17 | 4 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | 1.00 | | 1.00 | 1.00 | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | No | | No | | | No |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 9 | 42 | 5 | 2 | 18 | 4 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 25 | 118 | 1782 | 668 | 38 | 1475 |
| Arrive On Green | 0.09 | 0.09 | 0.69 | 0.69 | 0.02 | 0.78 |
| Sat Flow, veh/h | 285 | 1330 | 2664 | 963 | 1810 | 1900 |
| Grp Volume(v), veh/h | 52 | 0 | 3 | 4 | 18 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1646 | 0 | 1805 | 1727 | 1810 | 1900 |
| Q Serve(g_s), s | 2.2 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| Cycle Q Clear(g_c), s | 2.2 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 |
| Prop In Lane | 0.17 | 0.81 | | 0.56 | 1.00 | |
| Lane Grp Cap(c), veh/h | 146 | 0 | 1252 | 1198 | 38 | 1475 |
| V/C Ratio(X) | 0.36 | 0.00 | 0.00 | 0.00 | 0.48 | 0.00 |
| Avail Cap(c_a), veh/h | 497 | 0 | 1252 | 1198 | 693 | 1475 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 31.8 | 0.0 | 3.5 | 3.5 | 35.9 | 1.9 |
| Incr Delay (d2), s/veh | 1.5 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.9 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | |
| LnGrp Delay(d),s/veh | 33.3 | 0.0 | 3.5 | 3.5 | 39.3 | 1.9 |
| LnGrp LOS | C | A | A | A | D | A |
| Approach Vol, veh/h | 52 | | 7 | | | 22 |
| Approach Delay, s/veh | 33.3 | | 3.5 | | | 32.5 |
| Approach LOS | C | | A | | | C |

| Timer - Assigned Phs | 1 | 2 | | | | 6 | 8 |
|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 56.9 | | | | 63.0 | 11.2 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | | | | 5.4 | 4.6 |
| Max Green Setting (Gmax), s | 28.4 | 24.6 | | | | 57.6 | 22.4 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 2.0 | | | | 2.0 | 4.2 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | | | | 0.0 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.5 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 4 | 3 | 2 | 0 | 12 |
| Future Vol, veh/h | 0 | 4 | 3 | 2 | 0 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 4 | 3 | 2 | 0 | 13 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 3 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1086 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1086 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

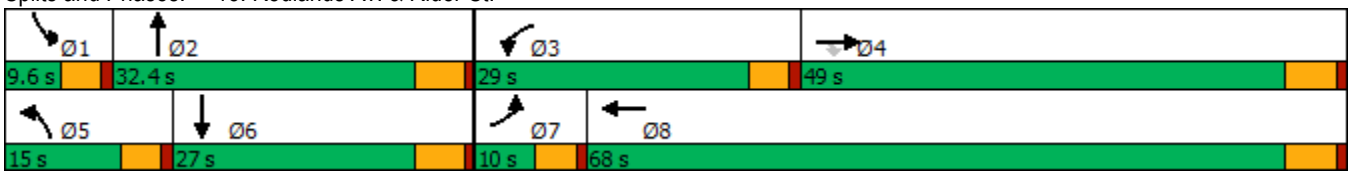
| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.3 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1086 | - |
| HCM Lane V/C Ratio | - | - | 0.004 | - |
| HCM Control Delay (s) | - | - | 8.3 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT | Ø1 |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 3 | 499 | 37 | 104 | 393 | 28 | 2 | 4 | |
| Future Volume (vph) | 3 | 499 | 37 | 104 | 393 | 28 | 2 | 4 | |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | NA | |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | 6 | 1 |
| Permitted Phases | | | 4 | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 6 | |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 22.4 | 9.6 |
| Total Split (s) | 10.0 | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 27.0 | 9.6 |
| Total Split (%) | 8.3% | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 22.5% | 8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 4.4 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | 5.4 | |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.1 | 50.1 | 50.1 | 10.4 | 63.6 | 7.1 | 12.3 | 10.1 | |
| Actuated g/C Ratio | 0.06 | 0.56 | 0.56 | 0.12 | 0.72 | 0.08 | 0.14 | 0.11 | |
| v/c Ratio | 0.03 | 0.54 | 0.04 | 0.57 | 0.17 | 0.22 | 0.42 | 0.07 | |
| Control Delay | 44.0 | 15.9 | 0.1 | 48.1 | 5.4 | 43.4 | 10.2 | 27.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 44.0 | 15.9 | 0.1 | 48.1 | 5.4 | 43.4 | 10.2 | 27.1 | |
| LOS | D | B | A | D | A | D | B | C | |
| Approach Delay | | 15.0 | | | 14.3 | | 16.2 | 27.1 | |
| Approach LOS | | B | | | B | | B | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.8 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.57 | |
| Intersection Signal Delay: 15.0 | Intersection LOS: B |
| Intersection Capacity Utilization 53.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 3 | 499 | 37 | 104 | 393 | 0 | 28 | 2 | 126 | 0 | 4 | 8 |
| Future Volume (veh/h) | 3 | 499 | 37 | 104 | 393 | 0 | 28 | 2 | 126 | 0 | 4 | 8 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 3 | 574 | 43 | 120 | 452 | 0 | 32 | 2 | 145 | 0 | 5 | 9 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 7 | 1084 | 918 | 151 | 2346 | 0 | 54 | 4 | 288 | 2 | 63 | 113 |
| Arrive On Green | 0.00 | 0.57 | 0.57 | 0.08 | 0.65 | 0.00 | 0.03 | 0.18 | 0.18 | 0.00 | 0.10 | 0.10 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 1810 | 22 | 1592 | 1810 | 608 | 1095 |
| Grp Volume(v), veh/h | 3 | 574 | 43 | 120 | 452 | 0 | 32 | 0 | 147 | 0 | 0 | 14 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1810 | 0 | 1614 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 0.2 | 17.8 | 1.1 | 6.2 | 4.8 | 0.0 | 1.7 | 0.0 | 7.9 | 0.0 | 0.0 | 0.7 |
| Cycle Q Clear(g_c), s | 0.2 | 17.8 | 1.1 | 6.2 | 4.8 | 0.0 | 1.7 | 0.0 | 7.9 | 0.0 | 0.0 | 0.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 1.00 | | 0.99 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 7 | 1084 | 918 | 151 | 2346 | 0 | 54 | 0 | 292 | 2 | 0 | 175 |
| V/C Ratio(X) | 0.41 | 0.53 | 0.05 | 0.79 | 0.19 | 0.00 | 0.59 | 0.00 | 0.50 | 0.00 | 0.00 | 0.08 |
| Avail Cap(c_a), veh/h | 102 | 1084 | 918 | 461 | 2346 | 0 | 197 | 0 | 455 | 95 | 0 | 384 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.6 | 12.7 | 9.1 | 43.0 | 6.7 | 0.0 | 45.8 | 0.0 | 35.3 | 0.0 | 0.0 | 38.8 |
| Incr Delay (d2), s/veh | 13.4 | 1.9 | 0.1 | 3.5 | 0.2 | 0.0 | 3.8 | 0.0 | 1.3 | 0.0 | 0.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 7.0 | 0.4 | 2.8 | 1.5 | 0.0 | 0.8 | 0.0 | 3.1 | 0.0 | 0.0 | 0.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.9 | 14.5 | 9.2 | 46.6 | 6.9 | 0.0 | 49.6 | 0.0 | 36.7 | 0.0 | 0.0 | 39.0 |
| LnGrp LOS | E | B | A | D | A | A | D | A | D | A | A | D |
| Approach Vol, veh/h | | 620 | | | 572 | | | 179 | | | 14 | |
| Approach Delay, s/veh | | 14.4 | | | 15.2 | | | 39.0 | | | 39.0 | |
| Approach LOS | | B | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 0.0 | 22.7 | 12.6 | 60.4 | 7.5 | 15.3 | 5.0 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 0.0 | 9.9 | 8.2 | 19.8 | 3.7 | 2.7 | 2.2 | 6.8 |
| Green Ext Time (p_c), s | 0.0 | 0.7 | 0.1 | 3.6 | 0.0 | 0.0 | 0.0 | 3.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 18.1 |
| HCM 6th LOS | B |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 13.3 |
| Intersection LOS | B |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 38 | 211 | 188 | 21 | 181 | 0 | 183 | 119 | 24 | 4 | 111 | 28 |
| Future Vol, veh/h | 38 | 211 | 188 | 21 | 181 | 0 | 183 | 119 | 24 | 4 | 111 | 28 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 40 | 220 | 196 | 22 | 189 | 0 | 191 | 124 | 25 | 4 | 116 | 29 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

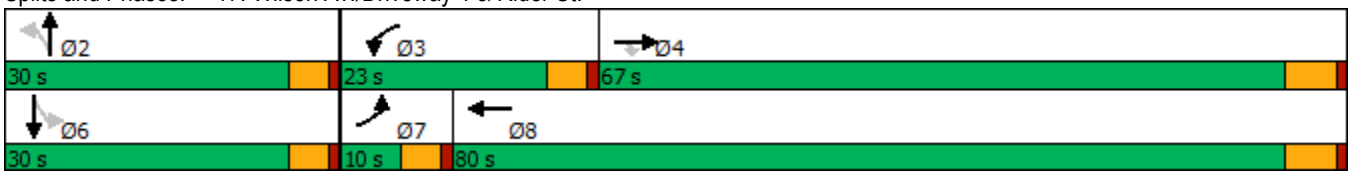
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 13.1 | 14 | 13.5 | 12.3 |
| HCM LOS | B | B | B | B |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 62% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 38% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 183 | 79 | 64 | 38 | 211 | 188 | 21 | 181 | 4 | 111 | 28 |
| LT Vol | 183 | 0 | 0 | 38 | 0 | 0 | 21 | 0 | 4 | 0 | 0 |
| Through Vol | 0 | 79 | 40 | 0 | 211 | 0 | 0 | 181 | 0 | 111 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 28 |
| Lane Flow Rate | 191 | 83 | 66 | 40 | 220 | 196 | 22 | 189 | 4 | 116 | 29 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.405 | 0.164 | 0.127 | 0.081 | 0.42 | 0.336 | 0.047 | 0.381 | 0.009 | 0.247 | 0.056 |
| Departure Headway (Hd) | 7.657 | 7.151 | 6.883 | 7.382 | 6.879 | 6.176 | 7.768 | 7.268 | 8.184 | 7.676 | 6.964 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 471 | 502 | 521 | 486 | 523 | 584 | 462 | 496 | 438 | 468 | 515 |
| Service Time | 5.395 | 4.888 | 4.621 | 5.115 | 4.612 | 3.909 | 5.505 | 5.005 | 5.926 | 5.417 | 4.705 |
| HCM Lane V/C Ratio | 0.406 | 0.165 | 0.127 | 0.082 | 0.421 | 0.336 | 0.048 | 0.381 | 0.009 | 0.248 | 0.056 |
| HCM Control Delay | 15.5 | 11.3 | 10.6 | 10.8 | 14.5 | 12 | 10.9 | 14.4 | 11 | 12.9 | 10.1 |
| HCM Lane LOS | C | B | B | B | B | B | B | B | B | B | B |
| HCM 95th-tile Q | 1.9 | 0.6 | 0.4 | 0.3 | 2.1 | 1.5 | 0.1 | 1.8 | 0 | 1 | 0.2 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 11 | 551 | 51 | 110 | 423 | 38 | 0 | 0 |
| Future Volume (vph) | 11 | 551 | 51 | 110 | 423 | 38 | 0 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | 6 |
| Permitted Phases | | | 4 | | | 2 | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 22.8 | 22.8 | 9.6 | 22.8 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 67.0 | 67.0 | 23.0 | 80.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 8.3% | 55.8% | 55.8% | 19.2% | 66.7% | 25.0% | 25.0% | 25.0% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 5.2 | 62.5 | 62.5 | 11.0 | 76.4 | | 11.3 | 11.3 |
| Actuated g/C Ratio | 0.05 | 0.63 | 0.63 | 0.11 | 0.76 | | 0.11 | 0.11 |
| v/c Ratio | 0.13 | 0.50 | 0.05 | 0.60 | 0.17 | | 0.58 | 0.05 |
| Control Delay | 50.7 | 12.9 | 0.5 | 55.4 | 3.9 | | 24.5 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 50.7 | 12.9 | 0.5 | 55.4 | 3.9 | | 24.5 | 0.1 |
| LOS | D | B | A | E | A | | C | A |
| Approach Delay | | 12.6 | | | 14.5 | | 24.5 | 0.1 |
| Approach LOS | | B | | | B | | C | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 99.9 | |
| Natural Cycle: 70 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.60 | |
| Intersection Signal Delay: 14.4 | Intersection LOS: B |
| Intersection Capacity Utilization 63.0% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 17: Wilson Av./Driveway 4 & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 11 | 551 | 51 | 110 | 423 | 0 | 38 | 0 | 107 | 0 | 0 | 27 |
| Future Volume (veh/h) | 11 | 551 | 51 | 110 | 423 | 0 | 38 | 0 | 107 | 0 | 0 | 27 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 12 | 599 | 55 | 120 | 460 | 0 | 41 | 0 | 116 | 0 | 0 | 29 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 26 | 1235 | 1047 | 150 | 2594 | 0 | 82 | 12 | 142 | 0 | 0 | 197 |
| Arrive On Green | 0.01 | 0.65 | 0.65 | 0.08 | 0.72 | 0.00 | 0.12 | 0.00 | 0.12 | 0.00 | 0.00 | 0.12 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 313 | 99 | 1167 | 0 | 0 | 1610 |
| Grp Volume(v), veh/h | 12 | 599 | 55 | 120 | 460 | 0 | 157 | 0 | 0 | 0 | 0 | 29 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1579 | 0 | 0 | 0 | 0 | 1610 |
| Q Serve(g_s), s | 0.7 | 16.6 | 1.3 | 6.7 | 4.2 | 0.0 | 7.1 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| Cycle Q Clear(g_c), s | 0.7 | 16.6 | 1.3 | 6.7 | 4.2 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.26 | | 0.74 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 26 | 1235 | 1047 | 150 | 2594 | 0 | 237 | 0 | 0 | 0 | 0 | 197 |
| V/C Ratio(X) | 0.47 | 0.48 | 0.05 | 0.80 | 0.18 | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 |
| Avail Cap(c_a), veh/h | 95 | 1235 | 1047 | 322 | 2594 | 0 | 429 | 0 | 0 | 0 | 0 | 396 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.5 | 9.2 | 6.5 | 46.5 | 4.7 | 0.0 | 44.1 | 0.0 | 0.0 | 0.0 | 0.0 | 40.5 |
| Incr Delay (d2), s/veh | 4.9 | 1.4 | 0.1 | 3.8 | 0.1 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 6.1 | 0.4 | 3.1 | 1.2 | 0.0 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.4 | 10.6 | 6.6 | 50.3 | 4.8 | 0.0 | 47.3 | 0.0 | 0.0 | 0.0 | 0.0 | 40.9 |
| LnGrp LOS | E | B | A | D | A | A | D | A | A | A | A | D |
| Approach Vol, veh/h | | 666 | | | 580 | | | 157 | | | 29 | |
| Approach Delay, s/veh | | 11.1 | | | 14.2 | | | 47.3 | | | 40.9 | |
| Approach LOS | | B | | | B | | | D | | | D | |

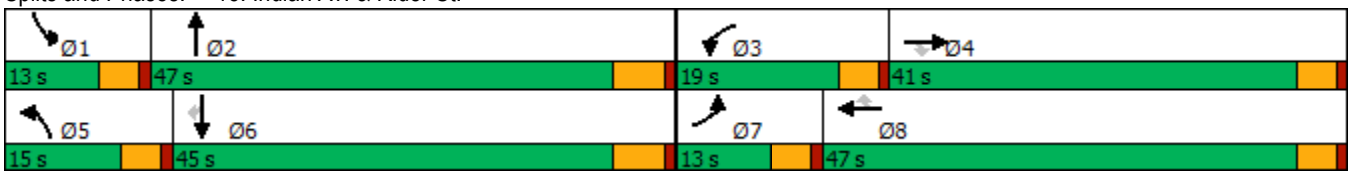
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 17.2 | 13.1 | 72.9 | | 17.2 | 6.1 | 80.0 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 25.4 | 18.4 | 61.2 | | 25.4 | 5.4 | 74.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 12.0 | 8.7 | 18.6 | | 3.7 | 2.7 | 6.2 | | | | |
| Green Ext Time (p_c), s | | 0.7 | 0.1 | 4.2 | | 0.1 | 0.0 | 3.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 16.9 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Future Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 37.6 | 37.6 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 41.0 | 41.0 | 19.0 | 47.0 | 47.0 | 15.0 | 47.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 34.2% | 34.2% | 15.8% | 39.2% | 39.2% | 12.5% | 39.2% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.5 | 14.6 | 14.6 | 7.3 | 22.4 | 22.4 | 6.0 | 41.9 | 8.4 | 50.7 | 50.7 |
| Actuated g/C Ratio | 0.06 | 0.16 | 0.16 | 0.08 | 0.25 | 0.25 | 0.07 | 0.47 | 0.09 | 0.56 | 0.56 |
| v/c Ratio | 0.13 | 0.45 | 0.17 | 0.38 | 0.25 | 0.18 | 0.21 | 0.09 | 0.66 | 0.16 | 0.03 |
| Control Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| LOS | D | D | A | D | C | A | D | B | E | B | A |
| Approach Delay | | 30.1 | | | 24.6 | | | 18.3 | | 24.0 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 89.8 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 25.0 | Intersection LOS: C |
| Intersection Capacity Utilization 40.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Future Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 120 | 18 | 111 | 332 | 15 |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 1613 | 237 | 141 | 2030 | 906 |
| Arrive On Green | 0.02 | 0.12 | 0.12 | 0.04 | 0.15 | 0.15 | 0.03 | 0.51 | 0.51 | 0.08 | 0.56 | 0.56 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 3157 | 465 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 68 | 70 | 111 | 332 | 15 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1816 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 922 | 928 | 141 | 2030 | 906 |
| V/C Ratio(X) | 0.46 | 0.59 | 0.18 | 0.69 | 0.41 | 0.20 | 0.52 | 0.07 | 0.08 | 0.78 | 0.16 | 0.02 |
| Avail Cap(c_a), veh/h | 188 | 1629 | 727 | 323 | 999 | 847 | 233 | 922 | 928 | 188 | 2030 | 906 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.3 | 33.4 | 31.6 | 38.0 | 31.0 | 30.0 | 38.7 | 10.0 | 10.0 | 36.5 | 8.5 | 7.8 |
| Incr Delay (d2), s/veh | 4.1 | 1.2 | 0.4 | 4.0 | 0.9 | 0.4 | 3.2 | 0.2 | 0.2 | 10.2 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 2.5 | 0.6 | 1.2 | 2.1 | 0.9 | 0.5 | 0.6 | 0.6 | 2.4 | 1.2 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.4 | 34.6 | 32.0 | 42.0 | 31.9 | 30.4 | 41.9 | 10.2 | 10.2 | 46.7 | 8.7 | 7.8 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 311 | | | 221 | | | 163 | | | 458 | |
| Approach Delay, s/veh | | 34.7 | | | 34.1 | | | 15.1 | | | 17.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.9 | 47.0 | 8.1 | 14.6 | 6.7 | 51.2 | 5.9 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 8.4 | 41.2 | 14.4 | 36.4 | 10.4 | 39.2 | 8.4 | 42.4 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 3.6 | 4.4 | 7.5 | 3.1 | 5.6 | 2.6 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 0.7 | 0.0 | 1.9 | 0.0 | 2.1 | 0.0 | 0.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.1 |
| HCM 6th LOS | C |

# APPENDIX 7.3:

# EA (2021) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EA (2021) Conditions - Weekday AM Peak Hour**

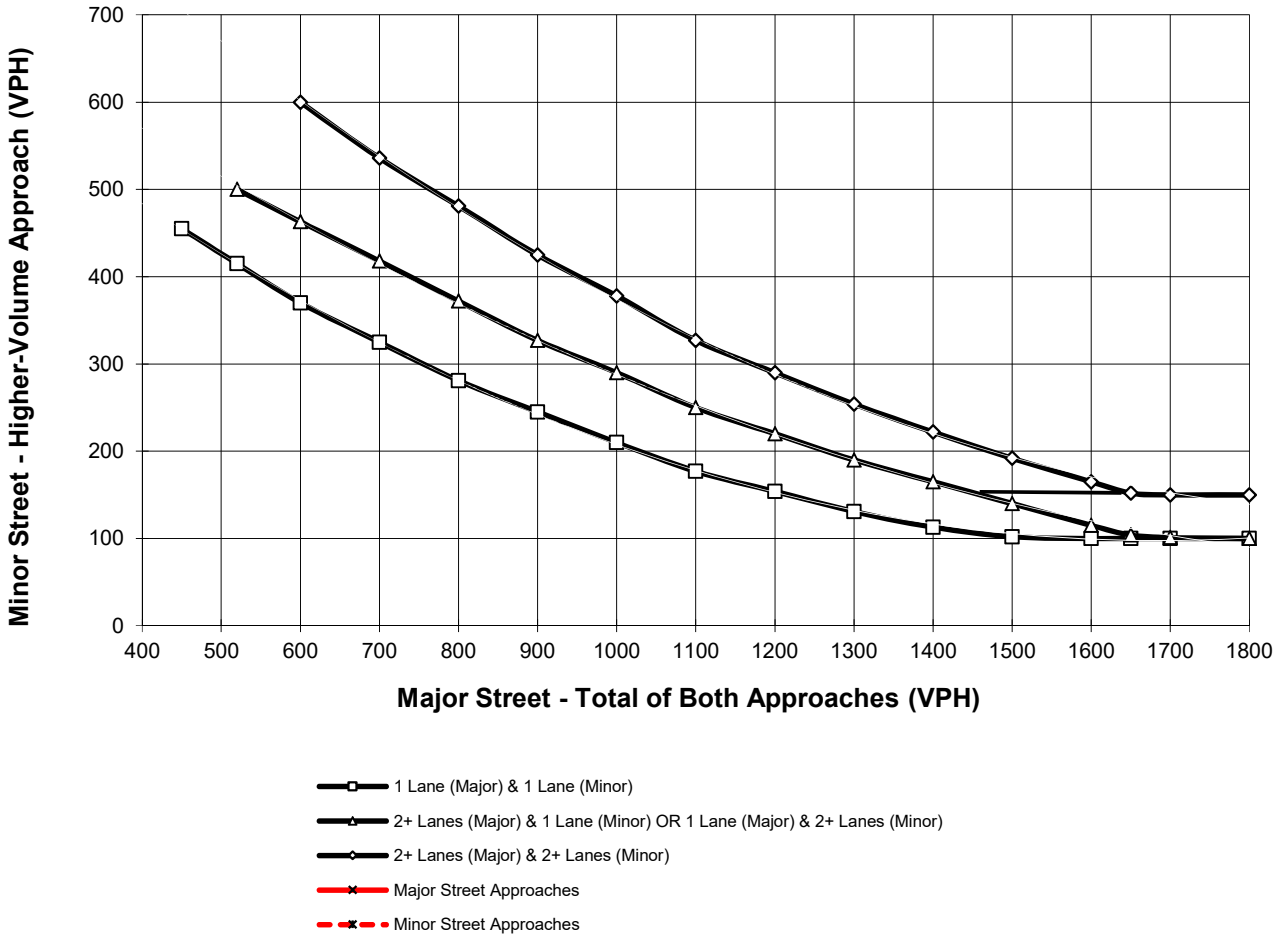
Major Street Name = **Morgan St.**

Total of Both Approaches (VPH) = **49**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **34**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EA (2021) Conditions - Weekday PM Peak Hour**

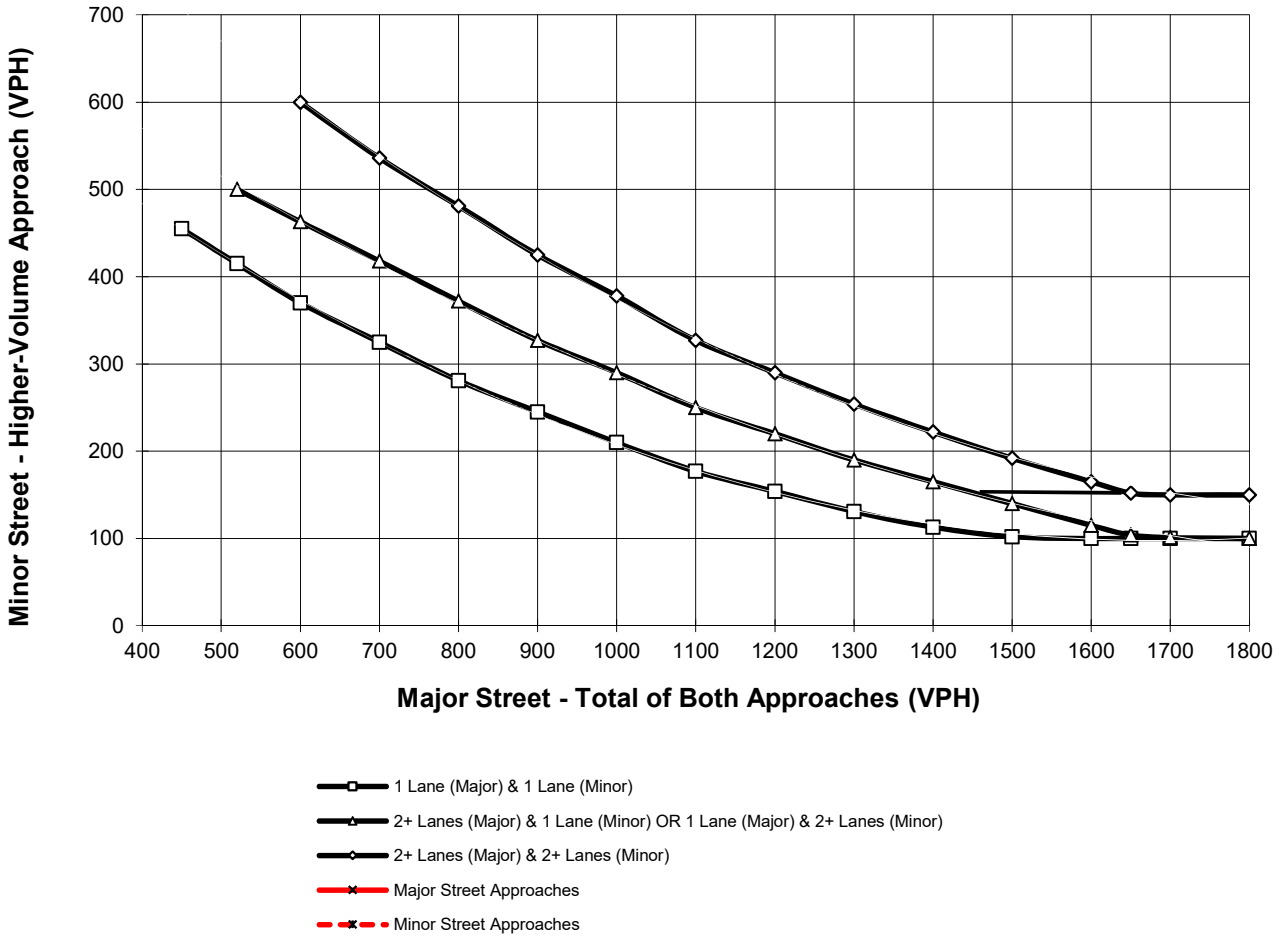
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **2**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Sinclair St.**

High Volume Approach (VPH) = **2**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2021) - Weekday AM Peak Hour**

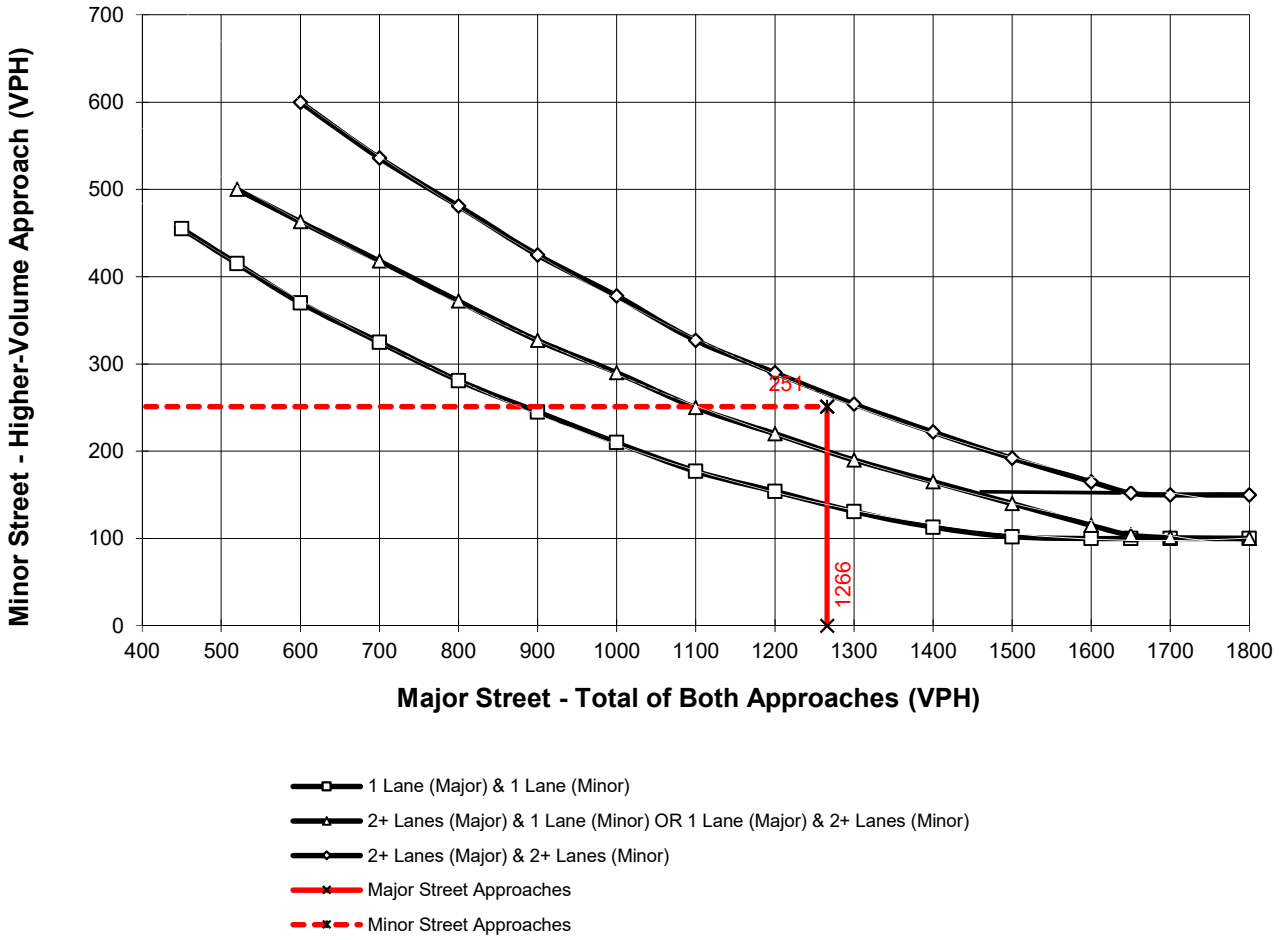
Major Street Name = **Rider St.**

Total of Both Approaches (VPH) = **1266**
Number of Approach Lanes on Major Street = **3**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **251**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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# APPENDIX 7.4:

# EAP (2021) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2021) Conditions - Weekday PM Peak Hour**

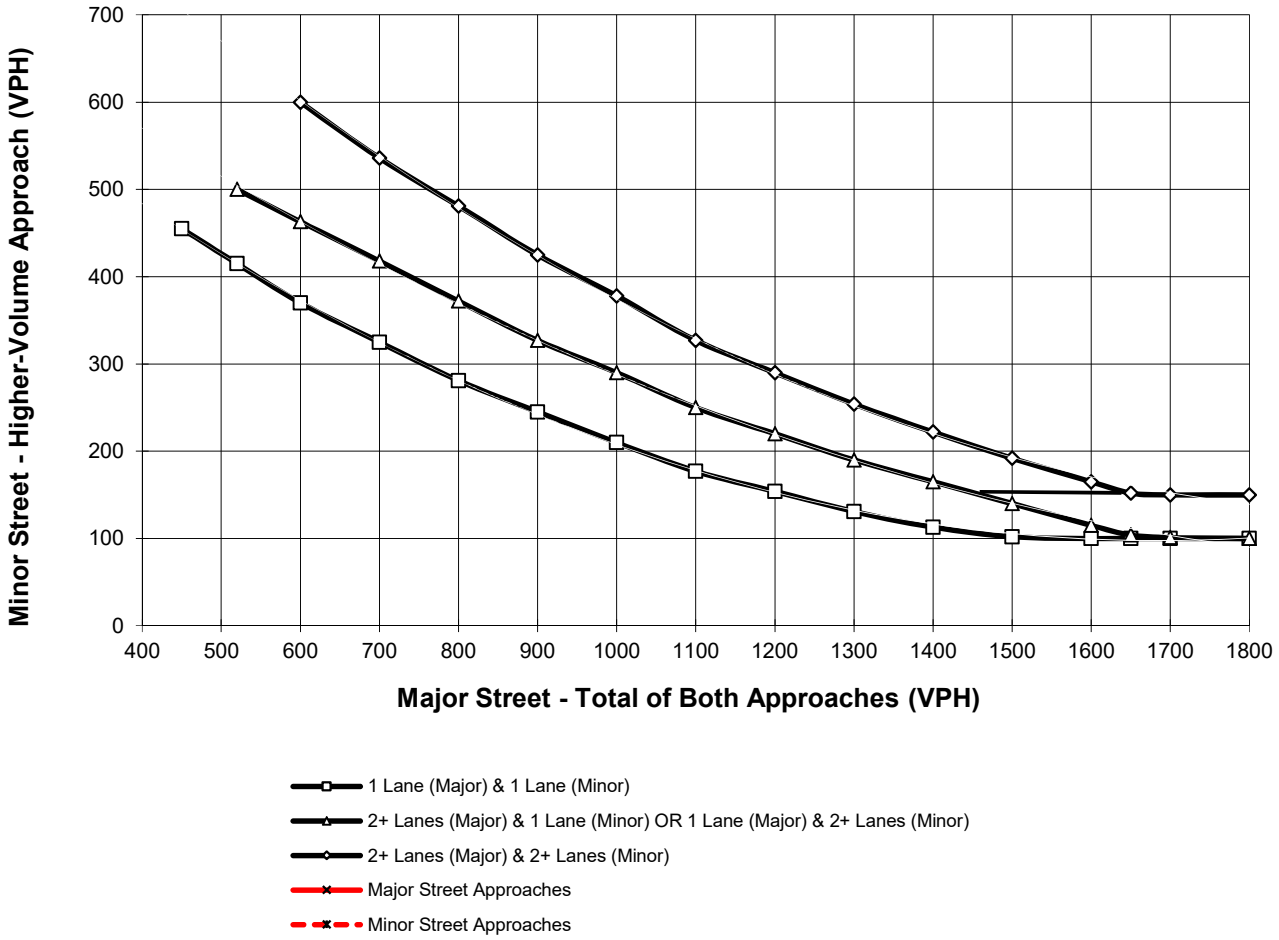
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **116**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Morgan St.**

High Volume Approach (VPH) = **74**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ___ | ___ | ___ | ___ | | TRAFFIC CONDITIONS | | **EAP (2021)** |
| DIST | CO | RTE | PM | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | **City of Perris** | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | **Redlands Av.** | | | | Critical Approach Speed (Major) | | 45 mph |
| Minor Street: | **Driveway 1** | | | | Critical Approach Speed (Minor) | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,605** vpd  Minor Street Future ADT = **59** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **1,605** | *1* **59** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **1,605** | *1* **59** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| | XX | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 4% / **B** 7% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2021) Conditions - Weekday PM Peak Hour**

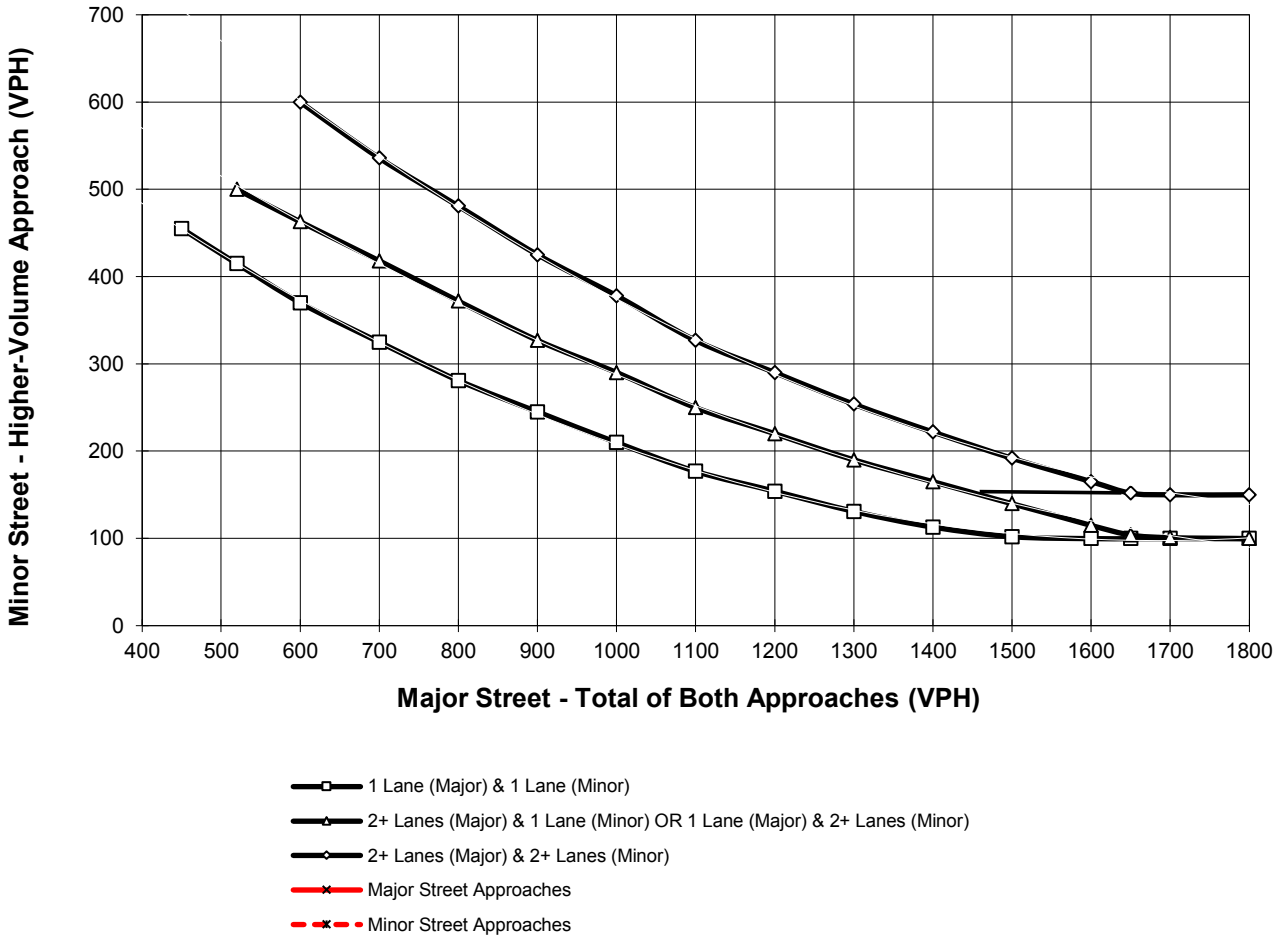
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **75**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Sinclair St.**

High Volume Approach (VPH) = **19**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM |
|---|---|---|---|
| | | | |

TRAFFIC CONDITIONS **EAP (2021)**

CALC RV DATE 08/02/18

CHK CH DATE 08/02/18

Jurisdiction: **City of Perris**

Major Street: **Redlands Av.**

Minor Street: **Driveway 2**

Critical Approach Speed (Major) 40 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **669** vpd

Minor Street Future ADT = **571** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **669** | *1* **571** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **669** | *1* **571** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| | XX | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 7% / **B** 5% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | **EAP (2021)** |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | **City of Perris** | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | **Redlands Av.** | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | **Driveway 3** | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **196** vpd  Minor Street Future ADT = **33** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **196** | *1* **33** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **196** | *1* **33** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** / 2% **B** / 2% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP (2021) - Weekday AM Peak Hour**

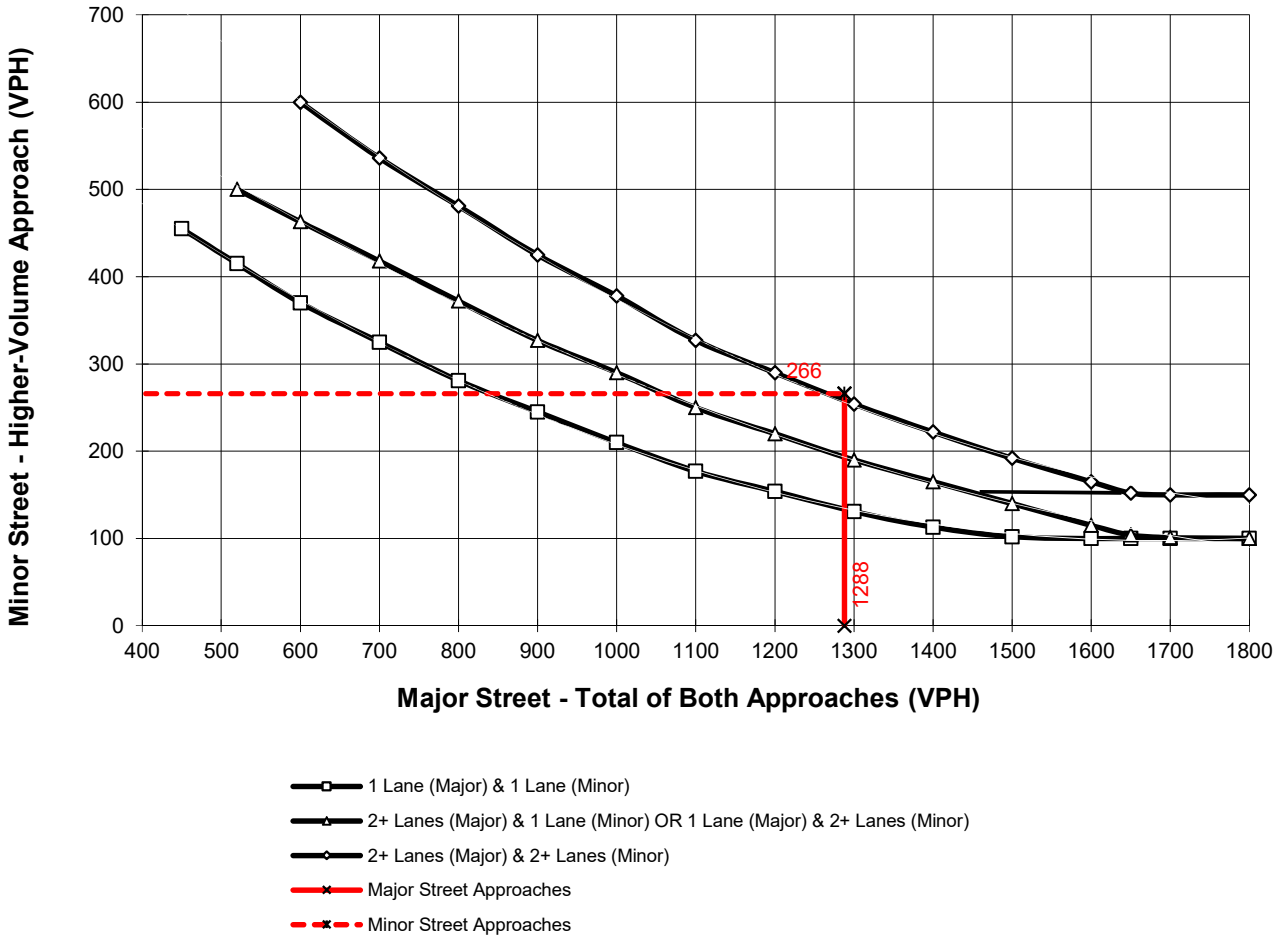
Major Street Name = **Rider St.**

Total of Both Approaches (VPH) = **1288**
Number of Approach Lanes on Major Street = **3**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **266**
Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# APPENDIX 7.5:

# EA (2021) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 291 | 138 | 267 | 497 | 144 | 145 | 80 |
| v/c Ratio | 0.14 | 0.14 | 0.63 | 0.19 | 0.58 | 0.58 | 0.26 |
| Control Delay | 11.1 | 2.7 | 46.1 | 4.4 | 46.8 | 46.9 | 10.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.1 | 2.7 | 46.1 | 4.4 | 46.8 | 46.9 | 10.5 |
| Queue Length 50th (ft) | 40 | 0 | 78 | 39 | 85 | 85 | 0 |
| Queue Length 95th (ft) | 75 | 30 | 121 | 71 | 148 | 149 | 39 |
| Internal Link Dist (ft) | 860 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 2020 | 964 | 1102 | 2636 | 738 | 738 | 740 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.14 | 0.14 | 0.24 | 0.19 | 0.20 | 0.20 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 64 | 516 | 605 | 540 | 79 | 80 | 276 |
| v/c Ratio | 0.29 | 0.19 | 0.25 | 0.45 | 0.41 | 0.41 | 0.64 |
| Control Delay | 47.3 | 3.4 | 7.2 | 3.9 | 46.8 | 46.9 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.5 | 1.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 3.4 | 7.6 | 5.2 | 46.8 | 46.9 | 12.6 |
| Queue Length 50th (ft) | 19 | 34 | 70 | 37 | 49 | 49 | 0 |
| Queue Length 95th (ft) | 41 | 61 | 116 | 107 | 96 | 96 | 73 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1283 | 2771 | 2442 | 1208 | 576 | 576 | 725 |
| Starvation Cap Reductn | 0 | 0 | 1319 | 431 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.19 | 0.54 | 0.69 | 0.14 | 0.14 | 0.38 |

Intersection Summary

# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 462 | 157 | 529 | 638 | 261 | 261 | 67 |
| v/c Ratio | 0.29 | 0.20 | 0.80 | 0.26 | 0.74 | 0.74 | 0.17 |
| Control Delay | 20.7 | 5.6 | 50.1 | 7.4 | 51.2 | 51.2 | 9.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 20.7 | 5.6 | 50.1 | 7.4 | 51.2 | 51.2 | 9.0 |
| Queue Length 50th (ft) | 99 | 5 | 174 | 76 | 171 | 171 | 0 |
| Queue Length 95th (ft) | 175 | 52 | 239 | 134 | 262 | 262 | 34 |
| Internal Link Dist (ft) | 436 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1616 | 801 | 914 | 2459 | 630 | 630 | 636 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.29 | 0.20 | 0.58 | 0.26 | 0.41 | 0.41 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 77 | 907 | 1034 | 680 | 67 | 67 | 286 |
| v/c Ratio | 0.34 | 0.34 | 0.44 | 0.60 | 0.27 | 0.27 | 0.76 |
| Control Delay | 50.6 | 5.5 | 11.0 | 9.8 | 40.7 | 40.7 | 31.3 |
| Queue Delay | 0.0 | 0.0 | 1.5 | 3.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.6 | 5.5 | 12.4 | 12.9 | 40.7 | 40.7 | 31.3 |
| Queue Length 50th (ft) | 24 | 85 | 161 | 134 | 41 | 41 | 75 |
| Queue Length 95th (ft) | 51 | 166 | 285 | 330 | 83 | 83 | 167 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1237 | 2672 | 2344 | 1141 | 555 | 555 | 634 |
| Starvation Cap Reductn | 0 | 0 | 1051 | 347 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.34 | 0.80 | 0.86 | 0.12 | 0.12 | 0.45 |

Intersection Summary

# APPENDIX 7.6:

# EAP (2021) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 291 | 138 | 282 | 497 | 167 | 167 | 80 |
| v/c Ratio | 0.15 | 0.15 | 0.64 | 0.19 | 0.63 | 0.63 | 0.25 |
| Control Delay | 11.9 | 2.9 | 46.7 | 4.8 | 48.1 | 48.1 | 10.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 11.9 | 2.9 | 46.7 | 4.8 | 48.1 | 48.1 | 10.1 |
| Queue Length 50th (ft) | 42 | 0 | 84 | 42 | 100 | 100 | 0 |
| Queue Length 95th (ft) | 80 | 31 | 128 | 76 | 169 | 169 | 38 |
| Internal Link Dist (ft) | 860 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1978 | 947 | 1090 | 2606 | 729 | 729 | 733 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.15 | 0.26 | 0.19 | 0.23 | 0.23 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 64 | 561 | 620 | 552 | 79 | 80 | 325 |
| v/c Ratio | 0.29 | 0.20 | 0.25 | 0.46 | 0.39 | 0.40 | 0.68 |
| Control Delay | 47.7 | 3.6 | 7.4 | 4.3 | 46.0 | 46.1 | 12.6 |
| Queue Delay | 0.0 | 0.0 | 0.5 | 1.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.7 | 3.6 | 7.9 | 5.5 | 46.0 | 46.1 | 12.6 |
| Queue Length 50th (ft) | 19 | 37 | 72 | 40 | 49 | 49 | 0 |
| Queue Length 95th (ft) | 42 | 71 | 124 | 118 | 96 | 96 | 79 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1277 | 2759 | 2432 | 1204 | 573 | 573 | 756 |
| Starvation Cap Reductn | 0 | 0 | 1307 | 425 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.20 | 0.55 | 0.71 | 0.14 | 0.14 | 0.43 |

Intersection Summary

# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 462 | 157 | 579 | 638 | 268 | 269 | 67 |
| v/c Ratio | 0.30 | 0.20 | 0.83 | 0.26 | 0.74 | 0.75 | 0.17 |
| Control Delay | 21.9 | 5.8 | 51.0 | 7.6 | 51.2 | 51.4 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 21.9 | 5.8 | 51.0 | 7.6 | 51.2 | 51.4 | 8.9 |
| Queue Length 50th (ft) | 103 | 5 | 191 | 78 | 176 | 176 | 0 |
| Queue Length 95th (ft) | 180 | 53 | 263 | 136 | 268 | 270 | 34 |
| Internal Link Dist (ft) | 436 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1564 | 780 | 909 | 2446 | 627 | 627 | 633 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.30 | 0.20 | 0.64 | 0.26 | 0.43 | 0.43 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 77 | 922 | 1084 | 718 | 67 | 67 | 307 |
| v/c Ratio | 0.34 | 0.35 | 0.47 | 0.64 | 0.25 | 0.25 | 0.79 |
| Control Delay | 51.8 | 6.2 | 12.2 | 11.4 | 39.4 | 39.4 | 34.5 |
| Queue Delay | 0.0 | 0.0 | 1.8 | 4.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.8 | 6.2 | 14.0 | 15.7 | 39.4 | 39.4 | 34.5 |
| Queue Length 50th (ft) | 25 | 96 | 184 | 165 | 41 | 41 | 96 |
| Queue Length 95th (ft) | 52 | 184 | 321 | 395 | 82 | 82 | 192 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1217 | 2629 | 2306 | 1127 | 546 | 546 | 622 |
| Starvation Cap Reductn | 0 | 0 | 1007 | 324 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.06 | 0.35 | 0.83 | 0.89 | 0.12 | 0.12 | 0.49 |

Intersection Summary

# APPENDIX 7.7:

# EA (2021) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3610 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1335 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.56 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.8 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 19.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3643 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1372 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.57 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.7 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 19.7 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4700 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1770 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.74 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 66.2 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 26.7 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4544 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1711 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.71 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 67.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 25.5 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5319 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1947 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.81 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 63.5 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 30.7 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

## Geometric Data

| | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

## Adjustment Factors

| | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

## Demand and Capacity

| | | | |
|---|---|---|---|
| Demand Volume veh/h | 5409 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1980 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.82 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

## Speed and Density

| | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 63.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 31.4 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4284 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1584 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.66 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 68.3 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 23.2 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3973 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1469 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.61 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.2 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.2 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# APPENDIX 7.8:

# EAP (2021) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3627 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1353 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.56 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.7 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 19.4 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3652 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1375 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.57 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.6 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 19.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4705 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1772 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.74 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 66.2 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 26.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4573 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1722 |
| Total Trucks, % | 4.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.72 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 66.8 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 25.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5325 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1949 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.81 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 63.5 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 30.7 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5442 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.990 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1992 |
| Total Trucks, % | 1.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.83 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 62.7 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 31.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

## Geometric Data

| | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

## Adjustment Factors

| | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

## Demand and Capacity

| | | | |
|---|---|---|---|
| Demand Volume veh/h | 4298 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1589 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.66 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

## Speed and Density

| | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 68.2 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 23.3 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3986 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1474 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.61 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.1 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.3 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# APPENDIX 7.9:

# EA (2021) CONDITIONS MERGE/DIVERGE ANALYSIS WORKSHEETS

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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3610 | 341 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.909 |
| Flow Rate (vi),pc/h | 4004 | 408 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.56 | 0.19 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 25.8 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.335 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1291 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.6 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.641 | Outer Lanes Freeway Speed (SO), mi/h | 75.7 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2713 | Ramp Junction Speed (S), mi/h | 64.8 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 20.6 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume ($V_i$) | 3269 | 373 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 | 0.909 |
| Flow Rate ($v_i$),pc/h | 3694 | 446 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.57 | 0.21 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | 952.8 | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 24.0 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1420 | Speed Index (M) | 0.350 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | - | Flow Outer Lanes ($v_{OA}$), pc/mi/ln | 1533 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | - | On-Ramp Influenece Area Speed ($S_R$), mi/h | 60.2 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_M$) | 0.585 | Outer Lanes Freeway Speed ($S_O$), mi/h | 66.3 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 2161 | Ramp Junction Speed (S), mi/h | 62.3 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 2607 | Average Density (D), pc/mi/ln | 22.2 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4144 | 556 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.909 |
| Flow Rate (vi),pc/h | 4682 | 665 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.74 | 0.32 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1228.9 | Density in Ramp Influence Area (DR), pc/mi/ln | 30.0 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.412 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1938 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 58.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 64.8 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2744 | Ramp Junction Speed (S), mi/h | 60.6 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3409 | Average Density (D), pc/mi/ln | 29.4 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4544 | 400 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.909 |
| Flow Rate (vi),pc/h | 5134 | 478 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.71 | 0.23 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 30.3 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.341 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1816 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.610 | Outer Lanes Freeway Speed (SO), mi/h | 73.6 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3318 | Ramp Junction Speed (S), mi/h | 64.6 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 26.5 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5319 | 541 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 1.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.990 | 0.909 |
| Flow Rate (vi),pc/h | 5840 | 647 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.81 | 0.31 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 34.1 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.356 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2160 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.0 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.584 | Outer Lanes Freeway Speed (SO), mi/h | 72.3 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3680 | Ramp Junction Speed (S), mi/h | 64.0 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 30.4 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4778 | 631 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 1.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.990 | 0.909 |
| Flow Rate (vi),pc/h | 5246 | 755 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.83 | 0.36 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1351.1 | Density in Ramp Influence Area (DR), pc/mi/ln | 33.4 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.476 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2177 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 56.7 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.585 | Outer Lanes Freeway Speed (SO), mi/h | 64.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3069 | Ramp Junction Speed (S), mi/h | 59.1 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3824 | Average Density (D), pc/mi/ln | 33.8 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3587 | 697 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.909 |
| Flow Rate (vi),pc/h | 3978 | 833 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.67 | 0.40 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1114.2 | Density in Ramp Influence Area (DR), pc/mi/ln | 28.0 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.386 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1647 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 59.2 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 65.9 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2331 | Ramp Junction Speed (S), mi/h | 61.3 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3164 | Average Density (D), pc/mi/ln | 26.2 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Diverge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EA (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume (Vi) | 3973 | 386 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.909 |
| Flow Rate (vi),pc/h | 4407 | 462 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.61 | 0.22 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 27.0 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.340 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1464 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.629 | Outer Lanes Freeway Speed (SO), mi/h | 75.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2943 | Ramp Junction Speed (S), mi/h | 64.7 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 22.7 |
| Level of Service (LOS) | C | | |


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# APPENDIX 7.10:

# EAP (2021) CONDITIONS MERGE/DIVERGE ANALYSIS WORKSHEETS

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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3627 | 358 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 14.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.877 |
| Flow Rate (vi),pc/h | 4060 | 444 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.56 | 0.21 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 26.2 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.338 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1309 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.638 | Outer Lanes Freeway Speed (SO), mi/h | 75.6 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2751 | Ramp Junction Speed (S), mi/h | 64.7 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 20.9 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3269 | 382 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.901 |
| Flow Rate (vi),pc/h | 3694 | 461 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.58 | 0.22 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 956.0 | Density in Ramp Influence Area (DR), pc/mi/ln | 24.2 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.351 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1533 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 60.2 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.585 | Outer Lanes Freeway Speed (SO), mi/h | 66.3 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2161 | Ramp Junction Speed (S), mi/h | 62.3 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 2622 | Average Density (D), pc/mi/ln | 22.2 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4144 | 561 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.901 |
| Flow Rate (vi),pc/h | 4682 | 677 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.74 | 0.32 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1231.4 | Density in Ramp Influence Area (DR), pc/mi/ln | 30.0 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.413 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1938 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 58.4 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 64.8 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2744 | Ramp Junction Speed (S), mi/h | 60.6 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3421 | Average Density (D), pc/mi/ln | 29.5 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4573 | 429 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 12.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.893 |
| Flow Rate (vi),pc/h | 5167 | 522 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.72 | 0.25 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 30.5 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.345 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1825 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.3 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.607 | Outer Lanes Freeway Speed (SO), mi/h | 73.6 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3342 | Ramp Junction Speed (S), mi/h | 64.4 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 26.7 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5325 | 547 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 1.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.990 | 0.901 |
| Flow Rate (vi),pc/h | 5847 | 660 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.81 | 0.31 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 34.2 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.357 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2163 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.0 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.583 | Outer Lanes Freeway Speed (SO), mi/h | 72.3 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3684 | Ramp Junction Speed (S), mi/h | 64.0 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 30.5 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4778 | 664 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 1.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.990 | 0.901 |
| Flow Rate (vi),pc/h | 5246 | 801 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.84 | 0.38 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1360.9 | Density in Ramp Influence Area (DR), pc/mi/ln | 33.7 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.485 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2177 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 56.4 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.585 | Outer Lanes Freeway Speed (SO), mi/h | 64.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3069 | Ramp Junction Speed (S), mi/h | 58.9 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3870 | Average Density (D), pc/mi/ln | 34.2 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3587 | 711 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 12.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.893 |
| Flow Rate (vi),pc/h | 3978 | 865 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.67 | 0.41 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1121.0 | Density in Ramp Influence Area (DR), pc/mi/ln | 28.2 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.389 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1647 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 59.1 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 65.9 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2331 | Ramp Junction Speed (S), mi/h | 61.2 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3196 | Average Density (D), pc/mi/ln | 26.4 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3986 | 399 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.901 |
| Flow Rate (vi),pc/h | 4421 | 481 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.61 | 0.23 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 27.1 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.341 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1470 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.627 | Outer Lanes Freeway Speed (SO), mi/h | 75.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2951 | Ramp Junction Speed (S), mi/h | 64.7 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 22.8 |
| Level of Service (LOS) | C | | |


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# APPENDIX 7.11:

# EA (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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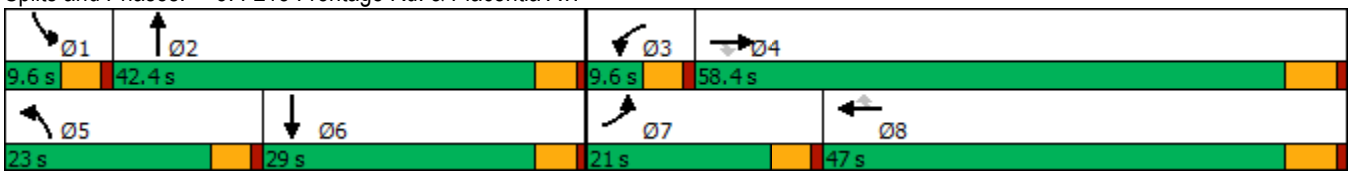
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 58.4 | 58.4 | 9.6 | 47.0 | 47.0 | 23.0 | 42.4 | 9.6 | 29.0 |
| Total Split (%) | 17.5% | 48.7% | 48.7% | 8.0% | 39.2% | 39.2% | 19.2% | 35.3% | 8.0% | 24.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 11.8 | 56.5 | 56.5 | 5.1 | 41.6 | 41.6 | 13.7 | 29.0 | 5.1 | 12.2 |
| Actuated g/C Ratio | 0.12 | 0.57 | 0.57 | 0.05 | 0.42 | 0.42 | 0.14 | 0.29 | 0.05 | 0.12 |
| v/c Ratio | 0.66 | 0.29 | 0.07 | 0.13 | 0.61 | 0.02 | 0.65 | 0.62 | 0.13 | 0.43 |
| Control Delay | 58.2 | 13.1 | 0.2 | 53.4 | 26.3 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| Queue Delay | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.2 | 13.7 | 0.2 | 53.4 | 26.3 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| LOS | E | B | A | D | C | A | D | B | D | C |
| Approach Delay | | 20.3 | | | 26.3 | | | 29.7 | | 27.8 |
| Approach LOS | | C | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 99.2 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 25.2 | Intersection LOS: C |
| Intersection Capacity Utilization 64.0% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 535 | 66 | 11 | 838 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 588 | 73 | 12 | 921 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 79 | 359 | 85 | 124 | 221 |
| Arrive On Green | 0.10 | 0.49 | 0.49 | 0.01 | 0.41 | 0.41 | 0.11 | 0.26 | 0.26 | 0.05 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 588 | 73 | 12 | 921 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.2 | 10.6 | 2.6 | 0.7 | 21.6 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.2 | 10.6 | 2.6 | 0.7 | 21.6 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 0 | 437 | 85 | 0 | 345 |
| V/C Ratio(X) | 0.81 | 0.33 | 0.09 | 0.47 | 0.62 | 0.02 | 0.83 | 0.00 | 0.89 | 0.14 | 0.00 | 0.34 |
| Avail Cap(c_a), veh/h | 277 | 1776 | 792 | 85 | 1480 | 660 | 311 | 0 | 585 | 85 | 0 | 389 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.4 | 16.5 | 14.5 | 52.3 | 25.0 | 18.8 | 46.7 | 0.0 | 37.8 | 48.9 | 0.0 | 36.5 |
| Incr Delay (d2), s/veh | 4.1 | 0.5 | 0.2 | 5.0 | 2.0 | 0.1 | 9.6 | 0.0 | 12.6 | 0.8 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 4.2 | 0.9 | 0.3 | 9.0 | 0.2 | 4.8 | 0.0 | 11.3 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.5 | 17.0 | 14.7 | 57.3 | 27.0 | 18.8 | 56.2 | 0.0 | 50.4 | 49.7 | 0.0 | 37.1 |
| LnGrp LOS | D | B | B | E | C | B | E | A | D | D | A | D |
| Approach Vol, veh/h | | 802 | | | 945 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 22.9 | | | 27.3 | | | 52.1 | | | 38.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |

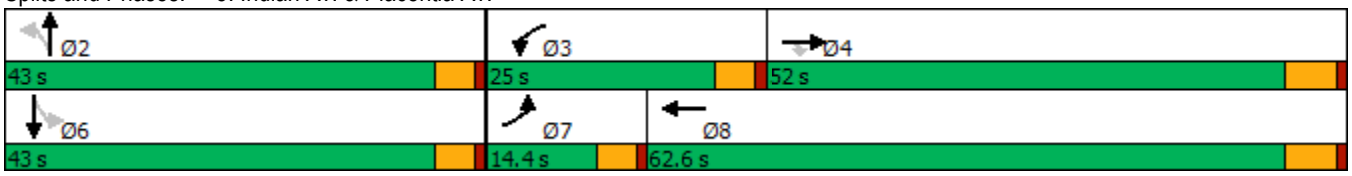
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 32.8 | 6.1 | 58.4 | 16.2 | 26.2 | 14.9 | 49.6 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 18.4 | 24.4 | 16.4 | 41.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 26.2 | 2.7 | 12.6 | 11.4 | 8.3 | 10.2 | 23.6 |
| Green Ext Time (p_c), s | 0.0 | 2.1 | 0.0 | 4.2 | 0.2 | 0.5 | 0.1 | 5.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.0 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 48 | 641 | 146 | 205 | 792 | 42 | 249 | 37 | 154 |
| Future Volume (vph) | 48 | 641 | 146 | 205 | 792 | 42 | 249 | 37 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 14.4 | 52.0 | 52.0 | 25.0 | 62.6 | 43.0 | 43.0 | 43.0 | 43.0 |
| Total Split (%) | 12.0% | 43.3% | 43.3% | 20.8% | 52.2% | 35.8% | 35.8% | 35.8% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 7.7 | 46.2 | 46.2 | 20.4 | 61.0 | 36.9 | 36.9 | 36.9 | 36.9 |
| Actuated g/C Ratio | 0.06 | 0.39 | 0.39 | 0.17 | 0.51 | 0.31 | 0.31 | 0.31 | 0.31 |
| v/c Ratio | 0.45 | 0.94 | 0.23 | 0.96 | 0.91 | 0.17 | 0.95 | 0.86 | 0.43 |
| Control Delay | 65.7 | 57.4 | 8.0 | 91.0 | 42.7 | 31.5 | 66.1 | 119.6 | 34.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.7 | 57.4 | 8.0 | 91.0 | 42.7 | 31.5 | 66.1 | 119.6 | 34.2 |
| LOS | E | E | A | F | D | C | E | F | C |
| Approach Delay | | 49.2 | | | 54.8 | | 63.4 | | 49.5 |
| Approach LOS | | D | | | D | | E | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 118.6 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.96 | |
| Intersection Signal Delay: 54.3 | Intersection LOS: D |
| Intersection Capacity Utilization 88.5% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 48 | 641 | 146 | 205 | 792 | 18 | 42 | 249 | 130 | 37 | 154 | 24 |
| Future Volume (veh/h) | 48 | 641 | 146 | 205 | 792 | 18 | 42 | 249 | 130 | 37 | 154 | 24 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 52 | 697 | 122 | 297 | 861 | 20 | 46 | 361 | 143 | 54 | 223 | 14 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 67 | 732 | 620 | 308 | 957 | 22 | 318 | 414 | 164 | 112 | 566 | 36 |
| Arrive On Green | 0.04 | 0.38 | 0.38 | 0.17 | 0.52 | 0.52 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1849 | 43 | 1161 | 1295 | 513 | 909 | 1769 | 111 |
| Grp Volume(v), veh/h | 52 | 697 | 122 | 297 | 0 | 881 | 46 | 0 | 504 | 54 | 0 | 237 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1892 | 1161 | 0 | 1808 | 909 | 0 | 1880 |
| Q Serve(g_s), s | 3.4 | 42.8 | 6.1 | 19.6 | 0.0 | 50.4 | 3.9 | 0.0 | 31.5 | 6.9 | 0.0 | 11.8 |
| Cycle Q Clear(g_c), s | 3.4 | 42.8 | 6.1 | 19.6 | 0.0 | 50.4 | 15.6 | 0.0 | 31.5 | 38.4 | 0.0 | 11.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.02 | 1.00 | | 0.28 | 1.00 | | 0.06 |
| Lane Grp Cap(c), veh/h | 67 | 732 | 620 | 308 | 0 | 980 | 318 | 0 | 578 | 112 | 0 | 602 |
| V/C Ratio(X) | 0.77 | 0.95 | 0.20 | 0.97 | 0.00 | 0.90 | 0.14 | 0.00 | 0.87 | 0.48 | 0.00 | 0.39 |
| Avail Cap(c_a), veh/h | 148 | 732 | 620 | 308 | 0 | 980 | 318 | 0 | 578 | 112 | 0 | 602 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 35.8 | 24.6 | 49.5 | 0.0 | 26.1 | 37.8 | 0.0 | 38.5 | 56.7 | 0.0 | 31.7 |
| Incr Delay (d2), s/veh | 6.8 | 23.6 | 0.7 | 41.6 | 0.0 | 12.8 | 0.2 | 0.0 | 13.6 | 3.2 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 23.4 | 2.4 | 12.1 | 0.0 | 24.1 | 1.1 | 0.0 | 16.2 | 1.8 | 0.0 | 5.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.0 | 59.4 | 25.3 | 91.1 | 0.0 | 38.9 | 38.0 | 0.0 | 52.1 | 59.9 | 0.0 | 32.2 |
| LnGrp LOS | E | E | C | F | A | D | D | A | D | E | A | C |
| Approach Vol, veh/h | | 871 | | | 1178 | | | 550 | | | 291 | |
| Approach Delay, s/veh | | 54.9 | | | 52.1 | | | 50.9 | | | 37.3 | |
| Approach LOS | | D | | | D | | | D | | | D | |

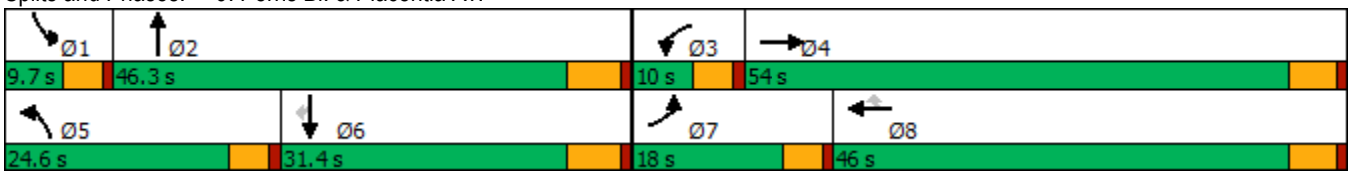
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.0 | 25.0 | 52.0 | | 43.0 | 9.1 | 67.9 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 38.4 | 20.4 | 46.2 | | 38.4 | 9.8 | 56.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 33.5 | 21.6 | 44.8 | | 40.4 | 5.4 | 52.4 | | | | |
| Green Ext Time (p_c), s | | 1.6 | 0.0 | 0.7 | | 0.0 | 0.0 | 2.3 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 51.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 175 | 389 | 43 | 502 | 242 | 230 | 982 | 42 | 527 | 223 |
| Future Volume (vph) | 175 | 389 | 43 | 502 | 242 | 230 | 982 | 42 | 527 | 223 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 18.0 | 54.0 | 10.0 | 46.0 | 46.0 | 24.6 | 46.3 | 9.7 | 31.4 | 31.4 |
| Total Split (%) | 15.0% | 45.0% | 8.3% | 38.3% | 38.3% | 20.5% | 38.6% | 8.1% | 26.2% | 26.2% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 13.2 | 45.6 | 5.3 | 35.5 | 35.5 | 17.8 | 41.3 | 5.1 | 26.3 | 26.3 |
| Actuated g/C Ratio | 0.12 | 0.40 | 0.05 | 0.31 | 0.31 | 0.16 | 0.36 | 0.04 | 0.23 | 0.23 |
| v/c Ratio | 0.88 | 0.80 | 0.53 | 0.89 | 0.41 | 0.86 | 0.82 | 0.54 | 0.66 | 0.43 |
| Control Delay | 89.2 | 38.8 | 78.1 | 55.2 | 10.2 | 74.8 | 40.6 | 80.3 | 45.4 | 7.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 89.2 | 38.8 | 78.1 | 55.2 | 10.2 | 74.8 | 40.6 | 80.3 | 45.4 | 7.7 |
| LOS | F | D | E | E | B | E | D | F | D | A |
| Approach Delay | | 50.8 | | 42.6 | | | 46.8 | | 36.6 | |
| Approach LOS | | D | | D | | | D | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 113.4 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 44.4 | Intersection LOS: D |
| Intersection Capacity Utilization 85.7% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 175 | 389 | 174 | 43 | 502 | 242 | 230 | 982 | 40 | 42 | 527 | 223 |
| Future Volume (veh/h) | 175 | 389 | 174 | 43 | 502 | 242 | 230 | 982 | 40 | 42 | 527 | 223 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 184 | 409 | 178 | 45 | 528 | 153 | 242 | 1034 | 35 | 44 | 555 | 226 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 212 | 489 | 213 | 61 | 582 | 491 | 272 | 1286 | 44 | 60 | 882 | 392 |
| Arrive On Green | 0.12 | 0.39 | 0.39 | 0.03 | 0.31 | 0.31 | 0.15 | 0.36 | 0.36 | 0.03 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 1255 | 546 | 1810 | 1900 | 1604 | 1810 | 3560 | 120 | 1810 | 3610 | 1604 |
| Grp Volume(v), veh/h | 184 | 0 | 587 | 45 | 528 | 153 | 242 | 524 | 545 | 44 | 555 | 226 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1802 | 1810 | 1900 | 1604 | 1810 | 1805 | 1875 | 1810 | 1805 | 1604 |
| Q Serve(g_s), s | 11.2 | 0.0 | 33.1 | 2.8 | 29.9 | 8.2 | 14.7 | 29.3 | 29.3 | 2.7 | 15.4 | 13.9 |
| Cycle Q Clear(g_c), s | 11.2 | 0.0 | 33.1 | 2.8 | 29.9 | 8.2 | 14.7 | 29.3 | 29.3 | 2.7 | 15.4 | 13.9 |
| Prop In Lane | 1.00 | | 0.30 | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 212 | 0 | 702 | 61 | 582 | 491 | 272 | 652 | 677 | 60 | 882 | 392 |
| V/C Ratio(X) | 0.87 | 0.00 | 0.84 | 0.74 | 0.91 | 0.31 | 0.89 | 0.80 | 0.80 | 0.73 | 0.63 | 0.58 |
| Avail Cap(c_a), veh/h | 216 | 0 | 781 | 87 | 688 | 581 | 323 | 652 | 677 | 82 | 882 | 392 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.6 | 0.0 | 30.9 | 53.7 | 37.4 | 29.8 | 46.7 | 32.2 | 32.2 | 53.7 | 37.8 | 37.2 |
| Incr Delay (d2), s/veh | 27.3 | 0.0 | 7.2 | 8.6 | 14.4 | 0.4 | 20.6 | 10.2 | 9.8 | 10.7 | 3.4 | 6.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 6.5 | 0.0 | 14.8 | 1.4 | 15.5 | 3.1 | 8.2 | 14.6 | 15.1 | 1.4 | 7.0 | 5.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 75.9 | 0.0 | 38.2 | 62.3 | 51.8 | 30.2 | 67.3 | 42.4 | 42.0 | 64.4 | 41.2 | 43.3 |
| LnGrp LOS | E | A | D | E | D | C | E | D | D | E | D | D |
| Approach Vol, veh/h | | 771 | | | 726 | | | 1311 | | | 825 | |
| Approach Delay, s/veh | | 47.2 | | | 47.9 | | | 46.8 | | | 43.0 | |
| Approach LOS | | D | | | D | | | D | | | D | |

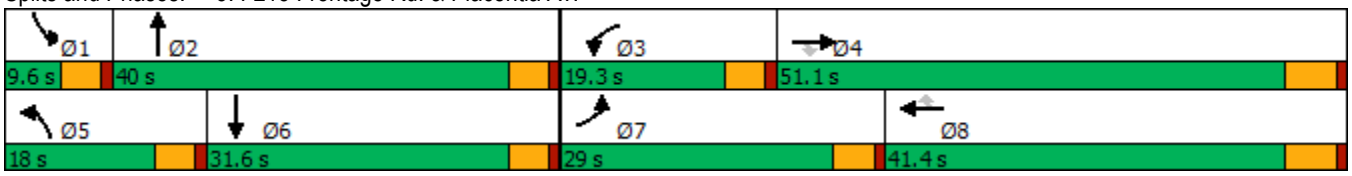
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.3 | 46.3 | 8.4 | 49.1 | 21.4 | 33.2 | 17.8 | 39.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 5.1 | 40.5 | 5.4 | 48.6 | 20.0 | 25.6 | 13.4 | 40.6 |
| Max Q Clear Time (g_c+I1), s | 4.7 | 31.3 | 4.8 | 35.1 | 16.7 | 17.4 | 13.2 | 31.9 |
| Green Ext Time (p_c), s | 0.0 | 4.8 | 0.0 | 3.0 | 0.1 | 2.7 | 0.0 | 2.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 46.3 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 29.0 | 51.1 | 51.1 | 19.3 | 41.4 | 41.4 | 18.0 | 40.0 | 9.6 | 31.6 |
| Total Split (%) | 24.2% | 42.6% | 42.6% | 16.1% | 34.5% | 34.5% | 15.0% | 33.3% | 8.0% | 26.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 17.0 | 55.1 | 55.1 | 5.5 | 35.7 | 35.7 | 13.4 | 43.3 | 5.0 | 27.0 |
| Actuated g/C Ratio | 0.15 | 0.49 | 0.49 | 0.05 | 0.32 | 0.32 | 0.12 | 0.38 | 0.04 | 0.24 |
| v/c Ratio | 0.75 | 0.40 | 0.32 | 0.14 | 0.97 | 0.02 | 1.16 | 0.58 | 0.15 | 1.22 |
| Control Delay | 63.2 | 19.6 | 7.4 | 56.5 | 57.6 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| Queue Delay | 0.2 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 21.9 | 8.5 | 56.5 | 57.6 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| LOS | E | C | A | E | E | A | F | B | E | F |
| Approach Delay | | 25.8 | | | 57.0 | | | 67.8 | | 151.5 |
| Approach LOS | | C | | | E | | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.7 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.22 | |
| Intersection Signal Delay: 63.6 | Intersection LOS: E |
| Intersection Capacity Utilization 98.2% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 650 | 259 | 11 | 1067 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 707 | 216 | 12 | 1160 | 9 | 249 | 74 | 363 | 12 | 251 | 232 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 99 | 485 | 25 | 223 | 206 |
| Arrive On Green | 0.13 | 0.44 | 0.44 | 0.01 | 0.32 | 0.32 | 0.12 | 0.35 | 0.35 | 0.01 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3800 | 1610 | 1810 | 280 | 1373 | 1810 | 909 | 840 |
| Grp Volume(v), veh/h | 204 | 707 | 216 | 12 | 1160 | 9 | 249 | 0 | 437 | 12 | 0 | 483 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 0 | 1653 | 1810 | 0 | 1749 |
| Q Serve(g_s), s | 12.1 | 15.0 | 9.5 | 0.7 | 32.7 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Cycle Q Clear(g_c), s | 12.1 | 15.0 | 9.5 | 0.7 | 32.7 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 0 | 584 | 25 | 0 | 430 |
| V/C Ratio(X) | 0.86 | 0.44 | 0.30 | 0.48 | 0.94 | 0.02 | 1.13 | 0.00 | 0.75 | 0.48 | 0.00 | 1.12 |
| Avail Cap(c_a), veh/h | 402 | 1589 | 709 | 242 | 1231 | 521 | 221 | 0 | 584 | 82 | 0 | 430 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.8 | 21.4 | 19.9 | 53.8 | 36.2 | 25.3 | 48.3 | 0.0 | 31.2 | 53.8 | 0.0 | 41.5 |
| Incr Delay (d2), s/veh | 4.3 | 0.9 | 1.1 | 5.1 | 15.2 | 0.1 | 99.6 | 0.0 | 5.3 | 13.2 | 0.0 | 81.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 6.1 | 3.6 | 0.4 | 16.8 | 0.2 | 11.9 | 0.0 | 10.5 | 0.4 | 0.0 | 20.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.2 | 22.3 | 21.0 | 58.9 | 51.3 | 25.3 | 147.9 | 0.0 | 36.5 | 67.0 | 0.0 | 123.4 |
| LnGrp LOS | D | C | C | E | D | C | F | A | D | E | A | F |
| Approach Vol, veh/h | | 1127 | | | 1181 | | | 686 | | | 495 | |
| Approach Delay, s/veh | | 27.3 | | | 51.2 | | | 76.9 | | | 122.0 | |
| Approach LOS | | C | | | D | | | E | | | F | |

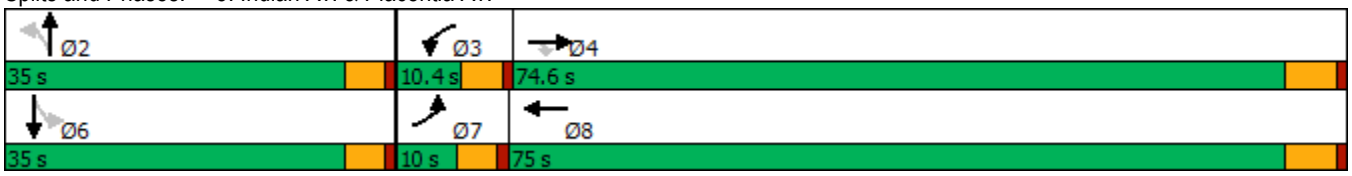
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 43.5 | 6.1 | 54.2 | 18.0 | 31.6 | 18.9 | 41.4 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 35.4 | 14.7 | 45.3 | 13.4 | 27.0 | 24.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.5 | 2.7 | 17.0 | 15.4 | 29.0 | 14.1 | 34.7 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 5.5 | 0.0 | 0.0 | 0.2 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 58.6 |
| HCM 6th LOS | E |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 34 | 873 | 98 | 33 | 917 | 50 | 80 | 46 | 154 |
| Future Volume (vph) | 34 | 873 | 98 | 33 | 917 | 50 | 80 | 46 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 74.6 | 74.6 | 10.4 | 75.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| Total Split (%) | 8.3% | 62.2% | 62.2% | 8.7% | 62.5% | 29.2% | 29.2% | 29.2% | 29.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.3 | 69.4 | 69.4 | 5.7 | 71.7 | 27.5 | 27.5 | 27.5 | 27.5 |
| Actuated g/C Ratio | 0.05 | 0.60 | 0.60 | 0.05 | 0.62 | 0.24 | 0.24 | 0.24 | 0.24 |
| v/c Ratio | 0.45 | 0.83 | 0.11 | 0.55 | 0.92 | 0.59 | 0.33 | 0.25 | 0.79 |
| Control Delay | 72.7 | 28.2 | 3.8 | 78.5 | 35.7 | 66.6 | 36.1 | 38.8 | 52.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 72.7 | 28.2 | 3.8 | 78.5 | 35.7 | 66.6 | 36.1 | 38.8 | 52.6 |
| LOS | E | C | A | E | D | E | D | D | D |
| Approach Delay | | 27.3 | | | 37.6 | | 44.3 | | 50.4 |
| Approach LOS | | C | | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 115.4 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.92 | |
| Intersection Signal Delay: 36.0 | Intersection LOS: D |
| Intersection Capacity Utilization 83.7% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 34 | 873 | 98 | 33 | 917 | 55 | 50 | 80 | 21 | 46 | 154 | 120 |
| Future Volume (veh/h) | 34 | 873 | 98 | 33 | 917 | 55 | 50 | 80 | 21 | 46 | 154 | 120 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 37 | 949 | 82 | 48 | 997 | 61 | 54 | 116 | 23 | 67 | 223 | 83 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 55 | 1139 | 965 | 79 | 1086 | 66 | 138 | 348 | 69 | 270 | 298 | 111 |
| Arrive On Green | 0.03 | 0.60 | 0.60 | 0.04 | 0.61 | 0.61 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1772 | 108 | 1090 | 1540 | 305 | 1270 | 1320 | 491 |
| Grp Volume(v), veh/h | 37 | 949 | 82 | 48 | 0 | 1058 | 54 | 0 | 139 | 67 | 0 | 306 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1880 | 1090 | 0 | 1845 | 1270 | 0 | 1812 |
| Q Serve(g_s), s | 2.3 | 45.8 | 2.5 | 3.0 | 0.0 | 57.1 | 5.6 | 0.0 | 7.2 | 5.3 | 0.0 | 18.0 |
| Cycle Q Clear(g_c), s | 2.3 | 45.8 | 2.5 | 3.0 | 0.0 | 57.1 | 23.6 | 0.0 | 7.2 | 12.6 | 0.0 | 18.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.17 | 1.00 | | 0.27 |
| Lane Grp Cap(c), veh/h | 55 | 1139 | 965 | 79 | 0 | 1153 | 138 | 0 | 417 | 270 | 0 | 410 |
| V/C Ratio(X) | 0.68 | 0.83 | 0.08 | 0.61 | 0.00 | 0.92 | 0.39 | 0.00 | 0.33 | 0.25 | 0.00 | 0.75 |
| Avail Cap(c_a), veh/h | 85 | 1139 | 965 | 91 | 0 | 1153 | 180 | 0 | 489 | 319 | 0 | 480 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.1 | 18.4 | 9.7 | 53.9 | 0.0 | 19.6 | 52.3 | 0.0 | 37.2 | 42.4 | 0.0 | 41.3 |
| Incr Delay (d2), s/veh | 5.4 | 7.2 | 0.2 | 4.4 | 0.0 | 12.9 | 1.8 | 0.0 | 0.5 | 0.5 | 0.0 | 5.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.1 | 19.7 | 0.8 | 1.4 | 0.0 | 25.4 | 1.6 | 0.0 | 3.2 | 1.7 | 0.0 | 8.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.4 | 25.6 | 9.9 | 58.3 | 0.0 | 32.6 | 54.1 | 0.0 | 37.6 | 42.9 | 0.0 | 46.7 |
| LnGrp LOS | E | C | A | E | A | C | D | A | D | D | A | D |
| Approach Vol, veh/h | | 1068 | | | 1106 | | | 193 | | | 373 | |
| Approach Delay, s/veh | | 25.6 | | | 33.7 | | | 42.2 | | | 46.0 | |
| Approach LOS | | C | | | C | | | D | | | D | |

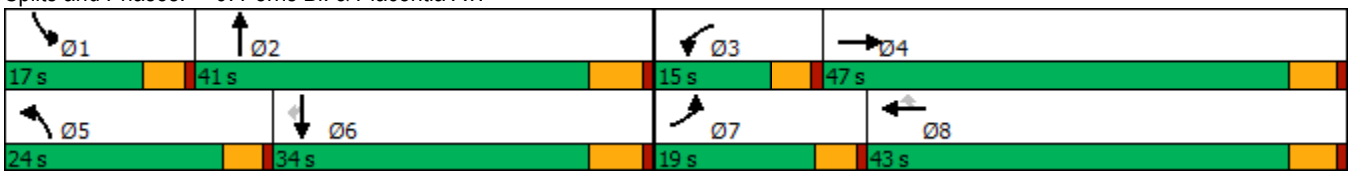
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 30.5 | 9.6 | 74.6 | | 30.5 | 8.1 | 76.1 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 30.4 | 5.8 | 68.8 | | 30.4 | 5.4 | 69.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 25.6 | 5.0 | 47.8 | | 20.0 | 4.3 | 59.1 | | | | |
| Green Ext Time (p_c), s | | 0.3 | 0.0 | 7.2 | | 1.3 | 0.0 | 5.4 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.8 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 230 | 487 | 60 | 472 | 93 | 234 | 778 | 142 | 1037 | 231 |
| Future Volume (vph) | 230 | 487 | 60 | 472 | 93 | 234 | 778 | 142 | 1037 | 231 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 19.0 | 47.0 | 15.0 | 43.0 | 43.0 | 24.0 | 41.0 | 17.0 | 34.0 | 34.0 |
| Total Split (%) | 15.8% | 39.2% | 12.5% | 35.8% | 35.8% | 20.0% | 34.2% | 14.2% | 28.3% | 28.3% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 14.4 | 42.6 | 8.1 | 34.1 | 34.1 | 18.0 | 35.3 | 11.7 | 29.0 | 29.0 |
| Actuated g/C Ratio | 0.12 | 0.37 | 0.07 | 0.29 | 0.29 | 0.16 | 0.30 | 0.10 | 0.25 | 0.25 |
| v/c Ratio | 1.08 | 1.14 | 0.50 | 0.89 | 0.17 | 0.88 | 0.81 | 0.82 | 1.21 | 0.48 |
| Control Delay | 131.8 | 114.5 | 66.6 | 58.5 | 1.7 | 79.4 | 44.9 | 85.1 | 143.6 | 19.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 131.8 | 114.5 | 66.6 | 58.5 | 1.7 | 79.4 | 44.9 | 85.1 | 143.6 | 19.0 |
| LOS | F | F | E | E | A | E | D | F | F | B |
| Approach Delay | | 118.6 | | 50.8 | | | 52.4 | | 117.3 | |
| Approach LOS | | F | | D | | | D | | F | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 116 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.21 | |
| Intersection Signal Delay: 90.3 | Intersection LOS: F |
| Intersection Capacity Utilization 103.4% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 230 | 487 | 245 | 60 | 472 | 93 | 234 | 778 | 64 | 142 | 1037 | 231 |
| Future Volume (veh/h) | 230 | 487 | 245 | 60 | 472 | 93 | 234 | 778 | 64 | 142 | 1037 | 231 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 242 | 513 | 253 | 63 | 497 | -4 | 246 | 819 | 60 | 149 | 1092 | 234 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 229 | 442 | 218 | 82 | 544 | 461 | 275 | 1054 | 77 | 177 | 923 | 410 |
| Arrive On Green | 0.13 | 0.37 | 0.37 | 0.05 | 0.29 | 0.00 | 0.15 | 0.31 | 0.31 | 0.10 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1810 | 1201 | 592 | 1810 | 1900 | 1610 | 1810 | 3404 | 249 | 1810 | 3610 | 1604 |
| Grp Volume(v), veh/h | 242 | 0 | 766 | 63 | 497 | -4 | 246 | 434 | 445 | 149 | 1092 | 234 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1793 | 1810 | 1900 | 1610 | 1810 | 1805 | 1848 | 1810 | 1805 | 1604 |
| Q Serve(g_s), s | 14.4 | 0.0 | 41.8 | 3.9 | 28.7 | 0.0 | 15.2 | 24.9 | 24.9 | 9.2 | 29.1 | 14.5 |
| Cycle Q Clear(g_c), s | 14.4 | 0.0 | 41.8 | 3.9 | 28.7 | 0.0 | 15.2 | 24.9 | 24.9 | 9.2 | 29.1 | 14.5 |
| Prop In Lane | 1.00 | | 0.33 | 1.00 | | 1.00 | 1.00 | | 0.13 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 229 | 0 | 660 | 82 | 544 | 461 | 275 | 559 | 572 | 177 | 923 | 410 |
| V/C Ratio(X) | 1.06 | 0.00 | 1.16 | 0.77 | 0.91 | -0.01 | 0.90 | 0.78 | 0.78 | 0.84 | 1.18 | 0.57 |
| Avail Cap(c_a), veh/h | 229 | 0 | 660 | 166 | 628 | 532 | 309 | 559 | 572 | 197 | 923 | 410 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.6 | 0.0 | 35.9 | 53.7 | 39.2 | 0.0 | 47.3 | 35.7 | 35.7 | 50.4 | 42.3 | 36.9 |
| Incr Delay (d2), s/veh | 75.0 | 0.0 | 88.3 | 5.7 | 16.4 | 0.0 | 23.5 | 10.2 | 10.0 | 22.5 | 93.6 | 5.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.3 | 0.0 | 34.3 | 1.9 | 15.9 | 0.0 | 8.7 | 12.5 | 12.8 | 5.2 | 24.4 | 6.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 124.6 | 0.0 | 124.3 | 59.4 | 55.6 | 0.0 | 70.8 | 45.9 | 45.7 | 73.0 | 135.9 | 42.5 |
| LnGrp LOS | F | A | F | E | E | A | E | D | D | E | F | D |
| Approach Vol, veh/h | | 1008 | | | 556 | | | 1125 | | | 1475 | |
| Approach Delay, s/veh | | 124.3 | | | 56.5 | | | 51.2 | | | 114.7 | |
| Approach LOS | | F | | | E | | | D | | | F | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.7 | 41.0 | 9.7 | 47.2 | 21.9 | 34.9 | 19.0 | 38.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 12.4 | 35.2 | 10.4 | 41.6 | 19.4 | 28.2 | 14.4 | 37.6 |
| Max Q Clear Time (g_c+I1), s | 11.2 | 26.9 | 5.9 | 43.8 | 17.2 | 31.1 | 16.4 | 30.7 |
| Green Ext Time (p_c), s | 0.0 | 3.7 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 1.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 92.1 |
| HCM 6th LOS | F |

# APPENDIX 7.12:

# EAP (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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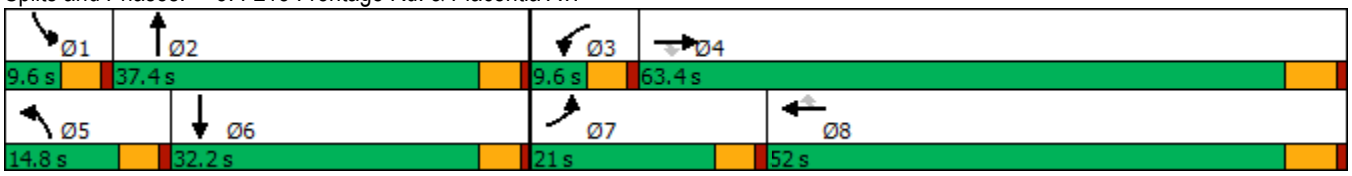
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 63.4 | 63.4 | 9.6 | 52.0 | 52.0 | 14.8 | 37.4 | 9.6 | 32.2 |
| Total Split (%) | 17.5% | 52.8% | 52.8% | 8.0% | 43.3% | 43.3% | 12.3% | 31.2% | 8.0% | 26.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 12.0 | 61.7 | 61.7 | 5.0 | 46.7 | 46.7 | 9.3 | 25.5 | 5.0 | 13.2 |
| Actuated g/C Ratio | 0.12 | 0.61 | 0.61 | 0.05 | 0.46 | 0.46 | 0.09 | 0.25 | 0.05 | 0.13 |
| v/c Ratio | 0.66 | 0.31 | 0.07 | 0.13 | 0.57 | 0.01 | 0.50 | 0.69 | 0.13 | 0.41 |
| Control Delay | 58.8 | 11.4 | 0.1 | 54.0 | 23.0 | 0.0 | 51.1 | 24.9 | 54.0 | 22.8 |
| Queue Delay | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.8 | 12.2 | 0.1 | 54.0 | 23.0 | 0.0 | 51.1 | 24.9 | 54.0 | 22.8 |
| LOS | E | B | A | D | C | A | D | C | D | C |
| Approach Delay | | 18.5 | | | 23.1 | | | 32.6 | | 25.7 |
| Approach LOS | | B | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 100.9 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 23.7 | Intersection LOS: C |
| Intersection Capacity Utilization 64.7% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 621 | 66 | 11 | 862 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 682 | 73 | 12 | 947 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 172 | 1846 | 823 | 25 | 1553 | 693 | 226 | 76 | 348 | 80 | 145 | 258 |
| Arrive On Green | 0.09 | 0.51 | 0.51 | 0.01 | 0.43 | 0.43 | 0.06 | 0.26 | 0.26 | 0.04 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 3510 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 682 | 73 | 12 | 947 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1755 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.6 | 12.8 | 2.6 | 0.7 | 22.8 | 0.5 | 5.1 | 0.0 | 25.7 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.6 | 12.8 | 2.6 | 0.7 | 22.8 | 0.5 | 5.1 | 0.0 | 25.7 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 172 | 1846 | 823 | 25 | 1553 | 693 | 226 | 0 | 425 | 80 | 0 | 403 |
| V/C Ratio(X) | 0.82 | 0.37 | 0.09 | 0.48 | 0.61 | 0.02 | 0.72 | 0.00 | 0.92 | 0.15 | 0.00 | 0.29 |
| Avail Cap(c_a), veh/h | 263 | 1846 | 823 | 80 | 1553 | 693 | 318 | 0 | 482 | 80 | 0 | 417 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.0 | 16.6 | 14.1 | 55.1 | 24.8 | 18.4 | 51.7 | 0.0 | 40.7 | 51.8 | 0.0 | 35.2 |
| Incr Delay (d2), s/veh | 6.5 | 0.6 | 0.2 | 5.1 | 1.8 | 0.0 | 4.5 | 0.0 | 20.8 | 0.8 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 5.1 | 0.9 | 0.4 | 9.5 | 0.2 | 2.4 | 0.0 | 12.9 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.5 | 17.2 | 14.3 | 60.3 | 26.6 | 18.5 | 56.3 | 0.0 | 61.5 | 52.6 | 0.0 | 35.6 |
| LnGrp LOS | E | B | B | E | C | B | E | A | E | D | A | D |
| Approach Vol, veh/h | | 896 | | | 971 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 23.1 | | | 26.9 | | | 60.0 | | | 37.2 | |
| Approach LOS | | C | | | C | | | E | | | D | |

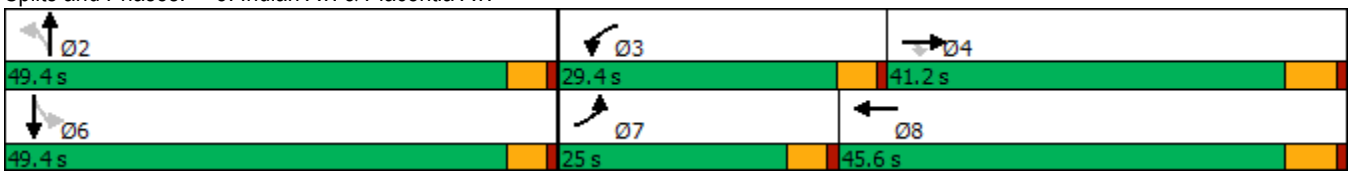
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 33.5 | 6.2 | 63.4 | 11.8 | 31.3 | 15.3 | 54.3 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 32.8 | 5.0 | 57.6 | 10.2 | 27.6 | 16.4 | 46.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.7 | 2.7 | 14.8 | 7.1 | 8.3 | 10.6 | 24.8 |
| Green Ext Time (p_c), s | 0.0 | 1.2 | 0.0 | 5.0 | 0.1 | 0.6 | 0.1 | 6.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 116 | 659 | 146 | 205 | 797 | 42 | 249 | 37 | 154 |
| Future Volume (vph) | 116 | 659 | 146 | 205 | 797 | 42 | 249 | 37 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 25.0 | 41.2 | 41.2 | 29.4 | 45.6 | 49.4 | 49.4 | 49.4 | 49.4 |
| Total Split (%) | 20.8% | 34.3% | 34.3% | 24.5% | 38.0% | 41.2% | 41.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 12.1 | 35.9 | 35.9 | 21.0 | 44.8 | 36.7 | 36.7 | 36.7 | 36.7 |
| Actuated g/C Ratio | 0.11 | 0.33 | 0.33 | 0.19 | 0.41 | 0.34 | 0.34 | 0.34 | 0.34 |
| v/c Ratio | 0.63 | 0.60 | 0.26 | 0.85 | 0.60 | 0.16 | 0.88 | 0.70 | 0.43 |
| Control Delay | 62.2 | 35.1 | 10.1 | 66.4 | 29.0 | 26.8 | 49.1 | 77.9 | 29.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 62.2 | 35.1 | 10.1 | 66.4 | 29.0 | 26.8 | 49.1 | 77.9 | 29.1 |
| LOS | E | D | B | E | C | C | D | E | C |
| Approach Delay | | 34.5 | | | 38.4 | | 47.4 | | 37.2 |
| Approach LOS | | C | | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 108.8 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.88 | |
| Intersection Signal Delay: 38.7 | Intersection LOS: D |
| Intersection Capacity Utilization 71.1% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 116 | 659 | 146 | 205 | 797 | 18 | 42 | 249 | 130 | 37 | 154 | 43 |
| Future Volume (veh/h) | 116 | 659 | 146 | 205 | 797 | 18 | 42 | 249 | 130 | 37 | 154 | 43 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 126 | 716 | 122 | 297 | 866 | 20 | 46 | 361 | 143 | 54 | 223 | 35 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 156 | 1206 | 538 | 329 | 1550 | 36 | 337 | 444 | 176 | 148 | 549 | 86 |
| Arrive On Green | 0.09 | 0.33 | 0.33 | 0.18 | 0.43 | 0.43 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 | 0.34 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3607 | 83 | 1139 | 1295 | 513 | 909 | 1603 | 252 |
| Grp Volume(v), veh/h | 126 | 716 | 122 | 297 | 433 | 453 | 46 | 0 | 504 | 54 | 0 | 258 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1885 | 1139 | 0 | 1808 | 909 | 0 | 1855 |
| Q Serve(g_s), s | 7.2 | 17.5 | 5.8 | 17.0 | 19.1 | 19.1 | 3.4 | 0.0 | 26.9 | 6.1 | 0.0 | 11.3 |
| Cycle Q Clear(g_c), s | 7.2 | 17.5 | 5.8 | 17.0 | 19.1 | 19.1 | 14.7 | 0.0 | 26.9 | 33.0 | 0.0 | 11.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.28 | 1.00 | | 0.14 |
| Lane Grp Cap(c), veh/h | 156 | 1206 | 538 | 329 | 776 | 810 | 337 | 0 | 619 | 148 | 0 | 635 |
| V/C Ratio(X) | 0.81 | 0.59 | 0.23 | 0.90 | 0.56 | 0.56 | 0.14 | 0.00 | 0.81 | 0.36 | 0.00 | 0.41 |
| Avail Cap(c_a), veh/h | 348 | 1206 | 538 | 424 | 776 | 810 | 429 | 0 | 764 | 221 | 0 | 784 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.6 | 29.3 | 25.4 | 42.4 | 22.7 | 22.7 | 32.2 | 0.0 | 31.7 | 46.8 | 0.0 | 26.6 |
| Incr Delay (d2), s/veh | 3.8 | 2.2 | 1.0 | 16.7 | 2.9 | 2.8 | 0.2 | 0.0 | 5.5 | 1.5 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.3 | 7.5 | 2.3 | 8.8 | 8.2 | 8.5 | 1.0 | 0.0 | 12.6 | 1.4 | 0.0 | 5.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.3 | 31.5 | 26.4 | 59.1 | 25.6 | 25.4 | 32.4 | 0.0 | 37.3 | 48.3 | 0.0 | 27.0 |
| LnGrp LOS | D | C | C | E | C | C | C | A | D | D | A | C |
| Approach Vol, veh/h | | 964 | | | 1183 | | | 550 | | | 312 | |
| Approach Delay, s/veh | | 33.4 | | | 33.9 | | | 36.9 | | | 30.7 | |
| Approach LOS | | C | | | C | | | D | | | C | |

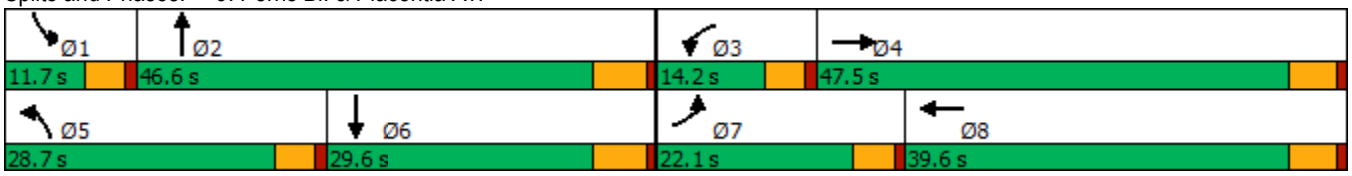
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 40.9 | 23.8 | 41.2 | | 40.9 | 13.7 | 51.3 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 44.8 | 24.8 | 35.4 | | 44.8 | 20.4 | 39.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 28.9 | 19.0 | 19.5 | | 35.0 | 9.2 | 21.1 | | | | |
| Green Ext Time (p_c), s | | 3.3 | 0.2 | 4.4 | | 1.3 | 0.1 | 4.9 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.0 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 181 | 401 | 43 | 506 | 230 | 985 | 42 | 528 |
| Future Volume (vph) | 181 | 401 | 43 | 506 | 230 | 985 | 42 | 528 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 |
| Total Split (s) | 22.1 | 47.5 | 14.2 | 39.6 | 28.7 | 46.6 | 11.7 | 29.6 |
| Total Split (%) | 18.4% | 39.6% | 11.8% | 33.0% | 23.9% | 38.8% | 9.8% | 24.7% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 14.9 | 39.0 | 7.2 | 28.9 | 18.5 | 41.5 | 6.4 | 27.0 |
| Actuated g/C Ratio | 0.14 | 0.35 | 0.07 | 0.26 | 0.17 | 0.38 | 0.06 | 0.25 |
| v/c Ratio | 0.78 | 0.48 | 0.38 | 0.83 | 0.80 | 0.55 | 0.42 | 0.62 |
| Control Delay | 70.0 | 26.9 | 61.9 | 44.0 | 64.6 | 30.0 | 66.1 | 37.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 70.0 | 26.9 | 61.9 | 44.0 | 64.6 | 30.0 | 66.1 | 37.6 |
| LOS | E | C | E | D | E | C | E | D |
| Approach Delay | | 37.2 | | 44.9 | | 36.4 | | 39.1 |
| Approach LOS | | D | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 109.9 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.83 | |
| Intersection Signal Delay: 39.0 | Intersection LOS: D |
| Intersection Capacity Utilization 81.2% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 181 | 401 | 174 | 43 | 506 | 242 | 230 | 985 | 40 | 42 | 528 | 225 |
| Future Volume (veh/h) | 181 | 401 | 174 | 43 | 506 | 242 | 230 | 985 | 40 | 42 | 528 | 225 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 191 | 422 | 178 | 45 | 533 | 153 | 242 | 1037 | 35 | 44 | 556 | 228 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 224 | 812 | 339 | 64 | 661 | 189 | 276 | 2069 | 70 | 63 | 1034 | 412 |
| Arrive On Green | 0.12 | 0.33 | 0.33 | 0.04 | 0.24 | 0.24 | 0.15 | 0.40 | 0.40 | 0.04 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1810 | 2482 | 1036 | 1810 | 2767 | 791 | 1810 | 5150 | 174 | 1810 | 3642 | 1451 |
| Grp Volume(v), veh/h | 191 | 306 | 294 | 45 | 347 | 339 | 242 | 696 | 376 | 44 | 527 | 257 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1714 | 1810 | 1805 | 1753 | 1810 | 1729 | 1866 | 1810 | 1729 | 1635 |
| Q Serve(g_s), s | 10.5 | 13.9 | 14.2 | 2.5 | 18.4 | 18.5 | 13.3 | 15.3 | 15.3 | 2.4 | 13.1 | 13.6 |
| Cycle Q Clear(g_c), s | 10.5 | 13.9 | 14.2 | 2.5 | 18.4 | 18.5 | 13.3 | 15.3 | 15.3 | 2.4 | 13.1 | 13.6 |
| Prop In Lane | 1.00 | | 0.60 | 1.00 | | 0.45 | 1.00 | | 0.09 | 1.00 | | 0.89 |
| Lane Grp Cap(c), veh/h | 224 | 590 | 560 | 64 | 431 | 419 | 276 | 1389 | 750 | 63 | 982 | 464 |
| V/C Ratio(X) | 0.85 | 0.52 | 0.53 | 0.70 | 0.80 | 0.81 | 0.88 | 0.50 | 0.50 | 0.69 | 0.54 | 0.55 |
| Avail Cap(c_a), veh/h | 312 | 748 | 710 | 171 | 608 | 590 | 429 | 1389 | 750 | 126 | 982 | 464 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.6 | 27.7 | 27.8 | 48.5 | 36.4 | 36.5 | 42.1 | 22.8 | 22.8 | 48.5 | 30.7 | 30.9 |
| Incr Delay (d2), s/veh | 11.5 | 0.7 | 0.8 | 5.1 | 5.3 | 5.7 | 7.9 | 1.3 | 2.4 | 5.0 | 2.1 | 4.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.2 | 5.8 | 5.6 | 1.2 | 8.3 | 8.2 | 6.5 | 6.4 | 7.2 | 1.2 | 5.5 | 5.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.1 | 28.4 | 28.5 | 53.6 | 41.7 | 42.2 | 50.0 | 24.1 | 25.2 | 53.5 | 32.8 | 35.6 |
| LnGrp LOS | E | C | C | D | D | D | D | C | C | D | C | D |
| Approach Vol, veh/h | | 791 | | | 731 | | | 1314 | | | 828 | |
| Approach Delay, s/veh | | 34.9 | | | 42.7 | | | 29.2 | | | 34.8 | |
| Approach LOS | | C | | | D | | | C | | | C | |

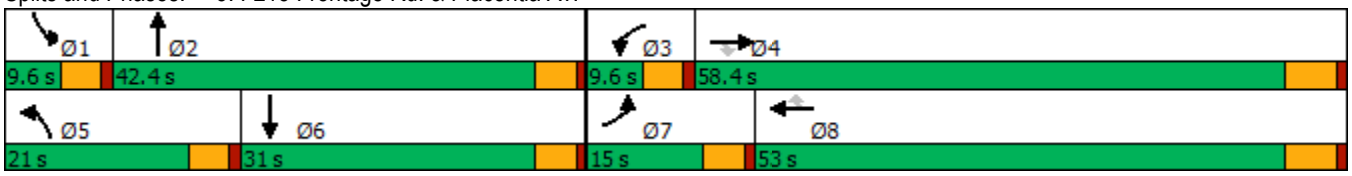
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 46.6 | 8.2 | 38.6 | 20.1 | 34.6 | 17.2 | 29.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 7.1 | 40.8 | 9.6 | 42.1 | 24.1 | 23.8 | 17.5 | 34.2 |
| Max Q Clear Time (g_c+I1), s | 4.4 | 17.3 | 4.5 | 16.2 | 15.3 | 15.6 | 12.5 | 20.5 |
| Green Ext Time (p_c), s | 0.0 | 8.2 | 0.0 | 3.5 | 0.2 | 3.0 | 0.1 | 3.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.4 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 15.0 | 58.4 | 58.4 | 9.6 | 53.0 | 53.0 | 21.0 | 42.4 | 9.6 | 31.0 |
| Total Split (%) | 12.5% | 48.7% | 48.7% | 8.0% | 44.2% | 44.2% | 17.5% | 35.3% | 8.0% | 25.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 10.4 | 58.5 | 58.5 | 5.0 | 47.2 | 47.2 | 13.4 | 40.6 | 5.0 | 26.4 |
| Actuated g/C Ratio | 0.09 | 0.50 | 0.50 | 0.04 | 0.40 | 0.40 | 0.11 | 0.35 | 0.04 | 0.23 |
| v/c Ratio | 1.27 | 0.39 | 0.31 | 0.16 | 0.81 | 0.02 | 0.62 | 0.62 | 0.16 | 1.29 |
| Control Delay | 205.8 | 20.0 | 6.8 | 59.7 | 36.6 | 0.0 | 56.6 | 20.4 | 59.7 | 182.3 |
| Queue Delay | 0.0 | 3.1 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 205.8 | 23.1 | 7.9 | 59.7 | 36.6 | 0.0 | 56.6 | 20.4 | 59.7 | 182.3 |
| LOS | F | C | A | E | D | A | E | C | E | F |
| Approach Delay | | 50.0 | | | 36.4 | | | 33.3 | | 179.7 |
| Approach LOS | | D | | | D | | | C | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.29 | |
| Intersection Signal Delay: 61.9 | Intersection LOS: E |
| Intersection Capacity Utilization 94.3% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 682 | 259 | 11 | 1148 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 741 | 211 | 12 | 1248 | 9 | 249 | 74 | 362 | 12 | 251 | 152 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 165 | 1868 | 792 | 25 | 1574 | 667 | 318 | 87 | 423 | 25 | 257 | 155 |
| Arrive On Green | 0.09 | 0.54 | 0.49 | 0.01 | 0.46 | 0.41 | 0.09 | 0.31 | 0.31 | 0.01 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 3800 | 1610 | 1810 | 3800 | 1610 | 3510 | 281 | 1372 | 1810 | 1108 | 671 |
| Grp Volume(v), veh/h | 204 | 741 | 211 | 12 | 1248 | 9 | 249 | 0 | 436 | 12 | 0 | 403 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 | 1755 | 0 | 1653 | 1810 | 0 | 1779 |
| Q Serve(g_s), s | 10.4 | 13.0 | 8.7 | 0.8 | 31.9 | 0.4 | 7.9 | 0.0 | 28.2 | 0.8 | 0.0 | 25.6 |
| Cycle Q Clear(g_c), s | 10.4 | 13.0 | 8.7 | 0.8 | 31.9 | 0.4 | 7.9 | 0.0 | 28.2 | 0.8 | 0.0 | 25.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.38 |
| Lane Grp Cap(c), veh/h | 165 | 1868 | 792 | 25 | 1574 | 667 | 318 | 0 | 510 | 25 | 0 | 412 |
| V/C Ratio(X) | 1.24 | 0.40 | 0.27 | 0.48 | 0.79 | 0.01 | 0.78 | 0.00 | 0.85 | 0.48 | 0.00 | 0.98 |
| Avail Cap(c_a), veh/h | 165 | 1868 | 792 | 79 | 1574 | 667 | 505 | 0 | 548 | 79 | 0 | 412 |
| HCM Platoon Ratio | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 16.3 | 16.9 | 55.8 | 26.8 | 19.7 | 50.7 | 0.0 | 37.0 | 55.8 | 0.0 | 43.5 |
| Incr Delay (d2), s/veh | 147.0 | 0.6 | 0.8 | 5.2 | 4.2 | 0.0 | 4.2 | 0.0 | 11.9 | 13.4 | 0.0 | 38.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.3 | 5.2 | 3.2 | 0.4 | 13.9 | 0.1 | 3.6 | 0.0 | 12.5 | 0.4 | 0.0 | 15.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 198.7 | 16.9 | 17.8 | 60.9 | 31.0 | 19.7 | 54.9 | 0.0 | 48.9 | 69.2 | 0.0 | 81.7 |
| LnGrp LOS | F | B | B | E | C | B | D | A | D | E | A | F |
| Approach Vol, veh/h | | 1156 | | | 1269 | | | 685 | | | 415 | |
| Approach Delay, s/veh | | 49.1 | | | 31.2 | | | 51.1 | | | 81.4 | |
| Approach LOS | | D | | | C | | | D | | | F | |

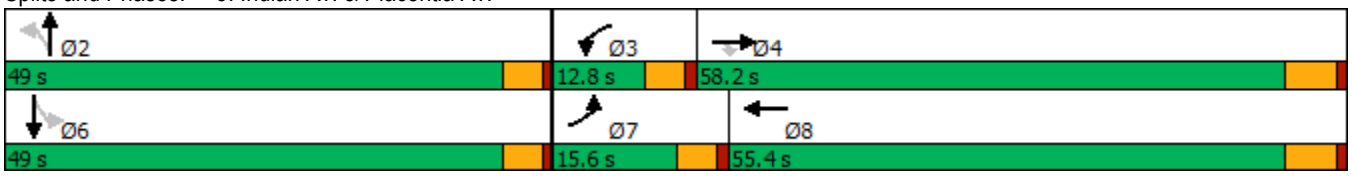
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.2 | 39.8 | 6.2 | 61.8 | 14.9 | 31.0 | 15.0 | 53.0 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 16.4 | 26.4 | 10.4 | 47.2 |
| Max Q Clear Time (g_c+I1), s | 2.8 | 30.2 | 2.8 | 15.0 | 9.9 | 27.6 | 12.4 | 33.9 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 6.1 | 0.4 | 0.0 | 0.0 | 6.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 46.9 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 57 | 882 | 98 | 33 | 940 | 50 | 80 | 46 | 154 |
| Future Volume (vph) | 57 | 882 | 98 | 33 | 940 | 50 | 80 | 46 | 154 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 15.6 | 58.2 | 58.2 | 12.8 | 55.4 | 49.0 | 49.0 | 49.0 | 49.0 |
| Total Split (%) | 13.0% | 48.5% | 48.5% | 10.7% | 46.2% | 40.8% | 40.8% | 40.8% | 40.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 7.9 | 53.5 | 53.5 | 6.8 | 52.5 | 28.3 | 28.3 | 28.3 | 28.3 |
| Actuated g/C Ratio | 0.08 | 0.53 | 0.53 | 0.07 | 0.52 | 0.28 | 0.28 | 0.28 | 0.28 |
| v/c Ratio | 0.45 | 0.50 | 0.12 | 0.40 | 0.60 | 0.53 | 0.28 | 0.20 | 0.80 |
| Control Delay | 58.8 | 19.3 | 4.1 | 59.6 | 21.8 | 50.5 | 27.1 | 29.2 | 42.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.8 | 19.3 | 4.1 | 59.6 | 21.8 | 50.5 | 27.1 | 29.2 | 42.3 |
| LOS | E | B | A | E | C | D | C | C | D |
| Approach Delay | | 20.0 | | | 23.4 | | 33.4 | | 40.5 |
| Approach LOS | | C | | | C | | C | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 101.5 | |
| Natural Cycle: 65 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.80 | |
| Intersection Signal Delay: 25.6 | Intersection LOS: C |
| Intersection Capacity Utilization 71.4% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 57 | 882 | 98 | 33 | 940 | 55 | 50 | 80 | 21 | 46 | 154 | 178 |
| Future Volume (veh/h) | 57 | 882 | 98 | 33 | 940 | 55 | 50 | 80 | 21 | 46 | 154 | 178 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 62 | 959 | 82 | 48 | 1022 | 61 | 54 | 116 | 23 | 67 | 223 | 146 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 80 | 1905 | 850 | 91 | 1847 | 110 | 154 | 417 | 83 | 341 | 290 | 190 |
| Arrive On Green | 0.04 | 0.53 | 0.53 | 0.05 | 0.53 | 0.53 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3461 | 207 | 1029 | 1540 | 305 | 1270 | 1072 | 702 |
| Grp Volume(v), veh/h | 62 | 959 | 82 | 48 | 533 | 550 | 54 | 0 | 139 | 67 | 0 | 369 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1863 | 1029 | 0 | 1845 | 1270 | 0 | 1774 |
| Q Serve(g_s), s | 3.4 | 17.0 | 2.5 | 2.6 | 19.4 | 19.4 | 5.1 | 0.0 | 5.9 | 4.4 | 0.0 | 19.0 |
| Cycle Q Clear(g_c), s | 3.4 | 17.0 | 2.5 | 2.6 | 19.4 | 19.4 | 24.1 | 0.0 | 5.9 | 10.3 | 0.0 | 19.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.17 | 1.00 | | 0.40 |
| Lane Grp Cap(c), veh/h | 80 | 1905 | 850 | 91 | 963 | 994 | 154 | 0 | 499 | 341 | 0 | 480 |
| V/C Ratio(X) | 0.77 | 0.50 | 0.10 | 0.53 | 0.55 | 0.55 | 0.35 | 0.00 | 0.28 | 0.20 | 0.00 | 0.77 |
| Avail Cap(c_a), veh/h | 201 | 1905 | 850 | 149 | 963 | 994 | 336 | 0 | 825 | 565 | 0 | 793 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.9 | 15.1 | 11.7 | 46.0 | 15.3 | 15.3 | 44.4 | 0.0 | 28.6 | 32.6 | 0.0 | 33.3 |
| Incr Delay (d2), s/veh | 5.7 | 1.0 | 0.2 | 1.7 | 2.3 | 2.2 | 1.4 | 0.0 | 0.3 | 0.3 | 0.0 | 2.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 6.4 | 0.9 | 1.2 | 7.6 | 7.9 | 1.3 | 0.0 | 2.5 | 1.3 | 0.0 | 8.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 52.7 | 16.0 | 11.9 | 47.7 | 17.6 | 17.5 | 45.8 | 0.0 | 28.9 | 32.9 | 0.0 | 36.0 |
| LnGrp LOS | D | B | B | D | B | B | D | A | C | C | A | D |
| Approach Vol, veh/h | | 1103 | | | 1131 | | | 193 | | | 436 | |
| Approach Delay, s/veh | | 17.8 | | | 18.8 | | | 33.6 | | | 35.5 | |
| Approach LOS | | B | | | B | | | C | | | D | |

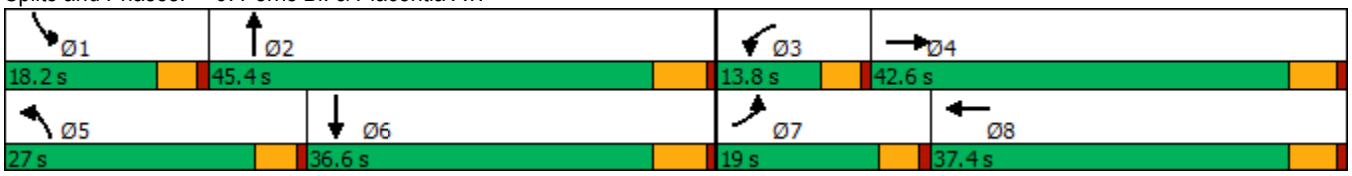
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 31.5 | 9.6 | 58.2 | | 31.5 | 9.0 | 58.8 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 44.4 | 8.2 | 52.4 | | 44.4 | 11.0 | 49.6 | | | | |
| Max Q Clear Time (g_c+I1), s | | 26.1 | 4.6 | 19.0 | | 21.0 | 5.4 | 21.4 | | | | |
| Green Ext Time (p_c), s | | 0.8 | 0.0 | 7.5 | | 2.3 | 0.0 | 7.2 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.0 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 233 | 493 | 60 | 487 | 234 | 780 | 142 | 1041 |
| Future Volume (vph) | 233 | 493 | 60 | 487 | 234 | 780 | 142 | 1041 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 |
| Total Split (s) | 19.0 | 42.6 | 13.8 | 37.4 | 27.0 | 45.4 | 18.2 | 36.6 |
| Total Split (%) | 15.8% | 35.5% | 11.5% | 31.2% | 22.5% | 37.8% | 15.2% | 30.5% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 14.5 | 33.4 | 7.6 | 24.5 | 18.5 | 39.8 | 12.1 | 33.4 |
| Actuated g/C Ratio | 0.13 | 0.30 | 0.07 | 0.22 | 0.17 | 0.36 | 0.11 | 0.30 |
| v/c Ratio | 1.05 | 0.68 | 0.51 | 0.74 | 0.82 | 0.44 | 0.76 | 0.80 |
| Control Delay | 119.9 | 34.5 | 66.3 | 44.9 | 67.4 | 28.5 | 73.7 | 40.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 119.9 | 34.5 | 66.3 | 44.9 | 67.4 | 28.5 | 73.7 | 40.1 |
| LOS | F | C | E | D | E | C | E | D |
| Approach Delay | | 55.0 | | 46.9 | | 36.9 | | 43.5 |
| Approach LOS | | D | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 111.3 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.05 | |
| Intersection Signal Delay: 45.0 | Intersection LOS: D |
| Intersection Capacity Utilization 86.1% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 233 | 493 | 245 | 60 | 487 | 93 | 234 | 780 | 64 | 142 | 1041 | 239 |
| Future Volume (veh/h) | 233 | 493 | 245 | 60 | 487 | 93 | 234 | 780 | 64 | 142 | 1041 | 239 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 245 | 519 | 25 | 63 | 513 | 38 | 246 | 821 | 14 | 149 | 1096 | 121 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 247 | 1028 | 49 | 82 | 679 | 50 | 279 | 2101 | 36 | 179 | 1620 | 179 |
| Arrive On Green | 0.14 | 0.29 | 0.29 | 0.05 | 0.19 | 0.19 | 0.15 | 0.38 | 0.38 | 0.10 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 3596 | 173 | 1810 | 3494 | 258 | 1810 | 5586 | 95 | 1810 | 5043 | 556 |
| Grp Volume(v), veh/h | 245 | 274 | 270 | 63 | 278 | 273 | 246 | 558 | 277 | 149 | 826 | 391 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1869 | 1810 | 1900 | 1852 | 1810 | 1900 | 1881 | 1810 | 1900 | 1799 |
| Q Serve(g_s), s | 14.2 | 12.7 | 12.7 | 3.6 | 14.6 | 14.6 | 14.0 | 11.3 | 11.3 | 8.5 | 19.8 | 19.9 |
| Cycle Q Clear(g_c), s | 14.2 | 12.7 | 12.7 | 3.6 | 14.6 | 14.6 | 14.0 | 11.3 | 11.3 | 8.5 | 19.8 | 19.9 |
| Prop In Lane | 1.00 | | 0.09 | 1.00 | | 0.14 | 1.00 | | 0.05 | 1.00 | | 0.31 |
| Lane Grp Cap(c), veh/h | 247 | 543 | 534 | 82 | 369 | 360 | 279 | 1429 | 708 | 179 | 1221 | 578 |
| V/C Ratio(X) | 0.99 | 0.50 | 0.51 | 0.77 | 0.75 | 0.76 | 0.88 | 0.39 | 0.39 | 0.83 | 0.68 | 0.68 |
| Avail Cap(c_a), veh/h | 247 | 671 | 660 | 158 | 577 | 563 | 385 | 1429 | 708 | 234 | 1221 | 578 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.4 | 31.4 | 31.4 | 49.7 | 40.0 | 40.1 | 43.6 | 24.0 | 24.0 | 46.6 | 31.0 | 31.0 |
| Incr Delay (d2), s/veh | 54.2 | 0.7 | 0.7 | 5.7 | 3.1 | 3.3 | 13.1 | 0.8 | 1.6 | 13.9 | 3.0 | 6.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 10.1 | 5.9 | 5.9 | 1.8 | 7.1 | 7.0 | 7.3 | 5.3 | 5.4 | 4.4 | 9.1 | 9.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 99.5 | 32.1 | 32.1 | 55.4 | 43.2 | 43.4 | 56.7 | 24.8 | 25.7 | 60.5 | 34.0 | 37.3 |
| LnGrp LOS | F | C | C | E | D | D | E | C | C | E | C | D |
| Approach Vol, veh/h | | 789 | | | 614 | | | 1081 | | | 1366 | |
| Approach Delay, s/veh | | 53.0 | | | 44.5 | | | 32.3 | | | 37.8 | |
| Approach LOS | | D | | | D | | | C | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.0 | 45.4 | 9.3 | 35.5 | 20.8 | 39.6 | 19.0 | 25.9 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 13.6 | 39.6 | 9.2 | 37.2 | 22.4 | 30.8 | 14.4 | 32.0 |
| Max Q Clear Time (g_c+I1), s | 10.5 | 13.3 | 5.6 | 14.7 | 16.0 | 21.9 | 16.2 | 16.6 |
| Green Ext Time (p_c), s | 0.1 | 6.3 | 0.0 | 3.5 | 0.2 | 4.7 | 0.0 | 3.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 40.5 |
| HCM 6th LOS | D |

# APPENDIX 8.1:

# EAC (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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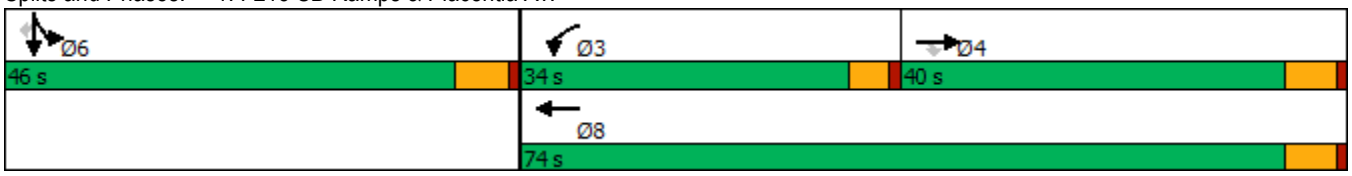
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 268 | 127 | 283 | 457 | 382 | 0 | 74 |
| Future Volume (vph) | 268 | 127 | 283 | 457 | 382 | 0 | 74 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.8 | 25.8 | 9.6 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.0 | 40.0 | 34.0 | 74.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 33.3% | 33.3% | 28.3% | 61.7% | 38.3% | 38.3% | 38.3% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 51.0 | 51.0 | 12.8 | 68.4 | 17.4 | 17.4 | 17.4 |
| Actuated g/C Ratio | 0.52 | 0.52 | 0.13 | 0.70 | 0.18 | 0.18 | 0.18 |
| v/c Ratio | 0.15 | 0.15 | 0.67 | 0.20 | 0.68 | 0.68 | 0.23 |
| Control Delay | 13.8 | 3.3 | 48.1 | 5.8 | 48.7 | 48.9 | 9.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.8 | 3.3 | 48.1 | 5.8 | 48.7 | 48.9 | 9.2 |
| LOS | B | A | D | A | D | D | A |
| Approach Delay | 10.4 | | | 22.0 | | 42.4 | |
| Approach LOS | B | | | C | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 97.4 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.68 | |
| Intersection Signal Delay: 24.9 | Intersection LOS: C |
| Intersection Capacity Utilization 64.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 268 | 127 | 283 | 457 | 0 | 0 | 0 | 0 | 382 | 0 | 74 |
| Future Volume (veh/h) | 0 | 268 | 127 | 283 | 457 | 0 | 0 | 0 | 0 | 382 | 0 | 74 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 291 | 138 | 308 | 497 | 0 | | | | 415 | 0 | 80 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 2043 | 911 | 393 | 2624 | 0 | | | | 541 | 0 | 241 |
| Arrive On Green | 0.00 | 0.57 | 0.57 | 0.11 | 0.73 | 0.00 | | | | 0.15 | 0.00 | 0.15 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 291 | 138 | 308 | 497 | 0 | | | | 415 | 0 | 80 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 3.6 | 3.8 | 8.0 | 4.1 | 0.0 | | | | 10.3 | 0.0 | 4.2 |
| Cycle Q Clear(g_c), s | 0.0 | 3.6 | 3.8 | 8.0 | 4.1 | 0.0 | | | | 10.3 | 0.0 | 4.2 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 2043 | 911 | 393 | 2624 | 0 | | | | 541 | 0 | 241 |
| V/C Ratio(X) | 0.00 | 0.14 | 0.15 | 0.78 | 0.19 | 0.00 | | | | 0.77 | 0.00 | 0.33 |
| Avail Cap(c_a), veh/h | 0 | 2043 | 911 | 1100 | 2624 | 0 | | | | 1551 | 0 | 690 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 9.6 | 9.7 | 40.5 | 4.1 | 0.0 | | | | 38.3 | 0.0 | 35.7 |
| Incr Delay (d2), s/veh | 0.0 | 0.1 | 0.4 | 1.3 | 0.2 | 0.0 | | | | 2.3 | 0.0 | 0.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 1.3 | 1.3 | 3.4 | 1.1 | 0.0 | | | | 4.5 | 0.0 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 9.8 | 10.0 | 41.9 | 4.2 | 0.0 | | | | 40.6 | 0.0 | 36.5 |
| LnGrp LOS | A | A | B | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 429 | | | 805 | | | | | | 495 | |
| Approach Delay, s/veh | | 9.8 | | | 18.6 | | | | | | 40.0 | |
| Approach LOS | | A | | | B | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 15.1 | 58.9 | | 19.8 | | 74.0 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 29.4 | 34.2 | | 40.2 | | 68.2 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 10.0 | 5.8 | | 12.3 | | 6.1 | | | | | |
| Green Ext Time (p_c), s | | 0.5 | 2.2 | | 1.7 | | 3.3 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 22.6 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 59 | 591 | 594 | 617 | 146 | 0 | 342 |
| Future Volume (vph) | 59 | 591 | 594 | 617 | 146 | 0 | 342 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.4 | 75.7 | 66.7 | 66.7 | 14.4 | 14.4 | 14.4 |
| Actuated g/C Ratio | 0.06 | 0.74 | 0.66 | 0.66 | 0.14 | 0.14 | 0.14 |
| v/c Ratio | 0.29 | 0.24 | 0.27 | 0.56 | 0.33 | 0.33 | 0.78 |
| Control Delay | 50.2 | 4.8 | 9.0 | 6.2 | 42.1 | 42.2 | 22.4 |
| Queue Delay | 0.0 | 0.0 | 0.6 | 1.9 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.2 | 4.8 | 9.6 | 8.1 | 42.1 | 42.2 | 22.4 |
| LOS | D | A | A | A | D | D | C |
| Approach Delay | | 9.0 | 8.8 | | | 28.3 | |
| Approach LOS | | A | A | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 101.7 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.78 | |
| Intersection Signal Delay: 12.9 | Intersection LOS: B |
| Intersection Capacity Utilization 64.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 59 | 591 | 0 | 0 | 594 | 617 | 146 | 0 | 342 | 0 | 0 | 0 |
| Future Volume (veh/h) | 59 | 591 | 0 | 0 | 594 | 617 | 146 | 0 | 342 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 64 | 642 | 0 | 0 | 646 | 671 | 159 | 0 | 372 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 151 | 2346 | 0 | 0 | 2047 | 913 | 905 | 0 | 403 | | | |
| Arrive On Green | 0.04 | 0.65 | 0.00 | 0.00 | 0.57 | 0.57 | 0.25 | 0.00 | 0.25 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 64 | 642 | 0 | 0 | 646 | 671 | 159 | 0 | 372 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.1 | 8.8 | 0.0 | 0.0 | 10.9 | 35.9 | 4.0 | 0.0 | 26.1 | | | |
| Cycle Q Clear(g_c), s | 2.1 | 8.8 | 0.0 | 0.0 | 10.9 | 35.9 | 4.0 | 0.0 | 26.1 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 151 | 2346 | 0 | 0 | 2047 | 913 | 905 | 0 | 403 | | | |
| V/C Ratio(X) | 0.42 | 0.27 | 0.00 | 0.00 | 0.32 | 0.73 | 0.18 | 0.00 | 0.92 | | | |
| Avail Cap(c_a), veh/h | 1089 | 2346 | 0 | 0 | 2047 | 913 | 1029 | 0 | 458 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 54.1 | 8.7 | 0.0 | 0.0 | 13.2 | 18.6 | 34.1 | 0.0 | 42.4 | | | |
| Incr Delay (d2), s/veh | 0.7 | 0.3 | 0.0 | 0.0 | 0.4 | 5.2 | 0.1 | 0.0 | 22.9 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 0.9 | 3.1 | 0.0 | 0.0 | 4.2 | 13.3 | 1.7 | 0.0 | 12.5 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 54.8 | 8.9 | 0.0 | 0.0 | 13.6 | 23.9 | 34.2 | 0.0 | 65.3 | | | |
| LnGrp LOS | D | A | A | A | B | C | C | A | E | | | |
| Approach Vol, veh/h | | 706 | | | 1317 | | | 531 | | | | |
| Approach Delay, s/veh | | 13.1 | | | 18.9 | | | 56.0 | | | | |
| Approach LOS | | B | | | B | | | E | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 34.8 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 28.1 | | 10.8 | | | 4.1 | 37.9 | | | | |
| Green Ext Time (p_c), s | | 0.9 | | 4.5 | | | 0.1 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.0 |
| HCM 6th LOS | C |

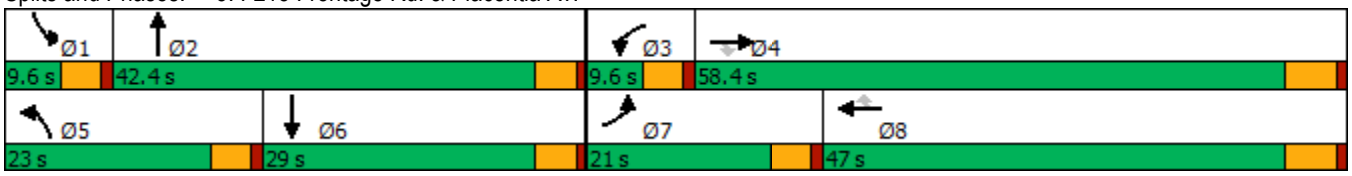
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 58.4 | 58.4 | 9.6 | 47.0 | 47.0 | 23.0 | 42.4 | 9.6 | 29.0 |
| Total Split (%) | 17.5% | 48.7% | 48.7% | 8.0% | 39.2% | 39.2% | 19.2% | 35.3% | 8.0% | 24.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 11.8 | 56.5 | 56.5 | 5.1 | 41.6 | 41.6 | 13.7 | 29.0 | 5.1 | 12.2 |
| Actuated g/C Ratio | 0.12 | 0.57 | 0.57 | 0.05 | 0.42 | 0.42 | 0.14 | 0.29 | 0.05 | 0.12 |
| v/c Ratio | 0.66 | 0.40 | 0.07 | 0.13 | 0.72 | 0.02 | 0.65 | 0.62 | 0.13 | 0.43 |
| Control Delay | 58.2 | 14.2 | 0.2 | 53.4 | 29.1 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| Queue Delay | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.2 | 15.5 | 0.2 | 53.4 | 29.1 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| LOS | E | B | A | D | C | A | D | B | D | C |
| Approach Delay | | 20.3 | | | 29.1 | | | 29.7 | | 27.8 |
| Approach LOS | | C | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 99.2 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.72 | |
| Intersection Signal Delay: 26.0 | Intersection LOS: C |
| Intersection Capacity Utilization 68.3% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 812 | 73 | 12 | 1093 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 79 | 359 | 85 | 124 | 221 |
| Arrive On Green | 0.10 | 0.49 | 0.49 | 0.01 | 0.41 | 0.41 | 0.11 | 0.26 | 0.26 | 0.05 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 812 | 73 | 12 | 1093 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.2 | 15.8 | 2.6 | 0.7 | 27.4 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.2 | 15.8 | 2.6 | 0.7 | 27.4 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 0 | 437 | 85 | 0 | 345 |
| V/C Ratio(X) | 0.81 | 0.46 | 0.09 | 0.47 | 0.74 | 0.02 | 0.83 | 0.00 | 0.89 | 0.14 | 0.00 | 0.34 |
| Avail Cap(c_a), veh/h | 277 | 1776 | 792 | 85 | 1480 | 660 | 311 | 0 | 585 | 85 | 0 | 389 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.4 | 17.8 | 14.5 | 52.3 | 26.7 | 18.8 | 46.7 | 0.0 | 37.8 | 48.9 | 0.0 | 36.5 |
| Incr Delay (d2), s/veh | 4.1 | 0.9 | 0.2 | 5.0 | 3.3 | 0.1 | 9.6 | 0.0 | 12.6 | 0.8 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 6.2 | 0.9 | 0.3 | 11.6 | 0.2 | 4.8 | 0.0 | 11.3 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.5 | 18.7 | 14.7 | 57.3 | 30.0 | 18.8 | 56.2 | 0.0 | 50.4 | 49.7 | 0.0 | 37.1 |
| LnGrp LOS | D | B | B | E | C | B | E | A | D | D | A | D |
| Approach Vol, veh/h | | 1026 | | | 1117 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 22.9 | | | 30.2 | | | 52.1 | | | 38.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |

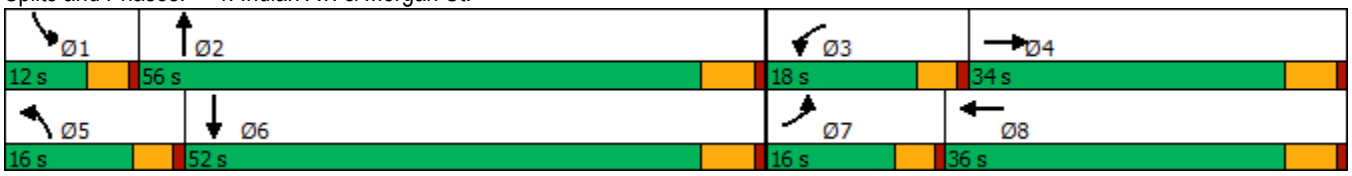
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 32.8 | 6.1 | 58.4 | 16.2 | 26.2 | 14.9 | 49.6 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 18.4 | 24.4 | 16.4 | 41.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 26.2 | 2.7 | 17.8 | 11.4 | 8.3 | 10.2 | 29.4 |
| Green Ext Time (p_c), s | 0.0 | 2.1 | 0.0 | 6.1 | 0.2 | 0.5 | 0.1 | 5.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 36 | 80 | 20 | 124 | 119 | 241 | 6 | 138 |
| Future Volume (vph) | 36 | 80 | 20 | 124 | 119 | 241 | 6 | 138 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 16.0 | 34.0 | 18.0 | 36.0 | 16.0 | 56.0 | 12.0 | 52.0 |
| Total Split (%) | 13.3% | 28.3% | 15.0% | 30.0% | 13.3% | 46.7% | 10.0% | 43.3% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 7.0 | 15.6 | 6.0 | 12.7 | 10.9 | 60.7 | 5.3 | 46.9 |
| Actuated g/C Ratio | 0.07 | 0.17 | 0.06 | 0.14 | 0.12 | 0.65 | 0.06 | 0.50 |
| v/c Ratio | 0.33 | 0.32 | 0.21 | 0.33 | 0.69 | 0.13 | 0.07 | 0.13 |
| Control Delay | 51.3 | 18.7 | 50.2 | 38.3 | 60.7 | 9.2 | 49.2 | 11.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.3 | 18.7 | 50.2 | 38.3 | 60.7 | 9.2 | 49.2 | 11.6 |
| LOS | D | B | D | D | E | A | D | B |
| Approach Delay | | 24.5 | | 39.8 | | 25.6 | | 12.7 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 94 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 24.9 | Intersection LOS: C |
| Intersection Capacity Utilization 45.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 80 | 85 | 20 | 124 | 7 | 119 | 241 | 13 | 6 | 138 | 56 |
| Future Volume (veh/h) | 36 | 80 | 85 | 20 | 124 | 7 | 119 | 241 | 13 | 6 | 138 | 56 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 44 | 98 | 84 | 24 | 151 | 9 | 145 | 294 | 15 | 7 | 168 | 53 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 67 | 260 | 202 | 45 | 426 | 25 | 178 | 2100 | 107 | 16 | 1392 | 426 |
| Arrive On Green | 0.04 | 0.13 | 0.13 | 0.03 | 0.12 | 0.12 | 0.10 | 0.60 | 0.60 | 0.01 | 0.51 | 0.51 |
| Sat Flow, veh/h | 1810 | 1925 | 1498 | 1810 | 3462 | 205 | 1810 | 3495 | 178 | 1810 | 2723 | 832 |
| Grp Volume(v), veh/h | 44 | 91 | 91 | 24 | 78 | 82 | 145 | 151 | 158 | 7 | 110 | 111 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1618 | 1810 | 1805 | 1861 | 1810 | 1805 | 1868 | 1810 | 1805 | 1750 |
| Q Serve(g_s), s | 2.2 | 4.2 | 4.6 | 1.2 | 3.6 | 3.6 | 7.1 | 3.3 | 3.3 | 0.3 | 2.9 | 3.0 |
| Cycle Q Clear(g_c), s | 2.2 | 4.2 | 4.6 | 1.2 | 3.6 | 3.6 | 7.1 | 3.3 | 3.3 | 0.3 | 2.9 | 3.0 |
| Prop In Lane | 1.00 | | 0.93 | 1.00 | | 0.11 | 1.00 | | 0.10 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 67 | 244 | 218 | 45 | 222 | 229 | 178 | 1085 | 1123 | 16 | 923 | 895 |
| V/C Ratio(X) | 0.66 | 0.37 | 0.42 | 0.53 | 0.35 | 0.36 | 0.81 | 0.14 | 0.14 | 0.43 | 0.12 | 0.12 |
| Avail Cap(c_a), veh/h | 228 | 563 | 505 | 268 | 603 | 622 | 228 | 1085 | 1123 | 148 | 923 | 895 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 42.9 | 35.6 | 35.8 | 43.5 | 36.3 | 36.3 | 39.9 | 7.9 | 7.9 | 44.5 | 11.5 | 11.5 |
| Incr Delay (d2), s/veh | 4.0 | 1.0 | 1.3 | 3.5 | 1.0 | 0.9 | 12.6 | 0.3 | 0.3 | 6.7 | 0.3 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 1.8 | 1.8 | 0.6 | 1.6 | 1.6 | 3.6 | 1.1 | 1.2 | 0.2 | 1.1 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 47.0 | 36.6 | 37.1 | 47.0 | 37.3 | 37.3 | 52.5 | 8.1 | 8.1 | 51.2 | 11.7 | 11.8 |
| LnGrp LOS | D | D | D | D | D | D | D | A | A | D | B | B |
| Approach Vol, veh/h | | 226 | | | 184 | | | 454 | | | 228 | |
| Approach Delay, s/veh | | 38.8 | | | 38.6 | | | 22.3 | | | 13.0 | |
| Approach LOS | | D | | | D | | | C | | | B | |

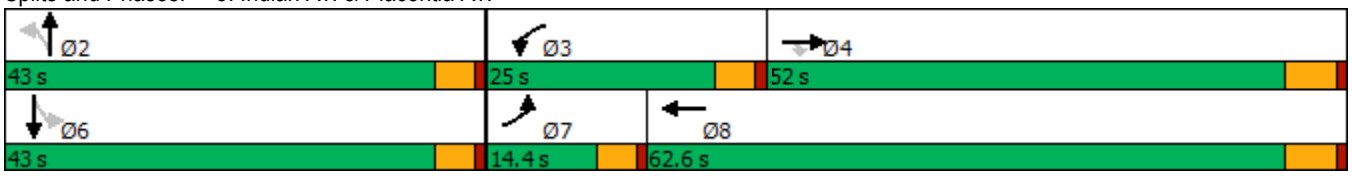
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.4 | 60.1 | 6.9 | 18.0 | 13.5 | 52.0 | 7.9 | 16.9 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 50.2 | 13.4 | 28.2 | 11.4 | 46.2 | 11.4 | 30.2 |
| Max Q Clear Time (g_c+I1), s | 2.3 | 5.3 | 3.2 | 6.6 | 9.1 | 5.0 | 4.2 | 5.6 |
| Green Ext Time (p_c), s | 0.0 | 1.7 | 0.0 | 0.9 | 0.0 | 1.2 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.5 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 154 | 738 | 146 | 205 | 917 | 42 | 259 | 42 | 157 |
| Future Volume (vph) | 154 | 738 | 146 | 205 | 917 | 42 | 259 | 42 | 157 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 14.4 | 52.0 | 52.0 | 25.0 | 62.6 | 43.0 | 43.0 | 43.0 | 43.0 |
| Total Split (%) | 12.0% | 43.3% | 43.3% | 20.8% | 52.2% | 35.8% | 35.8% | 35.8% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 9.8 | 46.2 | 46.2 | 20.4 | 56.8 | 38.2 | 38.2 | 38.2 | 38.2 |
| Actuated g/C Ratio | 0.08 | 0.39 | 0.39 | 0.17 | 0.47 | 0.32 | 0.32 | 0.32 | 0.32 |
| v/c Ratio | 1.14 | 1.10 | 0.23 | 0.97 | 1.17 | 0.18 | 0.95 | 0.95 | 0.49 |
| Control Delay | 164.1 | 98.0 | 10.0 | 93.9 | 117.4 | 32.0 | 66.2 | 145.7 | 34.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 164.1 | 98.0 | 10.0 | 93.9 | 117.4 | 32.0 | 66.2 | 145.7 | 34.8 |
| LOS | F | F | B | F | F | C | E | F | C |
| Approach Delay | | 95.4 | | | 112.2 | | 63.7 | | 54.1 |
| Approach LOS | | F | | | F | | E | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 119.8 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.17 | |
| Intersection Signal Delay: 92.1 | Intersection LOS: F |
| Intersection Capacity Utilization 100.8% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 154 | 738 | 146 | 205 | 917 | 32 | 42 | 259 | 130 | 42 | 157 | 56 |
| Future Volume (veh/h) | 154 | 738 | 146 | 205 | 917 | 32 | 42 | 259 | 130 | 42 | 157 | 56 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 167 | 802 | 122 | 297 | 997 | 40 | 46 | 375 | 143 | 61 | 228 | 49 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 148 | 732 | 620 | 308 | 859 | 34 | 283 | 419 | 160 | 103 | 485 | 104 |
| Arrive On Green | 0.08 | 0.38 | 0.38 | 0.17 | 0.47 | 0.47 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1814 | 73 | 1120 | 1310 | 500 | 897 | 1516 | 326 |
| Grp Volume(v), veh/h | 167 | 802 | 122 | 297 | 0 | 1037 | 46 | 0 | 518 | 61 | 0 | 277 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1887 | 1120 | 0 | 1810 | 897 | 0 | 1841 |
| Q Serve(g_s), s | 9.8 | 46.2 | 6.1 | 19.6 | 0.0 | 56.8 | 4.1 | 0.0 | 32.7 | 5.7 | 0.0 | 14.4 |
| Cycle Q Clear(g_c), s | 9.8 | 46.2 | 6.1 | 19.6 | 0.0 | 56.8 | 18.6 | 0.0 | 32.7 | 38.4 | 0.0 | 14.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.28 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 148 | 732 | 620 | 308 | 0 | 893 | 283 | 0 | 579 | 103 | 0 | 589 |
| V/C Ratio(X) | 1.13 | 1.10 | 0.20 | 0.97 | 0.00 | 1.16 | 0.16 | 0.00 | 0.89 | 0.60 | 0.00 | 0.47 |
| Avail Cap(c_a), veh/h | 148 | 732 | 620 | 308 | 0 | 893 | 283 | 0 | 579 | 103 | 0 | 589 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.1 | 36.9 | 24.6 | 49.5 | 0.0 | 31.6 | 40.1 | 0.0 | 38.9 | 58.0 | 0.0 | 32.7 |
| Incr Delay (d2), s/veh | 113.2 | 62.7 | 0.7 | 41.6 | 0.0 | 84.9 | 0.3 | 0.0 | 16.3 | 9.0 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 9.0 | 32.9 | 2.4 | 12.1 | 0.0 | 44.8 | 1.2 | 0.0 | 17.1 | 2.1 | 0.0 | 6.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 168.3 | 99.6 | 25.3 | 91.1 | 0.0 | 116.5 | 40.4 | 0.0 | 55.2 | 67.0 | 0.0 | 33.2 |
| LnGrp LOS | F | F | C | F | A | F | D | A | E | E | A | C |
| Approach Vol, veh/h | | 1091 | | | 1334 | | | 564 | | | 338 | |
| Approach Delay, s/veh | | 101.8 | | | 110.9 | | | 54.0 | | | 39.3 | |
| Approach LOS | | F | | | F | | | D | | | D | |

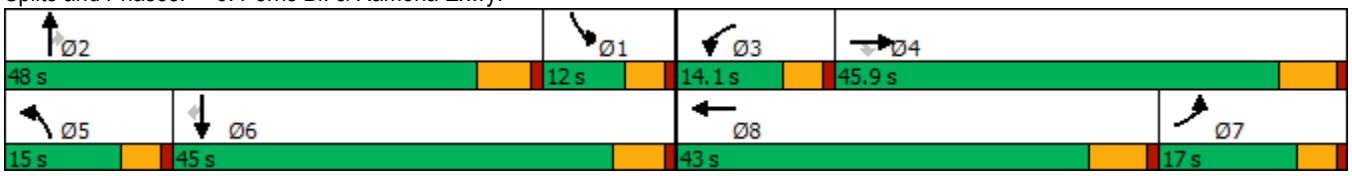
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.0 | 25.0 | 52.0 | | 43.0 | 14.4 | 62.6 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 38.4 | 20.4 | 46.2 | | 38.4 | 9.8 | 56.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 34.7 | 21.6 | 48.2 | | 40.4 | 11.8 | 58.8 | | | | |
| Green Ext Time (p_c), s | | 1.3 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 91.0 |
| HCM 6th LOS | F |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 404 | 756 | 152 | 135 | 1536 | 344 | 824 | 74 | 139 | 412 | 148 |
| Future Volume (vph) | 404 | 756 | 152 | 135 | 1536 | 344 | 824 | 74 | 139 | 412 | 148 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 17.0 | 45.9 | 45.9 | 14.1 | 43.0 | 15.0 | 48.0 | 48.0 | 12.0 | 45.0 | 45.0 |
| Total Split (%) | 14.2% | 38.3% | 38.3% | 11.8% | 35.8% | 12.5% | 40.0% | 40.0% | 10.0% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 12.4 | 41.1 | 41.1 | 8.3 | 36.9 | 10.4 | 32.9 | 32.9 | 7.2 | 29.7 | 29.7 |
| Actuated g/C Ratio | 0.11 | 0.37 | 0.37 | 0.07 | 0.33 | 0.09 | 0.30 | 0.30 | 0.06 | 0.27 | 0.27 |
| v/c Ratio | 1.07 | 0.37 | 0.23 | 0.54 | 0.98 | 1.09 | 0.80 | 0.13 | 0.64 | 0.44 | 0.28 |
| Control Delay | 113.0 | 27.1 | 4.9 | 58.5 | 52.9 | 122.5 | 42.0 | 0.4 | 65.3 | 34.7 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 113.0 | 27.1 | 4.9 | 58.5 | 52.9 | 122.5 | 42.0 | 0.4 | 65.3 | 34.7 | 4.8 |
| LOS | F | C | A | E | D | F | D | A | E | C | A |
| Approach Delay | | 51.0 | | | 53.3 | | 61.8 | | | 34.5 | |
| Approach LOS | | D | | | D | | E | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 110.8 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.09 | |
| Intersection Signal Delay: 52.2 | Intersection LOS: D |
| Intersection Capacity Utilization 91.3% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 404 | 756 | 152 | 135 | 1536 | 227 | 344 | 824 | 74 | 139 | 412 | 148 |
| Future Volume (veh/h) | 404 | 756 | 152 | 135 | 1536 | 227 | 344 | 824 | 74 | 139 | 412 | 148 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 421 | 788 | 132 | 141 | 1600 | 158 | 358 | 858 | 47 | 145 | 429 | 124 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 391 | 2267 | 641 | 201 | 1682 | 166 | 328 | 1032 | 459 | 204 | 944 | 421 |
| Arrive On Green | 0.11 | 0.40 | 0.40 | 0.06 | 0.33 | 0.33 | 0.09 | 0.29 | 0.29 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 3510 | 5700 | 1610 | 3510 | 5105 | 503 | 3510 | 3610 | 1605 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 421 | 788 | 132 | 141 | 1190 | 568 | 358 | 858 | 47 | 145 | 429 | 124 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1900 | 1610 | 1755 | 1900 | 1809 | 1755 | 1805 | 1605 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 12.4 | 10.8 | 6.0 | 4.4 | 34.1 | 34.2 | 10.4 | 24.8 | 1.9 | 4.5 | 11.1 | 4.8 |
| Cycle Q Clear(g_c), s | 12.4 | 10.8 | 6.0 | 4.4 | 34.1 | 34.2 | 10.4 | 24.8 | 1.9 | 4.5 | 11.1 | 4.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.28 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 391 | 2267 | 641 | 201 | 1252 | 596 | 328 | 1032 | 459 | 204 | 944 | 421 |
| V/C Ratio(X) | 1.08 | 0.35 | 0.21 | 0.70 | 0.95 | 0.95 | 1.09 | 0.83 | 0.10 | 0.71 | 0.45 | 0.29 |
| Avail Cap(c_a), veh/h | 391 | 2267 | 641 | 299 | 1255 | 597 | 328 | 1367 | 608 | 233 | 1270 | 566 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.5 | 23.5 | 22.0 | 51.6 | 36.5 | 36.5 | 50.5 | 37.3 | 18.2 | 51.6 | 34.5 | 16.3 |
| Incr Delay (d2), s/veh | 68.0 | 0.1 | 0.2 | 1.7 | 15.2 | 25.6 | 76.9 | 3.4 | 0.1 | 6.3 | 0.3 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.9 | 4.5 | 2.2 | 1.9 | 17.4 | 18.3 | 7.9 | 10.9 | 0.9 | 2.1 | 4.7 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 117.5 | 23.5 | 22.2 | 53.3 | 51.7 | 62.1 | 127.5 | 40.7 | 18.3 | 57.9 | 34.8 | 16.7 |
| LnGrp LOS | F | C | C | D | D | E | F | D | B | E | C | B |
| Approach Vol, veh/h | | 1341 | | | 1899 | | | 1263 | | | 698 | |
| Approach Delay, s/veh | | 52.9 | | | 54.9 | | | 64.5 | | | 36.4 | |
| Approach LOS | | D | | | D | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 12.3 | 37.7 | 11.0 | 50.5 | 15.0 | 34.9 | 18.6 | 42.9 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 7.4 | * 42 | 9.5 | 39.7 | 10.4 | 39.2 | 12.4 | * 37 |
| Max Q Clear Time (g_c+I1), s | 6.5 | 26.8 | 6.4 | 12.8 | 12.4 | 13.1 | 14.4 | 36.2 |
| Green Ext Time (p_c), s | 0.0 | 5.0 | 0.1 | 5.6 | 0.0 | 3.0 | 0.0 | 0.5 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 54.2 |
| HCM 6th LOS | D |

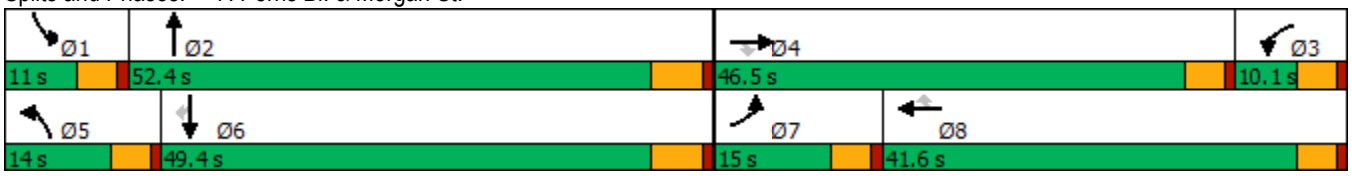
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 20 | 21 | 17 | 28 | 9 | 36 | 1142 | 25 | 625 | 105 |
| Future Volume (vph) | 38 | 20 | 21 | 17 | 28 | 9 | 36 | 1142 | 25 | 625 | 105 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 9.5 | 20.8 | 20.8 | 9.8 | 19.3 | 19.3 | 9.4 | 38.7 | 8.8 | 36.2 | 36.2 |
| Actuated g/C Ratio | 0.16 | 0.35 | 0.35 | 0.17 | 0.33 | 0.33 | 0.16 | 0.66 | 0.15 | 0.61 | 0.61 |
| v/c Ratio | 0.15 | 0.02 | 0.04 | 0.06 | 0.05 | 0.02 | 0.14 | 0.39 | 0.10 | 0.32 | 0.11 |
| Control Delay | 38.9 | 27.7 | 0.1 | 37.5 | 27.1 | 0.0 | 39.4 | 14.6 | 41.8 | 16.8 | 3.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 38.9 | 27.7 | 0.1 | 37.5 | 27.1 | 0.0 | 39.4 | 14.6 | 41.8 | 16.8 | 3.3 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 25.7 | | | 25.9 | | | 15.3 | | 15.8 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 58.9 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.39 | |
| Intersection Signal Delay: 16.1 | Intersection LOS: B |
| Intersection Capacity Utilization 47.5% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 20 | 21 | 17 | 28 | 9 | 36 | 1142 | 19 | 25 | 625 | 105 |
| Future Volume (veh/h) | 38 | 20 | 21 | 17 | 28 | 9 | 36 | 1142 | 19 | 25 | 625 | 105 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 23 | 8 | 19 | 32 | 8 | 41 | 1298 | 20 | 28 | 710 | 108 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 80 | 553 | 246 | 53 | 263 | 223 | 77 | 2196 | 34 | 58 | 1467 | 646 |
| Arrive On Green | 0.04 | 0.15 | 0.15 | 0.03 | 0.14 | 0.14 | 0.04 | 0.42 | 0.42 | 0.03 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5262 | 81 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 23 | 8 | 19 | 32 | 8 | 41 | 853 | 465 | 28 | 710 | 108 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1885 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.2 | 0.3 | 0.2 | 0.5 | 0.8 | 0.2 | 1.2 | 10.2 | 10.2 | 0.8 | 7.7 | 2.3 |
| Cycle Q Clear(g_c), s | 1.2 | 0.3 | 0.2 | 0.5 | 0.8 | 0.2 | 1.2 | 10.2 | 10.2 | 0.8 | 7.7 | 2.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 80 | 553 | 246 | 53 | 263 | 223 | 77 | 1443 | 787 | 58 | 1467 | 646 |
| V/C Ratio(X) | 0.54 | 0.04 | 0.03 | 0.36 | 0.12 | 0.04 | 0.53 | 0.59 | 0.59 | 0.49 | 0.48 | 0.17 |
| Avail Cap(c_a), veh/h | 354 | 2843 | 1268 | 187 | 1321 | 1120 | 320 | 3029 | 1651 | 218 | 2958 | 1303 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 24.9 | 19.2 | 10.7 | 25.3 | 20.1 | 19.9 | 24.9 | 12.0 | 12.0 | 25.3 | 11.7 | 10.1 |
| Incr Delay (d2), s/veh | 2.1 | 0.0 | 0.1 | 1.5 | 0.2 | 0.1 | 2.1 | 0.4 | 0.7 | 2.3 | 0.2 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.1 | 0.1 | 0.2 | 0.3 | 0.1 | 0.5 | 2.9 | 3.3 | 0.3 | 2.3 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 27.0 | 19.2 | 10.7 | 26.8 | 20.3 | 19.9 | 27.0 | 12.4 | 12.7 | 27.7 | 11.9 | 10.2 |
| LnGrp LOS | C | B | B | C | C | B | C | B | B | C | B | B |
| Approach Vol, veh/h | | 74 | | | 59 | | | 1359 | | | 846 | |
| Approach Delay, s/veh | | 22.8 | | | 22.4 | | | 12.9 | | | 12.2 | |
| Approach LOS | | C | | | C | | | B | | | B | |

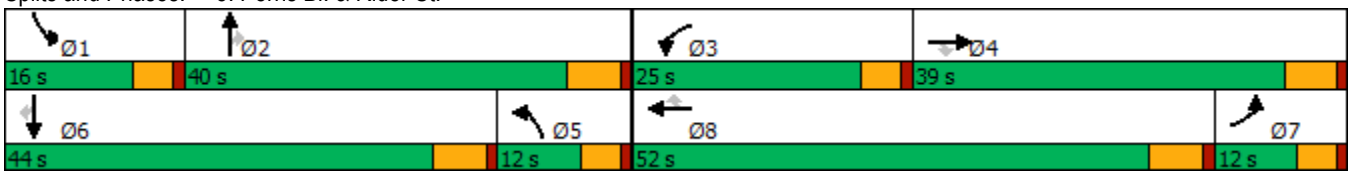
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.3 | 28.0 | 6.2 | 12.7 | 6.9 | 27.4 | 7.0 | 12.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.8 | 12.2 | 2.5 | 2.3 | 3.2 | 9.7 | 3.2 | 2.8 |
| Green Ext Time (p_c), s | 0.0 | 10.1 | 0.0 | 0.1 | 0.0 | 5.3 | 0.0 | 0.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.2 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 41 | 159 | 19 | 185 | 323 | 344 | 49 | 874 | 125 | 150 | 450 | 47 |
| Future Volume (vph) | 41 | 159 | 19 | 185 | 323 | 344 | 49 | 874 | 125 | 150 | 450 | 47 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.5 | 13.7 | 13.7 | 13.1 | 23.1 | 23.1 | 13.2 | 22.1 | 22.1 | 11.3 | 25.0 | 25.0 |
| Actuated g/C Ratio | 0.10 | 0.17 | 0.17 | 0.16 | 0.28 | 0.28 | 0.16 | 0.27 | 0.27 | 0.14 | 0.30 | 0.30 |
| v/c Ratio | 0.22 | 0.27 | 0.05 | 0.65 | 0.32 | 0.50 | 0.17 | 0.63 | 0.23 | 0.61 | 0.29 | 0.08 |
| Control Delay | 40.8 | 32.3 | 0.2 | 46.3 | 27.0 | 6.3 | 34.6 | 29.5 | 3.4 | 49.4 | 27.1 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.8 | 32.3 | 0.2 | 46.3 | 27.0 | 6.3 | 34.6 | 29.5 | 3.4 | 49.4 | 27.1 | 0.2 |
| LOS | D | C | A | D | C | A | C | C | A | D | C | A |
| Approach Delay | | 31.1 | | | 22.9 | | | 26.6 | | | 30.3 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 82 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.65 | |
| Intersection Signal Delay: 26.7 | Intersection LOS: C |
| Intersection Capacity Utilization 61.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 41 | 159 | 19 | 185 | 323 | 344 | 49 | 874 | 125 | 150 | 450 | 47 |
| Future Volume (veh/h) | 41 | 159 | 19 | 185 | 323 | 344 | 49 | 874 | 125 | 150 | 450 | 47 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 161 | 7 | 187 | 326 | 212 | 49 | 883 | 94 | 152 | 455 | 32 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 195 | 569 | 254 | 235 | 581 | 259 | 368 | 1444 | 442 | 193 | 843 | 262 |
| Arrive On Green | 0.11 | 0.16 | 0.16 | 0.13 | 0.16 | 0.16 | 0.20 | 0.28 | 0.28 | 0.11 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 41 | 161 | 7 | 187 | 326 | 212 | 49 | 883 | 94 | 152 | 455 | 32 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.3 | 2.5 | 0.1 | 6.4 | 5.3 | 5.5 | 1.4 | 9.4 | 2.9 | 5.2 | 5.1 | 1.1 |
| Cycle Q Clear(g_c), s | 1.3 | 2.5 | 0.1 | 6.4 | 5.3 | 5.5 | 1.4 | 9.4 | 2.9 | 5.2 | 5.1 | 1.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 195 | 569 | 254 | 235 | 581 | 259 | 368 | 1444 | 442 | 193 | 843 | 262 |
| V/C Ratio(X) | 0.21 | 0.28 | 0.03 | 0.80 | 0.56 | 0.82 | 0.13 | 0.61 | 0.21 | 0.79 | 0.54 | 0.12 |
| Avail Cap(c_a), veh/h | 211 | 1889 | 842 | 582 | 2628 | 1172 | 368 | 2795 | 856 | 325 | 3122 | 969 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.9 | 23.6 | 6.6 | 26.8 | 24.6 | 11.8 | 20.7 | 19.9 | 17.6 | 27.6 | 24.4 | 22.7 |
| Incr Delay (d2), s/veh | 0.2 | 0.3 | 0.0 | 2.4 | 0.9 | 6.3 | 0.1 | 0.4 | 0.2 | 2.7 | 0.5 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 1.0 | 0.1 | 2.6 | 2.1 | 3.0 | 0.5 | 3.3 | 0.9 | 2.2 | 1.9 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.1 | 23.8 | 6.7 | 29.2 | 25.4 | 18.1 | 20.7 | 20.3 | 17.8 | 30.3 | 24.9 | 22.9 |
| LnGrp LOS | C | C | A | C | C | B | C | C | B | C | C | C |
| Approach Vol, veh/h | | 209 | | | 725 | | | 1026 | | | 639 | |
| Approach Delay, s/veh | | 23.7 | | | 24.2 | | | 20.1 | | | 26.1 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.4 | 23.5 | 12.8 | 15.8 | 18.7 | 16.1 | 12.6 | 16.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 7.2 | 11.4 | 8.4 | 4.5 | 3.4 | 7.1 | 3.3 | 7.5 |
| Green Ext Time (p_c), s | 0.1 | 6.2 | 0.2 | 0.9 | 0.0 | 3.0 | 0.0 | 2.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.0 |
| HCM 6th LOS | C |

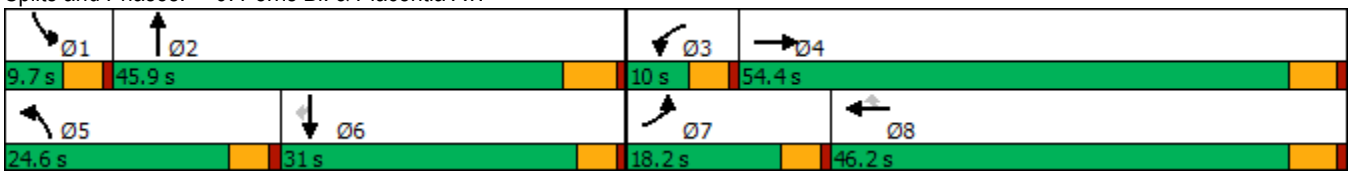
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 180 | 421 | 59 | 598 | 242 | 271 | 1063 | 42 | 600 | 224 |
| Future Volume (vph) | 180 | 421 | 59 | 598 | 242 | 271 | 1063 | 42 | 600 | 224 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 21.6 | 21.6 |
| Total Split (s) | 18.2 | 54.4 | 10.0 | 46.2 | 46.2 | 24.6 | 45.9 | 9.7 | 31.0 | 31.0 |
| Total Split (%) | 15.2% | 45.3% | 8.3% | 38.5% | 38.5% | 20.5% | 38.3% | 8.1% | 25.8% | 25.8% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 13.6 | 51.0 | 5.4 | 40.8 | 40.8 | 19.9 | 41.9 | 5.1 | 26.4 | 26.4 |
| Actuated g/C Ratio | 0.11 | 0.43 | 0.05 | 0.34 | 0.34 | 0.17 | 0.35 | 0.04 | 0.22 | 0.22 |
| v/c Ratio | 0.93 | 0.89 | 0.77 | 0.97 | 0.38 | 0.96 | 0.93 | 0.58 | 0.79 | 0.45 |
| Control Delay | 99.5 | 46.5 | 106.6 | 68.9 | 9.8 | 91.8 | 52.2 | 85.6 | 52.6 | 8.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 99.5 | 46.5 | 106.6 | 68.9 | 9.8 | 91.8 | 52.2 | 85.6 | 52.6 | 8.0 |
| LOS | F | D | F | E | A | F | D | F | D | A |
| Approach Delay | | 57.9 | | 55.4 | | | 60.0 | | 42.7 | |
| Approach LOS | | E | | E | | | E | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 119.8 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.97 | |
| Intersection Signal Delay: 54.8 | Intersection LOS: D |
| Intersection Capacity Utilization 93.6% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 180 | 421 | 239 | 59 | 598 | 242 | 271 | 1063 | 50 | 42 | 600 | 224 |
| Future Volume (veh/h) | 180 | 421 | 239 | 59 | 598 | 242 | 271 | 1063 | 50 | 42 | 600 | 224 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 189 | 443 | 247 | 62 | 629 | 153 | 285 | 1119 | 46 | 44 | 632 | 227 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 203 | 464 | 259 | 80 | 640 | 540 | 299 | 1239 | 51 | 58 | 786 | 349 |
| Arrive On Green | 0.11 | 0.40 | 0.40 | 0.04 | 0.34 | 0.34 | 0.17 | 0.35 | 0.35 | 0.03 | 0.22 | 0.22 |
| Sat Flow, veh/h | 1810 | 1146 | 639 | 1810 | 1900 | 1604 | 1810 | 3530 | 145 | 1810 | 3610 | 1603 |
| Grp Volume(v), veh/h | 189 | 0 | 690 | 62 | 629 | 153 | 285 | 572 | 593 | 44 | 632 | 227 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1785 | 1810 | 1900 | 1604 | 1810 | 1805 | 1870 | 1810 | 1805 | 1603 |
| Q Serve(g_s), s | 12.5 | 0.0 | 45.5 | 4.1 | 39.8 | 8.5 | 18.9 | 36.5 | 36.5 | 2.9 | 20.1 | 15.6 |
| Cycle Q Clear(g_c), s | 12.5 | 0.0 | 45.5 | 4.1 | 39.8 | 8.5 | 18.9 | 36.5 | 36.5 | 2.9 | 20.1 | 15.6 |
| Prop In Lane | 1.00 | | 0.36 | 1.00 | | 1.00 | 1.00 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 203 | 0 | 722 | 80 | 640 | 540 | 299 | 633 | 656 | 58 | 786 | 349 |
| V/C Ratio(X) | 0.93 | 0.00 | 0.96 | 0.78 | 0.98 | 0.28 | 0.95 | 0.90 | 0.90 | 0.76 | 0.80 | 0.65 |
| Avail Cap(c_a), veh/h | 203 | 0 | 722 | 81 | 640 | 540 | 299 | 633 | 656 | 76 | 786 | 349 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.3 | 0.0 | 35.0 | 57.3 | 39.9 | 29.5 | 50.1 | 37.4 | 37.4 | 58.2 | 44.9 | 43.2 |
| Incr Delay (d2), s/veh | 43.4 | 0.0 | 23.1 | 33.6 | 31.3 | 0.3 | 39.5 | 18.6 | 18.1 | 19.0 | 8.5 | 9.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.0 | 0.0 | 23.2 | 2.6 | 23.2 | 3.2 | 11.9 | 19.3 | 20.0 | 1.6 | 9.6 | 6.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 96.8 | 0.0 | 58.1 | 91.0 | 71.2 | 29.8 | 89.7 | 55.9 | 55.5 | 77.2 | 53.5 | 52.3 |
| LnGrp LOS | F | A | E | F | E | C | F | E | E | E | D | D |
| Approach Vol, veh/h | | 879 | | | 844 | | | 1450 | | | 903 | |
| Approach Delay, s/veh | | 66.4 | | | 65.1 | | | 62.4 | | | 54.3 | |
| Approach LOS | | E | | | E | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.5 | 48.3 | 10.0 | 54.4 | 24.6 | 32.2 | 18.2 | 46.2 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | * 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 5.1 | 40.1 | 5.4 | 49.0 | 20.0 | * 26 | 13.6 | 40.8 |
| Max Q Clear Time (g_c+I1), s | 4.9 | 38.5 | 6.1 | 47.5 | 20.9 | 22.1 | 14.5 | 41.8 |
| Green Ext Time (p_c), s | 0.0 | 1.1 | 0.0 | 0.7 | 0.0 | 1.8 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 62.0 |
| HCM 6th LOS | E |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 34 | 0 | 24 | 0 | 0 | 0 | 7 | 59 | 0 | 0 | 129 | 49 |
| Future Vol, veh/h | 34 | 0 | 24 | 0 | 0 | 0 | 7 | 59 | 0 | 0 | 129 | 49 |
| Peak Hour Factor | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 | 0.58 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 59 | 0 | 41 | 0 | 0 | 0 | 12 | 102 | 0 | 0 | 222 | 84 |
| Number of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 1 | 2 |
| HCM Control Delay | 8.7 | 0 | 9.1 | 9 |
| HCM LOS | A | - | A | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 11% | 100% | 0% | 0% | 0% | 0% |
| Vol Thru, % | 89% | 0% | 0% | 100% | 100% | 0% |
| Vol Right, % | 0% | 0% | 100% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 66 | 34 | 24 | 0 | 129 | 49 |
| LT Vol | 7 | 34 | 0 | 0 | 0 | 0 |
| Through Vol | 59 | 0 | 0 | 0 | 129 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 49 |
| Lane Flow Rate | 114 | 59 | 41 | 0 | 222 | 84 |
| Geometry Grp | 6 | 7 | 7 | 6 | 7 | 7 |
| Degree of Util (X) | 0.162 | 0.097 | 0.055 | 0 | 0.301 | 0.098 |
| Departure Headway (Hd) | 5.117 | 5.982 | 4.775 | 5.627 | 4.877 | 4.175 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 702 | 600 | 750 | 0 | 738 | 860 |
| Service Time | 3.14 | 3.714 | 2.506 | 3.667 | 2.596 | 1.893 |
| HCM Lane V/C Ratio | 0.162 | 0.098 | 0.055 | 0 | 0.301 | 0.098 |
| HCM Control Delay | 9.1 | 9.4 | 7.8 | 8.7 | 9.7 | 7.3 |
| HCM Lane LOS | A | A | A | N | A | A |
| HCM 95th-tile Q | 0.6 | 0.3 | 0.2 | 0 | 1.3 | 0.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 6 | 10 | 0 | 61 | 134 | 19 |
| Future Vol, veh/h | 6 | 10 | 0 | 61 | 134 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 11 | 0 | 66 | 146 | 21 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 223 | 157 | 167 | 0 | - | 0 |
| Stage 1 | 157 | - | - | - | - | - |
| Stage 2 | 66 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 770 | 894 | 1423 | - | - | - |
| Stage 1 | 876 | - | - | - | - | - |
| Stage 2 | 962 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 770 | 894 | 1423 | - | - | - |
| Mov Cap-2 Maneuver | 770 | - | - | - | - | - |
| Stage 1 | 876 | - | - | - | - | - |
| Stage 2 | 962 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.4 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1423 | - | 843 | - | - |
| HCM Lane V/C Ratio | - | - | 0.021 | - | - |
| HCM Control Delay (s) | 0 | - | 9.4 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 17.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 25 | 373 | 12 | 171 | 732 | 4 | 49 | 32 | 204 | 15 | 37 | 51 |
| Future Vol, veh/h | 25 | 373 | 12 | 171 | 732 | 4 | 49 | 32 | 204 | 15 | 37 | 51 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | 0 | 120 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 | 91 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 27 | 410 | 13 | 188 | 804 | 4 | 54 | 35 | 224 | 16 | 41 | 56 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 808 | 0 | 0 | 423 | 0 | 0 | 1263 | 1648 | 410 | 1782 | 1659 | 404 |
| Stage 1 | - | - | - | - | - | - | 464 | 464 | - | 1182 | 1182 | - |
| Stage 2 | - | - | - | - | - | - | 799 | 1184 | - | 600 | 477 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 826 | - | - | 1147 | - | - | 138 | 100 | 646 | 58 | 99 | 602 |
| Stage 1 | - | - | - | - | - | - | 582 | 567 | - | 205 | 266 | - |
| Stage 2 | - | - | - | - | - | - | 350 | 265 | - | 491 | 559 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 826 | - | - | 1147 | - | - | 65 | 81 | 646 | 22 | 80 | 602 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 65 | 81 | - | 22 | 80 | - |
| Stage 1 | - | - | - | - | - | - | 563 | 548 | - | 198 | 222 | - |
| Stage 2 | - | - | - | - | - | - | 217 | 222 | - | 290 | 541 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.6 | 1.7 | 67.1 | 83.3 |
| HCM LOS | | | F | F |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 65 | 332 | 826 | - | - | 1147 | - | - | 22 | 80 | 220 |
| HCM Lane V/C Ratio | 0.828 | 0.781 | 0.033 | - | - | 0.164 | - | - | 0.749 | 0.254 | 0.347 |
| HCM Control Delay (s) | 170.6 | 45.6 | 9.5 | - | - | 8.8 | - | - | $ 353.8 | 64.7 | 29.8 |
| HCM Lane LOS | F | E | A | - | - | A | - | - | F | F | D |
| HCM 95th %tile Q(veh) | 3.9 | 6.3 | 0.1 | - | - | 0.6 | - | - | 2.2 | 0.9 | 1.5 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 61 |
| Intersection LOS | F |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 34 | 249 | 146 | 50 | 281 | 4 | 274 | 237 | 24 | 8 | 190 | 46 |
| Future Vol, veh/h | 34 | 249 | 146 | 50 | 281 | 4 | 274 | 237 | 24 | 8 | 190 | 46 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 44 | 319 | 187 | 64 | 360 | 5 | 351 | 304 | 31 | 10 | 244 | 59 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 49.1 | 91.3 | 61.9 | 38.3 |
| HCM LOS | E | F | F | E |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 77% | 0% | 100% | 0% | 0% | 99% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 23% | 0% | 0% | 100% | 0% | 1% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 274 | 158 | 103 | 34 | 249 | 146 | 50 | 285 | 8 | 190 | 46 |
| LT Vol | 274 | 0 | 0 | 34 | 0 | 0 | 50 | 0 | 8 | 0 | 0 |
| Through Vol | 0 | 158 | 79 | 0 | 249 | 0 | 0 | 281 | 0 | 190 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 146 | 0 | 4 | 0 | 0 | 46 |
| Lane Flow Rate | 351 | 203 | 132 | 44 | 319 | 187 | 64 | 365 | 10 | 244 | 59 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 1.049 | 0.576 | 0.369 | 0.134 | 0.936 | 0.517 | 0.198 | 1.076 | 0.034 | 0.768 | 0.174 |
| Departure Headway (Hd) | 11.147 | 10.625 | 10.455 | 11.465 | 10.948 | 10.225 | 11.201 | 10.606 | 12.29 | 11.765 | 11.031 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 327 | 342 | 346 | 315 | 335 | 356 | 322 | 343 | 293 | 309 | 327 |
| Service Time | 8.847 | 8.325 | 8.155 | 9.165 | 8.648 | 7.925 | 8.901 | 8.391 | 9.99 | 9.465 | 8.731 |
| HCM Lane V/C Ratio | 1.073 | 0.594 | 0.382 | 0.14 | 0.952 | 0.525 | 0.199 | 1.064 | 0.034 | 0.79 | 0.18 |
| HCM Control Delay | 98.2 | 26.8 | 19.1 | 15.9 | 68.7 | 23.4 | 16.6 | 104.4 | 15.4 | 44.7 | 16 |
| HCM Lane LOS | F | D | C | C | F | C | C | F | C | E | C |
| HCM 95th-tile Q | 12.3 | 3.4 | 1.7 | 0.5 | 9.5 | 2.8 | 0.7 | 13.4 | 0.1 | 5.9 | 0.6 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 19 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 15 | 601 | 50 | 220 | 905 | 0 | 43 | 16 | 181 | 0 | 0 | 0 |
| Future Vol, veh/h | 15 | 601 | 50 | 220 | 905 | 0 | 43 | 16 | 181 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | 50 | 185 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 | 85 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 18 | 707 | 59 | 259 | 1065 | 0 | 51 | 19 | 213 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 1065 | 0 | 0 | 767 | 0 | 0 | 1795 | 2327 | 708 | 2472 | 2386 | 533 |
| Stage 1 | - | - | - | - | - | - | 744 | 744 | - | 1583 | 1583 | - |
| Stage 2 | - | - | - | - | - | - | 1051 | 1583 | - | 889 | 803 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 662 | - | - | 856 | - | - | 57 | 38 | 438 | 18 | 35 | 496 |
| Stage 1 | - | - | - | - | - | - | 410 | 424 | - | 116 | 170 | - |
| Stage 2 | - | - | - | - | - | - | 246 | 170 | - | 341 | 399 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 662 | - | - | 855 | - | - | ~ 43 | 26 | 438 | 6 | 24 | 496 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 116 | 80 | - | ~ -1987 | 67 | - |
| Stage 1 | - | - | - | - | - | - | 399 | 412 | - | 113 | 118 | - |
| Stage 2 | - | - | - | - | - | - | 171 | 118 | - | 163 | 388 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.2 | 2.2 | 149.6 | 0 |
| HCM LOS | | | F | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 244 | 662 | - | - | 855 | - | - | - |
| HCM Lane V/C Ratio | 1.157 | 0.027 | - | - | 0.303 | - | - | - |
| HCM Control Delay (s) | 149.6 | 10.6 | - | - | 11 | - | - | 0 |
| HCM Lane LOS | F | B | - | - | B | - | - | A |
| HCM 95th %tile Q(veh) | 13 | 0.1 | - | - | 1.3 | - | - | - |

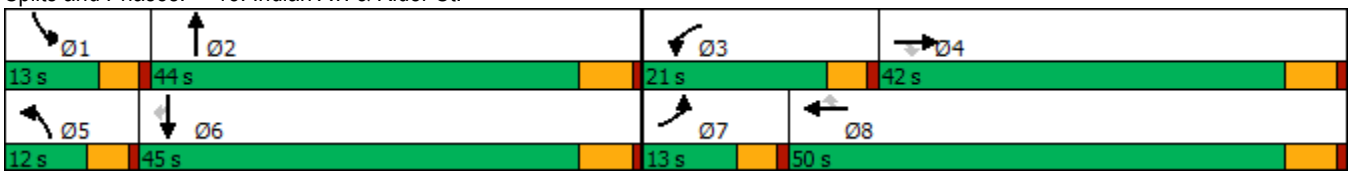
Notes

~: Volume exceeds capacity  $: Delay exceeds 300s  +: Computation Not Defined  *: All major volume in platoon

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Future Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 42.0 | 42.0 | 21.0 | 50.0 | 50.0 | 12.0 | 44.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 35.0% | 35.0% | 17.5% | 41.7% | 41.7% | 10.0% | 36.7% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 6.6 | 13.8 | 13.8 | 9.8 | 19.1 | 19.1 | 5.9 | 40.4 | 6.6 | 43.0 | 43.0 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.12 | 0.23 | 0.23 | 0.07 | 0.48 | 0.08 | 0.51 | 0.51 |
| v/c Ratio | 0.31 | 0.28 | 0.11 | 0.52 | 0.39 | 0.37 | 0.19 | 0.13 | 0.31 | 0.05 | 0.01 |
| Control Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 30.9 | | | 25.7 | | | 17.8 | | 26.1 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 84.4 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 25.2 | Intersection LOS: C |
| Intersection Capacity Utilization 43.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Future Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1824 | 1900 |
| Adj Flow Rate, veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 165 | 35 | 44 | 82 | 4 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 1456 | 302 | 71 | 1742 | 809 |
| Arrive On Green | 0.04 | 0.13 | 0.13 | 0.08 | 0.17 | 0.17 | 0.03 | 0.49 | 0.49 | 0.04 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 2977 | 617 | 1810 | 3466 | 1610 |
| Grp Volume(v), veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 99 | 101 | 44 | 82 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1789 | 1810 | 1733 | 1610 |
| Q Serve(g_s), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.35 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 883 | 875 | 71 | 1742 | 809 |
| V/C Ratio(X) | 0.62 | 0.36 | 0.15 | 0.78 | 0.53 | 0.51 | 0.51 | 0.11 | 0.12 | 0.62 | 0.05 | 0.00 |
| Avail Cap(c_a), veh/h | 195 | 1674 | 746 | 380 | 1075 | 911 | 171 | 883 | 875 | 195 | 1742 | 809 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.9 | 31.1 | 30.2 | 35.4 | 29.8 | 29.7 | 37.5 | 10.8 | 10.8 | 36.9 | 9.9 | 9.7 |
| Incr Delay (d2), s/veh | 3.2 | 0.5 | 0.3 | 3.5 | 1.4 | 1.5 | 3.2 | 0.3 | 0.3 | 3.2 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 1.4 | 0.5 | 2.0 | 2.8 | 2.3 | 0.5 | 0.8 | 0.9 | 0.8 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.1 | 31.6 | 30.6 | 38.8 | 31.2 | 31.2 | 40.7 | 11.0 | 11.1 | 40.1 | 9.9 | 9.7 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 241 | | | 412 | | | 224 | | | 130 | |
| Approach Delay, s/veh | | 33.0 | | | 33.2 | | | 14.2 | | | 20.2 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.7 | 44.0 | 10.6 | 15.8 | 6.6 | 45.0 | 7.7 | 18.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 8.4 | 38.2 | 16.4 | 36.2 | 7.4 | 39.2 | 8.4 | 44.2 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 4.4 | 6.6 | 5.3 | 3.0 | 2.9 | 3.9 | 8.3 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.1 | 1.0 | 0.0 | 0.4 | 0.0 | 1.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.3 |
| HCM 6th LOS | C |

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 425 | 144 | 625 | 587 | 662 | 0 | 62 |
| Future Volume (vph) | 425 | 144 | 625 | 587 | 662 | 0 | 62 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 26.8 | 26.8 | 9.6 | 26.8 | 23.8 | 23.8 | 23.8 |
| Total Split (s) | 44.6 | 44.6 | 31.6 | 76.2 | 43.8 | 43.8 | 43.8 |
| Total Split (%) | 37.2% | 37.2% | 26.3% | 63.5% | 36.5% | 36.5% | 36.5% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 41.8 | 41.8 | 24.3 | 70.7 | 28.7 | 28.7 | 28.7 |
| Actuated g/C Ratio | 0.38 | 0.38 | 0.22 | 0.64 | 0.26 | 0.26 | 0.26 |
| v/c Ratio | 0.34 | 0.23 | 0.89 | 0.28 | 0.81 | 0.81 | 0.14 |
| Control Delay | 27.5 | 6.8 | 57.2 | 10.1 | 53.4 | 53.4 | 7.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.5 | 6.8 | 57.2 | 10.1 | 53.4 | 53.4 | 7.8 |
| LOS | C | A | E | B | D | D | A |
| Approach Delay | 22.3 | | | 34.4 | | 49.5 | |
| Approach LOS | C | | | C | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 111.1 | |
| Natural Cycle: 75 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 36.0 | Intersection LOS: D |
| Intersection Capacity Utilization 76.6% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 425 | 144 | 625 | 587 | 0 | 0 | 0 | 0 | 662 | 0 | 62 |
| Future Volume (veh/h) | 0 | 425 | 144 | 625 | 587 | 0 | 0 | 0 | 0 | 662 | 0 | 62 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 462 | 157 | 679 | 638 | 0 | | | | 720 | 0 | 67 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 1448 | 646 | 751 | 2376 | 0 | | | | 845 | 0 | 376 |
| Arrive On Green | 0.00 | 0.40 | 0.40 | 0.21 | 0.66 | 0.00 | | | | 0.23 | 0.00 | 0.23 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 462 | 157 | 679 | 638 | 0 | | | | 720 | 0 | 67 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 9.4 | 6.9 | 20.2 | 7.9 | 0.0 | | | | 20.4 | 0.0 | 3.6 |
| Cycle Q Clear(g_c), s | 0.0 | 9.4 | 6.9 | 20.2 | 7.9 | 0.0 | | | | 20.4 | 0.0 | 3.6 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1448 | 646 | 751 | 2376 | 0 | | | | 845 | 0 | 376 |
| V/C Ratio(X) | 0.00 | 0.32 | 0.24 | 0.90 | 0.27 | 0.00 | | | | 0.85 | 0.00 | 0.18 |
| Avail Cap(c_a), veh/h | 0 | 1448 | 646 | 886 | 2376 | 0 | | | | 1286 | 0 | 572 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 22.0 | 21.3 | 41.0 | 7.6 | 0.0 | | | | 39.2 | 0.0 | 32.8 |
| Incr Delay (d2), s/veh | 0.0 | 0.6 | 0.9 | 10.3 | 0.3 | 0.0 | | | | 3.6 | 0.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 3.9 | 2.6 | 9.4 | 2.7 | 0.0 | | | | 9.1 | 0.0 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 22.6 | 22.2 | 51.3 | 7.9 | 0.0 | | | | 42.8 | 0.0 | 33.0 |
| LnGrp LOS | A | C | C | D | A | A | | | | D | A | C |
| Approach Vol, veh/h | | 619 | | | 1317 | | | | | | 787 | |
| Approach Delay, s/veh | | 22.5 | | | 30.3 | | | | | | 42.0 | |
| Approach LOS | | C | | | C | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 27.5 | 48.7 | | 30.8 | | 76.2 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 27.0 | 38.8 | | 38.0 | | 70.4 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 22.2 | 11.4 | | 22.4 | | 9.9 | | | | | |
| Green Ext Time (p_c), s | | 0.7 | 3.4 | | 2.6 | | 4.4 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 31.9 |
| HCM 6th LOS | C |

**Notes**

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 71 | 1016 | 1089 | 817 | 123 | 0 | 353 |
| Future Volume (vph) | 71 | 1016 | 1089 | 817 | 123 | 0 | 353 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.9 | 75.7 | 66.3 | 66.3 | 24.8 | 24.8 | 24.8 |
| Actuated g/C Ratio | 0.06 | 0.67 | 0.59 | 0.59 | 0.22 | 0.22 | 0.22 |
| v/c Ratio | 0.36 | 0.45 | 0.56 | 0.82 | 0.18 | 0.18 | 0.87 |
| Control Delay | 56.5 | 10.1 | 17.3 | 21.9 | 35.4 | 35.4 | 50.6 |
| Queue Delay | 0.0 | 0.0 | 6.0 | 31.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.5 | 10.1 | 23.3 | 53.2 | 35.4 | 35.4 | 50.6 |
| LOS | E | B | C | D | D | D | D |
| Approach Delay | | 13.1 | 36.1 | | | 46.7 | |
| Approach LOS | | B | D | | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.2 | |
| Natural Cycle: 60 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.87 | |
| Intersection Signal Delay: 30.4 | Intersection LOS: C |
| Intersection Capacity Utilization 76.6% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 71 | 1016 | 0 | 0 | 1089 | 817 | 123 | 0 | 353 | 0 | 0 | 0 |
| Future Volume (veh/h) | 71 | 1016 | 0 | 0 | 1089 | 817 | 123 | 0 | 353 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 77 | 1104 | 0 | 0 | 1184 | 888 | 134 | 0 | 384 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 150 | 2327 | 0 | 0 | 2031 | 906 | 927 | 0 | 412 | | | |
| Arrive On Green | 0.04 | 0.64 | 0.00 | 0.00 | 0.56 | 0.56 | 0.26 | 0.00 | 0.26 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 77 | 1104 | 0 | 0 | 1184 | 888 | 134 | 0 | 384 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.5 | 18.3 | 0.0 | 0.0 | 25.0 | 62.9 | 3.3 | 0.0 | 27.2 | | | |
| Cycle Q Clear(g_c), s | 2.5 | 18.3 | 0.0 | 0.0 | 25.0 | 62.9 | 3.3 | 0.0 | 27.2 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 150 | 2327 | 0 | 0 | 2031 | 906 | 927 | 0 | 412 | | | |
| V/C Ratio(X) | 0.51 | 0.47 | 0.00 | 0.00 | 0.58 | 0.98 | 0.14 | 0.00 | 0.93 | | | |
| Avail Cap(c_a), veh/h | 1081 | 2327 | 0 | 0 | 2031 | 906 | 1021 | 0 | 454 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 54.8 | 10.6 | 0.0 | 0.0 | 16.7 | 24.9 | 33.6 | 0.0 | 42.5 | | | |
| Incr Delay (d2), s/veh | 1.0 | 0.7 | 0.0 | 0.0 | 1.2 | 25.5 | 0.1 | 0.0 | 24.8 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.1 | 6.6 | 0.0 | 0.0 | 9.7 | 27.5 | 1.4 | 0.0 | 13.2 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 55.8 | 11.3 | 0.0 | 0.0 | 17.9 | 50.5 | 33.7 | 0.0 | 67.3 | | | |
| LnGrp LOS | E | B | A | A | B | D | C | A | E | | | |
| Approach Vol, veh/h | | 1181 | | | 2072 | | | 518 | | | | |
| Approach Delay, s/veh | | 14.2 | | | 31.8 | | | 58.6 | | | | |
| Approach LOS | | B | | | C | | | E | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.8 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 29.2 | | 20.3 | | | 4.5 | 64.9 | | | | |
| Green Ext Time (p_c), s | | 0.7 | | 9.4 | | | 0.1 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 30.0 |
| HCM 6th LOS | C |

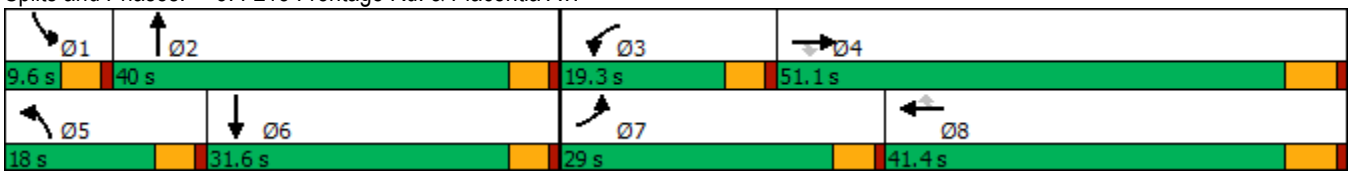
**Notes**

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 29.0 | 51.1 | 51.1 | 19.3 | 41.4 | 41.4 | 18.0 | 40.0 | 9.6 | 31.6 |
| Total Split (%) | 24.2% | 42.6% | 42.6% | 16.1% | 34.5% | 34.5% | 15.0% | 33.3% | 8.0% | 26.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 17.0 | 55.1 | 55.1 | 5.5 | 35.7 | 35.7 | 13.4 | 43.3 | 5.0 | 27.0 |
| Actuated g/C Ratio | 0.15 | 0.49 | 0.49 | 0.05 | 0.32 | 0.32 | 0.12 | 0.38 | 0.04 | 0.24 |
| v/c Ratio | 0.75 | 0.57 | 0.33 | 0.14 | 1.26 | 0.02 | 1.16 | 0.58 | 0.15 | 1.22 |
| Control Delay | 63.2 | 22.4 | 10.0 | 56.5 | 158.8 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| Queue Delay | 0.2 | 25.1 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 47.5 | 11.2 | 56.5 | 158.8 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| LOS | E | D | B | E | F | A | F | B | E | F |
| Approach Delay | | 42.8 | | | 156.8 | | | 67.8 | | 151.5 |
| Approach LOS | | D | | | F | | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.7 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.26 | |
| Intersection Signal Delay: 102.1 | Intersection LOS: F |
| Intersection Capacity Utilization 107.3% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 1002 | 216 | 12 | 1517 | 9 | 249 | 74 | 363 | 12 | 251 | 232 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 99 | 485 | 25 | 223 | 206 |
| Arrive On Green | 0.13 | 0.44 | 0.44 | 0.01 | 0.32 | 0.32 | 0.12 | 0.35 | 0.35 | 0.01 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3800 | 1610 | 1810 | 280 | 1373 | 1810 | 909 | 840 |
| Grp Volume(v), veh/h | 204 | 1002 | 216 | 12 | 1517 | 9 | 249 | 0 | 437 | 12 | 0 | 483 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 0 | 1653 | 1810 | 0 | 1749 |
| Q Serve(g_s), s | 12.1 | 23.6 | 9.5 | 0.7 | 35.6 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Cycle Q Clear(g_c), s | 12.1 | 23.6 | 9.5 | 0.7 | 35.6 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 0 | 584 | 25 | 0 | 430 |
| V/C Ratio(X) | 0.86 | 0.63 | 0.30 | 0.48 | 1.23 | 0.02 | 1.13 | 0.00 | 0.75 | 0.48 | 0.00 | 1.12 |
| Avail Cap(c_a), veh/h | 402 | 1589 | 709 | 242 | 1231 | 521 | 221 | 0 | 584 | 82 | 0 | 430 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.8 | 23.8 | 19.9 | 53.8 | 37.2 | 25.3 | 48.3 | 0.0 | 31.2 | 53.8 | 0.0 | 41.5 |
| Incr Delay (d2), s/veh | 4.3 | 1.9 | 1.1 | 5.1 | 112.0 | 0.1 | 99.6 | 0.0 | 5.3 | 13.2 | 0.0 | 81.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 9.8 | 3.6 | 0.4 | 34.7 | 0.2 | 11.9 | 0.0 | 10.5 | 0.4 | 0.0 | 20.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.2 | 25.7 | 21.0 | 58.9 | 149.2 | 25.3 | 147.9 | 0.0 | 36.5 | 67.0 | 0.0 | 123.4 |
| LnGrp LOS | D | C | C | E | F | C | F | A | D | E | A | F |
| Approach Vol, veh/h | | 1422 | | | 1538 | | | 686 | | | 495 | |
| Approach Delay, s/veh | | 28.7 | | | 147.7 | | | 76.9 | | | 122.0 | |
| Approach LOS | | C | | | F | | | E | | | F | |

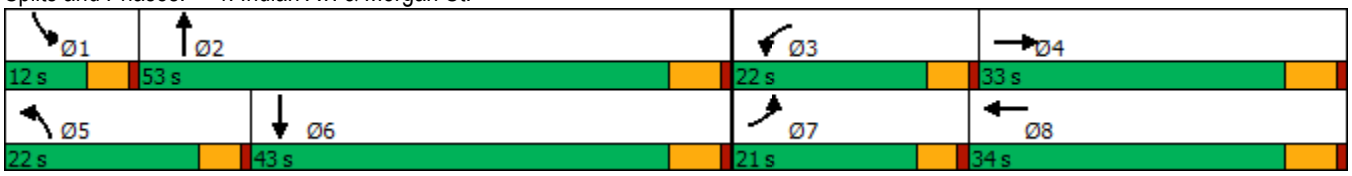
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 43.5 | 6.1 | 54.2 | 18.0 | 31.6 | 18.9 | 41.4 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 35.4 | 14.7 | 45.3 | 13.4 | 27.0 | 24.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.5 | 2.7 | 25.6 | 15.4 | 29.0 | 14.1 | 37.6 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 7.3 | 0.0 | 0.0 | 0.2 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 92.0 |
| HCM 6th LOS | F |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 68 | 59 | 14 | 28 | 75 | 223 | 7 | 372 |
| Future Volume (vph) | 68 | 59 | 14 | 28 | 75 | 223 | 7 | 372 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 21.0 | 33.0 | 22.0 | 34.0 | 22.0 | 53.0 | 12.0 | 43.0 |
| Total Split (%) | 17.5% | 27.5% | 18.3% | 28.3% | 18.3% | 44.2% | 10.0% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 9.6 | 19.0 | 5.7 | 12.6 | 8.9 | 52.2 | 5.4 | 42.6 |
| Actuated g/C Ratio | 0.11 | 0.22 | 0.07 | 0.15 | 0.10 | 0.60 | 0.06 | 0.49 |
| v/c Ratio | 0.41 | 0.20 | 0.14 | 0.07 | 0.49 | 0.14 | 0.08 | 0.30 |
| Control Delay | 45.6 | 13.9 | 46.7 | 31.6 | 48.6 | 10.5 | 46.7 | 17.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 45.6 | 13.9 | 46.7 | 31.6 | 48.6 | 10.5 | 46.7 | 17.1 |
| LOS | D | B | D | C | D | B | D | B |
| Approach Delay | | 24.9 | | 36.3 | | 19.5 | | 17.7 |
| Approach LOS | | C | | D | | B | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 86.6 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.49 | |
| Intersection Signal Delay: 20.5 | Intersection LOS: C |
| Intersection Capacity Utilization 42.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 68 | 59 | 69 | 14 | 28 | 3 | 75 | 223 | 20 | 7 | 372 | 51 |
| Future Volume (veh/h) | 68 | 59 | 69 | 14 | 28 | 3 | 75 | 223 | 20 | 7 | 372 | 51 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 83 | 72 | 64 | 17 | 34 | 4 | 91 | 272 | 23 | 9 | 454 | 47 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 108 | 322 | 256 | 35 | 420 | 48 | 118 | 1873 | 157 | 20 | 1657 | 171 |
| Arrive On Green | 0.06 | 0.17 | 0.17 | 0.02 | 0.13 | 0.13 | 0.07 | 0.56 | 0.56 | 0.01 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1905 | 1517 | 1810 | 3258 | 376 | 1810 | 3371 | 283 | 1810 | 3303 | 341 |
| Grp Volume(v), veh/h | 83 | 68 | 68 | 17 | 19 | 19 | 91 | 145 | 150 | 9 | 247 | 254 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1617 | 1810 | 1805 | 1829 | 1810 | 1805 | 1849 | 1810 | 1805 | 1839 |
| Q Serve(g_s), s | 3.8 | 2.8 | 3.1 | 0.8 | 0.8 | 0.8 | 4.2 | 3.3 | 3.3 | 0.4 | 6.7 | 6.8 |
| Cycle Q Clear(g_c), s | 3.8 | 2.8 | 3.1 | 0.8 | 0.8 | 0.8 | 4.2 | 3.3 | 3.3 | 0.4 | 6.7 | 6.8 |
| Prop In Lane | 1.00 | | 0.94 | 1.00 | | 0.21 | 1.00 | | 0.15 | 1.00 | | 0.19 |
| Lane Grp Cap(c), veh/h | 108 | 305 | 273 | 35 | 232 | 236 | 118 | 1003 | 1027 | 20 | 905 | 922 |
| V/C Ratio(X) | 0.77 | 0.22 | 0.25 | 0.48 | 0.08 | 0.08 | 0.77 | 0.14 | 0.15 | 0.44 | 0.27 | 0.28 |
| Avail Cap(c_a), veh/h | 349 | 578 | 518 | 371 | 599 | 607 | 371 | 1003 | 1027 | 158 | 905 | 922 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.4 | 30.5 | 30.6 | 41.2 | 32.6 | 32.6 | 39.1 | 9.1 | 9.1 | 41.7 | 12.2 | 12.2 |
| Incr Delay (d2), s/veh | 4.3 | 0.4 | 0.5 | 3.8 | 0.1 | 0.1 | 4.0 | 0.3 | 0.3 | 5.5 | 0.7 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.7 | 1.2 | 1.2 | 0.4 | 0.3 | 0.3 | 1.9 | 1.2 | 1.2 | 0.2 | 2.5 | 2.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.7 | 30.8 | 31.1 | 45.0 | 32.7 | 32.7 | 43.1 | 9.4 | 9.4 | 47.2 | 13.0 | 13.0 |
| LnGrp LOS | D | C | C | D | C | C | D | A | A | D | B | B |
| Approach Vol, veh/h | | 219 | | | 55 | | | 386 | | | 510 | |
| Approach Delay, s/veh | | 35.8 | | | 36.5 | | | 17.4 | | | 13.6 | |
| Approach LOS | | D | | | D | | | B | | | B | |

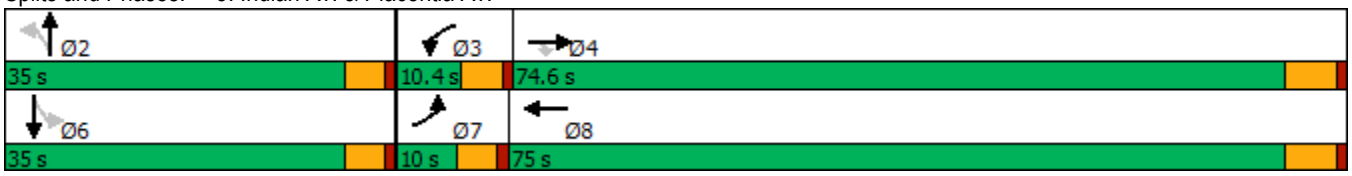
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.6 | 53.0 | 6.3 | 20.2 | 10.1 | 48.4 | 9.7 | 16.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 47.2 | 17.4 | 27.2 | 17.4 | 37.2 | 16.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.3 | 2.8 | 5.1 | 6.2 | 8.8 | 5.8 | 2.8 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 0.6 | 0.1 | 2.8 | 0.1 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 20.1 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 81 | 1097 | 98 | 33 | 1122 | 50 | 85 | 61 | 166 |
| Future Volume (vph) | 81 | 1097 | 98 | 33 | 1122 | 50 | 85 | 61 | 166 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 74.6 | 74.6 | 10.4 | 75.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| Total Split (%) | 8.3% | 62.2% | 62.2% | 8.7% | 62.5% | 29.2% | 29.2% | 29.2% | 29.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.4 | 70.9 | 70.9 | 5.6 | 69.2 | 30.4 | 30.4 | 30.4 | 30.4 |
| Actuated g/C Ratio | 0.04 | 0.59 | 0.59 | 0.05 | 0.58 | 0.25 | 0.25 | 0.25 | 0.25 |
| v/c Ratio | 1.09 | 1.06 | 0.11 | 0.56 | 1.21 | 0.86 | 0.32 | 0.32 | 1.06 |
| Control Delay | 178.7 | 71.0 | 5.1 | 81.3 | 129.6 | 124.2 | 36.2 | 40.3 | 98.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 178.7 | 71.0 | 5.1 | 81.3 | 129.6 | 124.2 | 36.2 | 40.3 | 98.6 |
| LOS | F | E | A | F | F | F | D | D | F |
| Approach Delay | | 72.7 | | | 127.9 | | 59.2 | | 90.0 |
| Approach LOS | | E | | | F | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.21 | |
| Intersection Signal Delay: 96.0 | Intersection LOS: F |
| Intersection Capacity Utilization 107.7% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 81 | 1097 | 98 | 33 | 1122 | 64 | 50 | 85 | 21 | 61 | 166 | 244 |
| Future Volume (veh/h) | 81 | 1097 | 98 | 33 | 1122 | 64 | 50 | 85 | 21 | 61 | 166 | 244 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 88 | 1192 | 82 | 48 | 1220 | 74 | 54 | 123 | 23 | 88 | 241 | 218 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 81 | 1100 | 932 | 77 | 1022 | 62 | 60 | 394 | 74 | 299 | 233 | 211 |
| Arrive On Green | 0.05 | 0.58 | 0.58 | 0.04 | 0.58 | 0.58 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1773 | 108 | 947 | 1557 | 291 | 1262 | 919 | 831 |
| Grp Volume(v), veh/h | 88 | 1192 | 82 | 48 | 0 | 1294 | 54 | 0 | 146 | 88 | 0 | 459 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1881 | 947 | 0 | 1848 | 1262 | 0 | 1750 |
| Q Serve(g_s), s | 5.4 | 69.5 | 2.7 | 3.1 | 0.0 | 69.2 | 0.0 | 0.0 | 7.7 | 7.3 | 0.0 | 30.4 |
| Cycle Q Clear(g_c), s | 5.4 | 69.5 | 2.7 | 3.1 | 0.0 | 69.2 | 30.4 | 0.0 | 7.7 | 15.0 | 0.0 | 30.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.16 | 1.00 | | 0.47 |
| Lane Grp Cap(c), veh/h | 81 | 1100 | 932 | 77 | 0 | 1084 | 60 | 0 | 468 | 299 | 0 | 443 |
| V/C Ratio(X) | 1.08 | 1.08 | 0.09 | 0.62 | 0.00 | 1.19 | 0.90 | 0.00 | 0.31 | 0.29 | 0.00 | 1.04 |
| Avail Cap(c_a), veh/h | 81 | 1100 | 932 | 87 | 0 | 1084 | 60 | 0 | 468 | 299 | 0 | 443 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 25.3 | 11.2 | 56.5 | 0.0 | 25.4 | 60.0 | 0.0 | 36.3 | 42.4 | 0.0 | 44.8 |
| Incr Delay (d2), s/veh | 123.4 | 52.8 | 0.2 | 6.2 | 0.0 | 96.2 | 81.2 | 0.0 | 0.4 | 0.5 | 0.0 | 52.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.2 | 43.5 | 1.0 | 1.5 | 0.0 | 56.1 | 3.0 | 0.0 | 3.4 | 2.3 | 0.0 | 19.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 180.7 | 78.1 | 11.4 | 62.7 | 0.0 | 121.6 | 141.2 | 0.0 | 36.7 | 42.9 | 0.0 | 96.9 |
| LnGrp LOS | F | F | B | E | A | F | F | A | D | D | A | F |
| Approach Vol, veh/h | | 1362 | | | 1342 | | | 200 | | | 547 | |
| Approach Delay, s/veh | | 80.7 | | | 119.5 | | | 64.9 | | | 88.2 | |
| Approach LOS | | F | | | F | | | E | | | F | |

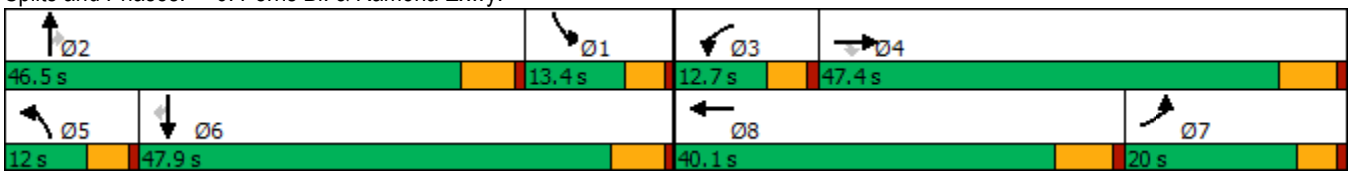
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.0 | 9.7 | 75.3 | | 35.0 | 10.0 | 75.0 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 30.4 | 5.8 | 68.8 | | 30.4 | 5.4 | 69.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 32.4 | 5.1 | 71.5 | | 32.4 | 7.4 | 71.2 | | | | |
| Green Ext Time (p_c), s | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 96.1 |
| HCM 6th LOS | F |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 256 | 1411 | 217 | 117 | 1051 | 391 | 511 | 127 | 395 | 712 | 280 |
| Future Volume (vph) | 256 | 1411 | 217 | 117 | 1051 | 391 | 511 | 127 | 395 | 712 | 280 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 12.0 | 46.5 | 46.5 | 13.4 | 47.9 | 47.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 10.0% | 38.8% | 38.8% | 11.2% | 39.9% | 39.9% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 14.0 | 37.5 | 37.5 | 7.4 | 30.9 | 7.5 | 22.4 | 22.4 | 14.1 | 29.0 | 29.0 |
| Actuated g/C Ratio | 0.14 | 0.36 | 0.36 | 0.07 | 0.30 | 0.07 | 0.22 | 0.22 | 0.14 | 0.28 | 0.28 |
| v/c Ratio | 0.56 | 0.78 | 0.31 | 0.49 | 0.79 | 1.60 | 0.68 | 0.27 | 0.86 | 0.73 | 0.47 |
| Control Delay | 48.3 | 33.0 | 5.9 | 55.7 | 37.8 | 317.8 | 41.9 | 3.0 | 63.5 | 38.3 | 9.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.3 | 33.0 | 5.9 | 55.7 | 37.8 | 317.8 | 41.9 | 3.0 | 63.5 | 38.3 | 9.2 |
| LOS | D | C | A | E | D | F | D | A | E | D | A |
| Approach Delay | | 32.0 | | | 39.5 | | 142.0 | | | 39.6 | |
| Approach LOS | | C | | | D | | F | | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 102.9 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.60 | |
| Intersection Signal Delay: 55.8 | Intersection LOS: E |
| Intersection Capacity Utilization 80.3% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 256 | 1411 | 217 | 117 | 1051 | 123 | 391 | 511 | 127 | 395 | 712 | 280 |
| Future Volume (veh/h) | 256 | 1411 | 217 | 117 | 1051 | 123 | 391 | 511 | 127 | 395 | 712 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 267 | 1470 | 200 | 122 | 1095 | 101 | 407 | 532 | 102 | 411 | 742 | 262 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 400 | 1904 | 591 | 188 | 1399 | 129 | 276 | 742 | 329 | 477 | 994 | 443 |
| Arrive On Green | 0.11 | 0.37 | 0.37 | 0.05 | 0.29 | 0.29 | 0.08 | 0.21 | 0.21 | 0.14 | 0.28 | 0.28 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4832 | 445 | 3510 | 3610 | 1603 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 267 | 1470 | 200 | 122 | 783 | 413 | 407 | 532 | 102 | 411 | 742 | 262 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1819 | 1755 | 1805 | 1603 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 6.9 | 23.5 | 8.4 | 3.2 | 19.6 | 19.6 | 7.4 | 12.9 | 4.0 | 10.8 | 17.6 | 8.8 |
| Cycle Q Clear(g_c), s | 6.9 | 23.5 | 8.4 | 3.2 | 19.6 | 19.6 | 7.4 | 12.9 | 4.0 | 10.8 | 17.6 | 8.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.24 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 400 | 1904 | 591 | 188 | 1001 | 527 | 276 | 742 | 329 | 477 | 994 | 443 |
| V/C Ratio(X) | 0.67 | 0.77 | 0.34 | 0.65 | 0.78 | 0.78 | 1.47 | 0.72 | 0.31 | 0.86 | 0.75 | 0.59 |
| Avail Cap(c_a), veh/h | 575 | 2272 | 705 | 302 | 1247 | 656 | 276 | 1562 | 694 | 477 | 1616 | 720 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.9 | 26.3 | 21.5 | 43.6 | 30.7 | 30.7 | 43.3 | 34.8 | 20.0 | 39.8 | 31.1 | 13.1 |
| Incr Delay (d2), s/veh | 0.7 | 1.4 | 0.3 | 1.4 | 2.6 | 4.9 | 231.7 | 1.3 | 0.5 | 14.3 | 1.1 | 1.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.8 | 9.0 | 3.0 | 1.4 | 7.9 | 8.6 | 12.0 | 5.5 | 1.9 | 5.4 | 7.3 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.7 | 27.7 | 21.8 | 45.1 | 33.3 | 35.6 | 275.0 | 36.1 | 20.5 | 54.0 | 32.2 | 14.4 |
| LnGrp LOS | D | C | C | D | C | D | F | D | C | D | C | B |
| Approach Vol, veh/h | | 1937 | | | 1318 | | | 1041 | | | 1415 | |
| Approach Delay, s/veh | | 28.9 | | | 35.1 | | | 128.0 | | | 35.2 | |
| Approach LOS | | C | | | D | | | F | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.6 | 25.1 | 9.6 | 40.7 | 12.0 | 31.7 | 16.9 | 33.4 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 7.4 | 42.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 12.8 | 14.9 | 5.2 | 25.5 | 9.4 | 19.6 | 8.9 | 21.6 |
| Green Ext Time (p_c), s | 0.0 | 3.7 | 0.0 | 9.0 | 0.0 | 5.7 | 0.3 | 5.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 50.0 |
| HCM 6th LOS | D |

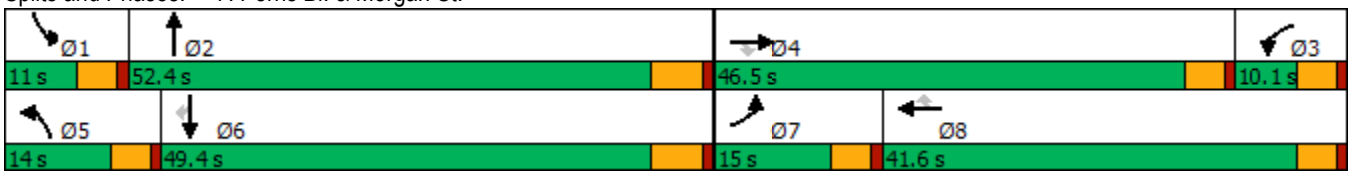
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 27 | 31 | 35 | 10 | 44 | 14 | 969 | 18 | 1123 | 16 |
| Future Volume (vph) | 38 | 27 | 31 | 35 | 10 | 44 | 14 | 969 | 18 | 1123 | 16 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.1 | 15.8 | 15.8 | 8.8 | 16.5 | 16.5 | 7.2 | 42.8 | 7.2 | 44.5 | 44.5 |
| Actuated g/C Ratio | 0.13 | 0.25 | 0.25 | 0.14 | 0.26 | 0.26 | 0.11 | 0.67 | 0.11 | 0.69 | 0.69 |
| v/c Ratio | 0.19 | 0.03 | 0.07 | 0.16 | 0.02 | 0.10 | 0.08 | 0.32 | 0.10 | 0.51 | 0.02 |
| Control Delay | 40.4 | 29.3 | 0.3 | 37.7 | 27.8 | 0.4 | 42.6 | 13.6 | 43.2 | 15.6 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.4 | 29.3 | 0.3 | 37.7 | 27.8 | 0.4 | 42.6 | 13.6 | 43.2 | 15.6 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 24.4 | | | 18.1 | | | 14.0 | | 15.8 | |
| Approach LOS | | C | | | B | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 64.1 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.51 | |
| Intersection Signal Delay: 15.5 | Intersection LOS: B |
| Intersection Capacity Utilization 56.0% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 27 | 31 | 35 | 10 | 44 | 14 | 969 | 12 | 18 | 1123 | 16 |
| Future Volume (veh/h) | 38 | 27 | 31 | 35 | 10 | 44 | 14 | 969 | 12 | 18 | 1123 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 31 | 19 | 40 | 11 | 48 | 16 | 1101 | 12 | 20 | 1276 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 76 | 540 | 241 | 75 | 283 | 240 | 35 | 2483 | 27 | 43 | 1709 | 753 |
| Arrive On Green | 0.04 | 0.15 | 0.15 | 0.04 | 0.15 | 0.15 | 0.02 | 0.47 | 0.47 | 0.02 | 0.47 | 0.47 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5290 | 58 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 31 | 19 | 40 | 11 | 48 | 16 | 720 | 393 | 20 | 1276 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1890 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.4 | 0.5 | 0.5 | 1.3 | 0.3 | 1.6 | 0.5 | 8.6 | 8.7 | 0.7 | 17.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.4 | 0.5 | 0.5 | 1.3 | 0.3 | 1.6 | 0.5 | 8.6 | 8.7 | 0.7 | 17.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 76 | 540 | 241 | 75 | 283 | 240 | 35 | 1623 | 887 | 43 | 1709 | 753 |
| V/C Ratio(X) | 0.56 | 0.06 | 0.08 | 0.53 | 0.04 | 0.20 | 0.46 | 0.44 | 0.44 | 0.47 | 0.75 | 0.01 |
| Avail Cap(c_a), veh/h | 303 | 2439 | 1088 | 160 | 1134 | 961 | 274 | 2599 | 1420 | 187 | 2538 | 1118 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.1 | 22.6 | 14.6 | 29.1 | 22.6 | 23.2 | 30.1 | 11.0 | 11.0 | 29.9 | 13.3 | 8.6 |
| Incr Delay (d2), s/veh | 2.4 | 0.0 | 0.1 | 2.2 | 0.1 | 0.4 | 3.4 | 0.2 | 0.3 | 3.0 | 0.7 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.2 | 0.2 | 0.6 | 0.1 | 0.6 | 0.2 | 2.6 | 2.9 | 0.3 | 5.6 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 31.5 | 22.7 | 14.8 | 31.3 | 22.6 | 23.6 | 33.5 | 11.2 | 11.4 | 32.9 | 14.0 | 8.6 |
| LnGrp LOS | C | C | B | C | C | C | C | B | B | C | B | A |
| Approach Vol, veh/h | | 93 | | | 99 | | | 1129 | | | 1303 | |
| Approach Delay, s/veh | | 25.2 | | | 26.6 | | | 11.6 | | | 14.2 | |
| Approach LOS | | C | | | C | | | B | | | B | |

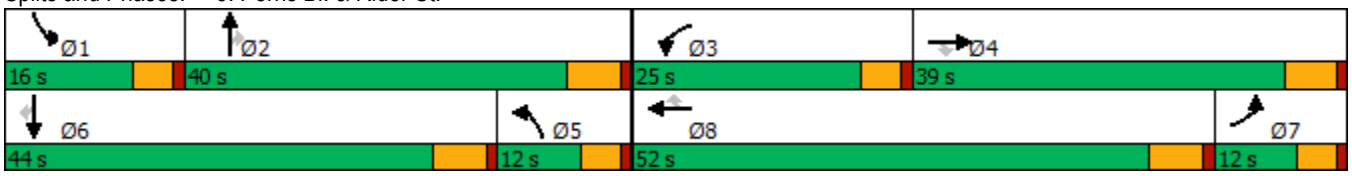
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 34.9 | 7.2 | 13.9 | 5.8 | 35.2 | 7.2 | 13.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 10.7 | 3.3 | 2.5 | 2.5 | 19.9 | 3.4 | 3.6 |
| Green Ext Time (p_c), s | 0.0 | 8.0 | 0.0 | 0.2 | 0.0 | 9.5 | 0.0 | 0.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 13.9 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 47 | 205 | 59 | 226 | 73 | 240 | 22 | 702 | 240 | 217 | 964 | 19 |
| Future Volume (vph) | 47 | 205 | 59 | 226 | 73 | 240 | 22 | 702 | 240 | 217 | 964 | 19 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 11.9 | 14.0 | 14.0 | 14.9 | 21.7 | 21.7 | 6.1 | 19.7 | 19.7 | 11.9 | 32.4 | 32.4 |
| Actuated g/C Ratio | 0.14 | 0.17 | 0.17 | 0.18 | 0.26 | 0.26 | 0.07 | 0.24 | 0.24 | 0.14 | 0.39 | 0.39 |
| v/c Ratio | 0.18 | 0.34 | 0.15 | 0.70 | 0.08 | 0.40 | 0.17 | 0.57 | 0.43 | 0.84 | 0.48 | 0.03 |
| Control Delay | 35.6 | 32.4 | 0.8 | 46.3 | 28.4 | 6.4 | 45.5 | 30.1 | 6.7 | 65.9 | 22.3 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.6 | 32.4 | 0.8 | 46.3 | 28.4 | 6.4 | 45.5 | 30.1 | 6.7 | 65.9 | 22.3 | 0.1 |
| LOS | D | C | A | D | C | A | D | C | A | E | C | A |
| Approach Delay | | 26.8 | | | 26.1 | | | 24.6 | | | 29.9 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 82.2 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.84 | |
| Intersection Signal Delay: 27.2 | Intersection LOS: C |
| Intersection Capacity Utilization 64.1% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 47 | 205 | 59 | 226 | 73 | 240 | 22 | 702 | 240 | 217 | 964 | 19 |
| Future Volume (veh/h) | 47 | 205 | 59 | 226 | 73 | 240 | 22 | 702 | 240 | 217 | 964 | 19 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 47 | 207 | 48 | 228 | 74 | 107 | 22 | 709 | 210 | 219 | 974 | 4 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 244 | 546 | 244 | 277 | 546 | 244 | 119 | 1218 | 373 | 264 | 1539 | 478 |
| Arrive On Green | 0.14 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.07 | 0.23 | 0.23 | 0.15 | 0.30 | 0.30 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1587 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 47 | 207 | 48 | 228 | 74 | 107 | 22 | 709 | 210 | 219 | 974 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1587 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.5 | 3.4 | 1.2 | 8.1 | 1.2 | 2.6 | 0.8 | 8.0 | 7.7 | 7.8 | 10.7 | 0.1 |
| Cycle Q Clear(g_c), s | 1.5 | 3.4 | 1.2 | 8.1 | 1.2 | 2.6 | 0.8 | 8.0 | 7.7 | 7.8 | 10.7 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 244 | 546 | 244 | 277 | 546 | 244 | 119 | 1218 | 373 | 264 | 1539 | 478 |
| V/C Ratio(X) | 0.19 | 0.38 | 0.20 | 0.82 | 0.14 | 0.44 | 0.18 | 0.58 | 0.56 | 0.83 | 0.63 | 0.01 |
| Avail Cap(c_a), veh/h | 244 | 1813 | 809 | 558 | 2523 | 1125 | 203 | 2684 | 821 | 312 | 2998 | 931 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.4 | 25.3 | 12.6 | 27.1 | 24.3 | 10.5 | 29.2 | 22.4 | 22.3 | 27.4 | 20.1 | 16.4 |
| Incr Delay (d2), s/veh | 0.1 | 0.4 | 0.4 | 2.3 | 0.1 | 1.2 | 0.3 | 0.4 | 1.3 | 12.8 | 0.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 1.4 | 0.6 | 3.3 | 0.5 | 1.4 | 0.3 | 2.9 | 2.7 | 4.0 | 3.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.5 | 25.7 | 13.0 | 29.5 | 24.4 | 11.8 | 29.5 | 22.9 | 23.6 | 40.2 | 20.6 | 16.4 |
| LnGrp LOS | C | C | B | C | C | B | C | C | C | D | C | B |
| Approach Vol, veh/h | | 302 | | | 409 | | | 941 | | | 1197 | |
| Approach Delay, s/veh | | 23.6 | | | 23.9 | | | 23.2 | | | 24.1 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 14.2 | 21.3 | 14.7 | 15.8 | 10.2 | 25.4 | 14.7 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 9.8 | 10.0 | 10.1 | 5.4 | 2.8 | 12.7 | 3.5 | 4.6 |
| Green Ext Time (p_c), s | 0.1 | 5.4 | 0.2 | 1.3 | 0.0 | 6.8 | 0.0 | 0.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.7 |
| HCM 6th LOS | C |

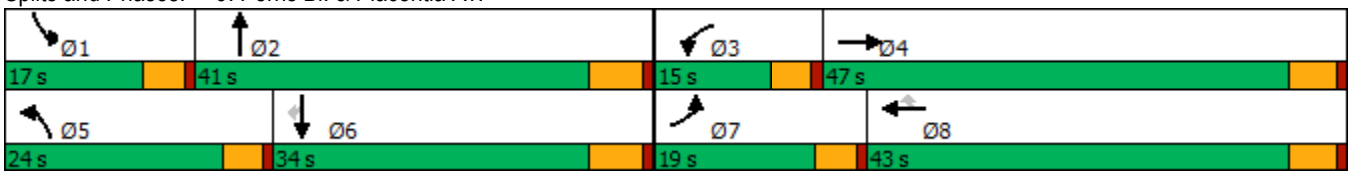
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 232 | 595 | 92 | 536 | 93 | 379 | 906 | 142 | 1166 | 237 |
| Future Volume (vph) | 232 | 595 | 92 | 536 | 93 | 379 | 906 | 142 | 1166 | 237 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 19.0 | 47.0 | 15.0 | 43.0 | 43.0 | 24.0 | 41.0 | 17.0 | 34.0 | 34.0 |
| Total Split (%) | 15.8% | 39.2% | 12.5% | 35.8% | 35.8% | 20.0% | 34.2% | 14.2% | 28.3% | 28.3% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 14.4 | 41.9 | 9.3 | 36.8 | 36.8 | 19.4 | 35.8 | 11.8 | 28.2 | 28.2 |
| Actuated g/C Ratio | 0.12 | 0.35 | 0.08 | 0.31 | 0.31 | 0.16 | 0.30 | 0.10 | 0.24 | 0.24 |
| v/c Ratio | 1.12 | 1.58 | 0.69 | 0.96 | 0.16 | 1.36 | 0.99 | 0.84 | 1.44 | 0.52 |
| Control Delay | 145.2 | 295.6 | 78.2 | 70.0 | 1.6 | 222.0 | 66.4 | 88.3 | 238.1 | 20.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 145.2 | 295.6 | 78.2 | 70.0 | 1.6 | 222.0 | 66.4 | 88.3 | 238.1 | 20.4 |
| LOS | F | F | E | E | A | F | E | F | F | C |
| Approach Delay | | 266.6 | | 62.2 | | | 108.9 | | 191.0 | |
| Approach LOS | | F | | E | | | F | | F | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 119.2 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.58 | |
| Intersection Signal Delay: 167.1 | Intersection LOS: F |
| Intersection Capacity Utilization 129.5% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 232 | 595 | 374 | 92 | 536 | 93 | 379 | 906 | 100 | 142 | 1166 | 237 |
| Future Volume (veh/h) | 232 | 595 | 374 | 92 | 536 | 93 | 379 | 906 | 100 | 142 | 1166 | 237 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 244 | 626 | 389 | 97 | 564 | -4 | 399 | 954 | 98 | 149 | 1227 | 240 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 218 | 399 | 248 | 121 | 590 | 500 | 294 | 993 | 102 | 176 | 852 | 378 |
| Arrive On Green | 0.12 | 0.36 | 0.36 | 0.07 | 0.31 | 0.00 | 0.16 | 0.30 | 0.30 | 0.10 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 1096 | 681 | 1810 | 1900 | 1610 | 1810 | 3296 | 339 | 1810 | 3610 | 1603 |
| Grp Volume(v), veh/h | 244 | 0 | 1015 | 97 | 564 | -4 | 399 | 522 | 530 | 149 | 1227 | 240 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1777 | 1810 | 1900 | 1610 | 1810 | 1805 | 1830 | 1810 | 1805 | 1603 |
| Q Serve(g_s), s | 14.4 | 0.0 | 43.5 | 6.3 | 34.8 | 0.0 | 19.4 | 34.0 | 34.0 | 9.7 | 28.2 | 16.1 |
| Cycle Q Clear(g_c), s | 14.4 | 0.0 | 43.5 | 6.3 | 34.8 | 0.0 | 19.4 | 34.0 | 34.0 | 9.7 | 28.2 | 16.1 |
| Prop In Lane | 1.00 | | 0.38 | 1.00 | | 1.00 | 1.00 | | 0.19 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 218 | 0 | 647 | 121 | 590 | 500 | 294 | 544 | 551 | 176 | 852 | 378 |
| V/C Ratio(X) | 1.12 | 0.00 | 1.57 | 0.80 | 0.96 | -0.01 | 1.36 | 0.96 | 0.96 | 0.85 | 1.44 | 0.63 |
| Avail Cap(c_a), veh/h | 218 | 0 | 647 | 157 | 598 | 507 | 294 | 544 | 551 | 188 | 852 | 378 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.6 | 0.0 | 38.0 | 55.0 | 40.4 | 0.0 | 50.1 | 41.1 | 41.1 | 53.1 | 45.7 | 41.0 |
| Incr Delay (d2), s/veh | 96.6 | 0.0 | 263.3 | 15.0 | 26.1 | 0.0 | 181.9 | 30.1 | 29.9 | 25.7 | 204.9 | 7.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.4 | 0.0 | 66.1 | 3.4 | 20.5 | 0.0 | 23.7 | 19.6 | 19.9 | 5.5 | 36.4 | 7.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 149.2 | 0.0 | 301.3 | 70.0 | 66.5 | 0.0 | 231.9 | 71.2 | 71.0 | 78.8 | 250.6 | 48.9 |
| LnGrp LOS | F | A | F | E | E | A | F | E | E | E | F | D |
| Approach Vol, veh/h | | 1259 | | | 657 | | | 1451 | | | 1616 | |
| Approach Delay, s/veh | | 271.8 | | | 67.4 | | | 115.3 | | | 204.8 | |
| Approach LOS | | F | | | E | | | F | | | F | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.2 | 41.8 | 12.6 | 48.9 | 24.0 | 34.0 | 19.0 | 42.5 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 12.4 | 35.2 | 10.4 | 41.6 | 19.4 | 28.2 | 14.4 | 37.6 |
| Max Q Clear Time (g_c+I1), s | 11.7 | 36.0 | 8.3 | 45.5 | 21.4 | 30.2 | 16.4 | 36.8 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 177.5 |
| HCM 6th LOS | F |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 9.4 |
| Intersection LOS | A |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 0 | 12 | 0 | 0 | 0 | 30 | 136 | 0 | 0 | 72 | 34 |
| Future Vol, veh/h | 44 | 0 | 12 | 0 | 0 | 0 | 30 | 136 | 0 | 0 | 72 | 34 |
| Peak Hour Factor | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 63 | 0 | 17 | 0 | 0 | 0 | 43 | 194 | 0 | 0 | 103 | 49 |
| Number of Lanes | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 1 | 2 | 2 | 1 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 2 | 1 | 2 | 1 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 1 | 2 | 1 | 2 |
| HCM Control Delay | 9 | 0 | 10.3 | 8.1 |
| HCM LOS | A | - | B | A |

| Lane | NBLn1 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|---|---|---|---|---|---|---|
| Vol Left, % | 18% | 100% | 0% | 0% | 0% | 0% |
| Vol Thru, % | 82% | 0% | 0% | 100% | 100% | 0% |
| Vol Right, % | 0% | 0% | 100% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 166 | 44 | 12 | 0 | 72 | 34 |
| LT Vol | 30 | 44 | 0 | 0 | 0 | 0 |
| Through Vol | 136 | 0 | 0 | 0 | 72 | 0 |
| RT Vol | 0 | 0 | 12 | 0 | 0 | 34 |
| Lane Flow Rate | 237 | 63 | 17 | 0 | 103 | 49 |
| Geometry Grp | 6 | 7 | 7 | 6 | 7 | 7 |
| Degree of Util (X) | 0.325 | 0.104 | 0.023 | 0 | 0.141 | 0.057 |
| Departure Headway (Hd) | 4.93 | 5.936 | 4.728 | 5.569 | 4.929 | 4.226 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 730 | 605 | 757 | 0 | 728 | 849 |
| Service Time | 2.949 | 3.665 | 2.458 | 3.607 | 2.651 | 1.947 |
| HCM Lane V/C Ratio | 0.325 | 0.104 | 0.022 | 0 | 0.141 | 0.058 |
| HCM Control Delay | 10.3 | 9.4 | 7.6 | 8.6 | 8.5 | 7.2 |
| HCM Lane LOS | B | A | A | N | A | A |
| HCM 95th-tile Q | 1.4 | 0.3 | 0.1 | 0 | 0.5 | 0.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.1 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 21 | 10 | 0 | 145 | 74 | 10 |
| Future Vol, veh/h | 21 | 10 | 0 | 145 | 74 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | - | 0 | 0 | - |
| Grade, % | 0 | - | - | 0 | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 23 | 11 | 0 | 158 | 80 | 11 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 244 | 86 | 91 | 0 | - | 0 |
| Stage 1 | 86 | - | - | - | - | - |
| Stage 2 | 158 | - | - | - | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 | - | - | - |
| Critical Hdwy Stg 1 | 5.4 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 | - | - | - |
| Pot Cap-1 Maneuver | 749 | 978 | 1517 | - | - | - |
| Stage 1 | 942 | - | - | - | - | - |
| Stage 2 | 875 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 749 | 978 | 1517 | - | - | - |
| Mov Cap-2 Maneuver | 749 | - | - | - | - | - |
| Stage 1 | 942 | - | - | - | - | - |
| Stage 2 | 875 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9.6 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1517 | - | 810 | - | - |
| HCM Lane V/C Ratio | - | - | 0.042 | - | - |
| HCM Control Delay (s) | 0 | - | 9.6 | - | - |
| HCM Lane LOS | A | - | A | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.1 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 7.2 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 502 | 44 | 91 | 401 | 16 | 28 | 33 | 121 | 6 | 35 | 31 |
| Future Vol, veh/h | 44 | 502 | 44 | 91 | 401 | 16 | 28 | 33 | 121 | 6 | 35 | 31 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | 0 | 120 | - | - | 150 | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 | 87 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 51 | 577 | 51 | 105 | 461 | 18 | 32 | 38 | 139 | 7 | 40 | 36 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 479 | 0 | 0 | 628 | 0 | 0 | 1140 | 1368 | 577 | 1473 | 1410 | 240 |
| Stage 1 | - | - | - | - | - | - | 679 | 679 | - | 680 | 680 | - |
| Stage 2 | - | - | - | - | - | - | 461 | 689 | - | 793 | 730 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1094 | - | - | 964 | - | - | 169 | 148 | 520 | 98 | 140 | 767 |
| Stage 1 | - | - | - | - | - | - | 445 | 454 | - | 412 | 454 | - |
| Stage 2 | - | - | - | - | - | - | 555 | 450 | - | 385 | 431 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1094 | - | - | 964 | - | - | 106 | 126 | 520 | 49 | 119 | 767 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 106 | 126 | - | 49 | 119 | - |
| Stage 1 | - | - | - | - | - | - | 424 | 433 | - | 393 | 405 | - |
| Stage 2 | - | - | - | - | - | - | 425 | 401 | - | 245 | 411 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.6 | 1.6 | 34.2 | 32.8 |
| HCM LOS | | | D | D |

| Minor Lane/Major Mvmt | NBLn1 | NBLn2 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 106 | 311 | 1094 | - | - | 964 | - | - | 49 | 119 | 259 |
| HCM Lane V/C Ratio | 0.304 | 0.569 | 0.046 | - | - | 0.109 | - | - | 0.141 | 0.169 | 0.215 |
| HCM Control Delay (s) | 53.1 | 30.8 | 8.4 | - | - | 9.2 | - | - | 90.2 | 41.3 | 22.7 |
| HCM Lane LOS | F | D | A | - | - | A | - | - | F | E | C |
| HCM 95th %tile Q(veh) | 1.2 | 3.3 | 0.1 | - | - | 0.4 | - | - | 0.5 | 0.6 | 0.8 |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 22.6 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 32 | 355 | 188 | 21 | 277 | 0 | 183 | 150 | 24 | 6 | 149 | 13 |
| Future Vol, veh/h | 32 | 355 | 188 | 21 | 277 | 0 | 183 | 150 | 24 | 6 | 149 | 13 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 33 | 370 | 196 | 22 | 289 | 0 | 191 | 156 | 25 | 6 | 155 | 14 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Right | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 26.8 | 24.7 | 16.6 | 16.9 |
| HCM LOS | D | C | C | C |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 68% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 32% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 183 | 100 | 74 | 32 | 355 | 188 | 21 | 277 | 6 | 149 | 13 |
| LT Vol | 183 | 0 | 0 | 32 | 0 | 0 | 21 | 0 | 6 | 0 | 0 |
| Through Vol | 0 | 100 | 50 | 0 | 355 | 0 | 0 | 277 | 0 | 149 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 13 |
| Lane Flow Rate | 191 | 104 | 77 | 33 | 370 | 196 | 22 | 289 | 6 | 155 | 14 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.475 | 0.245 | 0.176 | 0.076 | 0.796 | 0.383 | 0.053 | 0.662 | 0.017 | 0.392 | 0.031 |
| Departure Headway (Hd) | 8.974 | 8.462 | 8.23 | 8.383 | 7.877 | 7.169 | 8.757 | 8.257 | 9.599 | 9.084 | 8.364 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 404 | 426 | 438 | 430 | 462 | 505 | 411 | 439 | 374 | 397 | 429 |
| Service Time | 6.688 | 6.176 | 5.943 | 6.083 | 5.577 | 4.869 | 6.472 | 5.972 | 7.329 | 6.814 | 6.094 |
| HCM Lane V/C Ratio | 0.473 | 0.244 | 0.176 | 0.077 | 0.801 | 0.388 | 0.054 | 0.658 | 0.016 | 0.39 | 0.033 |
| HCM Control Delay | 19.6 | 13.9 | 12.7 | 11.8 | 34.9 | 14.2 | 12 | 25.7 | 12.5 | 17.6 | 11.4 |
| HCM Lane LOS | C | B | B | B | D | B | B | D | B | C | B |
| HCM 95th-tile Q | 2.5 | 1 | 0.6 | 0.2 | 7.2 | 1.8 | 0.2 | 4.7 | 0.1 | 1.8 | 0.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.8 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 31 | 649 | 66 | 110 | 533 | 0 | 75 | 1 | 107 | 0 | 0 | 0 |
| Future Vol, veh/h | 31 | 649 | 66 | 110 | 533 | 0 | 75 | 1 | 107 | 0 | 0 | 0 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 100 | - | 50 | 185 | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 1 | - | - | 1 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 34 | 705 | 72 | 120 | 579 | 0 | 82 | 1 | 116 | 0 | 0 | 0 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 579 | 0 | 0 | 777 | 0 | 0 | 1303 | 1592 | 705 | 1687 | 1664 | 290 |
| Stage 1 | - | - | - | - | - | - | 773 | 773 | - | 819 | 819 | - |
| Stage 2 | - | - | - | - | - | - | 530 | 819 | - | 868 | 845 | - |
| Critical Hdwy | 4.1 | - | - | 4.1 | - | - | 7.3 | 6.5 | 6.2 | 7.3 | 6.5 | 6.9 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.1 | 5.5 | - | 6.5 | 5.5 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.5 | 5.5 | - | 6.1 | 5.5 | - |
| Follow-up Hdwy | 2.2 | - | - | 2.2 | - | - | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 |
| Pot Cap-1 Maneuver | 1005 | - | - | 848 | - | - | 129 | 108 | 440 | 68 | 98 | 713 |
| Stage 1 | - | - | - | - | - | - | 395 | 412 | - | 340 | 392 | - |
| Stage 2 | - | - | - | - | - | - | 506 | 392 | - | 350 | 382 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1005 | - | - | 848 | - | - | 112 | 90 | 440 | 43 | 81 | 713 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 229 | 197 | - | 99 | 166 | - |
| Stage 1 | - | - | - | - | - | - | 382 | 398 | - | 328 | 336 | - |
| Stage 2 | - | - | - | - | - | - | 434 | 336 | - | 248 | 369 | - |

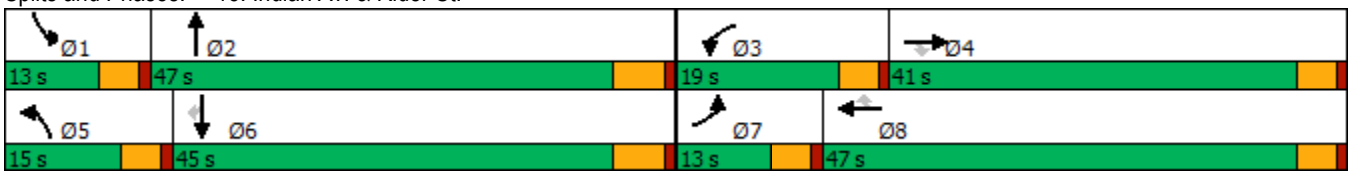
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.4 | 1.7 | 33.5 | 0 |
| HCM LOS | | | D | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 318 | 1005 | - | - | 848 | - | - | - |
| HCM Lane V/C Ratio | 0.626 | 0.034 | - | - | 0.141 | - | - | - |
| HCM Control Delay (s) | 33.5 | 8.7 | - | - | 9.9 | - | - | 0 |
| HCM Lane LOS | D | A | - | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 4 | 0.1 | - | - | 0.5 | - | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Future Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 37.6 | 37.6 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 41.0 | 41.0 | 19.0 | 47.0 | 47.0 | 15.0 | 47.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 34.2% | 34.2% | 15.8% | 39.2% | 39.2% | 12.5% | 39.2% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.5 | 14.6 | 14.6 | 7.3 | 22.4 | 22.4 | 6.0 | 41.9 | 8.4 | 50.7 | 50.7 |
| Actuated g/C Ratio | 0.06 | 0.16 | 0.16 | 0.08 | 0.25 | 0.25 | 0.07 | 0.47 | 0.09 | 0.56 | 0.56 |
| v/c Ratio | 0.13 | 0.45 | 0.17 | 0.38 | 0.25 | 0.18 | 0.21 | 0.09 | 0.66 | 0.16 | 0.03 |
| Control Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| LOS | D | D | A | D | C | A | D | B | E | B | A |
| Approach Delay | | 30.1 | | | 24.6 | | | 18.3 | | 24.0 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 89.8 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 25.0 | Intersection LOS: C |
| Intersection Capacity Utilization 40.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Future Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 120 | 18 | 111 | 332 | 15 |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 1613 | 237 | 141 | 2030 | 906 |
| Arrive On Green | 0.02 | 0.12 | 0.12 | 0.04 | 0.15 | 0.15 | 0.03 | 0.51 | 0.51 | 0.08 | 0.56 | 0.56 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 3157 | 465 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 68 | 70 | 111 | 332 | 15 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1816 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 922 | 928 | 141 | 2030 | 906 |
| V/C Ratio(X) | 0.46 | 0.59 | 0.18 | 0.69 | 0.41 | 0.20 | 0.52 | 0.07 | 0.08 | 0.78 | 0.16 | 0.02 |
| Avail Cap(c_a), veh/h | 188 | 1629 | 727 | 323 | 999 | 847 | 233 | 922 | 928 | 188 | 2030 | 906 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.3 | 33.4 | 31.6 | 38.0 | 31.0 | 30.0 | 38.7 | 10.0 | 10.0 | 36.5 | 8.5 | 7.8 |
| Incr Delay (d2), s/veh | 4.1 | 1.2 | 0.4 | 4.0 | 0.9 | 0.4 | 3.2 | 0.2 | 0.2 | 10.2 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 2.5 | 0.6 | 1.2 | 2.1 | 0.9 | 0.5 | 0.6 | 0.6 | 2.4 | 1.2 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.4 | 34.6 | 32.0 | 42.0 | 31.9 | 30.4 | 41.9 | 10.2 | 10.2 | 46.7 | 8.7 | 7.8 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 311 | | | 221 | | | 163 | | | 458 | |
| Approach Delay, s/veh | | 34.7 | | | 34.1 | | | 15.1 | | | 17.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.9 | 47.0 | 8.1 | 14.6 | 6.7 | 51.2 | 5.9 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 8.4 | 41.2 | 14.4 | 36.4 | 10.4 | 39.2 | 8.4 | 42.4 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 3.6 | 4.4 | 7.5 | 3.1 | 5.6 | 2.6 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 0.7 | 0.0 | 1.9 | 0.0 | 2.1 | 0.0 | 0.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.1 |
| HCM 6th LOS | C |

# APPENDIX 8.2:

# EAPC (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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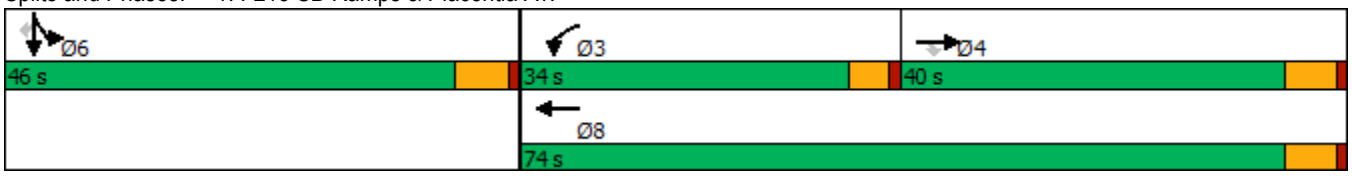
| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 268 | 127 | 296 | 457 | 423 | 0 | 74 |
| Future Volume (vph) | 268 | 127 | 296 | 457 | 423 | 0 | 74 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 25.8 | 25.8 | 9.6 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.0 | 40.0 | 34.0 | 74.0 | 46.0 | 46.0 | 46.0 |
| Total Split (%) | 33.3% | 33.3% | 28.3% | 61.7% | 38.3% | 38.3% | 38.3% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 50.4 | 50.4 | 13.3 | 68.4 | 18.8 | 18.8 | 18.8 |
| Actuated g/C Ratio | 0.51 | 0.51 | 0.13 | 0.69 | 0.19 | 0.19 | 0.19 |
| v/c Ratio | 0.16 | 0.15 | 0.68 | 0.20 | 0.71 | 0.71 | 0.22 |
| Control Delay | 14.8 | 3.5 | 48.8 | 6.3 | 49.4 | 49.4 | 8.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.8 | 3.5 | 48.8 | 6.3 | 49.4 | 49.4 | 8.8 |
| LOS | B | A | D | A | D | D | A |
| Approach Delay | 11.2 | | | 23.0 | | 43.4 | |
| Approach LOS | B | | | C | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.8 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.71 | |
| Intersection Signal Delay: 26.3 | Intersection LOS: C |
| Intersection Capacity Utilization 64.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 268 | 127 | 296 | 457 | 0 | 0 | 0 | 0 | 423 | 0 | 74 |
| Future Volume (veh/h) | 0 | 268 | 127 | 296 | 457 | 0 | 0 | 0 | 0 | 423 | 0 | 74 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 291 | 138 | 322 | 497 | 0 | | | | 460 | 0 | 80 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 1992 | 888 | 406 | 2584 | 0 | | | | 588 | 0 | 262 |
| Arrive On Green | 0.00 | 0.55 | 0.55 | 0.12 | 0.72 | 0.00 | | | | 0.16 | 0.00 | 0.16 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 291 | 138 | 322 | 497 | 0 | | | | 460 | 0 | 80 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 3.7 | 4.0 | 8.5 | 4.3 | 0.0 | | | | 11.6 | 0.0 | 4.2 |
| Cycle Q Clear(g_c), s | 0.0 | 3.7 | 4.0 | 8.5 | 4.3 | 0.0 | | | | 11.6 | 0.0 | 4.2 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1992 | 888 | 406 | 2584 | 0 | | | | 588 | 0 | 262 |
| V/C Ratio(X) | 0.00 | 0.15 | 0.16 | 0.79 | 0.19 | 0.00 | | | | 0.78 | 0.00 | 0.31 |
| Avail Cap(c_a), veh/h | 0 | 1992 | 888 | 1083 | 2584 | 0 | | | | 1527 | 0 | 679 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 10.4 | 10.5 | 41.0 | 4.5 | 0.0 | | | | 38.3 | 0.0 | 35.2 |
| Incr Delay (d2), s/veh | 0.0 | 0.2 | 0.4 | 1.3 | 0.2 | 0.0 | | | | 2.3 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 1.4 | 1.3 | 3.6 | 1.2 | 0.0 | | | | 5.1 | 0.0 | 1.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 10.6 | 10.8 | 42.3 | 4.6 | 0.0 | | | | 40.6 | 0.0 | 35.8 |
| LnGrp LOS | A | B | B | D | A | A | | | | D | A | D |
| Approach Vol, veh/h | | 429 | | | 819 | | | | | | 540 | |
| Approach Delay, s/veh | | 10.7 | | | 19.5 | | | | | | 39.9 | |
| Approach LOS | | B | | | B | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 15.6 | 58.4 | | 21.3 | | 74.0 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 29.4 | 34.2 | | 40.2 | | 68.2 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 10.5 | 6.0 | | 13.6 | | 6.3 | | | | | |
| Green Ext Time (p_c), s | | 0.5 | 2.2 | | 1.9 | | 3.3 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.5 |
| HCM 6th LOS | C |

Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 59 | 632 | 607 | 628 | 146 | 0 | 387 |
| Future Volume (vph) | 59 | 632 | 607 | 628 | 146 | 0 | 387 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 6.5 | 75.9 | 66.9 | 66.9 | 19.0 | 19.0 | 19.0 |
| Actuated g/C Ratio | 0.06 | 0.71 | 0.63 | 0.63 | 0.18 | 0.18 | 0.18 |
| v/c Ratio | 0.30 | 0.27 | 0.29 | 0.58 | 0.26 | 0.26 | 0.84 |
| Control Delay | 53.7 | 6.7 | 11.4 | 7.7 | 38.4 | 38.5 | 30.3 |
| Queue Delay | 0.0 | 0.0 | 0.6 | 2.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.7 | 6.7 | 12.0 | 9.9 | 38.4 | 38.5 | 30.3 |
| LOS | D | A | B | A | D | D | C |
| Approach Delay | | 10.7 | 10.9 | | | 32.5 | |
| Approach LOS | | B | B | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 106.5 | |
| Natural Cycle: 55 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.84 | |
| Intersection Signal Delay: 15.5 | Intersection LOS: B |
| Intersection Capacity Utilization 64.9% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 59 | 632 | 0 | 0 | 607 | 628 | 146 | 0 | 387 | 0 | 0 | 0 |
| Future Volume (veh/h) | 59 | 632 | 0 | 0 | 607 | 628 | 146 | 0 | 387 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 64 | 687 | 0 | 0 | 660 | 683 | 159 | 0 | 421 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 146 | 2271 | 0 | 0 | 1982 | 884 | 992 | 0 | 441 | | | |
| Arrive On Green | 0.04 | 0.63 | 0.00 | 0.00 | 0.55 | 0.55 | 0.27 | 0.00 | 0.27 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 64 | 687 | 0 | 0 | 660 | 683 | 159 | 0 | 421 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.1 | 10.4 | 0.0 | 0.0 | 12.1 | 39.8 | 4.0 | 0.0 | 30.8 | | | |
| Cycle Q Clear(g_c), s | 2.1 | 10.4 | 0.0 | 0.0 | 12.1 | 39.8 | 4.0 | 0.0 | 30.8 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 146 | 2271 | 0 | 0 | 1982 | 884 | 992 | 0 | 441 | | | |
| V/C Ratio(X) | 0.44 | 0.30 | 0.00 | 0.00 | 0.33 | 0.77 | 0.16 | 0.00 | 0.95 | | | |
| Avail Cap(c_a), veh/h | 1054 | 2271 | 0 | 0 | 1982 | 884 | 996 | 0 | 443 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 56.1 | 10.2 | 0.0 | 0.0 | 14.9 | 21.2 | 33.0 | 0.0 | 42.8 | | | |
| Incr Delay (d2), s/veh | 0.8 | 0.3 | 0.0 | 0.0 | 0.5 | 6.5 | 0.1 | 0.0 | 31.1 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 0.9 | 3.8 | 0.0 | 0.0 | 4.7 | 15.2 | 1.7 | 0.0 | 15.5 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.8 | 10.5 | 0.0 | 0.0 | 15.4 | 27.7 | 33.1 | 0.0 | 73.8 | | | |
| LnGrp LOS | E | B | A | A | B | C | C | A | E | | | |
| Approach Vol, veh/h | | 751 | | | 1343 | | | 580 | | | | |
| Approach Delay, s/veh | | 14.5 | | | 21.6 | | | 62.7 | | | | |
| Approach LOS | | B | | | C | | | E | | | | |

| Timer - Assigned Phs | 2 | 4 | 7 | 8 |
|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 38.7 | 81.2 | 9.6 | 71.6 |
| Change Period (Y+Rc), s | 5.8 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 33.0 | 75.4 | 36.0 | 34.8 |
| Max Q Clear Time (g_c+I1), s | 32.8 | 12.4 | 4.1 | 41.8 |
| Green Ext Time (p_c), s | 0.1 | 4.9 | 0.1 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 28.5 |
| HCM 6th LOS | C |

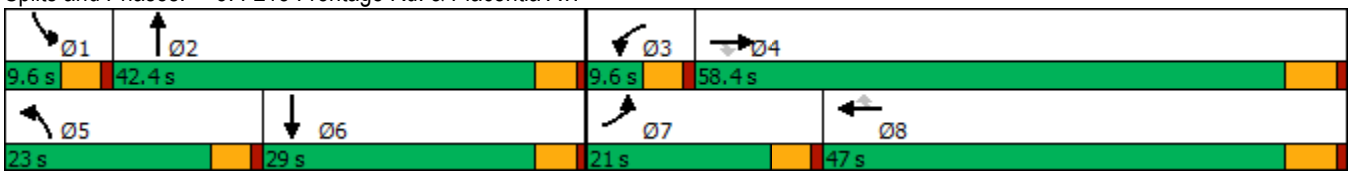
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 58.4 | 58.4 | 9.6 | 47.0 | 47.0 | 23.0 | 42.4 | 9.6 | 29.0 |
| Total Split (%) | 17.5% | 48.7% | 48.7% | 8.0% | 39.2% | 39.2% | 19.2% | 35.3% | 8.0% | 24.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 11.8 | 56.5 | 56.5 | 5.1 | 41.6 | 41.6 | 13.7 | 29.0 | 5.1 | 12.2 |
| Actuated g/C Ratio | 0.12 | 0.57 | 0.57 | 0.05 | 0.42 | 0.42 | 0.14 | 0.29 | 0.05 | 0.12 |
| v/c Ratio | 0.66 | 0.44 | 0.07 | 0.13 | 0.74 | 0.02 | 0.65 | 0.62 | 0.13 | 0.43 |
| Control Delay | 58.2 | 14.8 | 0.2 | 53.4 | 29.7 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| Queue Delay | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.2 | 16.7 | 0.2 | 53.4 | 29.7 | 0.0 | 54.4 | 19.4 | 53.4 | 25.2 |
| LOS | E | B | A | D | C | A | D | B | D | C |
| Approach Delay | | 20.8 | | | 29.6 | | | 29.7 | | 27.8 |
| Approach LOS | | C | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 99.2 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.74 | |
| Intersection Signal Delay: 26.2 | Intersection LOS: C |
| Intersection Capacity Utilization 69.0% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 907 | 73 | 12 | 1120 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 79 | 359 | 85 | 124 | 221 |
| Arrive On Green | 0.10 | 0.49 | 0.49 | 0.01 | 0.41 | 0.41 | 0.11 | 0.26 | 0.26 | 0.05 | 0.20 | 0.20 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 907 | 73 | 12 | 1120 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.2 | 18.2 | 2.6 | 0.7 | 28.4 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.2 | 18.2 | 2.6 | 0.7 | 28.4 | 0.5 | 9.4 | 0.0 | 24.2 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 173 | 1776 | 792 | 25 | 1480 | 660 | 196 | 0 | 437 | 85 | 0 | 345 |
| V/C Ratio(X) | 0.81 | 0.51 | 0.09 | 0.47 | 0.76 | 0.02 | 0.83 | 0.00 | 0.89 | 0.14 | 0.00 | 0.34 |
| Avail Cap(c_a), veh/h | 277 | 1776 | 792 | 85 | 1480 | 660 | 311 | 0 | 585 | 85 | 0 | 389 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.4 | 18.4 | 14.5 | 52.3 | 27.0 | 18.8 | 46.7 | 0.0 | 37.8 | 48.9 | 0.0 | 36.5 |
| Incr Delay (d2), s/veh | 4.1 | 1.1 | 0.2 | 5.0 | 3.7 | 0.1 | 9.6 | 0.0 | 12.6 | 0.8 | 0.0 | 0.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.8 | 7.2 | 0.9 | 0.3 | 12.1 | 0.2 | 4.8 | 0.0 | 11.3 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.5 | 19.5 | 14.7 | 57.3 | 30.6 | 18.8 | 56.2 | 0.0 | 50.4 | 49.7 | 0.0 | 37.1 |
| LnGrp LOS | D | B | B | E | C | B | E | A | D | D | A | D |
| Approach Vol, veh/h | | 1121 | | | 1144 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 23.2 | | | 30.8 | | | 52.1 | | | 38.3 | |
| Approach LOS | | C | | | C | | | D | | | D | |

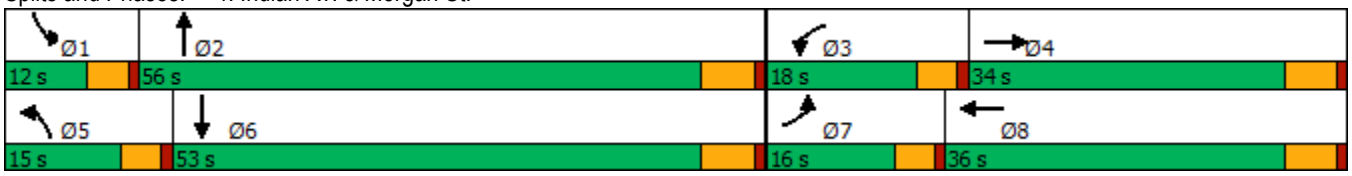
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 32.8 | 6.1 | 58.4 | 16.2 | 26.2 | 14.9 | 49.6 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 18.4 | 24.4 | 16.4 | 41.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 26.2 | 2.7 | 20.2 | 11.4 | 8.3 | 10.2 | 30.4 |
| Green Ext Time (p_c), s | 0.0 | 2.1 | 0.0 | 6.9 | 0.2 | 0.5 | 0.1 | 5.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 32.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 36 | 80 | 39 | 124 | 119 | 241 | 6 | 138 |
| Future Volume (vph) | 36 | 80 | 39 | 124 | 119 | 241 | 6 | 138 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 16.0 | 34.0 | 18.0 | 36.0 | 15.0 | 56.0 | 12.0 | 53.0 |
| Total Split (%) | 13.3% | 28.3% | 15.0% | 30.0% | 12.5% | 46.7% | 10.0% | 44.2% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 7.0 | 12.7 | 7.1 | 12.8 | 10.5 | 61.1 | 5.3 | 47.8 |
| Actuated g/C Ratio | 0.07 | 0.13 | 0.08 | 0.14 | 0.11 | 0.65 | 0.06 | 0.51 |
| v/c Ratio | 0.33 | 0.38 | 0.35 | 0.33 | 0.73 | 0.17 | 0.07 | 0.13 |
| Control Delay | 51.6 | 20.9 | 51.7 | 38.3 | 65.0 | 8.5 | 49.2 | 11.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 51.6 | 20.9 | 51.7 | 38.3 | 65.0 | 8.5 | 49.2 | 11.2 |
| LOS | D | C | D | D | E | A | D | B |
| Approach Delay | | 26.4 | | 41.4 | | 23.7 | | 12.3 |
| Approach LOS | | C | | D | | C | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 94.6 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.73 | |
| Intersection Signal Delay: 25.0 | Intersection LOS: C |
| Intersection Capacity Utilization 45.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 80 | 85 | 39 | 124 | 7 | 119 | 241 | 81 | 6 | 138 | 56 |
| Future Volume (veh/h) | 36 | 80 | 85 | 39 | 124 | 7 | 119 | 241 | 81 | 6 | 138 | 56 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 44 | 98 | 84 | 48 | 151 | 9 | 145 | 294 | 98 | 7 | 168 | 53 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 67 | 234 | 182 | 70 | 426 | 25 | 178 | 1616 | 528 | 16 | 1402 | 429 |
| Arrive On Green | 0.04 | 0.12 | 0.12 | 0.04 | 0.12 | 0.12 | 0.10 | 0.60 | 0.60 | 0.01 | 0.52 | 0.52 |
| Sat Flow, veh/h | 1810 | 1925 | 1498 | 1810 | 3462 | 205 | 1810 | 2674 | 874 | 1810 | 2723 | 832 |
| Grp Volume(v), veh/h | 44 | 91 | 91 | 48 | 78 | 82 | 145 | 197 | 195 | 7 | 110 | 111 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1617 | 1810 | 1805 | 1861 | 1810 | 1805 | 1743 | 1810 | 1805 | 1750 |
| Q Serve(g_s), s | 2.2 | 4.3 | 4.8 | 2.4 | 3.6 | 3.7 | 7.2 | 4.4 | 4.6 | 0.4 | 2.9 | 3.0 |
| Cycle Q Clear(g_c), s | 2.2 | 4.3 | 4.8 | 2.4 | 3.6 | 3.7 | 7.2 | 4.4 | 4.6 | 0.4 | 2.9 | 3.0 |
| Prop In Lane | 1.00 | | 0.93 | 1.00 | | 0.11 | 1.00 | | 0.50 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 67 | 219 | 196 | 70 | 222 | 229 | 178 | 1091 | 1053 | 16 | 930 | 901 |
| V/C Ratio(X) | 0.66 | 0.42 | 0.46 | 0.69 | 0.35 | 0.36 | 0.82 | 0.18 | 0.19 | 0.43 | 0.12 | 0.12 |
| Avail Cap(c_a), veh/h | 225 | 555 | 498 | 265 | 595 | 613 | 205 | 1091 | 1053 | 146 | 930 | 901 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 43.6 | 37.3 | 37.5 | 43.5 | 36.8 | 36.9 | 40.5 | 8.1 | 8.1 | 45.2 | 11.5 | 11.5 |
| Incr Delay (d2), s/veh | 4.1 | 1.3 | 1.7 | 4.5 | 0.9 | 0.9 | 17.2 | 0.4 | 0.4 | 6.7 | 0.3 | 0.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 1.9 | 1.9 | 1.1 | 1.6 | 1.7 | 3.9 | 1.5 | 1.5 | 0.2 | 1.1 | 1.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 47.7 | 38.5 | 39.2 | 48.0 | 37.8 | 37.8 | 57.7 | 8.4 | 8.5 | 51.9 | 11.7 | 11.8 |
| LnGrp LOS | D | D | D | D | D | D | E | A | A | D | B | B |
| Approach Vol, veh/h | | 226 | | | 208 | | | 537 | | | 228 | |
| Approach Delay, s/veh | | 40.6 | | | 40.1 | | | 21.7 | | | 13.0 | |
| Approach LOS | | D | | | D | | | C | | | B | |

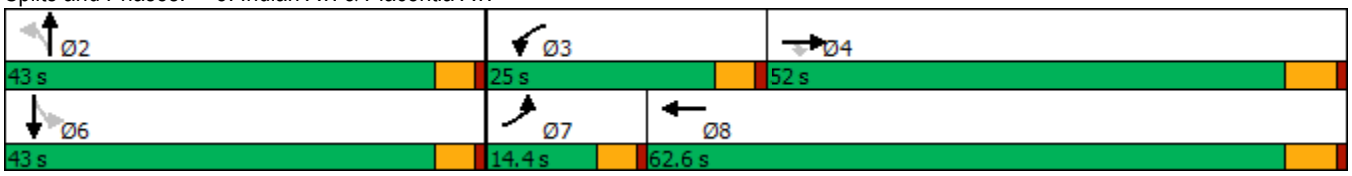
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.4 | 61.2 | 8.1 | 16.9 | 13.6 | 53.0 | 8.0 | 17.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 50.2 | 13.4 | 28.2 | 10.4 | 47.2 | 11.4 | 30.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 6.6 | 4.4 | 6.8 | 9.2 | 5.0 | 4.2 | 5.7 |
| Green Ext Time (p_c), s | 0.0 | 2.2 | 0.0 | 0.9 | 0.0 | 1.2 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 26.8 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 222 | 756 | 146 | 205 | 922 | 42 | 259 | 42 | 157 |
| Future Volume (vph) | 222 | 756 | 146 | 205 | 922 | 42 | 259 | 42 | 157 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 14.4 | 52.0 | 52.0 | 25.0 | 62.6 | 43.0 | 43.0 | 43.0 | 43.0 |
| Total Split (%) | 12.0% | 43.3% | 43.3% | 20.8% | 52.2% | 35.8% | 35.8% | 35.8% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 9.8 | 46.2 | 46.2 | 20.4 | 56.8 | 38.2 | 38.2 | 38.2 | 38.2 |
| Actuated g/C Ratio | 0.08 | 0.39 | 0.39 | 0.17 | 0.47 | 0.32 | 0.32 | 0.32 | 0.32 |
| v/c Ratio | 1.64 | 1.12 | 0.23 | 0.97 | 1.17 | 0.20 | 0.95 | 0.95 | 0.52 |
| Control Delay | 350.1 | 107.5 | 10.3 | 93.9 | 119.6 | 32.5 | 66.2 | 145.7 | 35.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 350.1 | 107.5 | 10.3 | 93.9 | 119.6 | 32.5 | 66.2 | 145.7 | 35.3 |
| LOS | F | F | B | F | F | C | E | F | D |
| Approach Delay | | 142.7 | | | 113.9 | | 63.7 | | 53.5 |
| Approach LOS | | F | | | F | | E | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 119.8 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.64 | |
| Intersection Signal Delay: 108.9 | Intersection LOS: F |
| Intersection Capacity Utilization 104.8% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 222 | 756 | 146 | 205 | 922 | 32 | 42 | 259 | 130 | 42 | 157 | 75 |
| Future Volume (veh/h) | 222 | 756 | 146 | 205 | 922 | 32 | 42 | 259 | 130 | 42 | 157 | 75 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 241 | 822 | 122 | 297 | 1002 | 40 | 46 | 375 | 143 | 61 | 228 | 70 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 148 | 732 | 620 | 308 | 859 | 34 | 266 | 419 | 160 | 103 | 446 | 137 |
| Arrive On Green | 0.08 | 0.38 | 0.38 | 0.17 | 0.47 | 0.47 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1814 | 72 | 1098 | 1310 | 500 | 897 | 1395 | 428 |
| Grp Volume(v), veh/h | 241 | 822 | 122 | 297 | 0 | 1042 | 46 | 0 | 518 | 61 | 0 | 298 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1887 | 1098 | 0 | 1810 | 897 | 0 | 1823 |
| Q Serve(g_s), s | 9.8 | 46.2 | 6.1 | 19.6 | 0.0 | 56.8 | 4.3 | 0.0 | 32.7 | 5.7 | 0.0 | 15.9 |
| Cycle Q Clear(g_c), s | 9.8 | 46.2 | 6.1 | 19.6 | 0.0 | 56.8 | 20.2 | 0.0 | 32.7 | 38.4 | 0.0 | 15.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 0.28 | 1.00 | | 0.23 |
| Lane Grp Cap(c), veh/h | 148 | 732 | 620 | 308 | 0 | 893 | 266 | 0 | 579 | 103 | 0 | 583 |
| V/C Ratio(X) | 1.63 | 1.12 | 0.20 | 0.97 | 0.00 | 1.17 | 0.17 | 0.00 | 0.89 | 0.60 | 0.00 | 0.51 |
| Avail Cap(c_a), veh/h | 148 | 732 | 620 | 308 | 0 | 893 | 266 | 0 | 579 | 103 | 0 | 583 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 55.1 | 36.9 | 24.6 | 49.5 | 0.0 | 31.6 | 41.4 | 0.0 | 38.9 | 58.0 | 0.0 | 33.2 |
| Incr Delay (d2), s/veh | 312.5 | 72.8 | 0.7 | 41.6 | 0.0 | 87.2 | 0.3 | 0.0 | 16.3 | 9.0 | 0.0 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 17.2 | 34.9 | 2.4 | 12.1 | 0.0 | 45.3 | 1.2 | 0.0 | 17.1 | 2.1 | 0.0 | 7.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 367.6 | 109.7 | 25.3 | 91.1 | 0.0 | 118.8 | 41.7 | 0.0 | 55.2 | 67.0 | 0.0 | 33.9 |
| LnGrp LOS | F | F | C | F | A | F | D | A | E | E | A | C |
| Approach Vol, veh/h | | 1185 | | | 1339 | | | 564 | | | 359 | |
| Approach Delay, s/veh | | 153.4 | | | 112.6 | | | 54.1 | | | 39.5 | |
| Approach LOS | | F | | | F | | | D | | | D | |

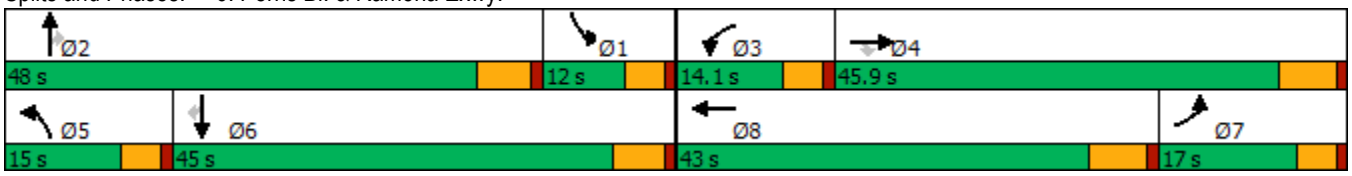
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.0 | 25.0 | 52.0 | | 43.0 | 14.4 | 62.6 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 38.4 | 20.4 | 46.2 | | 38.4 | 9.8 | 56.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 34.7 | 21.6 | 48.2 | | 40.4 | 11.8 | 58.8 | | | | |
| Green Ext Time (p_c), s | | 1.3 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 109.5 |
| HCM 6th LOS | F |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 404 | 762 | 164 | 135 | 1538 | 348 | 827 | 74 | 139 | 421 | 148 |
| Future Volume (vph) | 404 | 762 | 164 | 135 | 1538 | 348 | 827 | 74 | 139 | 421 | 148 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 17.0 | 45.9 | 45.9 | 14.1 | 43.0 | 15.0 | 48.0 | 48.0 | 12.0 | 45.0 | 45.0 |
| Total Split (%) | 14.2% | 38.3% | 38.3% | 11.8% | 35.8% | 12.5% | 40.0% | 40.0% | 10.0% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 12.4 | 41.1 | 41.1 | 8.3 | 36.9 | 10.4 | 33.0 | 33.0 | 7.2 | 29.7 | 29.7 |
| Actuated g/C Ratio | 0.11 | 0.37 | 0.37 | 0.07 | 0.33 | 0.09 | 0.30 | 0.30 | 0.06 | 0.27 | 0.27 |
| v/c Ratio | 1.07 | 0.38 | 0.24 | 0.54 | 0.98 | 1.10 | 0.80 | 0.13 | 0.64 | 0.45 | 0.28 |
| Control Delay | 113.6 | 27.2 | 5.1 | 58.5 | 53.2 | 127.2 | 42.0 | 0.4 | 65.4 | 34.9 | 4.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 113.6 | 27.2 | 5.1 | 58.5 | 53.2 | 127.2 | 42.0 | 0.4 | 65.4 | 34.9 | 4.8 |
| LOS | F | C | A | E | D | F | D | A | E | C | A |
| Approach Delay | | 50.7 | | | 53.6 | | 63.3 | | | 34.6 | |
| Approach LOS | | D | | | D | | E | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 110.8 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.10 | |
| Intersection Signal Delay: 52.6 | Intersection LOS: D |
| Intersection Capacity Utilization 91.4% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 404 | 762 | 164 | 135 | 1538 | 227 | 348 | 827 | 74 | 139 | 421 | 148 |
| Future Volume (veh/h) | 404 | 762 | 164 | 135 | 1538 | 227 | 348 | 827 | 74 | 139 | 421 | 148 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 421 | 794 | 145 | 141 | 1602 | 158 | 362 | 861 | 47 | 145 | 439 | 124 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 390 | 2265 | 640 | 201 | 1681 | 166 | 327 | 1035 | 460 | 204 | 947 | 422 |
| Arrive On Green | 0.11 | 0.40 | 0.40 | 0.06 | 0.33 | 0.33 | 0.09 | 0.29 | 0.29 | 0.06 | 0.26 | 0.26 |
| Sat Flow, veh/h | 3510 | 5700 | 1610 | 3510 | 5106 | 503 | 3510 | 3610 | 1605 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 421 | 794 | 145 | 141 | 1192 | 568 | 362 | 861 | 47 | 145 | 439 | 124 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1900 | 1610 | 1755 | 1900 | 1809 | 1755 | 1805 | 1605 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 12.4 | 10.9 | 6.7 | 4.4 | 34.2 | 34.3 | 10.4 | 24.9 | 1.9 | 4.5 | 11.4 | 4.8 |
| Cycle Q Clear(g_c), s | 12.4 | 10.9 | 6.7 | 4.4 | 34.2 | 34.3 | 10.4 | 24.9 | 1.9 | 4.5 | 11.4 | 4.8 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.28 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 390 | 2265 | 640 | 201 | 1251 | 595 | 327 | 1035 | 460 | 204 | 947 | 422 |
| V/C Ratio(X) | 1.08 | 0.35 | 0.23 | 0.70 | 0.95 | 0.95 | 1.11 | 0.83 | 0.10 | 0.71 | 0.46 | 0.29 |
| Avail Cap(c_a), veh/h | 390 | 2265 | 640 | 299 | 1253 | 597 | 327 | 1365 | 607 | 233 | 1268 | 565 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.6 | 23.5 | 22.3 | 51.7 | 36.6 | 36.6 | 50.6 | 37.3 | 18.2 | 51.6 | 34.6 | 16.3 |
| Incr Delay (d2), s/veh | 68.4 | 0.1 | 0.2 | 1.7 | 15.5 | 26.0 | 81.5 | 3.5 | 0.1 | 6.4 | 0.4 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.9 | 4.6 | 2.4 | 1.9 | 17.5 | 18.4 | 8.1 | 11.0 | 0.9 | 2.1 | 4.9 | 2.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 118.0 | 23.6 | 22.4 | 53.4 | 52.1 | 62.6 | 132.1 | 40.8 | 18.3 | 58.0 | 34.9 | 16.7 |
| LnGrp LOS | F | C | C | D | D | E | F | D | B | E | C | B |
| Approach Vol, veh/h | | 1360 | | | 1901 | | | 1270 | | | 708 | |
| Approach Delay, s/veh | | 52.7 | | | 55.3 | | | 66.0 | | | 36.5 | |
| Approach LOS | | D | | | E | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 12.3 | 37.8 | 11.0 | 50.5 | 15.0 | 35.1 | 18.6 | 42.9 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 7.4 | * 42 | 9.5 | 39.7 | 10.4 | 39.2 | 12.4 | * 37 |
| Max Q Clear Time (g_c+I1), s | 6.5 | 26.9 | 6.4 | 12.9 | 12.4 | 13.4 | 14.4 | 36.3 |
| Green Ext Time (p_c), s | 0.0 | 5.0 | 0.1 | 5.7 | 0.0 | 3.1 | 0.0 | 0.4 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 54.7 |
| HCM 6th LOS | D |

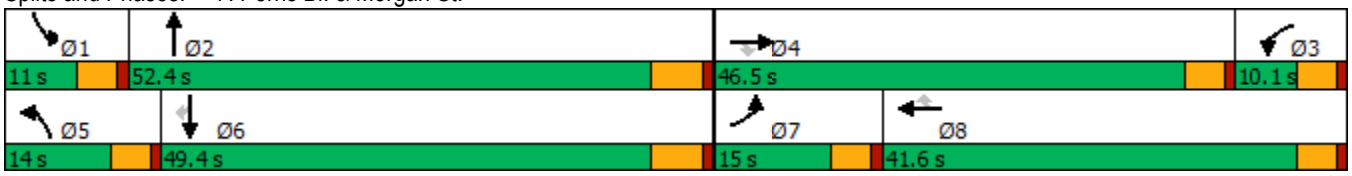
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 88 | 21 | 17 | 47 | 13 | 36 | 1144 | 40 | 631 | 105 |
| Future Volume (vph) | 38 | 88 | 21 | 17 | 47 | 13 | 36 | 1144 | 40 | 631 | 105 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.8 | 19.3 | 19.3 | 9.2 | 17.9 | 17.9 | 8.7 | 35.5 | 8.3 | 35.1 | 35.1 |
| Actuated g/C Ratio | 0.14 | 0.30 | 0.30 | 0.14 | 0.28 | 0.28 | 0.13 | 0.55 | 0.13 | 0.54 | 0.54 |
| v/c Ratio | 0.18 | 0.09 | 0.04 | 0.07 | 0.10 | 0.03 | 0.17 | 0.47 | 0.20 | 0.37 | 0.13 |
| Control Delay | 40.6 | 26.8 | 0.1 | 38.4 | 28.1 | 0.1 | 41.0 | 17.2 | 42.7 | 17.5 | 3.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.6 | 26.8 | 0.1 | 38.4 | 28.1 | 0.1 | 41.0 | 17.2 | 42.7 | 17.5 | 3.4 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 26.5 | | | 25.5 | | | 17.9 | | 16.8 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 65 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.47 | |
| Intersection Signal Delay: 18.4 | Intersection LOS: B |
| Intersection Capacity Utilization 48.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 88 | 21 | 17 | 47 | 13 | 36 | 1144 | 19 | 40 | 631 | 105 |
| Future Volume (veh/h) | 38 | 88 | 21 | 17 | 47 | 13 | 36 | 1144 | 19 | 40 | 631 | 105 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 100 | 8 | 19 | 53 | 13 | 41 | 1300 | 20 | 45 | 717 | 108 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 78 | 609 | 272 | 74 | 316 | 268 | 76 | 2128 | 33 | 81 | 1470 | 647 |
| Arrive On Green | 0.04 | 0.17 | 0.17 | 0.04 | 0.17 | 0.17 | 0.04 | 0.40 | 0.40 | 0.04 | 0.41 | 0.41 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5262 | 81 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 100 | 8 | 19 | 53 | 13 | 41 | 854 | 466 | 45 | 717 | 108 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1885 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.3 | 1.4 | 0.2 | 0.6 | 1.4 | 0.4 | 1.3 | 11.2 | 11.2 | 1.4 | 8.4 | 2.5 |
| Cycle Q Clear(g_c), s | 1.3 | 1.4 | 0.2 | 0.6 | 1.4 | 0.4 | 1.3 | 11.2 | 11.2 | 1.4 | 8.4 | 2.5 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.04 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 78 | 609 | 272 | 74 | 316 | 268 | 76 | 1399 | 762 | 81 | 1470 | 647 |
| V/C Ratio(X) | 0.55 | 0.16 | 0.03 | 0.26 | 0.17 | 0.05 | 0.54 | 0.61 | 0.61 | 0.56 | 0.49 | 0.17 |
| Avail Cap(c_a), veh/h | 328 | 2636 | 1176 | 173 | 1225 | 1038 | 296 | 2808 | 1531 | 202 | 2743 | 1208 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.9 | 20.4 | 11.4 | 26.7 | 20.5 | 20.1 | 27.0 | 13.5 | 13.5 | 26.9 | 12.6 | 10.8 |
| Incr Delay (d2), s/veh | 2.2 | 0.1 | 0.0 | 0.7 | 0.2 | 0.1 | 2.2 | 0.4 | 0.8 | 2.2 | 0.3 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 0.6 | 0.1 | 0.3 | 0.6 | 0.1 | 0.5 | 3.5 | 3.8 | 0.6 | 2.7 | 0.8 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 29.1 | 20.5 | 11.5 | 27.4 | 20.8 | 20.2 | 29.2 | 14.0 | 14.3 | 29.1 | 12.8 | 10.9 |
| LnGrp LOS | C | C | B | C | C | C | C | B | B | C | B | B |
| Approach Vol, veh/h | | 151 | | | 85 | | | 1361 | | | 870 | |
| Approach Delay, s/veh | | 22.5 | | | 22.2 | | | 14.5 | | | 13.4 | |
| Approach LOS | | C | | | C | | | B | | | B | |

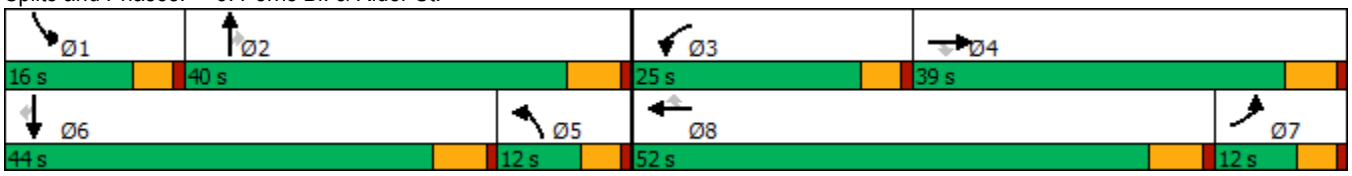
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.2 | 29.0 | 6.9 | 14.3 | 7.0 | 29.2 | 7.1 | 14.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 3.4 | 13.2 | 2.6 | 3.4 | 3.3 | 10.4 | 3.3 | 3.4 |
| Green Ext Time (p_c), s | 0.0 | 10.0 | 0.0 | 0.7 | 0.0 | 5.3 | 0.0 | 0.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.9 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 41 | 159 | 19 | 188 | 323 | 346 | 49 | 874 | 134 | 156 | 450 | 47 |
| Future Volume (vph) | 41 | 159 | 19 | 188 | 323 | 346 | 49 | 874 | 134 | 156 | 450 | 47 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 8.6 | 13.7 | 13.7 | 13.2 | 23.1 | 23.1 | 13.3 | 22.1 | 22.1 | 11.6 | 25.3 | 25.3 |
| Actuated g/C Ratio | 0.10 | 0.17 | 0.17 | 0.16 | 0.28 | 0.28 | 0.16 | 0.27 | 0.27 | 0.14 | 0.31 | 0.31 |
| v/c Ratio | 0.22 | 0.27 | 0.05 | 0.66 | 0.32 | 0.50 | 0.17 | 0.63 | 0.25 | 0.62 | 0.29 | 0.08 |
| Control Delay | 40.9 | 32.4 | 0.2 | 46.7 | 27.1 | 6.4 | 34.6 | 29.6 | 4.2 | 50.0 | 27.2 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.9 | 32.4 | 0.2 | 46.7 | 27.1 | 6.4 | 34.6 | 29.6 | 4.2 | 50.0 | 27.2 | 0.2 |
| LOS | D | C | A | D | C | A | C | C | A | D | C | A |
| Approach Delay | | 31.2 | | | 23.1 | | | 26.6 | | | 30.7 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 82.4 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 26.9 | Intersection LOS: C |
| Intersection Capacity Utilization 61.9% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 41 | 159 | 19 | 188 | 323 | 346 | 49 | 874 | 134 | 156 | 450 | 47 |
| Future Volume (veh/h) | 41 | 159 | 19 | 188 | 323 | 346 | 49 | 874 | 134 | 156 | 450 | 47 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 41 | 161 | 7 | 190 | 326 | 214 | 49 | 883 | 103 | 158 | 455 | 32 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 195 | 563 | 251 | 238 | 581 | 259 | 375 | 1440 | 441 | 200 | 839 | 261 |
| Arrive On Green | 0.11 | 0.16 | 0.16 | 0.13 | 0.16 | 0.16 | 0.21 | 0.28 | 0.28 | 0.11 | 0.16 | 0.16 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1588 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 41 | 161 | 7 | 190 | 326 | 214 | 49 | 883 | 103 | 158 | 455 | 32 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1588 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.3 | 2.5 | 0.1 | 6.5 | 5.3 | 5.6 | 1.4 | 9.5 | 3.2 | 5.5 | 5.2 | 1.1 |
| Cycle Q Clear(g_c), s | 1.3 | 2.5 | 0.1 | 6.5 | 5.3 | 5.6 | 1.4 | 9.5 | 3.2 | 5.5 | 5.2 | 1.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 195 | 563 | 251 | 238 | 581 | 259 | 375 | 1440 | 441 | 200 | 839 | 261 |
| V/C Ratio(X) | 0.21 | 0.29 | 0.03 | 0.80 | 0.56 | 0.83 | 0.13 | 0.61 | 0.23 | 0.79 | 0.54 | 0.12 |
| Avail Cap(c_a), veh/h | 209 | 1870 | 834 | 576 | 2603 | 1161 | 375 | 2768 | 847 | 322 | 3092 | 960 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 26.1 | 23.9 | 6.7 | 27.0 | 24.8 | 11.9 | 20.7 | 20.1 | 17.9 | 27.8 | 24.7 | 23.0 |
| Incr Delay (d2), s/veh | 0.2 | 0.3 | 0.0 | 2.4 | 0.9 | 6.6 | 0.1 | 0.4 | 0.3 | 2.7 | 0.5 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.5 | 1.0 | 0.1 | 2.7 | 2.1 | 3.1 | 0.5 | 3.4 | 1.1 | 2.3 | 1.9 | 0.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 26.3 | 24.2 | 6.7 | 29.4 | 25.7 | 18.4 | 20.7 | 20.6 | 18.1 | 30.5 | 25.2 | 23.2 |
| LnGrp LOS | C | C | A | C | C | B | C | C | B | C | C | C |
| Approach Vol, veh/h | | 209 | | | 730 | | | 1035 | | | 645 | |
| Approach Delay, s/veh | | 24.0 | | | 24.5 | | | 20.3 | | | 26.4 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 11.7 | 23.6 | 13.0 | 15.8 | 19.1 | 16.2 | 12.7 | 16.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 7.5 | 11.5 | 8.5 | 4.5 | 3.4 | 7.2 | 3.3 | 7.6 |
| Green Ext Time (p_c), s | 0.1 | 6.2 | 0.2 | 0.9 | 0.0 | 3.0 | 0.0 | 2.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.3 |
| HCM 6th LOS | C |

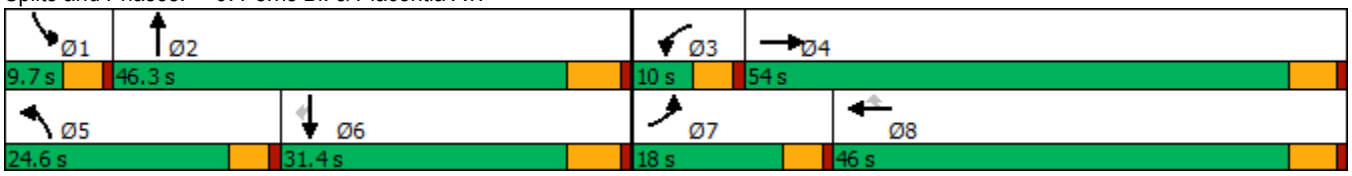
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 186 | 433 | 59 | 602 | 242 | 271 | 1066 | 42 | 601 | 226 |
| Future Volume (vph) | 186 | 433 | 59 | 602 | 242 | 271 | 1066 | 42 | 601 | 226 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 18.0 | 54.0 | 10.0 | 46.0 | 46.0 | 24.6 | 46.3 | 9.7 | 31.4 | 31.4 |
| Total Split (%) | 15.0% | 45.0% | 8.3% | 38.3% | 38.3% | 20.5% | 38.6% | 8.1% | 26.2% | 26.2% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 13.4 | 50.6 | 5.4 | 40.6 | 40.6 | 19.9 | 42.3 | 5.1 | 25.6 | 25.6 |
| Actuated g/C Ratio | 0.11 | 0.42 | 0.05 | 0.34 | 0.34 | 0.17 | 0.35 | 0.04 | 0.21 | 0.21 |
| v/c Ratio | 0.98 | 0.91 | 0.77 | 0.99 | 0.38 | 0.96 | 0.93 | 0.58 | 0.82 | 0.46 |
| Control Delay | 110.6 | 49.8 | 106.6 | 72.2 | 9.9 | 91.9 | 51.1 | 85.6 | 54.9 | 8.9 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 110.6 | 49.8 | 106.6 | 72.2 | 9.9 | 91.9 | 51.1 | 85.6 | 54.9 | 8.9 |
| LOS | F | D | F | E | A | F | D | F | D | A |
| Approach Delay | | 62.9 | | 57.7 | | | 59.1 | | 44.4 | |
| Approach LOS | | E | | E | | | E | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 119.9 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.99 | |
| Intersection Signal Delay: 56.4 | Intersection LOS: E |
| Intersection Capacity Utilization 94.2% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 186 | 433 | 239 | 59 | 602 | 242 | 271 | 1066 | 50 | 42 | 601 | 226 |
| Future Volume (veh/h) | 186 | 433 | 239 | 59 | 602 | 242 | 271 | 1066 | 50 | 42 | 601 | 226 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 196 | 456 | 247 | 62 | 634 | 153 | 285 | 1122 | 46 | 44 | 633 | 229 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 202 | 470 | 255 | 80 | 643 | 543 | 302 | 1228 | 50 | 58 | 770 | 342 |
| Arrive On Green | 0.11 | 0.41 | 0.41 | 0.04 | 0.34 | 0.34 | 0.17 | 0.35 | 0.35 | 0.03 | 0.21 | 0.21 |
| Sat Flow, veh/h | 1810 | 1159 | 628 | 1810 | 1900 | 1604 | 1810 | 3530 | 145 | 1810 | 3610 | 1603 |
| Grp Volume(v), veh/h | 196 | 0 | 703 | 62 | 634 | 153 | 285 | 573 | 595 | 44 | 633 | 229 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1787 | 1810 | 1900 | 1604 | 1810 | 1805 | 1870 | 1810 | 1805 | 1603 |
| Q Serve(g_s), s | 12.9 | 0.0 | 46.2 | 4.1 | 39.8 | 8.4 | 18.7 | 36.4 | 36.5 | 2.9 | 20.1 | 15.7 |
| Cycle Q Clear(g_c), s | 12.9 | 0.0 | 46.2 | 4.1 | 39.8 | 8.4 | 18.7 | 36.4 | 36.5 | 2.9 | 20.1 | 15.7 |
| Prop In Lane | 1.00 | | 0.35 | 1.00 | | 1.00 | 1.00 | | 0.08 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 202 | 0 | 725 | 80 | 643 | 543 | 302 | 628 | 651 | 58 | 770 | 342 |
| V/C Ratio(X) | 0.97 | 0.00 | 0.97 | 0.78 | 0.99 | 0.28 | 0.94 | 0.91 | 0.91 | 0.76 | 0.82 | 0.67 |
| Avail Cap(c_a), veh/h | 202 | 0 | 725 | 81 | 643 | 543 | 302 | 628 | 651 | 77 | 770 | 342 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 53.1 | 0.0 | 34.9 | 56.8 | 39.4 | 29.0 | 49.5 | 37.4 | 37.4 | 57.6 | 45.0 | 43.3 |
| Incr Delay (d2), s/veh | 54.2 | 0.0 | 25.9 | 32.9 | 31.9 | 0.3 | 37.0 | 19.9 | 19.5 | 17.8 | 9.6 | 10.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 8.8 | 0.0 | 24.1 | 2.5 | 23.3 | 3.2 | 11.6 | 19.5 | 20.2 | 1.6 | 9.7 | 7.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 107.3 | 0.0 | 60.9 | 89.7 | 71.3 | 29.3 | 86.4 | 57.3 | 56.9 | 75.5 | 54.7 | 53.3 |
| LnGrp LOS | F | A | E | F | E | C | F | E | E | E | D | D |
| Approach Vol, veh/h | | 899 | | | 849 | | | 1453 | | | 906 | |
| Approach Delay, s/veh | | 71.0 | | | 65.1 | | | 62.9 | | | 55.3 | |
| Approach LOS | | E | | | E | | | E | | | E | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.4 | 47.6 | 9.9 | 54.1 | 24.6 | 31.4 | 18.0 | 46.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 5.1 | 40.5 | 5.4 | 48.6 | 20.0 | 25.6 | 13.4 | 40.6 |
| Max Q Clear Time (g_c+I1), s | 4.9 | 38.5 | 6.1 | 48.2 | 20.7 | 22.1 | 14.9 | 41.8 |
| Green Ext Time (p_c), s | 0.0 | 1.4 | 0.0 | 0.2 | 0.0 | 1.6 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 63.4 |
| HCM 6th LOS | E |

| Intersection | |
|---|---|
| Int Delay, s/veh | 4.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 34 | 32 | 75 | 1 | 5 | 1 | 25 | 63 | 0 | 3 | 141 | 49 |
| Future Vol, veh/h | 34 | 32 | 75 | 1 | 5 | 1 | 25 | 63 | 0 | 3 | 141 | 49 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | - | - | - | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 59 | 55 | 129 | 2 | 9 | 2 | 43 | 109 | 0 | 5 | 243 | 84 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 454 | 448 | 243 | 582 | 532 | 109 | 327 | 0 | 0 | 109 | 0 | 0 |
| Stage 1 | 253 | 253 | - | 195 | 195 | - | - | - | - | - | - | - |
| Stage 2 | 201 | 195 | - | 387 | 337 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 520 | 509 | 801 | 427 | 456 | 950 | 1244 | - | - | 1494 | - | - |
| Stage 1 | 756 | 701 | - | 811 | 743 | - | - | - | - | - | - | - |
| Stage 2 | 805 | 743 | - | 641 | 645 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 496 | 489 | 801 | 318 | 438 | 950 | 1244 | - | - | 1494 | - | - |
| Mov Cap-2 Maneuver | 496 | 489 | - | 318 | 438 | - | - | - | - | - | - | - |
| Stage 1 | 730 | 698 | - | 783 | 717 | - | - | - | - | - | - | - |
| Stage 2 | 766 | 717 | - | 493 | 642 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 12.6 | 13.3 | 2.3 | 0.1 |
| HCM LOS | B | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1244 | - | - | 496 | 673 | 448 | 1494 | - | - |
| HCM Lane V/C Ratio | 0.035 | - | - | 0.118 | 0.274 | 0.027 | 0.003 | - | - |
| HCM Control Delay (s) | 8 | - | - | 13.2 | 12.4 | 13.3 | 7.4 | 0 | - |
| HCM Lane LOS | A | - | - | B | B | B | A | A | - |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.4 | 1.1 | 0.1 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.1 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 3 | 86 | 0 | 0 | 217 |
| Future Vol, veh/h | 0 | 3 | 86 | 0 | 0 | 217 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 3 | 93 | 0 | 0 | 236 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 47 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 1019 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 1019 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 8.5 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1019 | - |
| HCM Lane V/C Ratio | - | - | 0.003 | - |
| HCM Control Delay (s) | - | - | 8.5 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 6 | 0 | 10 | 0 | 0 | 6 | 0 | 74 | 3 | 16 | 182 | 19 |
| Future Vol, veh/h | 6 | 0 | 10 | 0 | 0 | 6 | 0 | 74 | 3 | 16 | 182 | 19 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 7 | 0 | 11 | 0 | 0 | 7 | 0 | 80 | 3 | 17 | 198 | 21 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 283 | 326 | 209 | - | - | 42 | - | 0 | 0 | 83 | 0 | 0 |
| Stage 1 | 243 | 243 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 40 | 83 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.5 | 6.2 | - | - | 6.9 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | - | - | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 663 | 596 | 836 | 0 | 0 | 1026 | 0 | - | - | 1527 | - | - |
| Stage 1 | 765 | 708 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Stage 2 | 976 | 830 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 653 | 589 | 836 | - | - | 1026 | - | - | - | 1527 | - | - |
| Mov Cap-2 Maneuver | 653 | 589 | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | 765 | 700 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 970 | 830 | - | - | - | - | - | - | - | - | - | - |

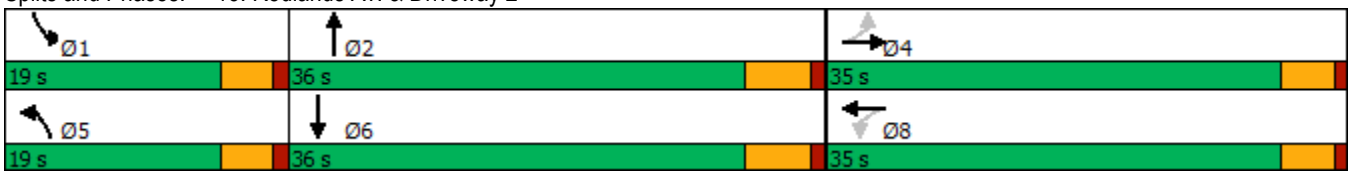
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9.9 | 8.5 | 0 | 0.5 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 756 | 1026 | 1527 | - | - |
| HCM Lane V/C Ratio | - | - | 0.023 | 0.006 | 0.011 | - | - |
| HCM Control Delay (s) | - | - | 9.9 | 8.5 | 7.4 | - | - |
| HCM Lane LOS | - | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0 | 0 | - | - |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 8 | 0 | 2 | 0 | 10 | 57 | 47 | 121 |
| Future Volume (vph) | 8 | 0 | 2 | 0 | 10 | 57 | 47 | 121 |
| Turn Type | Perm | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 4 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 26.6 | 26.6 | 26.6 | 26.6 | 9.6 | 22.4 | 9.6 | 22.4 |
| Total Split (s) | 35.0 | 35.0 | 35.0 | 35.0 | 19.0 | 36.0 | 19.0 | 36.0 |
| Total Split (%) | 38.9% | 38.9% | 38.9% | 38.9% | 21.1% | 40.0% | 21.1% | 40.0% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 4.6 | | 4.6 | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | | | | | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | | | | | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | | 10.1 | | 10.1 | 5.2 | 42.6 | 6.2 | 49.6 |
| Actuated g/C Ratio | | 0.18 | | 0.18 | 0.09 | 0.78 | 0.11 | 0.90 |
| v/c Ratio | | 0.03 | | 0.04 | 0.06 | 0.02 | 0.25 | 0.05 |
| Control Delay | | 20.4 | | 0.2 | 25.1 | 4.9 | 26.2 | 2.6 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 20.4 | | 0.2 | 25.1 | 4.9 | 26.2 | 2.6 |
| LOS | | C | | A | C | A | C | A |
| Approach Delay | | 20.4 | | 0.2 | | 7.8 | | 8.3 |
| Approach LOS | | C | | A | | A | | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 54.9 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.25 | |
| Intersection Signal Delay: 8.2 | Intersection LOS: A |
| Intersection Capacity Utilization 25.9% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 13: Redlands Av. & Driveway 2



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 8 | 0 | 0 | 2 | 0 | 12 | 10 | 57 | 3 | 47 | 121 | 25 |
| Future Volume (veh/h) | 8 | 0 | 0 | 2 | 0 | 12 | 10 | 57 | 3 | 47 | 121 | 25 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 9 | 0 | 0 | 2 | 0 | 13 | 11 | 62 | 3 | 51 | 132 | 27 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 226 | 0 | 0 | 90 | 3 | 78 | 26 | 2119 | 102 | 91 | 1922 | 384 |
| Arrive On Green | 0.06 | 0.00 | 0.00 | 0.06 | 0.00 | 0.06 | 0.01 | 0.60 | 0.60 | 0.05 | 0.64 | 0.64 |
| Sat Flow, veh/h | 1482 | 0 | 0 | 166 | 47 | 1385 | 1810 | 3506 | 168 | 1810 | 2999 | 599 |
| Grp Volume(v), veh/h | 9 | 0 | 0 | 15 | 0 | 0 | 11 | 32 | 33 | 51 | 78 | 81 |
| Grp Sat Flow(s),veh/h/ln | 1483 | 0 | 0 | 1598 | 0 | 0 | 1810 | 1805 | 1870 | 1810 | 1805 | 1792 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.4 | 0.4 | 1.4 | 0.8 | 0.9 |
| Cycle Q Clear(g_c), s | 0.2 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.3 | 0.4 | 0.4 | 1.4 | 0.8 | 0.9 |
| Prop In Lane | 1.00 | | 0.00 | 0.13 | | 0.87 | 1.00 | | 0.09 | 1.00 | | 0.33 |
| Lane Grp Cap(c), veh/h | 226 | 0 | 0 | 171 | 0 | 0 | 26 | 1091 | 1130 | 91 | 1157 | 1149 |
| V/C Ratio(X) | 0.04 | 0.00 | 0.00 | 0.09 | 0.00 | 0.00 | 0.43 | 0.03 | 0.03 | 0.56 | 0.07 | 0.07 |
| Avail Cap(c_a), veh/h | 1000 | 0 | 0 | 1033 | 0 | 0 | 515 | 1091 | 1130 | 515 | 1157 | 1149 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 22.6 | 0.0 | 0.0 | 22.7 | 0.0 | 0.0 | 24.8 | 4.0 | 4.0 | 23.5 | 3.4 | 3.4 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 2.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.1 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.6 | 0.2 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 22.7 | 0.0 | 0.0 | 23.0 | 0.0 | 0.0 | 28.9 | 4.1 | 4.1 | 25.4 | 3.5 | 3.5 |
| LnGrp LOS | C | A | A | C | A | A | C | A | A | C | A | A |
| Approach Vol, veh/h | | 9 | | | 15 | | | 76 | | | 210 | |
| Approach Delay, s/veh | | 22.7 | | | 23.0 | | | 7.7 | | | 8.9 | |
| Approach LOS | | C | | | C | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.2 | 36.0 | | 7.5 | 5.3 | 37.8 | | 7.5 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | | 4.6 | 4.6 | 5.4 | | 4.6 |
| Max Green Setting (Gmax), s | 14.4 | 30.6 | | 30.4 | 14.4 | 30.6 | | 30.4 |
| Max Q Clear Time (g_c+I1), s | 3.4 | 2.4 | | 2.2 | 2.3 | 2.9 | | 2.4 |
| Green Ext Time (p_c), s | 0.0 | 0.3 | | 0.0 | 0.0 | 0.8 | | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 9.7 |
| HCM 6th LOS | A |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 66 | 3 | 0 | 112 | 10 |
| Future Vol, veh/h | 0 | 0 | 6 | 0 | 0 | 1 | 0 | 66 | 3 | 0 | 112 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 7 | 0 | 0 | 1 | 0 | 72 | 3 | 0 | 122 | 11 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | - | 67 | - | - | 38 | - | 0 | 0 | - | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.9 | - | - | 6.9 | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.3 | - | - | 3.3 | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 989 | 0 | 0 | 1032 | 0 | - | - | 0 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Platoon blocked, % | | | | - | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | - | 989 | - | - | 1032 | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

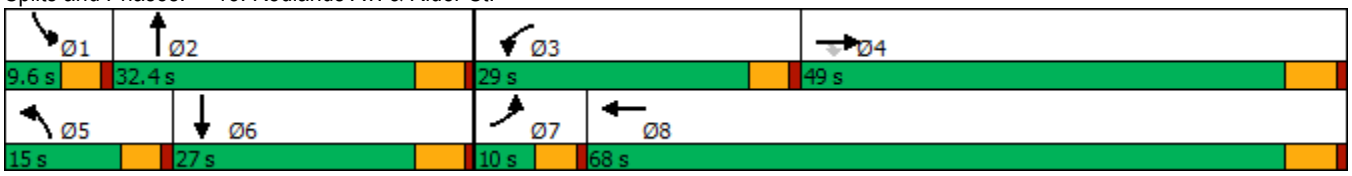
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.7 | 8.5 | 0 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 989 | 1032 | - | - |
| HCM Lane V/C Ratio | - | - | 0.007 | 0.001 | - | - |
| HCM Control Delay (s) | - | - | 8.7 | 8.5 | - | - |
| HCM Lane LOS | - | - | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 31 | 382 | 12 | 175 | 735 | 49 | 35 | 15 | 38 |
| Future Volume (vph) | 31 | 382 | 12 | 175 | 735 | 49 | 35 | 15 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 9.6 | 22.4 |
| Total Split (s) | 10.0 | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 9.6 | 27.0 |
| Total Split (%) | 8.3% | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 8.0% | 22.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.3 | 49.0 | 49.0 | 14.8 | 62.9 | 7.5 | 16.7 | 5.1 | 10.4 |
| Actuated g/C Ratio | 0.05 | 0.49 | 0.49 | 0.15 | 0.63 | 0.08 | 0.17 | 0.05 | 0.10 |
| v/c Ratio | 0.35 | 0.45 | 0.01 | 0.72 | 0.36 | 0.40 | 0.58 | 0.18 | 0.25 |
| Control Delay | 59.7 | 20.7 | 0.0 | 56.8 | 10.9 | 55.5 | 14.2 | 54.1 | 23.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 59.7 | 20.7 | 0.0 | 56.8 | 10.9 | 55.5 | 14.2 | 54.1 | 23.5 |
| LOS | E | C | A | E | B | E | B | D | C |
| Approach Delay | | 23.0 | | | 19.6 | | 20.9 | | 27.7 |
| Approach LOS | | C | | | B | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 100 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.72 | |
| Intersection Signal Delay: 21.2 | Intersection LOS: C |
| Intersection Capacity Utilization 58.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 31 | 382 | 12 | 175 | 735 | 4 | 49 | 35 | 216 | 15 | 38 | 53 |
| Future Volume (veh/h) | 31 | 382 | 12 | 175 | 735 | 4 | 49 | 35 | 216 | 15 | 38 | 53 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 34 | 420 | 13 | 192 | 808 | 4 | 54 | 38 | 237 | 16 | 42 | 58 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 54 | 913 | 774 | 224 | 2117 | 10 | 70 | 43 | 269 | 32 | 304 | 271 |
| Arrive On Green | 0.03 | 0.48 | 0.48 | 0.12 | 0.57 | 0.57 | 0.04 | 0.19 | 0.19 | 0.02 | 0.17 | 0.17 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3683 | 18 | 1810 | 227 | 1418 | 1810 | 1805 | 1610 |
| Grp Volume(v), veh/h | 34 | 420 | 13 | 192 | 396 | 416 | 54 | 0 | 275 | 16 | 42 | 58 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 1897 | 1810 | 0 | 1645 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 2.0 | 15.9 | 0.5 | 11.3 | 12.9 | 12.9 | 3.2 | 0.0 | 17.6 | 0.9 | 2.1 | 3.4 |
| Cycle Q Clear(g_c), s | 2.0 | 15.9 | 0.5 | 11.3 | 12.9 | 12.9 | 3.2 | 0.0 | 17.6 | 0.9 | 2.1 | 3.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.01 | 1.00 | | 0.86 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 54 | 913 | 774 | 224 | 1038 | 1090 | 70 | 0 | 312 | 32 | 304 | 271 |
| V/C Ratio(X) | 0.64 | 0.46 | 0.02 | 0.86 | 0.38 | 0.38 | 0.77 | 0.00 | 0.88 | 0.50 | 0.14 | 0.21 |
| Avail Cap(c_a), veh/h | 90 | 913 | 774 | 408 | 1038 | 1090 | 174 | 0 | 410 | 84 | 360 | 321 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.9 | 18.7 | 14.7 | 46.5 | 12.5 | 12.5 | 51.5 | 0.0 | 42.7 | 52.7 | 38.3 | 38.8 |
| Incr Delay (d2), s/veh | 4.6 | 1.7 | 0.0 | 3.7 | 1.1 | 1.0 | 6.5 | 0.0 | 16.1 | 4.5 | 0.2 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.0 | 6.9 | 0.2 | 5.1 | 5.0 | 5.2 | 1.5 | 0.0 | 8.3 | 0.5 | 0.9 | 1.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.5 | 20.4 | 14.8 | 50.1 | 13.6 | 13.5 | 58.1 | 0.0 | 58.7 | 57.1 | 38.5 | 39.2 |
| LnGrp LOS | E | C | B | D | B | B | E | A | E | E | D | D |
| Approach Vol, veh/h | | 467 | | | 1004 | | | 329 | | | 116 | |
| Approach Delay, s/veh | | 22.9 | | | 20.6 | | | 58.6 | | | 41.4 | |
| Approach LOS | | C | | | C | | | E | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.5 | 25.9 | 18.0 | 57.8 | 8.8 | 23.6 | 7.8 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 2.9 | 19.6 | 13.3 | 17.9 | 5.2 | 5.4 | 4.0 | 14.9 |
| Green Ext Time (p_c), s | 0.0 | 0.9 | 0.2 | 2.4 | 0.0 | 0.4 | 0.0 | 5.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 28.9 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 61 |
| Intersection LOS | F |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 46 | 249 | 146 | 50 | 281 | 4 | 274 | 240 | 24 | 8 | 191 | 50 |
| Future Vol, veh/h | 46 | 249 | 146 | 50 | 281 | 4 | 274 | 240 | 24 | 8 | 191 | 50 |
| Peak Hour Factor | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 | 0.78 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 59 | 319 | 187 | 64 | 360 | 5 | 351 | 308 | 31 | 10 | 245 | 64 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

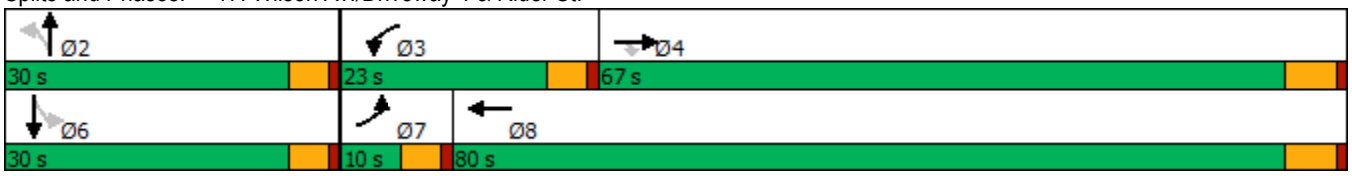
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 49.1 | 92.4 | 61.5 | 38.6 |
| HCM LOS | E | F | F | E |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 77% | 0% | 100% | 0% | 0% | 99% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 23% | 0% | 0% | 100% | 0% | 1% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 274 | 160 | 104 | 46 | 249 | 146 | 50 | 285 | 8 | 191 | 50 |
| LT Vol | 274 | 0 | 0 | 46 | 0 | 0 | 50 | 0 | 8 | 0 | 0 |
| Through Vol | 0 | 160 | 80 | 0 | 249 | 0 | 0 | 281 | 0 | 191 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 146 | 0 | 4 | 0 | 0 | 50 |
| Lane Flow Rate | 351 | 205 | 133 | 59 | 319 | 187 | 64 | 365 | 10 | 245 | 64 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 1.045 | 0.583 | 0.373 | 0.182 | 0.942 | 0.517 | 0.198 | 1.079 | 0.034 | 0.773 | 0.19 |
| Departure Headway (Hd) | 11.23 | 10.709 | 10.54 | 11.503 | 10.986 | 10.263 | 11.288 | 10.778 | 12.353 | 11.828 | 11.094 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 327 | 338 | 344 | 314 | 332 | 354 | 320 | 340 | 292 | 309 | 326 |
| Service Time | 8.93 | 8.409 | 8.24 | 9.203 | 8.686 | 7.963 | 8.988 | 8.478 | 10.053 | 9.528 | 8.794 |
| HCM Lane V/C Ratio | 1.073 | 0.607 | 0.387 | 0.188 | 0.961 | 0.528 | 0.2 | 1.074 | 0.034 | 0.793 | 0.196 |
| HCM Control Delay | 97.4 | 27.3 | 19.4 | 16.7 | 70.1 | 23.4 | 16.8 | 105.7 | 15.5 | 45.4 | 16.4 |
| HCM Lane LOS | F | D | C | C | F | C | C | F | C | E | C |
| HCM 95th-tile Q | 12.1 | 3.5 | 1.7 | 0.7 | 9.6 | 2.8 | 0.7 | 13.4 | 0.1 | 6 | 0.7 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 36 | 601 | 50 | 220 | 905 | 43 | 16 | 0 |
| Future Volume (vph) | 36 | 601 | 50 | 220 | 905 | 43 | 16 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | 6 |
| Permitted Phases | | | 4 | | | 2 | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 22.8 | 22.8 | 9.6 | 22.8 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 67.0 | 67.0 | 23.0 | 80.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 8.3% | 55.8% | 55.8% | 19.2% | 66.7% | 25.0% | 25.0% | 25.0% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 5.3 | 61.4 | 61.4 | 18.0 | 76.1 | | 17.6 | 17.6 |
| Actuated g/C Ratio | 0.05 | 0.55 | 0.55 | 0.16 | 0.68 | | 0.16 | 0.16 |
| v/c Ratio | 0.49 | 0.68 | 0.06 | 0.90 | 0.43 | | 0.81 | 0.02 |
| Control Delay | 73.7 | 23.6 | 0.9 | 79.6 | 10.0 | | 44.7 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 73.7 | 23.6 | 0.9 | 79.6 | 10.0 | | 44.7 | 0.0 |
| LOS | E | C | A | E | A | | D | A |
| Approach Delay | | 24.5 | | | 23.6 | | 44.7 | |
| Approach LOS | | C | | | C | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.90 | |
| Intersection Signal Delay: 26.3 | Intersection LOS: C |
| Intersection Capacity Utilization 77.4% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 17: Wilson Av./Driveway 4 & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 36 | 601 | 50 | 220 | 905 | 0 | 43 | 16 | 181 | 0 | 0 | 6 |
| Future Volume (veh/h) | 36 | 601 | 50 | 220 | 905 | 0 | 43 | 16 | 181 | 0 | 0 | 6 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 42 | 707 | 59 | 259 | 1065 | 0 | 51 | 19 | 213 | 0 | 0 | 7 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 58 | 991 | 839 | 284 | 2335 | 0 | 80 | 34 | 234 | 0 | 0 | 312 |
| Arrive On Green | 0.03 | 0.52 | 0.52 | 0.16 | 0.65 | 0.00 | 0.19 | 0.19 | 0.19 | 0.00 | 0.00 | 0.19 |
| Sat Flow, veh/h | 1810 | 1900 | 1609 | 1810 | 3705 | 0 | 224 | 174 | 1211 | 0 | 0 | 1610 |
| Grp Volume(v), veh/h | 42 | 707 | 59 | 259 | 1065 | 0 | 283 | 0 | 0 | 0 | 0 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1609 | 1810 | 1805 | 0 | 1609 | 0 | 0 | 0 | 0 | 1610 |
| Q Serve(g_s), s | 2.7 | 33.2 | 2.1 | 16.5 | 17.3 | 0.0 | 15.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Cycle Q Clear(g_c), s | 2.7 | 33.2 | 2.1 | 16.5 | 17.3 | 0.0 | 20.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.18 | | 0.75 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 58 | 991 | 839 | 284 | 2335 | 0 | 347 | 0 | 0 | 0 | 0 | 312 |
| V/C Ratio(X) | 0.73 | 0.71 | 0.07 | 0.91 | 0.46 | 0.00 | 0.81 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| Avail Cap(c_a), veh/h | 83 | 991 | 839 | 284 | 2335 | 0 | 384 | 0 | 0 | 0 | 0 | 349 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 56.3 | 21.4 | 13.9 | 48.7 | 10.4 | 0.0 | 46.2 | 0.0 | 0.0 | 0.0 | 0.0 | 38.3 |
| Incr Delay (d2), s/veh | 7.0 | 4.4 | 0.2 | 31.0 | 0.6 | 0.0 | 11.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.3 | 14.7 | 0.8 | 9.7 | 6.2 | 0.0 | 9.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 63.3 | 25.7 | 14.1 | 79.7 | 11.0 | 0.0 | 57.9 | 0.0 | 0.0 | 0.0 | 0.0 | 38.3 |
| LnGrp LOS | E | C | B | E | B | A | E | A | A | A | A | D |
| Approach Vol, veh/h | | 808 | | | 1324 | | | 283 | | | 7 | |
| Approach Delay, s/veh | | 26.8 | | | 24.4 | | | 57.9 | | | 38.3 | |
| Approach LOS | | C | | | C | | | E | | | D | |

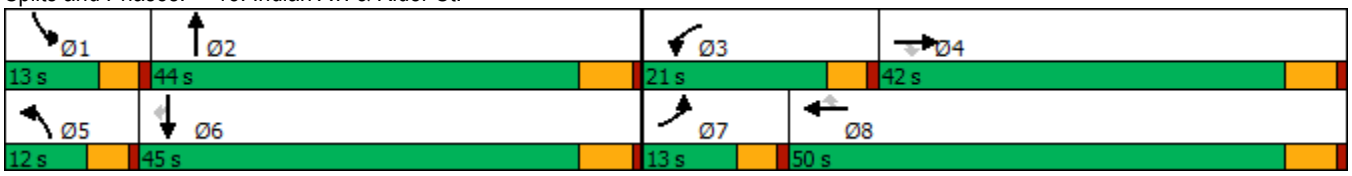
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 27.3 | 23.0 | 67.0 | | 27.3 | 8.3 | 81.7 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 25.4 | 18.4 | 61.2 | | 25.4 | 5.4 | 74.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 22.2 | 18.5 | 35.2 | | 2.4 | 4.7 | 19.3 | | | | |
| Green Ext Time (p_c), s | | 0.5 | 0.0 | 4.9 | | 0.0 | 0.0 | 8.9 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 29.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Future Volume (vph) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 37 | 70 | 7 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.8 | 36.8 | 9.6 | 38.8 | 38.8 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 42.0 | 42.0 | 21.0 | 50.0 | 50.0 | 12.0 | 44.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 35.0% | 35.0% | 17.5% | 41.7% | 41.7% | 10.0% | 36.7% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 6.6 | 13.8 | 13.8 | 9.8 | 19.1 | 19.1 | 5.9 | 40.4 | 6.6 | 43.0 | 43.0 |
| Actuated g/C Ratio | 0.08 | 0.16 | 0.16 | 0.12 | 0.23 | 0.23 | 0.07 | 0.48 | 0.08 | 0.51 | 0.51 |
| v/c Ratio | 0.31 | 0.28 | 0.11 | 0.52 | 0.39 | 0.37 | 0.19 | 0.13 | 0.31 | 0.05 | 0.01 |
| Control Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.7 | 33.9 | 0.6 | 48.3 | 32.2 | 6.7 | 47.5 | 14.5 | 48.7 | 16.5 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 30.9 | | | 25.7 | | | 17.8 | | 26.1 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 84.4 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.52 | |
| Intersection Signal Delay: 25.2 | Intersection LOS: C |
| Intersection Capacity Utilization 43.3% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Future Volume (veh/h) | 37 | 142 | 36 | 92 | 142 | 158 | 20 | 140 | 45 | 37 | 70 | 7 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1824 | 1900 |
| Adj Flow Rate, veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 165 | 35 | 44 | 82 | 4 |
| Peak Hour Factor | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 1456 | 302 | 71 | 1742 | 809 |
| Arrive On Green | 0.04 | 0.13 | 0.13 | 0.08 | 0.17 | 0.17 | 0.03 | 0.49 | 0.49 | 0.04 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 2977 | 617 | 1810 | 3466 | 1610 |
| Grp Volume(v), veh/h | 44 | 167 | 30 | 108 | 167 | 137 | 24 | 99 | 101 | 44 | 82 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1789 | 1810 | 1733 | 1610 |
| Q Serve(g_s), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.9 | 3.3 | 1.3 | 4.6 | 6.3 | 6.1 | 1.0 | 2.3 | 2.4 | 1.9 | 0.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.35 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 71 | 462 | 206 | 139 | 315 | 267 | 47 | 883 | 875 | 71 | 1742 | 809 |
| V/C Ratio(X) | 0.62 | 0.36 | 0.15 | 0.78 | 0.53 | 0.51 | 0.51 | 0.11 | 0.12 | 0.62 | 0.05 | 0.00 |
| Avail Cap(c_a), veh/h | 195 | 1674 | 746 | 380 | 1075 | 911 | 171 | 883 | 875 | 195 | 1742 | 809 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 36.9 | 31.1 | 30.2 | 35.4 | 29.8 | 29.7 | 37.5 | 10.8 | 10.8 | 36.9 | 9.9 | 9.7 |
| Incr Delay (d2), s/veh | 3.2 | 0.5 | 0.3 | 3.5 | 1.4 | 1.5 | 3.2 | 0.3 | 0.3 | 3.2 | 0.1 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.8 | 1.4 | 0.5 | 2.0 | 2.8 | 2.3 | 0.5 | 0.8 | 0.9 | 0.8 | 0.3 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.1 | 31.6 | 30.6 | 38.8 | 31.2 | 31.2 | 40.7 | 11.0 | 11.1 | 40.1 | 9.9 | 9.7 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 241 | | | 412 | | | 224 | | | 130 | |
| Approach Delay, s/veh | | 33.0 | | | 33.2 | | | 14.2 | | | 20.2 | |
| Approach LOS | | C | | | C | | | B | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 7.7 | 44.0 | 10.6 | 15.8 | 6.6 | 45.0 | 7.7 | 18.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 8.4 | 38.2 | 16.4 | 36.2 | 7.4 | 39.2 | 8.4 | 44.2 |
| Max Q Clear Time (g_c+I1), s | 3.9 | 4.4 | 6.6 | 5.3 | 3.0 | 2.9 | 3.9 | 8.3 |
| Green Ext Time (p_c), s | 0.0 | 1.0 | 0.1 | 1.0 | 0.0 | 0.4 | 0.0 | 1.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 27.3 |
| HCM 6th LOS | C |

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 425 | 144 | 671 | 587 | 676 | 0 | 62 |
| Future Volume (vph) | 425 | 144 | 671 | 587 | 676 | 0 | 62 |
| Turn Type | NA | Perm | Prot | NA | Split | NA | Perm |
| Protected Phases | 4 | | 3 | 8 | 6 | 6 | |
| Permitted Phases | | 4 | | | | | 6 |
| Detector Phase | 4 | 4 | 3 | 8 | 6 | 6 | 6 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 26.8 | 26.8 | 9.6 | 26.8 | 23.8 | 23.8 | 23.8 |
| Total Split (s) | 44.6 | 44.6 | 31.6 | 76.2 | 43.8 | 43.8 | 43.8 |
| Total Split (%) | 37.2% | 37.2% | 26.3% | 63.5% | 36.5% | 36.5% | 36.5% |
| Yellow Time (s) | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lead | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | | | | |
| Recall Mode | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 40.6 | 40.6 | 25.4 | 70.7 | 29.4 | 29.4 | 29.4 |
| Actuated g/C Ratio | 0.36 | 0.36 | 0.23 | 0.63 | 0.26 | 0.26 | 0.26 |
| v/c Ratio | 0.35 | 0.23 | 0.91 | 0.28 | 0.81 | 0.82 | 0.14 |
| Control Delay | 28.5 | 6.9 | 59.7 | 10.4 | 53.3 | 53.5 | 7.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.5 | 6.9 | 59.7 | 10.4 | 53.3 | 53.5 | 7.8 |
| LOS | C | A | E | B | D | D | A |
| Approach Delay | 23.0 | | | 36.7 | | 49.6 | |
| Approach LOS | C | | | D | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 111.7 | |
| Natural Cycle: 75 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.91 | |
| Intersection Signal Delay: 37.4 | Intersection LOS: D |
| Intersection Capacity Utilization 78.8% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 1: I-215 SB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 0 | 425 | 144 | 671 | 587 | 0 | 0 | 0 | 0 | 676 | 0 | 62 |
| Future Volume (veh/h) | 0 | 425 | 144 | 671 | 587 | 0 | 0 | 0 | 0 | 676 | 0 | 62 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | | | | 1.00 | | 1.00 |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach | | No | | | No | | | | | | No | |
| Adj Sat Flow, veh/h/ln | 0 | 1900 | 1900 | 1900 | 1900 | 0 | | | | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 0 | 462 | 157 | 729 | 638 | 0 | | | | 735 | 0 | 67 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Cap, veh/h | 0 | 1390 | 620 | 796 | 2363 | 0 | | | | 860 | 0 | 382 |
| Arrive On Green | 0.00 | 0.38 | 0.38 | 0.23 | 0.65 | 0.00 | | | | 0.24 | 0.00 | 0.24 |
| Sat Flow, veh/h | 0 | 3705 | 1610 | 3510 | 3705 | 0 | | | | 3619 | 0 | 1610 |
| Grp Volume(v), veh/h | 0 | 462 | 157 | 729 | 638 | 0 | | | | 735 | 0 | 67 |
| Grp Sat Flow(s),veh/h/ln | 0 | 1805 | 1610 | 1755 | 1805 | 0 | | | | 1810 | 0 | 1610 |
| Q Serve(g_s), s | 0.0 | 9.7 | 7.1 | 21.8 | 8.0 | 0.0 | | | | 20.9 | 0.0 | 3.6 |
| Cycle Q Clear(g_c), s | 0.0 | 9.7 | 7.1 | 21.8 | 8.0 | 0.0 | | | | 20.9 | 0.0 | 3.6 |
| Prop In Lane | 0.00 | | 1.00 | 1.00 | | 0.00 | | | | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 0 | 1390 | 620 | 796 | 2363 | 0 | | | | 860 | 0 | 382 |
| V/C Ratio(X) | 0.00 | 0.33 | 0.25 | 0.92 | 0.27 | 0.00 | | | | 0.86 | 0.00 | 0.18 |
| Avail Cap(c_a), veh/h | 0 | 1390 | 620 | 881 | 2363 | 0 | | | | 1279 | 0 | 569 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | | | | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 0.0 | 23.3 | 22.5 | 40.6 | 7.8 | 0.0 | | | | 39.2 | 0.0 | 32.6 |
| Incr Delay (d2), s/veh | 0.0 | 0.6 | 1.0 | 12.5 | 0.3 | 0.0 | | | | 3.9 | 0.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.0 | 4.0 | 2.7 | 10.4 | 2.7 | 0.0 | | | | 9.3 | 0.0 | 1.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 0.0 | 24.0 | 23.5 | 53.1 | 8.1 | 0.0 | | | | 43.1 | 0.0 | 32.8 |
| LnGrp LOS | A | C | C | D | A | A | | | | D | A | C |
| Approach Vol, veh/h | | 619 | | | 1367 | | | | | | 802 | |
| Approach Delay, s/veh | | 23.9 | | | 32.1 | | | | | | 42.3 | |
| Approach LOS | | C | | | C | | | | | | D | |

| Timer - Assigned Phs | | 3 | 4 | | 6 | | 8 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 29.0 | 47.2 | | 31.3 | | 76.2 | | | | | |
| Change Period (Y+Rc), s | | 4.6 | 5.8 | | 5.8 | | 5.8 | | | | | |
| Max Green Setting (Gmax), s | | 27.0 | 38.8 | | 38.0 | | 70.4 | | | | | |
| Max Q Clear Time (g_c+I1), s | | 23.8 | 11.7 | | 22.9 | | 10.0 | | | | | |
| Green Ext Time (p_c), s | | 0.6 | 3.4 | | 2.6 | | 4.4 | | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.2 |
| HCM 6th LOS | C |

**Notes**

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | |
| Traffic Volume (vph) | 71 | 1030 | 1135 | 852 | 123 | 0 | 372 |
| Future Volume (vph) | 71 | 1030 | 1135 | 852 | 123 | 0 | 372 |
| Turn Type | Prot | NA | NA | Perm | Split | NA | Perm |
| Protected Phases | 7 | 4 | 8 | | 2 | 2 | |
| Permitted Phases | | | | 8 | | | 2 |
| Detector Phase | 7 | 4 | 8 | 8 | 2 | 2 | 2 |
| Switch Phase | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 25.8 | 25.8 | 25.8 | 15.8 | 15.8 | 15.8 |
| Total Split (s) | 40.6 | 81.2 | 40.6 | 40.6 | 38.8 | 38.8 | 38.8 |
| Total Split (%) | 33.8% | 67.7% | 33.8% | 33.8% | 32.3% | 32.3% | 32.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| Lead/Lag | Lead | | Lag | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | Yes | | | |
| Recall Mode | None | Max | Max | Max | None | None | None |
| Act Effct Green (s) | 7.0 | 75.6 | 66.1 | 66.1 | 26.6 | 26.6 | 26.6 |
| Actuated g/C Ratio | 0.06 | 0.66 | 0.58 | 0.58 | 0.23 | 0.23 | 0.23 |
| v/c Ratio | 0.36 | 0.47 | 0.59 | 0.87 | 0.17 | 0.17 | 0.89 |
| Control Delay | 57.2 | 10.8 | 18.6 | 26.0 | 34.9 | 34.9 | 53.0 |
| Queue Delay | 0.0 | 0.0 | 11.2 | 45.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.2 | 10.8 | 29.8 | 71.2 | 34.9 | 34.9 | 53.0 |
| LOS | E | B | C | E | C | C | D |
| Approach Delay | | 13.8 | 47.5 | | | 48.5 | |
| Approach LOS | | B | D | | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 113.8 | |
| Natural Cycle: 65 | |
| Control Type: Semi Act-Uncoord | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 37.3 | Intersection LOS: D |
| Intersection Capacity Utilization 78.8% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 2: I-215 NB Ramps & Placentia Av.

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 71 | 1030 | 0 | 0 | 1135 | 852 | 123 | 0 | 372 | 0 | 0 | 0 |
| Future Volume (veh/h) | 71 | 1030 | 0 | 0 | 1135 | 852 | 123 | 0 | 372 | 0 | 0 | 0 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Parking Bus, Adj | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Work Zone On Approach | | No | | | No | | | No | | | | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 0 | 0 | 1900 | 1900 | 1900 | 1900 | 1900 | | | |
| Adj Flow Rate, veh/h | 77 | 1120 | 0 | 0 | 1234 | 926 | 134 | 0 | 404 | | | |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | | | |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Cap, veh/h | 148 | 2296 | 0 | 0 | 2004 | 894 | 963 | 0 | 429 | | | |
| Arrive On Green | 0.04 | 0.64 | 0.00 | 0.00 | 0.55 | 0.55 | 0.27 | 0.00 | 0.27 | | | |
| Sat Flow, veh/h | 3510 | 3705 | 0 | 0 | 3705 | 1610 | 3619 | 0 | 1610 | | | |
| Grp Volume(v), veh/h | 77 | 1120 | 0 | 0 | 1234 | 926 | 134 | 0 | 404 | | | |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1805 | 0 | 0 | 1805 | 1610 | 1810 | 0 | 1610 | | | |
| Q Serve(g_s), s | 2.5 | 19.4 | 0.0 | 0.0 | 27.4 | 65.8 | 3.3 | 0.0 | 29.1 | | | |
| Cycle Q Clear(g_c), s | 2.5 | 19.4 | 0.0 | 0.0 | 27.4 | 65.8 | 3.3 | 0.0 | 29.1 | | | |
| Prop In Lane | 1.00 | | 0.00 | 0.00 | | 1.00 | 1.00 | | 1.00 | | | |
| Lane Grp Cap(c), veh/h | 148 | 2296 | 0 | 0 | 2004 | 894 | 963 | 0 | 429 | | | |
| V/C Ratio(X) | 0.52 | 0.49 | 0.00 | 0.00 | 0.62 | 1.04 | 0.14 | 0.00 | 0.94 | | | |
| Avail Cap(c_a), veh/h | 1066 | 2296 | 0 | 0 | 2004 | 894 | 1007 | 0 | 448 | | | |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | | |
| Upstream Filter(I) | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | | | |
| Uniform Delay (d), s/veh | 55.6 | 11.4 | 0.0 | 0.0 | 17.8 | 26.4 | 33.1 | 0.0 | 42.6 | | | |
| Incr Delay (d2), s/veh | 1.1 | 0.7 | 0.0 | 0.0 | 1.4 | 39.9 | 0.1 | 0.0 | 28.0 | | | |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |
| %ile BackOfQ(50%),veh/ln | 1.1 | 7.1 | 0.0 | 0.0 | 10.8 | 32.2 | 1.4 | 0.0 | 14.4 | | | |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.7 | 12.1 | 0.0 | 0.0 | 19.3 | 66.2 | 33.2 | 0.0 | 70.6 | | | |
| LnGrp LOS | E | B | A | A | B | F | C | A | E | | | |
| Approach Vol, veh/h | | 1197 | | | 2160 | | | 538 | | | | |
| Approach Delay, s/veh | | 15.0 | | | 39.4 | | | 61.3 | | | | |
| Approach LOS | | B | | | D | | | E | | | | |

| Timer - Assigned Phs | | 2 | | 4 | | | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 37.4 | | 81.2 | | | 9.6 | 71.6 | | | | |
| Change Period (Y+Rc), s | | 5.8 | | 5.8 | | | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 33.0 | | 75.4 | | | 36.0 | 34.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 31.1 | | 21.4 | | | 4.5 | 67.8 | | | | |
| Green Ext Time (p_c), s | | 0.4 | | 9.6 | | | 0.1 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 34.9 |
| HCM 6th LOS | C |

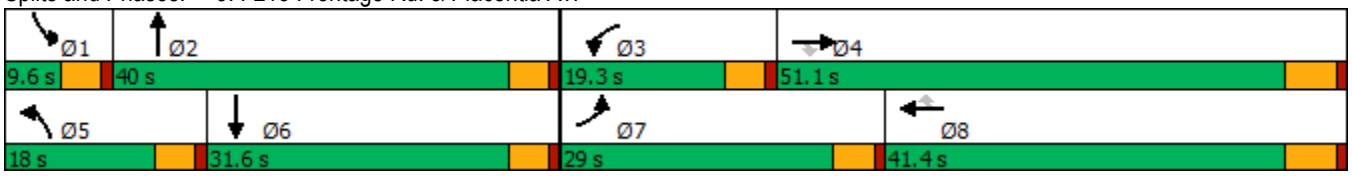
Notes

User approved volume balancing among the lanes for turning movement.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 29.0 | 51.1 | 51.1 | 19.3 | 41.4 | 41.4 | 18.0 | 40.0 | 9.6 | 31.6 |
| Total Split (%) | 24.2% | 42.6% | 42.6% | 16.1% | 34.5% | 34.5% | 15.0% | 33.3% | 8.0% | 26.3% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 17.0 | 55.1 | 55.1 | 5.5 | 35.7 | 35.7 | 13.4 | 43.3 | 5.0 | 27.0 |
| Actuated g/C Ratio | 0.15 | 0.49 | 0.49 | 0.05 | 0.32 | 0.32 | 0.12 | 0.38 | 0.04 | 0.24 |
| v/c Ratio | 0.75 | 0.59 | 0.33 | 0.14 | 1.34 | 0.02 | 1.16 | 0.58 | 0.15 | 1.22 |
| Control Delay | 63.2 | 22.8 | 10.0 | 56.5 | 189.5 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| Queue Delay | 0.2 | 33.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 56.3 | 11.2 | 56.5 | 189.5 | 0.1 | 156.5 | 18.5 | 58.4 | 153.6 |
| LOS | E | E | B | E | F | A | F | B | E | F |
| Approach Delay | | 48.9 | | | 187.1 | | | 67.8 | | 151.5 |
| Approach LOS | | D | | | F | | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.7 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.34 | |
| Intersection Signal Delay: 116.1 | Intersection LOS: F |
| Intersection Capacity Utilization 109.6% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 1037 | 216 | 12 | 1605 | 9 | 249 | 74 | 363 | 12 | 251 | 232 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 99 | 485 | 25 | 223 | 206 |
| Arrive On Green | 0.13 | 0.44 | 0.44 | 0.01 | 0.32 | 0.32 | 0.12 | 0.35 | 0.35 | 0.01 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3800 | 1610 | 1810 | 280 | 1373 | 1810 | 909 | 840 |
| Grp Volume(v), veh/h | 204 | 1037 | 216 | 12 | 1605 | 9 | 249 | 0 | 437 | 12 | 0 | 483 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 0 | 1653 | 1810 | 0 | 1749 |
| Q Serve(g_s), s | 12.1 | 24.8 | 9.5 | 0.7 | 35.6 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Cycle Q Clear(g_c), s | 12.1 | 24.8 | 9.5 | 0.7 | 35.6 | 0.4 | 13.4 | 0.0 | 25.5 | 0.7 | 0.0 | 27.0 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.48 |
| Lane Grp Cap(c), veh/h | 236 | 1589 | 709 | 25 | 1231 | 521 | 221 | 0 | 584 | 25 | 0 | 430 |
| V/C Ratio(X) | 0.86 | 0.65 | 0.30 | 0.48 | 1.30 | 0.02 | 1.13 | 0.00 | 0.75 | 0.48 | 0.00 | 1.12 |
| Avail Cap(c_a), veh/h | 402 | 1589 | 709 | 242 | 1231 | 521 | 221 | 0 | 584 | 82 | 0 | 430 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.8 | 24.2 | 19.9 | 53.8 | 37.2 | 25.3 | 48.3 | 0.0 | 31.2 | 53.8 | 0.0 | 41.5 |
| Incr Delay (d2), s/veh | 4.3 | 2.1 | 1.1 | 5.1 | 142.9 | 0.1 | 99.6 | 0.0 | 5.3 | 13.2 | 0.0 | 81.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.6 | 10.3 | 3.6 | 0.4 | 40.0 | 0.2 | 11.9 | 0.0 | 10.5 | 0.4 | 0.0 | 20.9 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.2 | 26.3 | 21.0 | 58.9 | 180.1 | 25.3 | 147.9 | 0.0 | 36.5 | 67.0 | 0.0 | 123.4 |
| LnGrp LOS | D | C | C | E | F | C | F | A | D | E | A | F |
| Approach Vol, veh/h | | 1457 | | | 1626 | | | 686 | | | 495 | |
| Approach Delay, s/veh | | 29.0 | | | 178.3 | | | 76.9 | | | 122.0 | |
| Approach LOS | | C | | | F | | | E | | | F | |

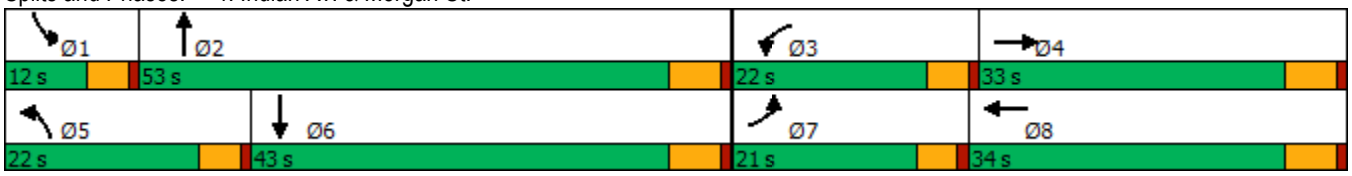
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.1 | 43.5 | 6.1 | 54.2 | 18.0 | 31.6 | 18.9 | 41.4 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 35.4 | 14.7 | 45.3 | 13.4 | 27.0 | 24.4 | 35.6 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.5 | 2.7 | 26.8 | 15.4 | 29.0 | 14.1 | 37.6 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 7.3 | 0.0 | 0.0 | 0.2 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 104.5 |
| HCM 6th LOS | F |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 68 | 59 | 72 | 28 | 75 | 223 | 7 | 372 |
| Future Volume (vph) | 68 | 59 | 72 | 28 | 75 | 223 | 7 | 372 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 | 9.6 | 30.8 |
| Total Split (s) | 21.0 | 33.0 | 22.0 | 34.0 | 22.0 | 53.0 | 12.0 | 43.0 |
| Total Split (%) | 17.5% | 27.5% | 18.3% | 28.3% | 18.3% | 44.2% | 10.0% | 35.8% |
| Yellow Time (s) | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 12.0 | 12.6 | 8.8 | 12.8 | 8.9 | 51.0 | 5.4 | 41.5 |
| Actuated g/C Ratio | 0.14 | 0.14 | 0.10 | 0.15 | 0.10 | 0.58 | 0.06 | 0.47 |
| v/c Ratio | 0.34 | 0.29 | 0.49 | 0.07 | 0.50 | 0.16 | 0.08 | 0.31 |
| Control Delay | 42.8 | 19.0 | 49.7 | 31.8 | 49.9 | 10.9 | 47.0 | 18.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 42.8 | 19.0 | 49.7 | 31.8 | 49.9 | 10.9 | 47.0 | 18.3 |
| LOS | D | B | D | C | D | B | D | B |
| Approach Delay | | 27.3 | | 44.3 | | 19.5 | | 18.8 |
| Approach LOS | | C | | D | | B | | B |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 88.2 | |
| Natural Cycle: 85 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.50 | |
| Intersection Signal Delay: 23.0 | Intersection LOS: C |
| Intersection Capacity Utilization 47.1% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 4: Indian Av. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 68 | 59 | 69 | 72 | 28 | 3 | 75 | 223 | 43 | 7 | 372 | 51 |
| Future Volume (veh/h) | 68 | 59 | 69 | 72 | 28 | 3 | 75 | 223 | 43 | 7 | 372 | 51 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 83 | 72 | 64 | 88 | 34 | 4 | 91 | 272 | 51 | 9 | 454 | 47 |
| Peak Hour Factor | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 | 0.82 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 108 | 246 | 196 | 114 | 432 | 50 | 118 | 1681 | 311 | 20 | 1648 | 170 |
| Arrive On Green | 0.06 | 0.13 | 0.13 | 0.06 | 0.13 | 0.13 | 0.07 | 0.55 | 0.55 | 0.01 | 0.50 | 0.50 |
| Sat Flow, veh/h | 1810 | 1905 | 1515 | 1810 | 3258 | 376 | 1810 | 3042 | 562 | 1810 | 3303 | 341 |
| Grp Volume(v), veh/h | 83 | 68 | 68 | 88 | 19 | 19 | 91 | 160 | 163 | 9 | 247 | 254 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1615 | 1810 | 1805 | 1829 | 1810 | 1805 | 1799 | 1810 | 1805 | 1839 |
| Q Serve(g_s), s | 3.9 | 2.9 | 3.3 | 4.1 | 0.8 | 0.8 | 4.2 | 3.7 | 3.8 | 0.4 | 6.8 | 6.8 |
| Cycle Q Clear(g_c), s | 3.9 | 2.9 | 3.3 | 4.1 | 0.8 | 0.8 | 4.2 | 3.7 | 3.8 | 0.4 | 6.8 | 6.8 |
| Prop In Lane | 1.00 | | 0.94 | 1.00 | | 0.21 | 1.00 | | 0.31 | 1.00 | | 0.19 |
| Lane Grp Cap(c), veh/h | 108 | 233 | 209 | 114 | 240 | 243 | 118 | 998 | 994 | 20 | 901 | 917 |
| V/C Ratio(X) | 0.77 | 0.29 | 0.33 | 0.77 | 0.08 | 0.08 | 0.77 | 0.16 | 0.16 | 0.44 | 0.27 | 0.28 |
| Avail Cap(c_a), veh/h | 348 | 575 | 514 | 369 | 596 | 604 | 369 | 998 | 994 | 157 | 901 | 917 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.6 | 33.6 | 33.8 | 39.4 | 32.4 | 32.5 | 39.3 | 9.4 | 9.4 | 41.9 | 12.4 | 12.4 |
| Incr Delay (d2), s/veh | 4.3 | 0.7 | 0.9 | 4.1 | 0.1 | 0.1 | 4.0 | 0.3 | 0.4 | 5.5 | 0.8 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.8 | 1.2 | 1.3 | 1.9 | 0.3 | 0.3 | 1.9 | 1.3 | 1.4 | 0.2 | 2.6 | 2.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.9 | 34.3 | 34.7 | 43.5 | 32.6 | 32.6 | 43.3 | 9.7 | 9.7 | 47.4 | 13.2 | 13.2 |
| LnGrp LOS | D | C | C | D | C | C | D | A | A | D | B | B |
| Approach Vol, veh/h | | 219 | | | 126 | | | 414 | | | 510 | |
| Approach Delay, s/veh | | 38.1 | | | 40.2 | | | 17.1 | | | 13.8 | |
| Approach LOS | | D | | | D | | | B | | | B | |

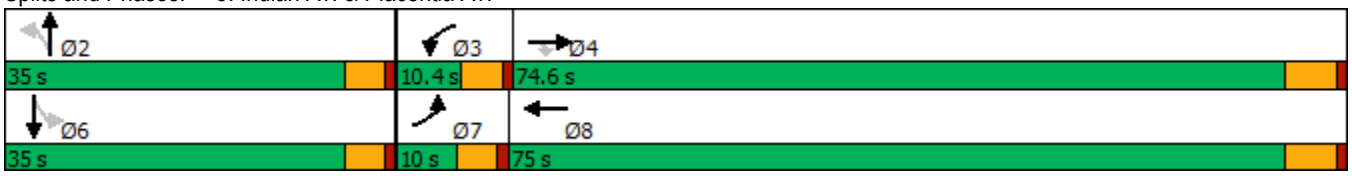
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.6 | 53.0 | 10.0 | 16.8 | 10.2 | 48.4 | 9.7 | 17.1 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 7.4 | 47.2 | 17.4 | 27.2 | 17.4 | 37.2 | 16.4 | 28.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 5.8 | 6.1 | 5.3 | 6.2 | 8.8 | 5.9 | 2.8 |
| Green Ext Time (p_c), s | 0.0 | 1.8 | 0.1 | 0.6 | 0.1 | 2.8 | 0.1 | 0.1 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 21.7 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 104 | 1106 | 98 | 33 | 1145 | 50 | 85 | 61 | 166 |
| Future Volume (vph) | 104 | 1106 | 98 | 33 | 1145 | 50 | 85 | 61 | 166 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 74.6 | 74.6 | 10.4 | 75.0 | 35.0 | 35.0 | 35.0 | 35.0 |
| Total Split (%) | 8.3% | 62.2% | 62.2% | 8.7% | 62.5% | 29.2% | 29.2% | 29.2% | 29.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.4 | 70.9 | 70.9 | 5.6 | 69.2 | 30.4 | 30.4 | 30.4 | 30.4 |
| Actuated g/C Ratio | 0.04 | 0.59 | 0.59 | 0.05 | 0.58 | 0.25 | 0.25 | 0.25 | 0.25 |
| v/c Ratio | 1.40 | 1.07 | 0.11 | 0.56 | 1.23 | 0.86 | 0.32 | 0.32 | 1.18 |
| Control Delay | 278.4 | 74.0 | 5.1 | 81.3 | 138.9 | 124.2 | 36.2 | 40.3 | 138.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 278.4 | 74.0 | 5.1 | 81.3 | 138.9 | 124.2 | 36.2 | 40.3 | 138.1 |
| LOS | F | E | A | F | F | F | D | D | F |
| Approach Delay | | 85.1 | | | 136.9 | | 59.2 | | 125.0 |
| Approach LOS | | F | | | F | | E | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.40 | |
| Intersection Signal Delay: 110.3 | Intersection LOS: F |
| Intersection Capacity Utilization 117.7% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 104 | 1106 | 98 | 33 | 1145 | 64 | 50 | 85 | 21 | 61 | 166 | 302 |
| Future Volume (veh/h) | 104 | 1106 | 98 | 33 | 1145 | 64 | 50 | 85 | 21 | 61 | 166 | 302 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 113 | 1202 | 82 | 48 | 1245 | 74 | 54 | 123 | 23 | 88 | 241 | 281 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 81 | 1100 | 932 | 77 | 1024 | 61 | 60 | 394 | 74 | 299 | 203 | 236 |
| Arrive On Green | 0.05 | 0.58 | 0.58 | 0.04 | 0.58 | 0.58 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 1775 | 106 | 894 | 1557 | 291 | 1262 | 800 | 932 |
| Grp Volume(v), veh/h | 113 | 1202 | 82 | 48 | 0 | 1319 | 54 | 0 | 146 | 88 | 0 | 522 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 0 | 1881 | 894 | 0 | 1848 | 1262 | 0 | 1732 |
| Q Serve(g_s), s | 5.4 | 69.5 | 2.7 | 3.1 | 0.0 | 69.2 | 0.0 | 0.0 | 7.7 | 7.3 | 0.0 | 30.4 |
| Cycle Q Clear(g_c), s | 5.4 | 69.5 | 2.7 | 3.1 | 0.0 | 69.2 | 30.4 | 0.0 | 7.7 | 15.0 | 0.0 | 30.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.06 | 1.00 | | 0.16 | 1.00 | | 0.54 |
| Lane Grp Cap(c), veh/h | 81 | 1100 | 932 | 77 | 0 | 1085 | 60 | 0 | 468 | 299 | 0 | 439 |
| V/C Ratio(X) | 1.39 | 1.09 | 0.09 | 0.62 | 0.00 | 1.22 | 0.90 | 0.00 | 0.31 | 0.29 | 0.00 | 1.19 |
| Avail Cap(c_a), veh/h | 81 | 1100 | 932 | 87 | 0 | 1085 | 60 | 0 | 468 | 299 | 0 | 439 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 57.3 | 25.3 | 11.2 | 56.5 | 0.0 | 25.4 | 60.0 | 0.0 | 36.3 | 42.4 | 0.0 | 44.8 |
| Incr Delay (d2), s/veh | 233.6 | 56.1 | 0.2 | 6.2 | 0.0 | 105.8 | 81.2 | 0.0 | 0.4 | 0.5 | 0.0 | 106.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.7 | 44.5 | 1.0 | 1.5 | 0.0 | 59.0 | 3.0 | 0.0 | 3.4 | 2.3 | 0.0 | 25.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 290.9 | 81.4 | 11.4 | 62.7 | 0.0 | 131.2 | 141.2 | 0.0 | 36.7 | 42.9 | 0.0 | 150.8 |
| LnGrp LOS | F | F | B | E | A | F | F | A | D | D | A | F |
| Approach Vol, veh/h | | 1397 | | | 1367 | | | 200 | | | 610 | |
| Approach Delay, s/veh | | 94.2 | | | 128.8 | | | 64.9 | | | 135.3 | |
| Approach LOS | | F | | | F | | | E | | | F | |

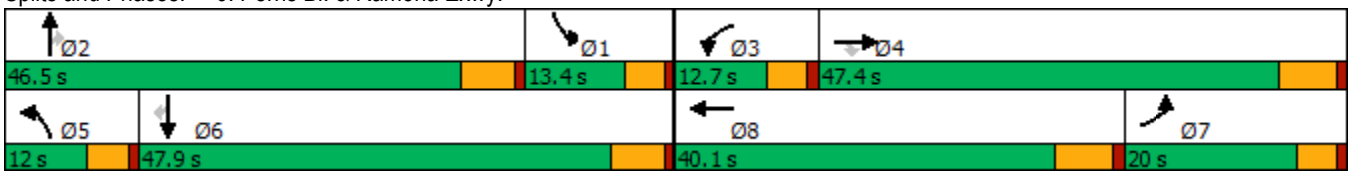
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 35.0 | 9.7 | 75.3 | | 35.0 | 10.0 | 75.0 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 30.4 | 5.8 | 68.8 | | 30.4 | 5.4 | 69.2 | | | | |
| Max Q Clear Time (g_c+I1), s | | 32.4 | 5.1 | 71.5 | | 32.4 | 7.4 | 71.2 | | | | |
| Green Ext Time (p_c), s | | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 | 0.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 112.8 |
| HCM 6th LOS | F |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 256 | 1414 | 223 | 117 | 1059 | 406 | 523 | 127 | 395 | 717 | 280 |
| Future Volume (vph) | 256 | 1414 | 223 | 117 | 1059 | 406 | 523 | 127 | 395 | 717 | 280 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 36.2 | 36.2 | 9.6 | 34.2 | 9.6 | 38.8 | 38.8 | 9.6 | 41.8 | 41.8 |
| Total Split (s) | 20.0 | 47.4 | 47.4 | 12.7 | 40.1 | 12.0 | 46.5 | 46.5 | 13.4 | 47.9 | 47.9 |
| Total Split (%) | 16.7% | 39.5% | 39.5% | 10.6% | 33.4% | 10.0% | 38.8% | 38.8% | 11.2% | 39.9% | 39.9% |
| Yellow Time (s) | 3.6 | 5.2 | 5.2 | 3.6 | 5.2 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 6.2 | 6.2 | 4.6 | 6.2 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lead | Lead | Lag | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 13.9 | 37.5 | 37.5 | 7.4 | 31.0 | 7.5 | 22.7 | 22.7 | 13.9 | 29.1 | 29.1 |
| Actuated g/C Ratio | 0.13 | 0.36 | 0.36 | 0.07 | 0.30 | 0.07 | 0.22 | 0.22 | 0.13 | 0.28 | 0.28 |
| v/c Ratio | 0.56 | 0.78 | 0.32 | 0.49 | 0.80 | 1.66 | 0.69 | 0.27 | 0.87 | 0.73 | 0.47 |
| Control Delay | 48.5 | 33.2 | 5.9 | 55.8 | 38.1 | 344.5 | 42.1 | 3.0 | 64.8 | 38.4 | 9.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 48.5 | 33.2 | 5.9 | 55.8 | 38.1 | 344.5 | 42.1 | 3.0 | 64.8 | 38.4 | 9.3 |
| LOS | D | C | A | E | D | F | D | A | E | D | A |
| Approach Delay | | 32.1 | | | 39.7 | | 153.7 | | | 40.0 | |
| Approach LOS | | C | | | D | | F | | | D | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 103.1 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.66 | |
| Intersection Signal Delay: 58.6 | Intersection LOS: E |
| Intersection Capacity Utilization 80.9% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 6: Perris Bl. & Ramona Exwy.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 256 | 1414 | 223 | 117 | 1059 | 123 | 406 | 523 | 127 | 395 | 717 | 280 |
| Future Volume (veh/h) | 256 | 1414 | 223 | 117 | 1059 | 123 | 406 | 523 | 127 | 395 | 717 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 267 | 1473 | 206 | 122 | 1103 | 101 | 423 | 545 | 102 | 411 | 747 | 262 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 397 | 1904 | 591 | 188 | 1404 | 128 | 275 | 755 | 335 | 467 | 998 | 445 |
| Arrive On Green | 0.11 | 0.37 | 0.37 | 0.05 | 0.29 | 0.29 | 0.08 | 0.21 | 0.21 | 0.13 | 0.28 | 0.28 |
| Sat Flow, veh/h | 3510 | 5187 | 1610 | 3510 | 4835 | 442 | 3510 | 3610 | 1603 | 3510 | 3610 | 1608 |
| Grp Volume(v), veh/h | 267 | 1473 | 206 | 122 | 789 | 415 | 423 | 545 | 102 | 411 | 747 | 262 |
| Grp Sat Flow(s),veh/h/ln | 1755 | 1729 | 1610 | 1755 | 1729 | 1820 | 1755 | 1805 | 1603 | 1755 | 1805 | 1608 |
| Q Serve(g_s), s | 6.9 | 23.7 | 8.8 | 3.2 | 19.8 | 19.8 | 7.4 | 13.3 | 4.0 | 10.9 | 17.8 | 8.9 |
| Cycle Q Clear(g_c), s | 6.9 | 23.7 | 8.8 | 3.2 | 19.8 | 19.8 | 7.4 | 13.3 | 4.0 | 10.9 | 17.8 | 8.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.24 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 397 | 1904 | 591 | 188 | 1004 | 528 | 275 | 755 | 335 | 467 | 998 | 445 |
| V/C Ratio(X) | 0.67 | 0.77 | 0.35 | 0.65 | 0.79 | 0.79 | 1.54 | 0.72 | 0.30 | 0.88 | 0.75 | 0.59 |
| Avail Cap(c_a), veh/h | 573 | 2264 | 703 | 301 | 1242 | 654 | 275 | 1557 | 691 | 467 | 1610 | 717 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 40.2 | 26.4 | 21.7 | 43.8 | 30.8 | 30.8 | 43.5 | 34.8 | 19.8 | 40.2 | 31.1 | 13.2 |
| Incr Delay (d2), s/veh | 0.7 | 1.4 | 0.4 | 1.4 | 2.7 | 5.1 | 259.1 | 1.3 | 0.5 | 16.8 | 1.1 | 1.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.9 | 9.1 | 3.1 | 1.4 | 7.9 | 8.7 | 13.0 | 5.7 | 1.9 | 5.6 | 7.4 | 4.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 40.9 | 27.8 | 22.0 | 45.2 | 33.5 | 35.9 | 302.6 | 36.1 | 20.3 | 57.0 | 32.3 | 14.4 |
| LnGrp LOS | D | C | C | D | C | D | F | D | C | E | C | B |
| Approach Vol, veh/h | | 1946 | | | 1326 | | | 1070 | | | 1420 | |
| Approach Delay, s/veh | | 29.0 | | | 35.3 | | | 139.9 | | | 36.1 | |
| Approach LOS | | C | | | D | | | F | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 18.4 | 25.5 | 9.6 | 40.8 | 12.0 | 31.9 | 16.9 | 33.6 |
| Change Period (Y+Rc), s | 5.8 | * 5.8 | 4.6 | 6.2 | 4.6 | 5.8 | 6.2 | * 6.2 |
| Max Green Setting (Gmax), s | 8.8 | * 41 | 8.1 | 41.2 | 7.4 | 42.1 | 15.4 | * 34 |
| Max Q Clear Time (g_c+I1), s | 12.9 | 15.3 | 5.2 | 25.7 | 9.4 | 19.8 | 8.9 | 21.8 |
| Green Ext Time (p_c), s | 0.0 | 3.7 | 0.0 | 8.9 | 0.0 | 5.7 | 0.3 | 5.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 52.8 |
| HCM 6th LOS | D |

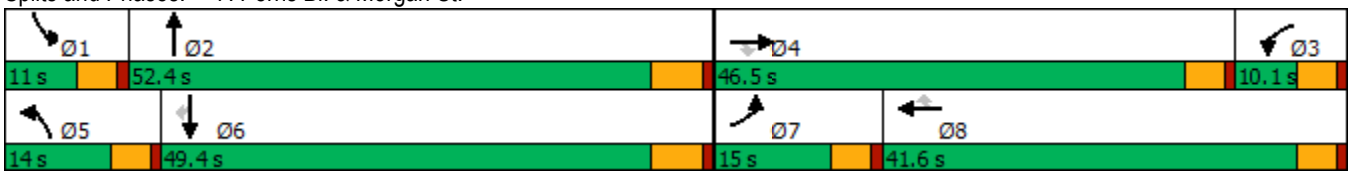
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 38 | 50 | 31 | 35 | 68 | 63 | 14 | 977 | 26 | 1126 | 16 |
| Future Volume (vph) | 38 | 50 | 31 | 35 | 68 | 63 | 14 | 977 | 26 | 1126 | 16 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 41.6 | 41.6 | 9.6 | 27.8 | 9.6 | 33.8 | 33.8 |
| Total Split (s) | 15.0 | 46.5 | 46.5 | 10.1 | 41.6 | 41.6 | 14.0 | 52.4 | 11.0 | 49.4 | 49.4 |
| Total Split (%) | 12.5% | 38.8% | 38.8% | 8.4% | 34.7% | 34.7% | 11.7% | 43.7% | 9.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 7.9 | 15.5 | 15.5 | 8.6 | 16.2 | 16.2 | 7.0 | 39.6 | 7.1 | 41.4 | 41.4 |
| Actuated g/C Ratio | 0.12 | 0.23 | 0.23 | 0.13 | 0.24 | 0.24 | 0.10 | 0.59 | 0.11 | 0.62 | 0.62 |
| v/c Ratio | 0.20 | 0.07 | 0.08 | 0.17 | 0.17 | 0.15 | 0.09 | 0.37 | 0.16 | 0.58 | 0.02 |
| Control Delay | 40.8 | 28.8 | 0.3 | 37.9 | 28.4 | 2.6 | 42.8 | 14.7 | 42.9 | 17.0 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 40.8 | 28.8 | 0.3 | 37.9 | 28.4 | 2.6 | 42.8 | 14.7 | 42.9 | 17.0 | 0.0 |
| LOS | D | C | A | D | C | A | D | B | D | B | A |
| Approach Delay | | 25.2 | | | 20.6 | | | 15.0 | | 17.3 | |
| Approach LOS | | C | | | C | | | B | | B | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 67.2 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.58 | |
| Intersection Signal Delay: 17.0 | Intersection LOS: B |
| Intersection Capacity Utilization 56.1% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 7: Perris Bl. & Morgan St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 38 | 50 | 31 | 35 | 68 | 63 | 14 | 977 | 12 | 26 | 1126 | 16 |
| Future Volume (veh/h) | 38 | 50 | 31 | 35 | 68 | 63 | 14 | 977 | 12 | 26 | 1126 | 16 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 43 | 57 | 19 | 40 | 77 | 70 | 16 | 1110 | 12 | 30 | 1280 | 7 |
| Peak Hour Factor | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 76 | 566 | 253 | 76 | 298 | 252 | 35 | 2426 | 26 | 59 | 1703 | 750 |
| Arrive On Green | 0.04 | 0.16 | 0.16 | 0.04 | 0.16 | 0.16 | 0.02 | 0.46 | 0.46 | 0.03 | 0.47 | 0.47 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 5290 | 57 | 1810 | 3610 | 1590 |
| Grp Volume(v), veh/h | 43 | 57 | 19 | 40 | 77 | 70 | 16 | 725 | 397 | 30 | 1280 | 7 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1729 | 1890 | 1810 | 1805 | 1590 |
| Q Serve(g_s), s | 1.5 | 0.9 | 0.5 | 1.4 | 2.2 | 2.4 | 0.6 | 9.1 | 9.1 | 1.0 | 18.3 | 0.1 |
| Cycle Q Clear(g_c), s | 1.5 | 0.9 | 0.5 | 1.4 | 2.2 | 2.4 | 0.6 | 9.1 | 9.1 | 1.0 | 18.3 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.03 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 76 | 566 | 253 | 76 | 298 | 252 | 35 | 1586 | 867 | 59 | 1703 | 750 |
| V/C Ratio(X) | 0.57 | 0.10 | 0.08 | 0.53 | 0.26 | 0.28 | 0.46 | 0.46 | 0.46 | 0.51 | 0.75 | 0.01 |
| Avail Cap(c_a), veh/h | 298 | 2395 | 1068 | 158 | 1113 | 943 | 269 | 2551 | 1394 | 183 | 2492 | 1098 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 29.7 | 22.8 | 14.7 | 29.7 | 23.4 | 23.5 | 30.6 | 11.7 | 11.7 | 30.1 | 13.7 | 8.9 |
| Incr Delay (d2), s/veh | 2.5 | 0.1 | 0.1 | 2.1 | 0.5 | 0.6 | 3.4 | 0.2 | 0.4 | 2.6 | 0.8 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.7 | 0.4 | 0.2 | 0.6 | 1.0 | 0.9 | 0.3 | 2.8 | 3.1 | 0.5 | 5.8 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 32.2 | 22.9 | 14.8 | 31.8 | 23.9 | 24.1 | 34.1 | 11.9 | 12.1 | 32.6 | 14.4 | 8.9 |
| LnGrp LOS | C | C | B | C | C | C | C | B | B | C | B | A |
| Approach Vol, veh/h | | 119 | | | 187 | | | 1138 | | | 1317 | |
| Approach Delay, s/veh | | 25.0 | | | 25.6 | | | 12.3 | | | 14.8 | |
| Approach LOS | | C | | | C | | | B | | | B | |

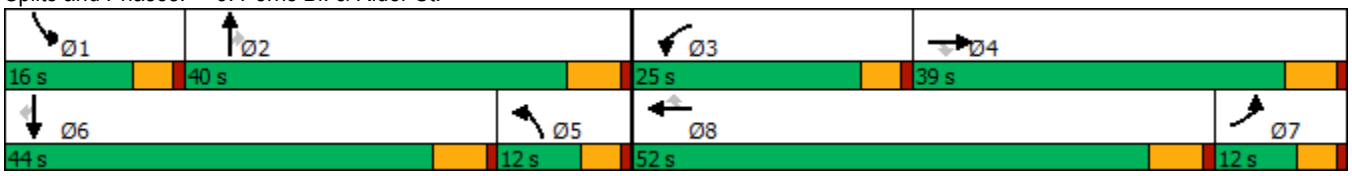
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.6 | 34.8 | 7.2 | 14.5 | 5.8 | 35.6 | 7.2 | 14.5 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 6.4 | 46.6 | 5.5 | 41.9 | 9.4 | 43.6 | 10.4 | 37.0 |
| Max Q Clear Time (g_c+I1), s | 3.0 | 11.1 | 3.4 | 2.9 | 2.6 | 20.3 | 3.5 | 4.4 |
| Green Ext Time (p_c), s | 0.0 | 8.1 | 0.0 | 0.4 | 0.0 | 9.5 | 0.0 | 0.7 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 14.9 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (vph) | 47 | 205 | 59 | 238 | 73 | 248 | 22 | 702 | 245 | 220 | 964 | 19 |
| Future Volume (vph) | 47 | 205 | 59 | 238 | 73 | 248 | 22 | 702 | 245 | 220 | 964 | 19 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | 2 | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 38.8 | 38.8 | 9.6 | 42.8 | 42.8 | 9.6 | 34.8 | 34.8 | 9.6 | 34.8 | 34.8 |
| Total Split (s) | 12.0 | 39.0 | 39.0 | 25.0 | 52.0 | 52.0 | 12.0 | 40.0 | 40.0 | 16.0 | 44.0 | 44.0 |
| Total Split (%) | 10.0% | 32.5% | 32.5% | 20.8% | 43.3% | 43.3% | 10.0% | 33.3% | 33.3% | 13.3% | 36.7% | 36.7% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lag | Lag | Lag | Lead | Lead | Lead | Lag | Lag | Lag | Lead | Lead | Lead |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | None | None | None | None | None |
| Act Effct Green (s) | 12.3 | 14.0 | 14.0 | 15.6 | 22.1 | 22.1 | 6.1 | 19.8 | 19.8 | 11.9 | 32.5 | 32.5 |
| Actuated g/C Ratio | 0.15 | 0.17 | 0.17 | 0.19 | 0.27 | 0.27 | 0.07 | 0.24 | 0.24 | 0.14 | 0.39 | 0.39 |
| v/c Ratio | 0.18 | 0.34 | 0.15 | 0.71 | 0.08 | 0.41 | 0.17 | 0.57 | 0.43 | 0.86 | 0.48 | 0.03 |
| Control Delay | 35.4 | 32.7 | 0.8 | 46.3 | 28.6 | 6.3 | 45.8 | 30.5 | 6.7 | 69.1 | 22.7 | 0.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 35.4 | 32.7 | 0.8 | 46.3 | 28.6 | 6.3 | 45.8 | 30.5 | 6.7 | 69.1 | 22.7 | 0.1 |
| LOS | D | C | A | D | C | A | D | C | A | E | C | A |
| Approach Delay | | 27.0 | | | 26.2 | | | 24.9 | | | 30.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 83 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.86 | |
| Intersection Signal Delay: 27.7 | Intersection LOS: C |
| Intersection Capacity Utilization 65.0% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 8: Perris Bl. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 47 | 205 | 59 | 238 | 73 | 248 | 22 | 702 | 245 | 220 | 964 | 19 |
| Future Volume (veh/h) | 47 | 205 | 59 | 238 | 73 | 248 | 22 | 702 | 245 | 220 | 964 | 19 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 47 | 207 | 48 | 240 | 74 | 116 | 22 | 709 | 215 | 222 | 974 | 4 |
| Peak Hour Factor | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 257 | 538 | 240 | 289 | 538 | 240 | 123 | 1212 | 371 | 267 | 1530 | 475 |
| Arrive On Green | 0.14 | 0.15 | 0.15 | 0.16 | 0.15 | 0.15 | 0.07 | 0.23 | 0.23 | 0.15 | 0.29 | 0.29 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 1810 | 5187 | 1587 | 1810 | 5187 | 1610 |
| Grp Volume(v), veh/h | 47 | 207 | 48 | 240 | 74 | 116 | 22 | 709 | 215 | 222 | 974 | 4 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1810 | 1729 | 1587 | 1810 | 1729 | 1610 |
| Q Serve(g_s), s | 1.5 | 3.5 | 1.3 | 8.6 | 1.2 | 2.9 | 0.8 | 8.1 | 8.1 | 8.0 | 10.9 | 0.1 |
| Cycle Q Clear(g_c), s | 1.5 | 3.5 | 1.3 | 8.6 | 1.2 | 2.9 | 0.8 | 8.1 | 8.1 | 8.0 | 10.9 | 0.1 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 257 | 538 | 240 | 289 | 538 | 240 | 123 | 1212 | 371 | 267 | 1530 | 475 |
| V/C Ratio(X) | 0.18 | 0.38 | 0.20 | 0.83 | 0.14 | 0.48 | 0.18 | 0.59 | 0.58 | 0.83 | 0.64 | 0.01 |
| Avail Cap(c_a), veh/h | 257 | 1787 | 797 | 550 | 2487 | 1109 | 200 | 2645 | 809 | 308 | 2954 | 917 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 25.4 | 25.8 | 12.9 | 27.3 | 24.8 | 10.9 | 29.5 | 22.8 | 22.8 | 27.8 | 20.5 | 16.7 |
| Incr Delay (d2), s/veh | 0.1 | 0.5 | 0.4 | 2.4 | 0.1 | 1.5 | 0.3 | 0.5 | 1.4 | 13.8 | 0.4 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.6 | 1.4 | 0.6 | 3.5 | 0.5 | 1.6 | 0.3 | 3.0 | 2.8 | 4.1 | 3.9 | 0.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 25.5 | 26.2 | 13.3 | 29.7 | 24.9 | 12.4 | 29.7 | 23.3 | 24.2 | 41.6 | 21.0 | 16.7 |
| LnGrp LOS | C | C | B | C | C | B | C | C | C | D | C | B |
| Approach Vol, veh/h | | 302 | | | 430 | | | 946 | | | 1200 | |
| Approach Delay, s/veh | | 24.0 | | | 24.2 | | | 23.6 | | | 24.8 | |
| Approach LOS | | C | | | C | | | C | | | C | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 14.5 | 21.5 | 15.3 | 15.8 | 10.4 | 25.6 | 15.3 | 15.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 | * 5.8 | 5.8 | * 5.8 |
| Max Green Setting (Gmax), s | 11.4 | 34.2 | 20.4 | 33.2 | 7.4 | * 38 | 7.4 | * 46 |
| Max Q Clear Time (g_c+I1), s | 10.0 | 10.1 | 10.6 | 5.5 | 2.8 | 12.9 | 3.5 | 4.9 |
| Green Ext Time (p_c), s | 0.0 | 5.4 | 0.2 | 1.3 | 0.0 | 6.8 | 0.0 | 0.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 24.2 |
| HCM 6th LOS | C |

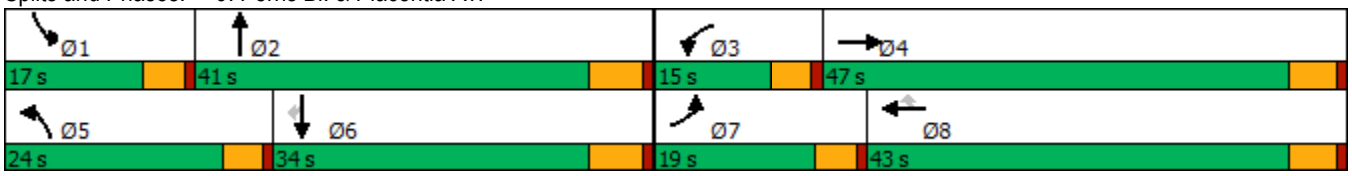
Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Lane Group | EBL | EBT | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 235 | 601 | 92 | 551 | 93 | 379 | 908 | 142 | 1170 | 245 |
| Future Volume (vph) | 235 | 601 | 92 | 551 | 93 | 379 | 908 | 142 | 1170 | 245 |
| Turn Type | Prot | NA | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 | 22.8 |
| Total Split (s) | 19.0 | 47.0 | 15.0 | 43.0 | 43.0 | 24.0 | 41.0 | 17.0 | 34.0 | 34.0 |
| Total Split (%) | 15.8% | 39.2% | 12.5% | 35.8% | 35.8% | 20.0% | 34.2% | 14.2% | 28.3% | 28.3% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 14.4 | 42.7 | 9.3 | 37.6 | 37.6 | 19.4 | 35.8 | 11.8 | 28.2 | 28.2 |
| Actuated g/C Ratio | 0.12 | 0.36 | 0.08 | 0.31 | 0.31 | 0.16 | 0.30 | 0.10 | 0.24 | 0.24 |
| v/c Ratio | 1.14 | 1.57 | 0.69 | 0.97 | 0.16 | 1.37 | 1.00 | 0.84 | 1.45 | 0.54 |
| Control Delay | 152.4 | 292.2 | 78.6 | 72.5 | 1.6 | 226.0 | 69.1 | 88.9 | 245.0 | 21.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 152.4 | 292.2 | 78.6 | 72.5 | 1.6 | 226.0 | 69.1 | 88.9 | 245.0 | 21.4 |
| LOS | F | F | E | E | A | F | E | F | F | C |
| Approach Delay | | 265.1 | | 64.3 | | | 111.9 | | 195.6 | |
| Approach LOS | | F | | E | | | F | | F | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 120 | |
| Natural Cycle: 110 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.57 | |
| Intersection Signal Delay: 169.3 | Intersection LOS: F |
| Intersection Capacity Utilization 129.9% | ICU Level of Service H |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 235 | 601 | 374 | 92 | 551 | 93 | 379 | 908 | 100 | 142 | 1170 | 245 |
| Future Volume (veh/h) | 235 | 601 | 374 | 92 | 551 | 93 | 379 | 908 | 100 | 142 | 1170 | 245 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.98 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 247 | 633 | 389 | 97 | 580 | -4 | 399 | 956 | 98 | 149 | 1232 | 249 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 217 | 404 | 248 | 121 | 595 | 505 | 293 | 988 | 101 | 176 | 848 | 377 |
| Arrive On Green | 0.12 | 0.37 | 0.37 | 0.07 | 0.31 | 0.00 | 0.16 | 0.30 | 0.30 | 0.10 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 1101 | 677 | 1810 | 1900 | 1610 | 1810 | 3297 | 338 | 1810 | 3610 | 1603 |
| Grp Volume(v), veh/h | 247 | 0 | 1022 | 97 | 580 | -4 | 399 | 523 | 531 | 149 | 1232 | 249 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 0 | 1778 | 1810 | 1900 | 1610 | 1810 | 1805 | 1830 | 1810 | 1805 | 1603 |
| Q Serve(g_s), s | 14.4 | 0.0 | 44.0 | 6.3 | 36.2 | 0.0 | 19.4 | 34.3 | 34.3 | 9.7 | 28.2 | 16.9 |
| Cycle Q Clear(g_c), s | 14.4 | 0.0 | 44.0 | 6.3 | 36.2 | 0.0 | 19.4 | 34.3 | 34.3 | 9.7 | 28.2 | 16.9 |
| Prop In Lane | 1.00 | | 0.38 | 1.00 | | 1.00 | 1.00 | | 0.18 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 217 | 0 | 652 | 121 | 595 | 505 | 293 | 541 | 548 | 176 | 848 | 377 |
| V/C Ratio(X) | 1.14 | 0.00 | 1.57 | 0.80 | 0.97 | -0.01 | 1.36 | 0.97 | 0.97 | 0.85 | 1.45 | 0.66 |
| Avail Cap(c_a), veh/h | 217 | 0 | 652 | 157 | 595 | 505 | 293 | 541 | 548 | 187 | 848 | 377 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.8 | 0.0 | 38.0 | 55.2 | 40.7 | 0.0 | 50.3 | 41.5 | 41.5 | 53.3 | 45.9 | 41.6 |
| Incr Delay (d2), s/veh | 103.1 | 0.0 | 263.3 | 15.2 | 30.3 | 0.0 | 184.3 | 31.5 | 31.3 | 25.9 | 210.1 | 8.8 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 12.8 | 0.0 | 66.6 | 3.4 | 21.9 | 0.0 | 23.8 | 20.0 | 20.2 | 5.6 | 36.9 | 7.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 155.9 | 0.0 | 301.3 | 70.4 | 71.1 | 0.0 | 234.6 | 73.0 | 72.8 | 79.2 | 256.0 | 50.4 |
| LnGrp LOS | F | A | F | E | E | A | F | E | E | E | F | D |
| Approach Vol, veh/h | | 1269 | | | 673 | | | 1453 | | | 1630 | |
| Approach Delay, s/veh | | 273.0 | | | 71.4 | | | 117.3 | | | 208.4 | |
| Approach LOS | | F | | | E | | | F | | | F | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 16.3 | 41.7 | 12.6 | 49.4 | 24.0 | 34.0 | 19.0 | 43.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 12.4 | 35.2 | 10.4 | 41.6 | 19.4 | 28.2 | 14.4 | 37.6 |
| Max Q Clear Time (g_c+I1), s | 11.7 | 36.3 | 8.3 | 46.0 | 21.4 | 30.2 | 16.4 | 38.2 |
| Green Ext Time (p_c), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 180.0 |
| HCM 6th LOS | F |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 44 | 13 | 29 | 4 | 22 | 4 | 85 | 151 | 0 | 2 | 78 | 34 |
| Future Vol, veh/h | 44 | 13 | 29 | 4 | 22 | 4 | 85 | 151 | 0 | 2 | 78 | 34 |
| Conflicting Peds, #/hr | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | 0 | - | - | - | - | - | 150 | - | - | - | - | 0 |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 63 | 19 | 41 | 6 | 31 | 6 | 121 | 216 | 0 | 3 | 111 | 49 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 594 | 575 | 112 | 631 | 624 | 216 | 160 | 0 | 0 | 216 | 0 | 0 |
| Stage 1 | 117 | 117 | - | 458 | 458 | - | - | - | - | - | - | - |
| Stage 2 | 477 | 458 | - | 173 | 166 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.1 | 6.5 | 6.2 | 7.1 | 6.5 | 6.2 | 4.1 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.1 | 5.5 | - | 6.1 | 5.5 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | 3.5 | 4 | 3.3 | 2.2 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 420 | 431 | 947 | 396 | 404 | 829 | 1432 | - | - | 1366 | - | - |
| Stage 1 | 892 | 803 | - | 587 | 570 | - | - | - | - | - | - | - |
| Stage 2 | 573 | 570 | - | 834 | 765 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 365 | 394 | 946 | 341 | 369 | 829 | 1432 | - | - | 1366 | - | - |
| Mov Cap-2 Maneuver | 365 | 394 | - | 341 | 369 | - | - | - | - | - | - | - |
| Stage 1 | 817 | 801 | - | 538 | 522 | - | - | - | - | - | - | - |
| Stage 2 | 490 | 522 | - | 777 | 763 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 14 | 15.2 | 2.8 | 0.1 |
| HCM LOS | B | C | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | EBLn2 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 1432 | - | - | 365 | 660 | 394 | 1366 | - | - |
| HCM Lane V/C Ratio | 0.085 | - | - | 0.172 | 0.091 | 0.109 | 0.002 | - | - |
| HCM Control Delay (s) | 7.7 | - | - | 16.9 | 11 | 15.2 | 7.6 | 0 | - |
| HCM Lane LOS | A | - | - | C | B | C | A | A | - |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.6 | 0.3 | 0.4 | 0 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.2 |

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 0 | 9 | 228 | 0 | 0 | 111 |
| Future Vol, veh/h | 0 | 9 | 228 | 0 | 0 | 111 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | - | 0 | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 10 | 248 | 0 | 0 | 121 |

| Major/Minor | Minor1 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | - | 124 | 0 | 0 | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |
| Critical Hdwy | - | 6.9 | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - |
| Follow-up Hdwy | - | 3.3 | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 910 | - | - | 0 | - |
| Stage 1 | 0 | - | - | - | 0 | - |
| Stage 2 | 0 | - | - | - | 0 | - |
| Platoon blocked, % | | | - | - | | - |
| Mov Cap-1 Maneuver | - | 910 | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - |

| Approach | WB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 9 | 0 | 0 |
| HCM LOS | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | WBLn1 | SBT |
|---|---|---|---|---|
| Capacity (veh/h) | - | - | 910 | - |
| HCM Lane V/C Ratio | - | - | 0.011 | - |
| HCM Control Delay (s) | - | - | 9 | - |
| HCM Lane LOS | - | - | A | - |
| HCM 95th %tile Q(veh) | - | - | 0 | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 21 | 0 | 10 | 0 | 0 | 19 | 0 | 188 | 2 | 7 | 95 | 10 |
| Future Vol, veh/h | 21 | 0 | 10 | 0 | 0 | 19 | 0 | 188 | 2 | 7 | 95 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | 0 | - | - | - | 150 | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 23 | 0 | 11 | 0 | 0 | 21 | 0 | 204 | 2 | 8 | 103 | 11 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 227 | 331 | 109 | - | - | 103 | - | 0 | 0 | 206 | 0 | 0 |
| Stage 1 | 125 | 125 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 102 | 206 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | 7.3 | 6.5 | 6.2 | - | - | 6.9 | - | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.1 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.5 | 5.5 | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.5 | 4 | 3.3 | - | - | 3.3 | - | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 723 | 592 | 950 | 0 | 0 | 938 | 0 | - | - | 1377 | - | - |
| Stage 1 | 884 | 796 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Stage 2 | 899 | 735 | - | 0 | 0 | - | 0 | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 704 | 588 | 950 | - | - | 938 | - | - | - | 1377 | - | - |
| Mov Cap-2 Maneuver | 704 | 588 | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | 884 | 791 | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | 879 | 735 | - | - | - | - | - | - | - | - | - | - |

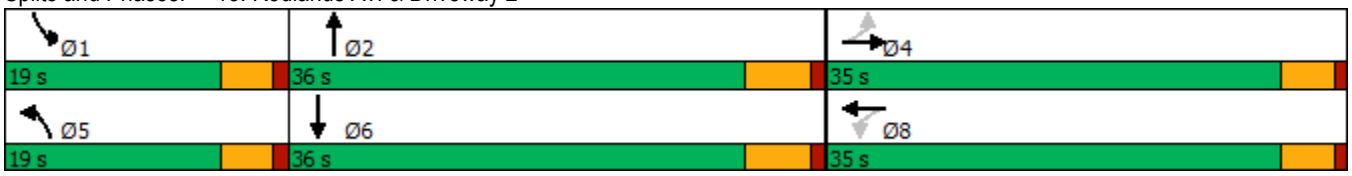
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 9.9 | 8.9 | 0 | 0.5 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 768 | 938 | 1377 | - | - |
| HCM Lane V/C Ratio | - | - | 0.044 | 0.022 | 0.006 | - | - |
| HCM Control Delay (s) | - | - | 9.9 | 8.9 | 7.6 | - | - |
| HCM Lane LOS | - | - | A | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | 0.1 | 0.1 | 0 | - | - |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 26 | 0 | 8 | 0 | 10 | 111 | 17 | 77 |
| Future Volume (vph) | 26 | 0 | 8 | 0 | 10 | 111 | 17 | 77 |
| Turn Type | Perm | NA | Perm | NA | Prot | NA | Prot | NA |
| Protected Phases | | 4 | | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | 4 | | 8 | | | | | |
| Detector Phase | 4 | 4 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 10.0 | 10.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 26.6 | 26.6 | 26.6 | 26.6 | 9.6 | 22.4 | 9.6 | 22.4 |
| Total Split (s) | 35.0 | 35.0 | 35.0 | 35.0 | 19.0 | 36.0 | 19.0 | 36.0 |
| Total Split (%) | 38.9% | 38.9% | 38.9% | 38.9% | 21.1% | 40.0% | 21.1% | 40.0% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | | 4.6 | | 4.6 | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | | | | | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | | | | | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | | 10.1 | | 10.1 | 5.2 | 42.0 | 5.3 | 42.1 |
| Actuated g/C Ratio | | 0.18 | | 0.18 | 0.09 | 0.76 | 0.10 | 0.76 |
| v/c Ratio | | 0.11 | | 0.14 | 0.07 | 0.05 | 0.10 | 0.04 |
| Control Delay | | 21.8 | | 3.7 | 25.3 | 5.0 | 25.6 | 4.6 |
| Queue Delay | | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | | 21.8 | | 3.7 | 25.3 | 5.0 | 25.6 | 4.6 |
| LOS | | C | | A | C | A | C | A |
| Approach Delay | | 21.8 | | 3.7 | | 6.6 | | 7.9 |
| Approach LOS | | C | | A | | A | | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 90 | |
| Actuated Cycle Length: 55.4 | |
| Natural Cycle: 60 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.14 | |
| Intersection Signal Delay: 7.9 | Intersection LOS: A |
| Intersection Capacity Utilization 25.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 13: Redlands Av. & Driveway 2



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 26 | 0 | 0 | 8 | 0 | 39 | 10 | 111 | 2 | 17 | 77 | 11 |
| Future Volume (veh/h) | 26 | 0 | 0 | 8 | 0 | 39 | 10 | 111 | 2 | 17 | 77 | 11 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 28 | 0 | 0 | 9 | 0 | 42 | 11 | 121 | 2 | 18 | 84 | 12 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 326 | 0 | 0 | 98 | 19 | 172 | 26 | 2088 | 34 | 40 | 1852 | 259 |
| Arrive On Green | 0.13 | 0.00 | 0.00 | 0.13 | 0.00 | 0.13 | 0.01 | 0.57 | 0.57 | 0.02 | 0.58 | 0.58 |
| Sat Flow, veh/h | 1477 | 0 | 0 | 141 | 145 | 1330 | 1810 | 3634 | 60 | 1810 | 3179 | 445 |
| Grp Volume(v), veh/h | 28 | 0 | 0 | 51 | 0 | 0 | 11 | 60 | 63 | 18 | 47 | 49 |
| Grp Sat Flow(s),veh/h/ln | 1477 | 0 | 0 | 1616 | 0 | 0 | 1810 | 1805 | 1889 | 1810 | 1805 | 1820 |
| Q Serve(g_s), s | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.8 | 0.8 | 0.5 | 0.6 | 0.6 |
| Cycle Q Clear(g_c), s | 0.7 | 0.0 | 0.0 | 1.5 | 0.0 | 0.0 | 0.3 | 0.8 | 0.8 | 0.5 | 0.6 | 0.6 |
| Prop In Lane | 1.00 | | 0.00 | 0.18 | | 0.82 | 1.00 | | 0.03 | 1.00 | | 0.24 |
| Lane Grp Cap(c), veh/h | 326 | 0 | 0 | 289 | 0 | 0 | 26 | 1037 | 1085 | 40 | 1051 | 1060 |
| V/C Ratio(X) | 0.09 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.43 | 0.06 | 0.06 | 0.45 | 0.04 | 0.05 |
| Avail Cap(c_a), veh/h | 938 | 0 | 0 | 985 | 0 | 0 | 489 | 1037 | 1085 | 489 | 1051 | 1060 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 20.5 | 0.0 | 0.0 | 20.8 | 0.0 | 0.0 | 26.0 | 5.0 | 5.0 | 25.7 | 4.8 | 4.8 |
| Incr Delay (d2), s/veh | 0.1 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 4.2 | 0.1 | 0.1 | 3.0 | 0.1 | 0.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 20.6 | 0.0 | 0.0 | 21.1 | 0.0 | 0.0 | 30.3 | 5.1 | 5.1 | 28.7 | 4.8 | 4.9 |
| LnGrp LOS | C | A | A | C | A | A | C | A | A | C | A | A |
| Approach Vol, veh/h | | 28 | | | 51 | | | 134 | | | 114 | |
| Approach Delay, s/veh | | 20.6 | | | 21.1 | | | 7.2 | | | 8.6 | |
| Approach LOS | | C | | | C | | | A | | | A | |

| Timer - Assigned Phs | 1 | 2 | | 4 | 5 | 6 | | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.8 | 36.0 | | 11.5 | 5.4 | 36.4 | | 11.5 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | | 4.6 | 4.6 | 5.4 | | 4.6 |
| Max Green Setting (Gmax), s | 14.4 | 30.6 | | 30.4 | 14.4 | 30.6 | | 30.4 |
| Max Q Clear Time (g_c+I1), s | 2.5 | 2.8 | | 2.7 | 2.3 | 2.6 | | 3.5 |
| Green Ext Time (p_c), s | 0.0 | 0.6 | | 0.1 | 0.0 | 0.4 | | 0.2 |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 11.0 |
| HCM 6th LOS | | B |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 106 | 2 | 0 | 80 | 5 |
| Future Vol, veh/h | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 106 | 2 | 0 | 80 | 5 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | 0 | - | - | 0 | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 115 | 2 | 0 | 87 | 5 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | - | - | 46 | - | - | 59 | - | 0 | 0 | - | - | 0 |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy | - | - | 6.9 | - | - | 6.9 | - | - | - | - | - | - |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | - | - | - | - | - | - |
| Follow-up Hdwy | - | - | 3.3 | - | - | 3.3 | - | - | - | - | - | - |
| Pot Cap-1 Maneuver | 0 | 0 | 1020 | 0 | 0 | 1001 | 0 | - | - | 0 | - | - |
| Stage 1 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Stage 2 | 0 | 0 | - | 0 | 0 | - | 0 | - | - | 0 | - | - |
| Platoon blocked, % | | | | - | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | - | - | 1020 | - | - | 1001 | - | - | - | - | - | - |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 1 | - | - | - | - | - | - | - | - | - | - | - | - |
| Stage 2 | - | - | - | - | - | - | - | - | - | - | - | - |

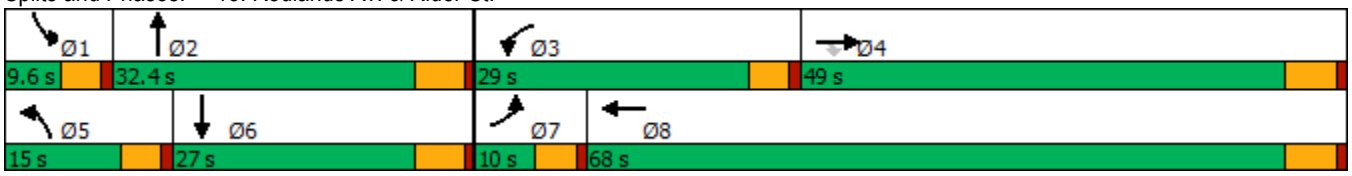
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 8.5 | 8.6 | 0 | 0 |
| HCM LOS | A | A | | |

| Minor Lane/Major Mvmt | NBT | NBR | EBLn1 | WBLn1 | SBT | SBR |
|---|---|---|---|---|---|---|
| Capacity (veh/h) | - | - | 1020 | 1001 | - | - |
| HCM Lane V/C Ratio | - | - | 0.004 | 0.004 | - | - |
| HCM Control Delay (s) | - | - | 8.5 | 8.6 | - | - |
| HCM Lane LOS | - | - | A | A | - | - |
| HCM 95th %tile Q(veh) | - | - | 0 | 0 | - | - |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 47 | 507 | 44 | 106 | 413 | 28 | 35 | 6 | 39 |
| Future Volume (vph) | 47 | 507 | 44 | 106 | 413 | 28 | 35 | 6 | 39 |
| Turn Type | Prot | NA | Perm | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 9.6 | 22.4 | 9.6 | 22.4 |
| Total Split (s) | 10.0 | 49.0 | 49.0 | 29.0 | 68.0 | 15.0 | 32.4 | 9.6 | 27.0 |
| Total Split (%) | 8.3% | 40.8% | 40.8% | 24.2% | 56.7% | 12.5% | 27.0% | 8.0% | 22.5% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 4.4 | 3.6 | 4.4 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.4 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 5.4 | 54.8 | 54.8 | 11.1 | 62.8 | 6.4 | 15.3 | 5.0 | 10.4 |
| Actuated g/C Ratio | 0.05 | 0.55 | 0.55 | 0.11 | 0.63 | 0.06 | 0.15 | 0.05 | 0.11 |
| v/c Ratio | 0.56 | 0.55 | 0.05 | 0.61 | 0.22 | 0.27 | 0.49 | 0.08 | 0.23 |
| Control Delay | 70.6 | 18.7 | 0.1 | 56.0 | 9.1 | 52.4 | 16.6 | 50.7 | 26.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 70.6 | 18.7 | 0.1 | 56.0 | 9.1 | 52.4 | 16.6 | 50.7 | 26.2 |
| LOS | E | B | A | E | A | D | B | D | C |
| Approach Delay | | 21.4 | | | 18.4 | | 21.9 | | 28.0 |
| Approach LOS | | C | | | B | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 98.9 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.61 | |
| Intersection Signal Delay: 20.7 | Intersection LOS: C |
| Intersection Capacity Utilization 55.4% | ICU Level of Service B |
| Analysis Period (min) 15 | |

Splits and Phases: 15: Redlands Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 47 | 507 | 44 | 106 | 413 | 16 | 28 | 35 | 127 | 6 | 39 | 39 |
| Future Volume (veh/h) | 47 | 507 | 44 | 106 | 413 | 16 | 28 | 35 | 127 | 6 | 39 | 39 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 54 | 583 | 51 | 122 | 475 | 18 | 32 | 40 | 146 | 7 | 45 | 45 |
| Peak Hour Factor | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 | 0.87 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 70 | 1081 | 916 | 153 | 2180 | 82 | 53 | 49 | 178 | 16 | 211 | 185 |
| Arrive On Green | 0.04 | 0.57 | 0.57 | 0.08 | 0.61 | 0.61 | 0.03 | 0.14 | 0.14 | 0.01 | 0.12 | 0.12 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3547 | 134 | 1810 | 358 | 1307 | 1810 | 1821 | 1596 |
| Grp Volume(v), veh/h | 54 | 583 | 51 | 122 | 241 | 252 | 32 | 0 | 186 | 7 | 45 | 45 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 1876 | 1810 | 0 | 1665 | 1810 | 1805 | 1613 |
| Q Serve(g_s), s | 3.0 | 19.3 | 1.4 | 6.7 | 6.0 | 6.0 | 1.8 | 0.0 | 11.0 | 0.4 | 2.3 | 2.6 |
| Cycle Q Clear(g_c), s | 3.0 | 19.3 | 1.4 | 6.7 | 6.0 | 6.0 | 1.8 | 0.0 | 11.0 | 0.4 | 2.3 | 2.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.07 | 1.00 | | 0.78 | 1.00 | | 0.99 |
| Lane Grp Cap(c), veh/h | 70 | 1081 | 916 | 153 | 1110 | 1153 | 53 | 0 | 227 | 16 | 209 | 187 |
| V/C Ratio(X) | 0.77 | 0.54 | 0.06 | 0.80 | 0.22 | 0.22 | 0.60 | 0.00 | 0.82 | 0.44 | 0.21 | 0.24 |
| Avail Cap(c_a), veh/h | 97 | 1081 | 916 | 436 | 1110 | 1153 | 186 | 0 | 444 | 89 | 385 | 344 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.2 | 13.6 | 9.7 | 45.5 | 8.7 | 8.7 | 48.5 | 0.0 | 42.5 | 49.9 | 40.6 | 40.7 |
| Incr Delay (d2), s/veh | 14.6 | 1.9 | 0.1 | 3.6 | 0.5 | 0.4 | 4.0 | 0.0 | 7.2 | 6.9 | 0.5 | 0.7 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.6 | 7.8 | 0.5 | 3.1 | 2.2 | 2.2 | 0.8 | 0.0 | 4.8 | 0.2 | 1.0 | 1.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 62.8 | 15.5 | 9.8 | 49.1 | 9.1 | 9.1 | 52.6 | 0.0 | 49.7 | 56.8 | 41.1 | 41.4 |
| LnGrp LOS | E | B | A | D | A | A | D | A | D | E | D | D |
| Approach Vol, veh/h | | 688 | | | 615 | | | 218 | | | 97 | |
| Approach Delay, s/veh | | 18.8 | | | 17.1 | | | 50.1 | | | 42.3 | |
| Approach LOS | | B | | | B | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 5.5 | 19.2 | 13.1 | 63.4 | 7.6 | 17.1 | 8.5 | 68.0 |
| Change Period (Y+Rc), s | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 27.0 | 24.4 | 43.2 | 10.4 | 21.6 | 5.4 | 62.2 |
| Max Q Clear Time (g_c+I1), s | 2.4 | 13.0 | 8.7 | 21.3 | 3.8 | 4.6 | 5.0 | 8.0 |
| Green Ext Time (p_c), s | 0.0 | 0.8 | 0.1 | 3.6 | 0.0 | 0.3 | 0.0 | 2.8 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 23.8 |
| HCM 6th LOS | C |

| Intersection | |
|---|---|
| Intersection Delay, s/veh | 23.6 |
| Intersection LOS | C |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Vol, veh/h | 38 | 355 | 188 | 21 | 277 | 0 | 183 | 152 | 24 | 6 | 153 | 28 |
| Future Vol, veh/h | 38 | 355 | 188 | 21 | 277 | 0 | 183 | 152 | 24 | 6 | 153 | 28 |
| Peak Hour Factor | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 40 | 370 | 196 | 22 | 289 | 0 | 191 | 158 | 25 | 6 | 159 | 29 |
| Number of Lanes | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 1 | 1 |

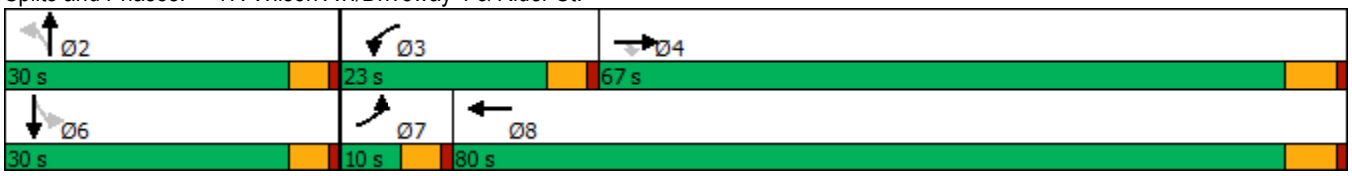
| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| Opposing Approach | WB | EB | SB | NB |
| Opposing Lanes | 2 | 3 | 3 | 3 |
| Conflicting Approach Left | SB | NB | EB | WB |
| Conflicting Lanes Left | 3 | 3 | 3 | 2 |
| Conflicting Approach Righ | NB | SB | WB | EB |
| Conflicting Lanes Right | 3 | 3 | 2 | 3 |
| HCM Control Delay | 28.8 | 25.7 | 16.9 | 17 |
| HCM LOS | D | D | C | C |

| Lane | NBLn1 | NBLn2 | NBLn3 | EBLn1 | EBLn2 | EBLn3 | WBLn1 | WBLn2 | SBLn1 | SBLn2 | SBLn3 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Vol Left, % | 100% | 0% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% | 0% |
| Vol Thru, % | 0% | 100% | 68% | 0% | 100% | 0% | 0% | 100% | 0% | 100% | 0% |
| Vol Right, % | 0% | 0% | 32% | 0% | 0% | 100% | 0% | 0% | 0% | 0% | 100% |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop | Stop |
| Traffic Vol by Lane | 183 | 101 | 75 | 38 | 355 | 188 | 21 | 277 | 6 | 153 | 28 |
| LT Vol | 183 | 0 | 0 | 38 | 0 | 0 | 21 | 0 | 6 | 0 | 0 |
| Through Vol | 0 | 101 | 51 | 0 | 355 | 0 | 0 | 277 | 0 | 153 | 0 |
| RT Vol | 0 | 0 | 24 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 28 |
| Lane Flow Rate | 191 | 106 | 78 | 40 | 370 | 196 | 22 | 289 | 6 | 159 | 29 |
| Geometry Grp | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Degree of Util (X) | 0.481 | 0.252 | 0.18 | 0.093 | 0.821 | 0.396 | 0.054 | 0.671 | 0.017 | 0.406 | 0.068 |
| Departure Headway (Hd) | 9.091 | 8.578 | 8.348 | 8.502 | 7.995 | 7.286 | 8.875 | 8.375 | 9.676 | 9.162 | 8.441 |
| Convergence, Y/N | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cap | 397 | 419 | 429 | 424 | 455 | 497 | 404 | 433 | 370 | 392 | 424 |
| Service Time | 6.845 | 6.332 | 6.101 | 6.202 | 5.695 | 4.986 | 6.625 | 6.125 | 7.436 | 6.921 | 6.2 |
| HCM Lane V/C Ratio | 0.481 | 0.253 | 0.182 | 0.094 | 0.813 | 0.394 | 0.054 | 0.667 | 0.016 | 0.406 | 0.068 |
| HCM Control Delay | 20 | 14.2 | 12.9 | 12.1 | 38.1 | 14.7 | 12.1 | 26.7 | 12.6 | 18.1 | 11.8 |
| HCM Lane LOS | C | B | B | B | E | B | B | D | B | C | B |
| HCM 95th-tile Q | 2.5 | 1 | 0.6 | 0.3 | 7.8 | 1.9 | 0.2 | 4.8 | 0.1 | 1.9 | 0.2 |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 42 | 649 | 66 | 110 | 533 | 75 | 1 | 0 |
| Future Volume (vph) | 42 | 649 | 66 | 110 | 533 | 75 | 1 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | 6 |
| Permitted Phases | | | 4 | | | 2 | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 22.8 | 22.8 | 9.6 | 22.8 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 10.0 | 67.0 | 67.0 | 23.0 | 80.0 | 30.0 | 30.0 | 30.0 |
| Total Split (%) | 8.3% | 55.8% | 55.8% | 19.2% | 66.7% | 25.0% | 25.0% | 25.0% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None |
| Act Effct Green (s) | 5.3 | 66.1 | 66.1 | 11.6 | 74.7 | | 16.8 | 16.8 |
| Actuated g/C Ratio | 0.05 | 0.60 | 0.60 | 0.11 | 0.68 | | 0.15 | 0.15 |
| v/c Ratio | 0.53 | 0.62 | 0.07 | 0.63 | 0.24 | | 0.73 | 0.05 |
| Control Delay | 75.4 | 18.7 | 1.5 | 62.6 | 8.0 | | 48.0 | 0.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 75.4 | 18.7 | 1.5 | 62.6 | 8.0 | | 48.0 | 0.2 |
| LOS | E | B | A | E | A | | D | A |
| Approach Delay | | 20.3 | | | 17.3 | | 48.0 | 0.2 |
| Approach LOS | | C | | | B | | D | A |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 109.7 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.73 | |
| Intersection Signal Delay: 22.0 | Intersection LOS: C |
| Intersection Capacity Utilization 70.2% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 17: Wilson Av./Driveway 4 & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 42 | 649 | 66 | 110 | 533 | 0 | 75 | 1 | 107 | 0 | 0 | 27 |
| Future Volume (veh/h) | 42 | 649 | 66 | 110 | 533 | 0 | 75 | 1 | 107 | 0 | 0 | 27 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 46 | 705 | 72 | 120 | 579 | 0 | 82 | 1 | 116 | 0 | 0 | 29 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 62 | 1196 | 1013 | 148 | 2444 | 0 | 132 | 12 | 135 | 0 | 0 | 244 |
| Arrive On Green | 0.03 | 0.63 | 0.63 | 0.08 | 0.68 | 0.00 | 0.15 | 0.15 | 0.15 | 0.00 | 0.00 | 0.15 |
| Sat Flow, veh/h | 1810 | 1900 | 1610 | 1810 | 3705 | 0 | 562 | 76 | 891 | 0 | 0 | 1610 |
| Grp Volume(v), veh/h | 46 | 705 | 72 | 120 | 579 | 0 | 199 | 0 | 0 | 0 | 0 | 29 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1805 | 0 | 1529 | 0 | 0 | 0 | 0 | 1610 |
| Q Serve(g_s), s | 2.8 | 24.0 | 1.9 | 7.1 | 6.8 | 0.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| Cycle Q Clear(g_c), s | 2.8 | 24.0 | 1.9 | 7.1 | 6.8 | 0.0 | 13.9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.00 | 0.41 | | 0.58 | 0.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 62 | 1196 | 1013 | 148 | 2444 | 0 | 279 | 0 | 0 | 0 | 0 | 244 |
| V/C Ratio(X) | 0.74 | 0.59 | 0.07 | 0.81 | 0.24 | 0.00 | 0.71 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 |
| Avail Cap(c_a), veh/h | 89 | 1196 | 1013 | 304 | 2444 | 0 | 400 | 0 | 0 | 0 | 0 | 373 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 52.4 | 12.0 | 7.9 | 49.5 | 6.8 | 0.0 | 45.3 | 0.0 | 0.0 | 0.0 | 0.0 | 40.2 |
| Incr Delay (d2), s/veh | 8.4 | 2.1 | 0.1 | 3.9 | 0.2 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 1.4 | 9.4 | 0.6 | 3.3 | 2.2 | 0.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 60.8 | 14.1 | 8.0 | 53.4 | 7.0 | 0.0 | 48.7 | 0.0 | 0.0 | 0.0 | 0.0 | 40.4 |
| LnGrp LOS | E | B | A | D | A | A | D | A | A | A | A | D |
| Approach Vol, veh/h | | 823 | | | 699 | | | 199 | | | 29 | |
| Approach Delay, s/veh | | 16.2 | | | 15.0 | | | 48.7 | | | 40.4 | |
| Approach LOS | | B | | | B | | | D | | | D | |

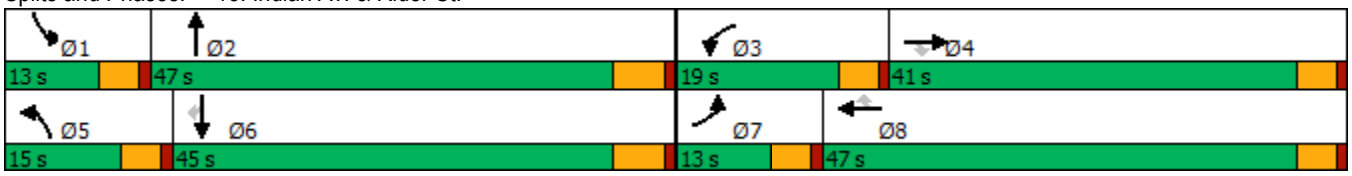
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 21.2 | 13.6 | 74.8 | | 21.2 | 8.4 | 80.0 |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | | 25.4 | 18.4 | 61.2 | | 25.4 | 5.4 | 74.2 |
| Max Q Clear Time (g_c+I1), s | | 15.9 | 9.1 | 26.0 | | 3.7 | 4.8 | 8.8 |
| Green Ext Time (p_c), s | | 0.8 | 0.1 | 5.2 | | 0.1 | 0.0 | 4.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 19.8 |
| HCM 6th LOS | B |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | |
| Traffic Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Future Volume (vph) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 79 | 236 | 21 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA | Perm |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 | |
| Permitted Phases | | | 4 | | | 8 | | | | | 6 |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 | 6 |
| Switch Phase | | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 10.0 |
| Minimum Split (s) | 9.6 | 35.6 | 35.6 | 9.6 | 37.6 | 37.6 | 9.6 | 29.8 | 9.6 | 36.8 | 36.8 |
| Total Split (s) | 13.0 | 41.0 | 41.0 | 19.0 | 47.0 | 47.0 | 15.0 | 47.0 | 13.0 | 45.0 | 45.0 |
| Total Split (%) | 10.8% | 34.2% | 34.2% | 15.8% | 39.2% | 39.2% | 12.5% | 39.2% | 10.8% | 37.5% | 37.5% |
| Yellow Time (s) | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 3.6 | 4.8 | 3.6 | 4.8 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 5.8 | 5.8 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | None | None | Max | None | Max | Max |
| Act Effct Green (s) | 5.5 | 14.6 | 14.6 | 7.3 | 22.4 | 22.4 | 6.0 | 41.9 | 8.4 | 50.7 | 50.7 |
| Actuated g/C Ratio | 0.06 | 0.16 | 0.16 | 0.08 | 0.25 | 0.25 | 0.07 | 0.47 | 0.09 | 0.56 | 0.56 |
| v/c Ratio | 0.13 | 0.45 | 0.17 | 0.38 | 0.25 | 0.18 | 0.21 | 0.09 | 0.66 | 0.16 | 0.03 |
| Control Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 47.3 | 36.5 | 1.0 | 49.6 | 27.9 | 4.3 | 47.8 | 13.4 | 62.1 | 13.4 | 0.0 |
| LOS | D | D | A | D | C | A | D | B | E | B | A |
| Approach Delay | | 30.1 | | | 24.6 | | | 18.3 | | 24.0 | |
| Approach LOS | | C | | | C | | | B | | C | |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 89.8 | |
| Natural Cycle: 95 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.66 | |
| Intersection Signal Delay: 25.0 | Intersection LOS: C |
| Intersection Capacity Utilization 40.0% | ICU Level of Service A |
| Analysis Period (min) 15 | |

Splits and Phases: 18: Indian Av. & Rider St.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Future Volume (veh/h) | 10 | 186 | 47 | 39 | 83 | 62 | 18 | 85 | 23 | 79 | 236 | 21 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 120 | 18 | 111 | 332 | 15 |
| Peak Hour Factor | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 1613 | 237 | 141 | 2030 | 906 |
| Arrive On Green | 0.02 | 0.12 | 0.12 | 0.04 | 0.15 | 0.15 | 0.03 | 0.51 | 0.51 | 0.08 | 0.56 | 0.56 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 1900 | 1610 | 1810 | 3157 | 465 | 1810 | 3610 | 1610 |
| Grp Volume(v), veh/h | 14 | 262 | 35 | 55 | 117 | 49 | 25 | 68 | 70 | 111 | 332 | 15 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1900 | 1610 | 1810 | 1805 | 1816 | 1810 | 1805 | 1610 |
| Q Serve(g_s), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Cycle Q Clear(g_c), s | 0.6 | 5.5 | 1.6 | 2.4 | 4.5 | 2.1 | 1.1 | 1.5 | 1.6 | 4.9 | 3.6 | 0.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.26 | 1.00 | | 1.00 |
| Lane Grp Cap(c), veh/h | 30 | 448 | 200 | 79 | 287 | 243 | 48 | 922 | 928 | 141 | 2030 | 906 |
| V/C Ratio(X) | 0.46 | 0.59 | 0.18 | 0.69 | 0.41 | 0.20 | 0.52 | 0.07 | 0.08 | 0.78 | 0.16 | 0.02 |
| Avail Cap(c_a), veh/h | 188 | 1629 | 727 | 323 | 999 | 847 | 233 | 922 | 928 | 188 | 2030 | 906 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 39.3 | 33.4 | 31.6 | 38.0 | 31.0 | 30.0 | 38.7 | 10.0 | 10.0 | 36.5 | 8.5 | 7.8 |
| Incr Delay (d2), s/veh | 4.1 | 1.2 | 0.4 | 4.0 | 0.9 | 0.4 | 3.2 | 0.2 | 0.2 | 10.2 | 0.2 | 0.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 0.3 | 2.5 | 0.6 | 1.2 | 2.1 | 0.9 | 0.5 | 0.6 | 0.6 | 2.4 | 1.2 | 0.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 43.4 | 34.6 | 32.0 | 42.0 | 31.9 | 30.4 | 41.9 | 10.2 | 10.2 | 46.7 | 8.7 | 7.8 |
| LnGrp LOS | D | C | C | D | C | C | D | B | B | D | A | A |
| Approach Vol, veh/h | | 311 | | | 221 | | | 163 | | | 458 | |
| Approach Delay, s/veh | | 34.7 | | | 34.1 | | | 15.1 | | | 17.9 | |
| Approach LOS | | C | | | C | | | B | | | B | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 10.9 | 47.0 | 8.1 | 14.6 | 6.7 | 51.2 | 5.9 | 16.8 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 |
| Max Green Setting (Gmax), s | 8.4 | 41.2 | 14.4 | 36.4 | 10.4 | 39.2 | 8.4 | 42.4 |
| Max Q Clear Time (g_c+I1), s | 6.9 | 3.6 | 4.4 | 7.5 | 3.1 | 5.6 | 2.6 | 6.5 |
| Green Ext Time (p_c), s | 0.0 | 0.7 | 0.0 | 1.9 | 0.0 | 2.1 | 0.0 | 0.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 25.1 |
| HCM 6th LOS | C |

# APPENDIX 8.3:

# EAC (2021) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAC (2021) Conditions - Weekday PM Peak Hour**

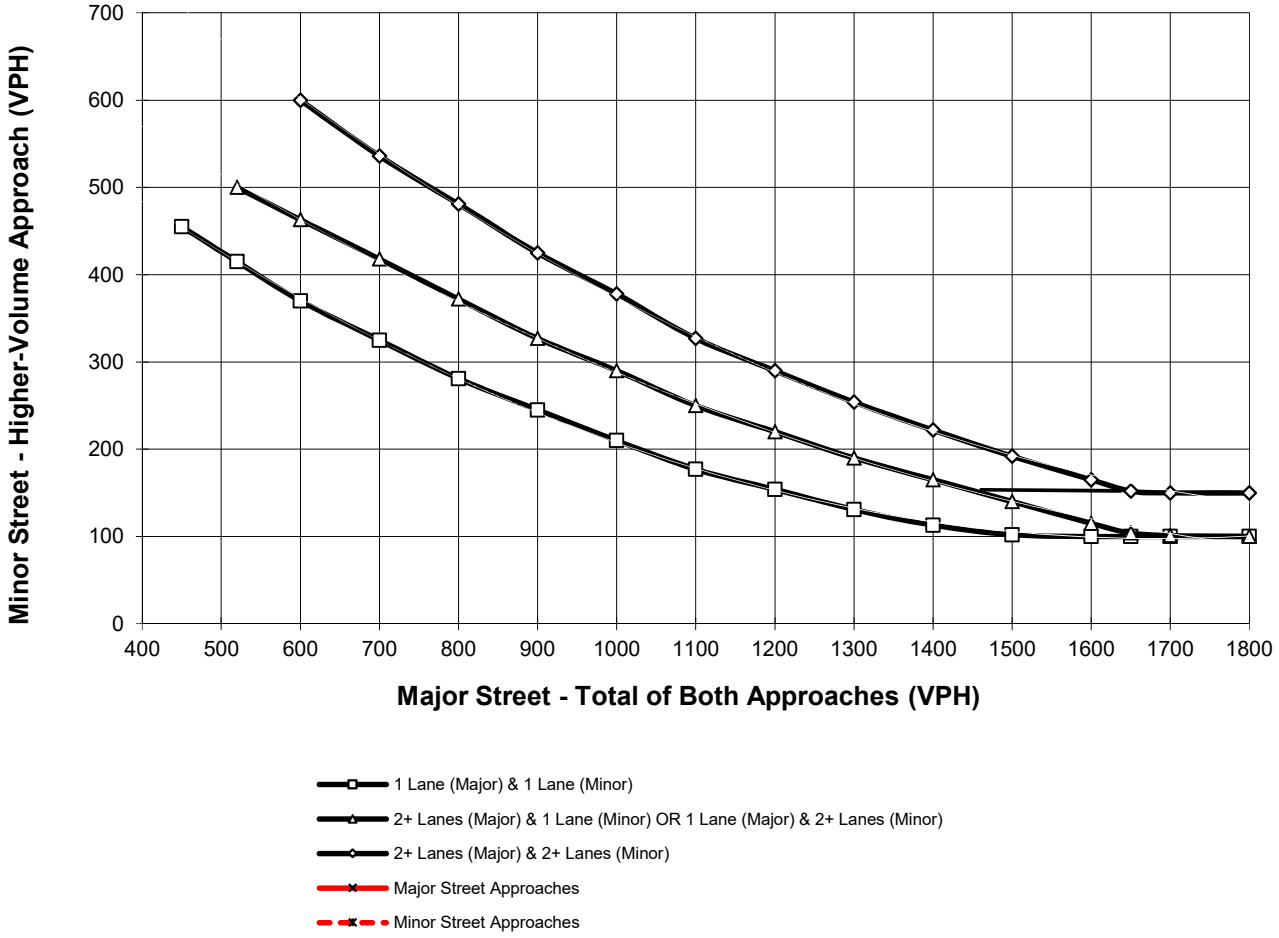
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **272**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Morgan St.**

High Volume Approach (VPH) = **56**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAC (2021) Conditions - Weekday PM Peak Hour**

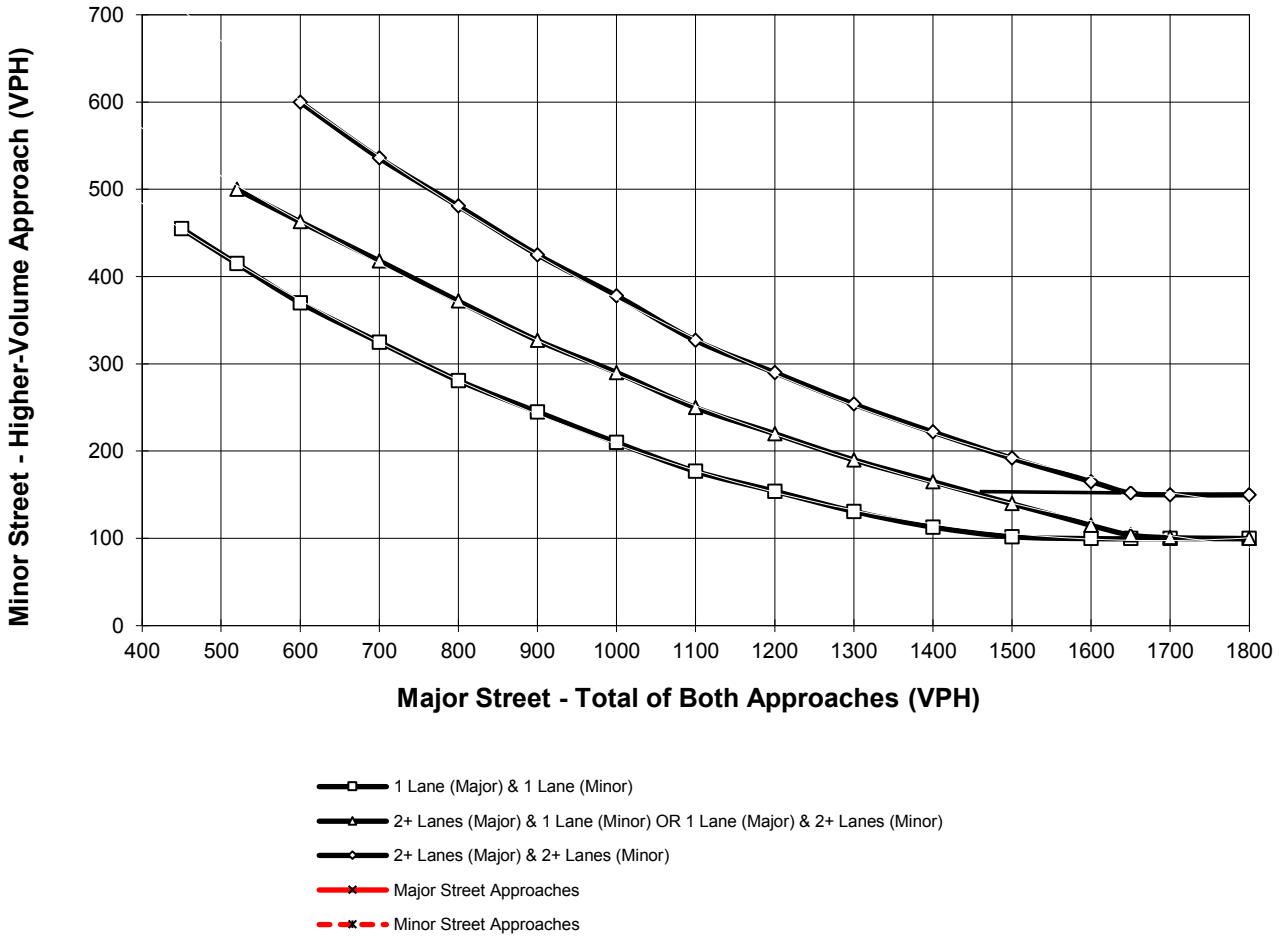
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **229**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Sinclair St.**

High Volume Approach (VPH) = **31**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAC (2021) - Weekday AM Peak Hour**

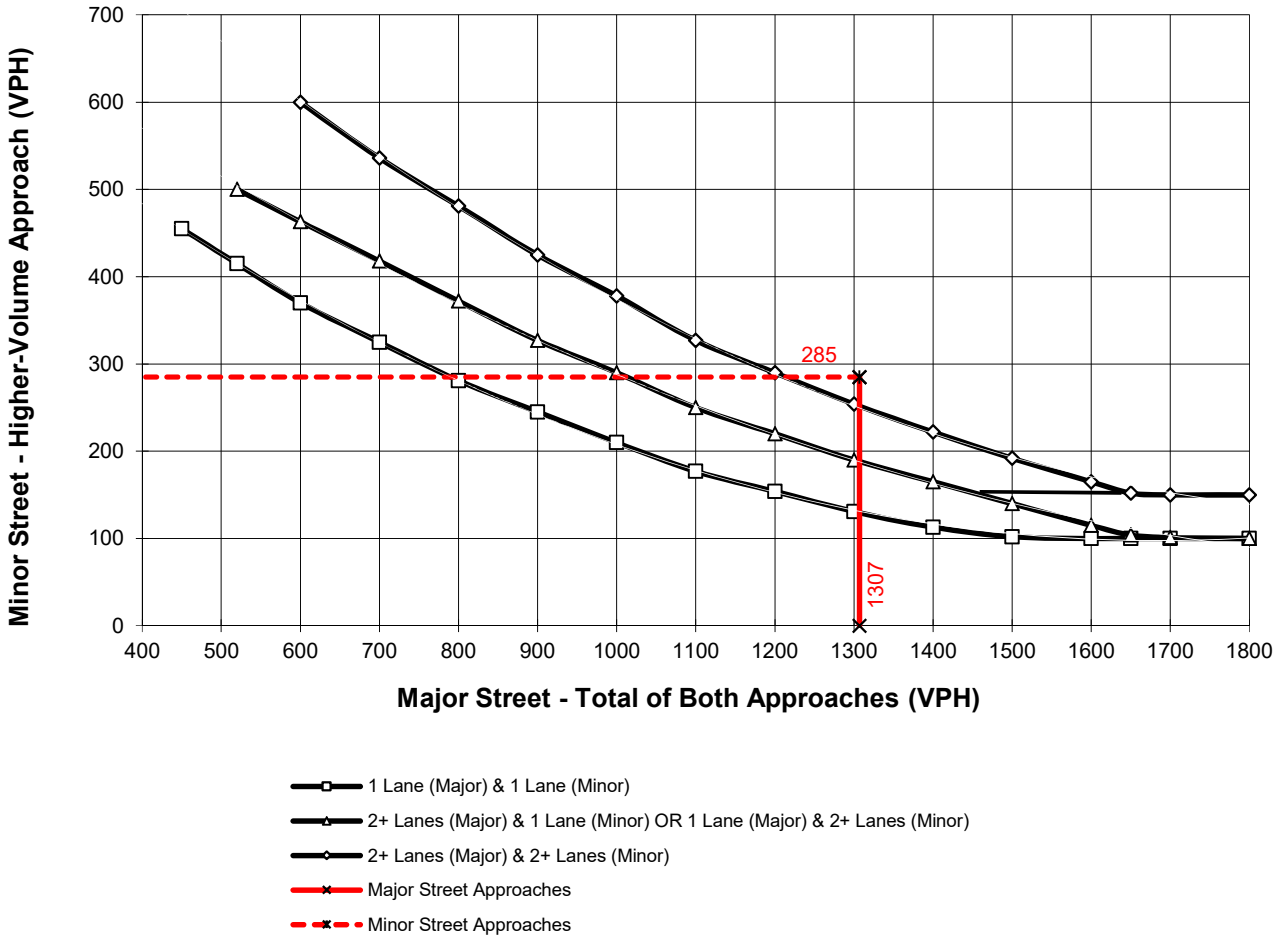
Major Street Name = **Rider St.**

Total of Both Approaches (VPH) = **1307**
Number of Approach Lanes on Major Street = **3**

Minor Street Name = **Redlands Av.**

High Volume Approach (VPH) = **285**
Number of Approach Lanes On Minor Street = **1**

**WARRANTED FOR A SIGNAL**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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# APPENDIX 8.4:

# EAPC (2021) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC 2021 Conditions - Weekday PM Peak Hour**

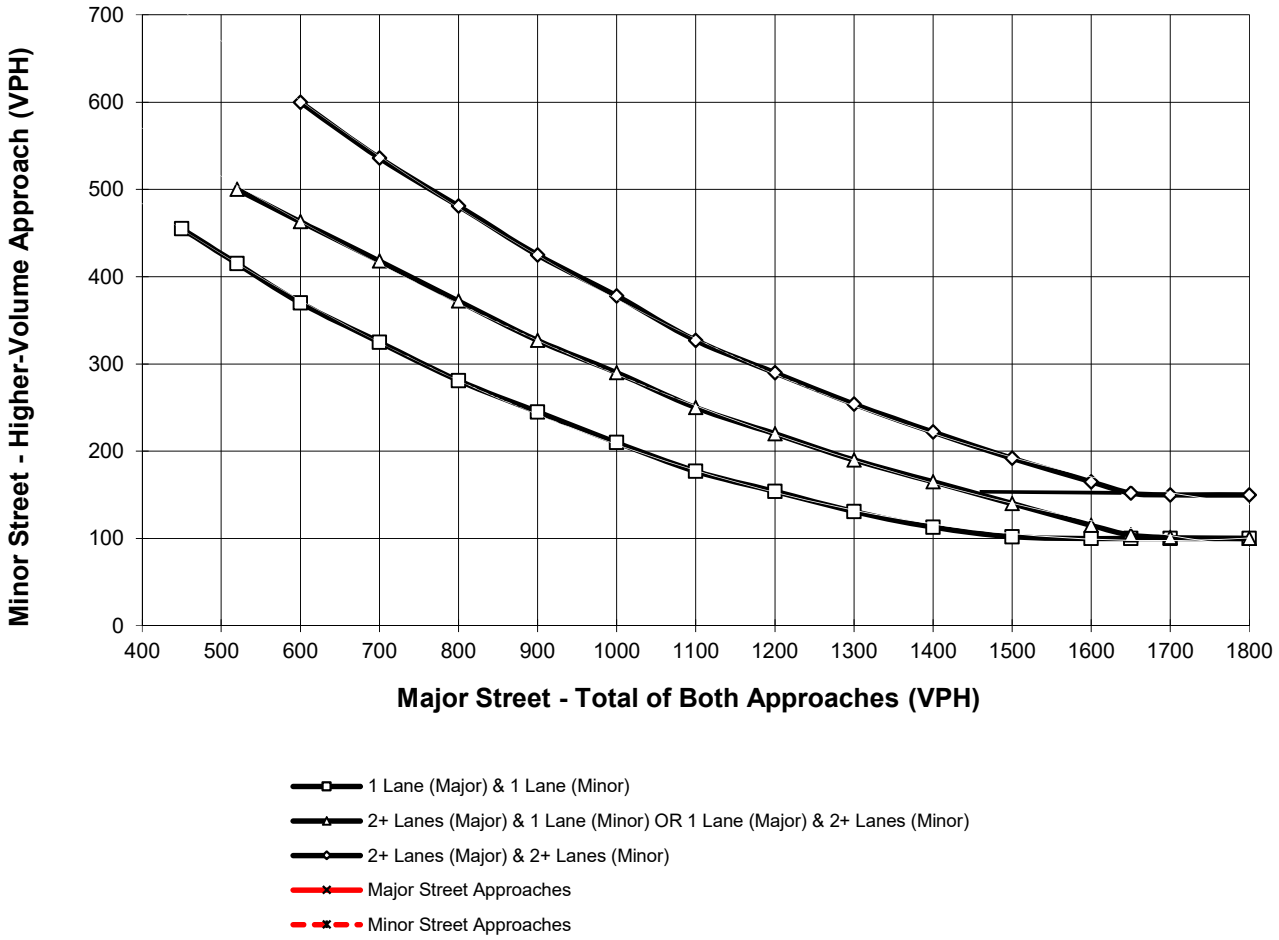
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **350**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Morgan St.**

High Volume Approach (VPH) = **86**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM |
|---|---|---|---|
| | | | |

TRAFFIC CONDITIONS **EAPC (2021)**

CALC CH DATE 11/06/19

CHK CH DATE 11/06/19

Jurisdiction: **City of Perris**

Major Street: **Redlands Av.**

Minor Street: **Driveway 1**

Critical Approach Speed (Major) 45 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **5,797** vpd

Minor Street Future ADT = **59** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or

In built up area of isolated community of < 10,000 population …….. [ ]

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **5,797** | *1* **59** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **5,797** | *1* **59** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | | | | |
| | XX | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** / **B** | | | | |
| | 4% / 7% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

## Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC (2021) Conditions - Weekday PM Peak Hour**

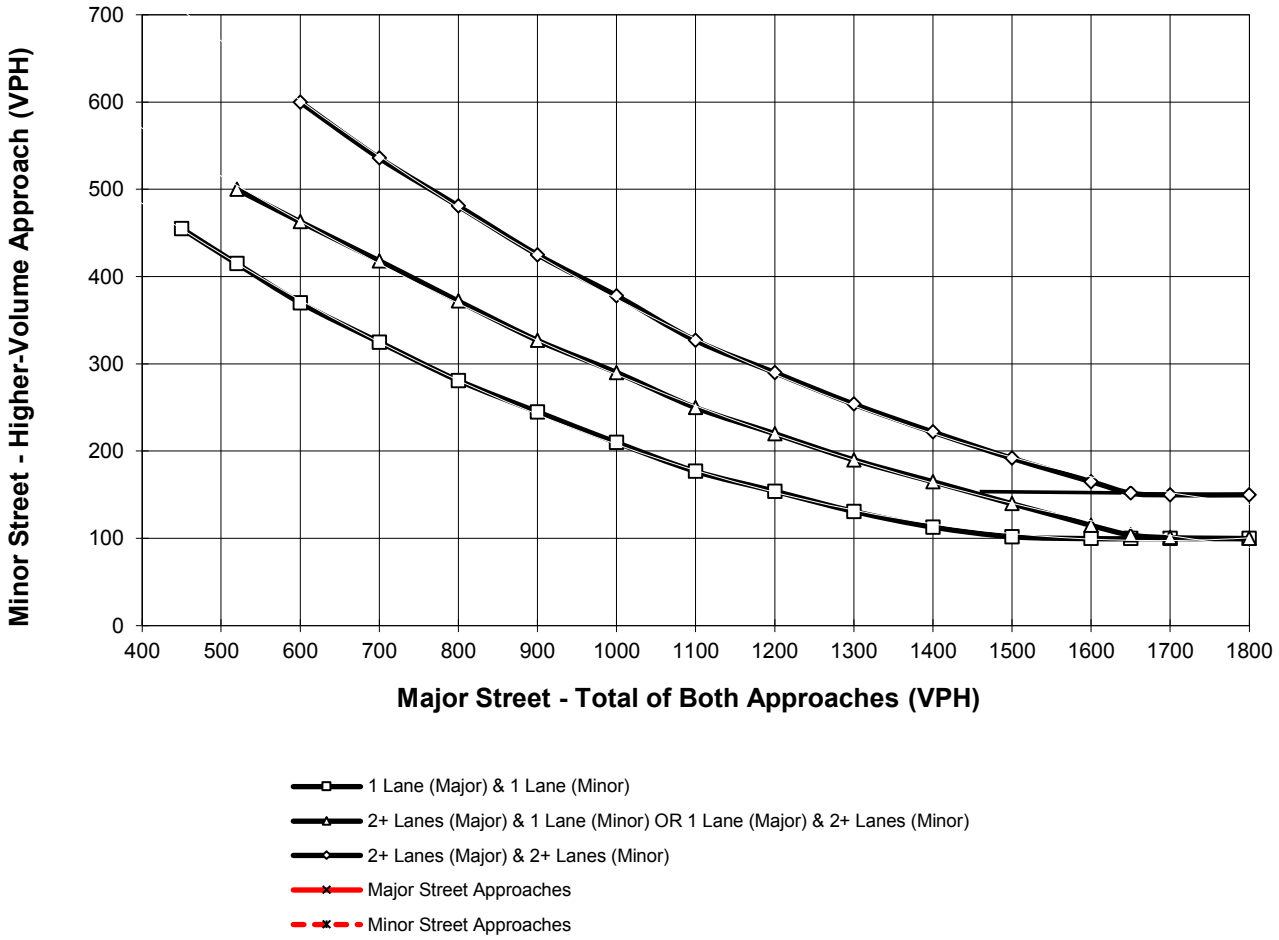
Major Street Name = **Redlands Av.**

Total of Both Approaches (VPH) = **302**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Sinclair St.**

High Volume Approach (VPH) = **31**
Number of Approach Lanes On Minor Street = **1**

**SIGNAL WARRANT NOT SATISFIED**




*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| DIST | CO | RTE | PM |
|---|---|---|---|
| | | | |

TRAFFIC CONDITIONS **EAPC (2021)**

CALC CH DATE 08/02/18

CHK CH DATE 08/02/18

Jurisdiction: **City of Perris**

Major Street: **Redlands Av.**

Minor Street: **Driveway 2**

Critical Approach Speed (Major) 40 mph

Critical Approach Speed (Minor) 25 mph

Major Street Approach Lanes = **2** lane

Minor Street Approach Lanes **1** lane

Major Street Future ADT = **4,175** vpd

Minor Street Future ADT = **571** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

**RURAL (R)**

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| XX | | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **4,175** | *1* **571** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **4,175** | *1* **571** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| | XX | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 24% **B** 29% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

URBAN CROSSROADS

# Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
## (Average Traffic Estimate Form)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DIST | CO | RTE | PM | TRAFFIC CONDITIONS | | | **EAPC (2021)** |
| | | | | CALC | CH | DATE | 11/06/19 |
| Jurisdiction: | **City of Perris** | | | CHK | CH | DATE | 11/06/19 |
| Major Street: | **Redlands Av.** | | | Critical Approach Speed (Major) | | | 45 mph |
| Minor Street: | **Driveway 3** | | | Critical Approach Speed (Minor) | | | 25 mph |

Major Street Approach Lanes = **2** lane  Minor Street Approach Lanes **1** lane

Major Street Future ADT = **3,325** vpd  Minor Street Future ADT = **108** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]

or **RURAL (R)**

In built up area of isolated community of < 10,000 population …….. [ ]

**(Based on Estimated Average Daily Traffic - See Note)**

| URBAN | RURAL | Minimum Requirements EADT | | | |
|---|---|---|---|---|---|
| | XX | | | | |
| **CONDITION A - Minimum Vehicular Volume** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 8,000 | 5,600 | 2,400 | 1,680 |
| *2* + **3,325** | *1* **108** | 9,600 | 6,720 | 2,400 | 1,680 |
| *2* + | *2* + | 9,600 | 6,720 | 3,200 | 2,240 |
| *1* | *2* + | 8,000 | 5,600 | 3,200 | 2,240 |
| **CONDITION B - Interruption of Continuous Traffic** | | | | | |
| Satisfied | Not Satisfied | Vehicles Per Day on Major Street (Total of Both Approaches) | | Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) | |
| | XX | | | | |
| Number of lanes for moving traffic on each approach | | | | | |
| Major Street | Minor Street | Urban | Rural | Urban | Rural |
| *1* | *1* | 12,000 | 8,400 | 1,200 | 850 |
| *2* + **3,325** | *1* **108** | 14,400 | 10,080 | 1,200 | 850 |
| *2* + | *2* + | 14,400 | 10,080 | 1,600 | 1,120 |
| *1* | *2* + | 12,000 | 8,400 | 1,600 | 1,120 |
| **Combination of CONDITIONS A + B** | | | | | |
| Satisfied | Not Satisfied | 2 CONDITIONS 80% | | 2 CONDITIONS 80% | |
| | XX | | | | |
| No one condition satisfied, but following conditions fulfilled 80% of more ….. | **A** 6% / **B** 13% | | | | |

**Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.**

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

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# APPENDIX 8.5:

# EAC (2021) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 291 | 138 | 308 | 497 | 207 | 208 | 80 |
| v/c Ratio | 0.15 | 0.15 | 0.67 | 0.20 | 0.68 | 0.68 | 0.23 |
| Control Delay | 13.8 | 3.3 | 48.1 | 5.8 | 48.7 | 48.9 | 9.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.8 | 3.3 | 48.1 | 5.8 | 48.7 | 48.9 | 9.2 |
| Queue Length 50th (ft) | 45 | 0 | 94 | 47 | 127 | 127 | 0 |
| Queue Length 95th (ft) | 89 | 34 | 143 | 88 | 205 | 206 | 37 |
| Internal Link Dist (ft) | 860 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1889 | 911 | 1060 | 2535 | 709 | 709 | 715 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.15 | 0.15 | 0.29 | 0.20 | 0.29 | 0.29 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 64 | 642 | 646 | 671 | 79 | 80 | 372 |
| v/c Ratio | 0.29 | 0.24 | 0.27 | 0.56 | 0.33 | 0.33 | 0.78 |
| Control Delay | 50.2 | 4.8 | 9.0 | 6.2 | 42.1 | 42.2 | 22.4 |
| Queue Delay | 0.0 | 0.0 | 0.6 | 1.9 | 0.0 | 0.0 | 0.0 |
| Total Delay | 50.2 | 4.8 | 9.6 | 8.1 | 42.1 | 42.2 | 22.4 |
| Queue Length 50th (ft) | 20 | 48 | 80 | 58 | 49 | 49 | 49 |
| Queue Length 95th (ft) | 45 | 113 | 162 | 214 | 94 | 94 | 152 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1243 | 2686 | 2366 | 1202 | 558 | 558 | 720 |
| Starvation Cap Reductn | 0 | 0 | 1249 | 361 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.24 | 0.58 | 0.80 | 0.14 | 0.14 | 0.52 |

Intersection Summary

# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 462 | 157 | 679 | 638 | 360 | 360 | 67 |
| v/c Ratio | 0.34 | 0.23 | 0.89 | 0.28 | 0.81 | 0.81 | 0.14 |
| Control Delay | 27.5 | 6.8 | 57.2 | 10.1 | 53.4 | 53.4 | 7.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 27.5 | 6.8 | 57.2 | 10.1 | 53.4 | 53.4 | 7.8 |
| Queue Length 50th (ft) | 128 | 7 | 240 | 100 | 252 | 252 | 0 |
| Queue Length 95th (ft) | 193 | 56 | #356 | 158 | 368 | 368 | 33 |
| Internal Link Dist (ft) | 436 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1359 | 697 | 854 | 2297 | 589 | 589 | 598 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.34 | 0.23 | 0.80 | 0.28 | 0.61 | 0.61 | 0.11 |

### Intersection Summary

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

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 77 | 1104 | 1184 | 888 | 67 | 67 | 384 |
| v/c Ratio | 0.36 | 0.45 | 0.56 | 0.82 | 0.18 | 0.18 | 0.87 |
| Control Delay | 56.5 | 10.1 | 17.3 | 21.9 | 35.4 | 35.4 | 50.6 |
| Queue Delay | 0.0 | 0.0 | 6.0 | 31.3 | 0.0 | 0.0 | 0.0 |
| Total Delay | 56.5 | 10.1 | 23.3 | 53.2 | 35.4 | 35.4 | 50.6 |
| Queue Length 50th (ft) | 28 | 181 | 275 | 360 | 41 | 41 | 198 |
| Queue Length 95th (ft) | 54 | 274 | 410 | #770 | 81 | 81 | 319 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1128 | 2436 | 2132 | 1077 | 506 | 506 | 552 |
| Starvation Cap Reductn | 0 | 0 | 885 | 235 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.45 | 0.95 | 1.05 | 0.13 | 0.13 | 0.70 |

Intersection Summary

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

# APPENDIX 8.6:

# EAPC (2021) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 291 | 138 | 322 | 497 | 230 | 230 | 80 |
| v/c Ratio | 0.16 | 0.15 | 0.68 | 0.20 | 0.71 | 0.71 | 0.22 |
| Control Delay | 14.8 | 3.5 | 48.8 | 6.3 | 49.4 | 49.4 | 8.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.8 | 3.5 | 48.8 | 6.3 | 49.4 | 49.4 | 8.8 |
| Queue Length 50th (ft) | 47 | 0 | 100 | 50 | 143 | 143 | 0 |
| Queue Length 95th (ft) | 93 | 36 | 151 | 93 | 227 | 227 | 37 |
| Internal Link Dist (ft) | 860 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1843 | 891 | 1044 | 2498 | 699 | 699 | 706 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.16 | 0.15 | 0.31 | 0.20 | 0.33 | 0.33 | 0.11 |

Intersection Summary

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 64 | 687 | 660 | 683 | 79 | 80 | 421 |
| v/c Ratio | 0.30 | 0.27 | 0.29 | 0.58 | 0.26 | 0.26 | 0.84 |
| Control Delay | 53.7 | 6.7 | 11.4 | 7.7 | 38.4 | 38.5 | 30.3 |
| Queue Delay | 0.0 | 0.0 | 0.6 | 2.1 | 0.0 | 0.0 | 0.0 |
| Total Delay | 53.7 | 6.7 | 12.0 | 9.9 | 38.4 | 38.5 | 30.3 |
| Queue Length 50th (ft) | 21 | 74 | 103 | 82 | 49 | 49 | 106 |
| Queue Length 95th (ft) | 47 | 152 | 194 | 266 | 92 | 93 | 223 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1190 | 2571 | 2266 | 1168 | 534 | 534 | 684 |
| Starvation Cap Reductn | 0 | 0 | 1159 | 332 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.05 | 0.27 | 0.60 | 0.82 | 0.15 | 0.15 | 0.62 |

Intersection Summary

# Queues
## 1: I-215 SB Ramps & Placentia Av.

11/11/2019

| Lane Group | EBT | EBR | WBL | WBT | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 462 | 157 | 729 | 638 | 367 | 368 | 67 |
| v/c Ratio | 0.35 | 0.23 | 0.91 | 0.28 | 0.81 | 0.82 | 0.14 |
| Control Delay | 28.5 | 6.9 | 59.7 | 10.4 | 53.3 | 53.5 | 7.8 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 28.5 | 6.9 | 59.7 | 10.4 | 53.3 | 53.5 | 7.8 |
| Queue Length 50th (ft) | 131 | 7 | 261 | 102 | 260 | 261 | 0 |
| Queue Length 95th (ft) | 193 | 56 | #399 | 158 | 376 | 377 | 33 |
| Internal Link Dist (ft) | 436 | | | 627 | | 1555 | |
| Turn Bay Length (ft) | | 100 | 300 | | 100 | | |
| Base Capacity (vph) | 1312 | 678 | 849 | 2284 | 585 | 585 | 595 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.35 | 0.23 | 0.86 | 0.28 | 0.63 | 0.63 | 0.11 |

Intersection Summary

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

| Lane Group | EBL | EBT | WBT | WBR | NBL | NBT | NBR |
|---|---|---|---|---|---|---|---|
| Lane Group Flow (vph) | 77 | 1120 | 1234 | 926 | 67 | 67 | 404 |
| v/c Ratio | 0.36 | 0.47 | 0.59 | 0.87 | 0.17 | 0.17 | 0.89 |
| Control Delay | 57.2 | 10.8 | 18.6 | 26.0 | 34.9 | 34.9 | 53.0 |
| Queue Delay | 0.0 | 0.0 | 11.2 | 45.2 | 0.0 | 0.0 | 0.0 |
| Total Delay | 57.2 | 10.8 | 29.8 | 71.2 | 34.9 | 34.9 | 53.0 |
| Queue Length 50th (ft) | 28 | 202 | 312 | 435 | 41 | 41 | 220 |
| Queue Length 95th (ft) | 54 | 280 | 435 | #835 | 81 | 81 | #358 |
| Internal Link Dist (ft) | | 627 | 256 | | | 1822 | |
| Turn Bay Length (ft) | 100 | | | 100 | | | |
| Base Capacity (vph) | 1110 | 2398 | 2097 | 1064 | 498 | 498 | 542 |
| Starvation Cap Reductn | 0 | 0 | 849 | 217 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.07 | 0.47 | 0.99 | 1.09 | 0.13 | 0.13 | 0.75 |

Intersection Summary

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

# APPENDIX 8.7:

# EAC (2021) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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# HCS7 Basic Freeway Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

## Geometric Data

| | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

## Adjustment Factors

| | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

## Demand and Capacity

| | | | |
|---|---|---|---|
| Demand Volume veh/h | 3972 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1482 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.62 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

## Speed and Density

| | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.1 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.4 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3940 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1500 |
| Total Trucks, % | 5.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.62 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.7 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5440 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2070 |
| Total Trucks, % | 5.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.86 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 61.2 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 33.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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03 AM I-215 Northbound, North of Placentia.xuf

# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAP (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5246 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1997 |
| Total Trucks, % | 5.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.83 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 62.6 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 31.9 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 6146 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2272 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.95 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 56.7 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 40.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | E |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 6187 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2287 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.95 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 56.3 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 40.6 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | E |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4764 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1778 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.74 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 66.1 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 26.9 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4364 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1628 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.68 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 67.9 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 24.0 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# APPENDIX 8.8:

# EAPC (2021) CONDITIONS BASIC FREEWAY SEGMENT ANALYSIS WORKSHEETS

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3989 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1488 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.62 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 69.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.6 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 3949 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1503 |
| Total Trucks, % | 5.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.63 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 68.9 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 21.8 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5445 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2072 |
| Total Trucks, % | 5.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.86 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 61.2 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 33.9 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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03 AM I-215 Northbound, North of Placentia.xuf

# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 5275 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2008 |
| Total Trucks, % | 5.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.84 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 62.4 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 32.2 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 6152 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2274 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.95 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 56.6 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 40.2 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | E |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 6220 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.980 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 2300 |
| Total Trucks, % | 2.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.96 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 56.0 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 41.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | E |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, North of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4778 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1783 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.74 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 66.1 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 27.0 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | D |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# HCS7 Basic Freeway Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 7/30/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, South of Placentia | | |

| Geometric Data | | | |
|---|---|---|---|
| Number of Lanes, ln | 3 | Terrain Type | Level |
| Segment Length (L), ft | - | Percent Grade, % | - |
| Measured or Base Free-Flow Speed | Measured | Grade Length, mi | - |
| Base Free-Flow Speed (BFFS), mi/h | 70.0 | Total Ramp Density (TRD), ramps/mi | - |
| Lane Width, ft | - | Free-Flow Speed (FFS), mi/h | 70.0 |
| Right-Side Lateral Clearance, ft | - | | |

| Adjustment Factors | | | |
|---|---|---|---|
| Driver Population | All Familiar | Final Speed Adjustment Factor (SAF) | 1.000 |
| Weather Type | Non-Severe Weather | Final Capacity Adjustment Factor (CAF) | 1.000 |
| Incident Type | No Incident | Demand Adjustment Factor (DAF) | 1.000 |

| Demand and Capacity | | | |
|---|---|---|---|
| Demand Volume veh/h | 4377 | Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.971 |
| Peak Hour Factor | 0.92 | Flow Rate ($V_p$), pc/h/ln | 1633 |
| Total Trucks, % | 3.00 | Capacity (c), pc/h/ln | 2400 |
| Single-Unit Trucks (SUT), % | - | Adjusted Capacity ($c_{adj}$), pc/h/ln | 2400 |
| Tractor-Trailers (TT), % | - | Volume-to-Capacity Ratio (v/c) | 0.68 |
| Passenger Car Equivalent ($E_T$) | 2.000 | | |

| Speed and Density | | | |
|---|---|---|---|
| Lane Width Adjustment ($f_{LW}$) | - | Average Speed (S), mi/h | 67.8 |
| Right-Side Lateral Clearance Adj. ($f_{RLC}$) | - | Density (D), pc/mi/ln | 24.1 |
| Total Ramp Density Adjustment | - | Level of Service (LOS) | C |
| Adjusted Free-Flow Speed ($FFS_{adj}$), mi/h | 70.0 | | |

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# APPENDIX 8.9:

# EAC (2021) CONDITIONS MERGE/DIVERGE ANALYSIS WORKSHEETS

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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3972 | 440 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.909 |
| Flow Rate (vi),pc/h | 4446 | 526 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.62 | 0.25 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 28.1 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.345 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1470 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.3 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.625 | Outer Lanes Freeway Speed (SO), mi/h | 75.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2976 | Ramp Junction Speed (S), mi/h | 64.5 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 23.0 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume ($V_i$) | 3532 | 407 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.962 | 0.909 |
| Flow Rate ($v_i$),pc/h | 3991 | 487 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.62 | 0.23 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | 1025.1 | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 25.7 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1420 | Speed Index (M) | 0.363 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | - | Flow Outer Lanes ($v_{OA}$), pc/mi/ln | 1656 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | - | On-Ramp Influenece Area Speed ($S_R$), mi/h | 59.8 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_M$) | 0.585 | Outer Lanes Freeway Speed ($S_O$), mi/h | 65.8 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 2335 | Ramp Junction Speed (S), mi/h | 61.9 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 2822 | Average Density (D), pc/mi/ln | 24.1 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume ($V_i$) | 4769 | 671 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 5.00 | 9.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor ($f_{HV}$) | 0.952 | 0.917 |
| Flow Rate ($v_i$),pc/h | 5445 | 795 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.87 | 0.38 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance ($L_{EQ}$), ft | 1420.0 | Density in Ramp Influence Area ($D_R$), pc/mi/ln | 34.3 |
| Distance to Upstream Ramp ($L_{UP}$), ft | 1395 | Speed Index (M) | 0.502 |
| Downstream Equilibrium Distance ($L_{EQ}$), ft | - | Flow Outer Lanes ($v_{OA}$), pc/mi/ln | 2265 |
| Distance to Downstream Ramp ($L_{DOWN}$), ft | - | On-Ramp Influenece Area Speed ($S_R$), mi/h | 55.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 ($P_M$) | 0.584 | Outer Lanes Freeway Speed ($S_O$), mi/h | 63.6 |
| Flow in Lanes 1 and 2 ($v_{12}$), pc/h | 3180 | Ramp Junction Speed (S), mi/h | 58.5 |
| Flow Entering Ramp-Infl. Area ($v_{R12}$), pc/h | 3975 | Average Density (D), pc/mi/ln | 35.6 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5246 | 477 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 5.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.952 | 0.901 |
| Flow Rate (vi),pc/h | 5990 | 575 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.83 | 0.27 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 33.9 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.350 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2253 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.2 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.584 | Outer Lanes Freeway Speed (SO), mi/h | 71.9 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3737 | Ramp Junction Speed (S), mi/h | 64.1 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 31.1 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

## Project Information

| | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

## Geometric Data

| | Freeway | Ramp |
|---|---|---|
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

## Adjustment Factors

| | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

## Demand and Capacity

| | | |
|---|---|---|
| Demand Volume (Vi) | 6146 | 717 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 8.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.926 |
| Flow Rate (vi),pc/h | 6817 | 842 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.95 | 0.40 |

## Speed and Density

| | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 38.0 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.374 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2683 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 59.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.551 | Outer Lanes Freeway Speed (SO), mi/h | 70.2 |
| Flow in Lanes 1 and 2 (v12), pc/h | 4134 | Ramp Junction Speed (S), mi/h | 63.3 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 35.9 |
| Level of Service (LOS) | E | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5429 | 758 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.909 |
| Flow Rate (vi),pc/h | 6022 | 906 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.96 | 0.43 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1549.4 | Density in Ramp Influence Area (DR), pc/mi/ln | 37.7 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.609 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2547 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 52.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.577 | Outer Lanes Freeway Speed (SO), mi/h | 62.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3475 | Ramp Junction Speed (S), mi/h | 55.9 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 4381 | Average Density (D), pc/mi/ln | 41.3 |
| Level of Service (LOS) | E | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3892 | 872 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 9.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.917 |
| Flow Rate (vi),pc/h | 4357 | 1034 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.75 | 0.49 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1238.3 | Density in Ramp Influence Area (DR), pc/mi/ln | 31.2 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.435 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1804 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 57.8 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 65.3 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2553 | Ramp Junction Speed (S), mi/h | 60.1 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3587 | Average Density (D), pc/mi/ln | 29.9 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4364 | 472 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 9.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.917 |
| Flow Rate (vi),pc/h | 4885 | 559 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.68 | 0.27 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 29.3 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.348 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1678 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.3 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.612 | Outer Lanes Freeway Speed (SO), mi/h | 74.1 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3207 | Ramp Junction Speed (S), mi/h | 64.4 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 25.3 |
| Level of Service (LOS) | D | | |


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# APPENDIX 8.10:

# EAPC (2021) CONDITIONS MERGE/DIVERGE ANALYSIS WORKSHEETS

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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3989 | 457 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 14.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.877 |
| Flow Rate (vi),pc/h | 4465 | 566 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.62 | 0.27 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 28.2 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.349 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1474 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.2 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.622 | Outer Lanes Freeway Speed (SO), mi/h | 74.9 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2991 | Ramp Junction Speed (S), mi/h | 64.4 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 23.1 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3532 | 416 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 4.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.962 | 0.901 |
| Flow Rate (vi),pc/h | 3991 | 502 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.62 | 0.24 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1028.3 | Density in Ramp Influence Area (DR), pc/mi/ln | 25.8 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.364 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1656 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 59.8 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.585 | Outer Lanes Freeway Speed (SO), mi/h | 65.8 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2335 | Ramp Junction Speed (S), mi/h | 61.9 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 2837 | Average Density (D), pc/mi/ln | 24.2 |
| Level of Service (LOS) | C | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4769 | 676 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 5.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.952 | 0.909 |
| Flow Rate (vi),pc/h | 5445 | 808 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.87 | 0.38 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1422.7 | Density in Ramp Influence Area (DR), pc/mi/ln | 34.4 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.504 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2265 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 55.9 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.584 | Outer Lanes Freeway Speed (SO), mi/h | 63.6 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3180 | Ramp Junction Speed (S), mi/h | 58.5 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3988 | Average Density (D), pc/mi/ln | 35.6 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | AM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5275 | 506 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 5.00 | 13.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.952 | 0.885 |
| Flow Rate (vi),pc/h | 6023 | 621 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.84 | 0.30 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 34.1 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.354 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2263 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.1 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.581 | Outer Lanes Freeway Speed (SO), mi/h | 71.9 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3760 | Ramp Junction Speed (S), mi/h | 64.0 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 31.4 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 195 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 6152 | 723 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 9.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.917 |
| Flow Rate (vi),pc/h | 6823 | 857 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.95 | 0.41 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 38.1 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.375 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2685 |
| Distance to Downstream Ramp (LDOWN), ft | 1420 | Off-Ramp Influenece Area Speed (SR), mi/h | 59.5 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.550 | Outer Lanes Freeway Speed (SO), mi/h | 70.2 |
| Flow in Lanes 1 and 2 (v12), pc/h | 4138 | Ramp Junction Speed (S), mi/h | 63.3 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 35.9 |
| Level of Service (LOS) | E | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 SB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 260 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 5429 | 791 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 2.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.980 | 0.901 |
| Flow Rate (vi),pc/h | 6022 | 954 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.97 | 0.45 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1559.7 | Density in Ramp Influence Area (DR), pc/mi/ln | 38.0 |
| Distance to Upstream Ramp (LUP), ft | 1420 | Speed Index (M) | 0.623 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 2553 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 52.6 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.576 | Outer Lanes Freeway Speed (SO), mi/h | 62.0 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3469 | Ramp Junction Speed (S), mi/h | 55.7 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 4423 | Average Density (D), pc/mi/ln | 41.7 |
| Level of Service (LOS) | E | | |


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# HCS7 Freeway Merge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia On-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Acceleration Length (LA),ft | 1500 | 300 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 3892 | 886 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 11.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.901 |
| Flow Rate (vi),pc/h | 4357 | 1069 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.75 | 0.51 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | 1245.8 | Density in Ramp Influence Area (DR), pc/mi/ln | 31.4 |
| Distance to Upstream Ramp (LUP), ft | 1395 | Speed Index (M) | 0.440 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1804 |
| Distance to Downstream Ramp (LDOWN), ft | - | On-Ramp Influenece Area Speed (SR), mi/h | 57.7 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PM) | 0.586 | Outer Lanes Freeway Speed (SO), mi/h | 65.3 |
| Flow in Lanes 1 and 2 (v12), pc/h | 2553 | Ramp Junction Speed (S), mi/h | 60.0 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | 3622 | Average Density (D), pc/mi/ln | 30.1 |
| Level of Service (LOS) | D | | |


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# HCS7 Freeway Diverge Report

| Project Information | | | |
|---|---|---|---|
| Analyst | CP | Date | 10/4/2018 |
| Agency | Urban Crossroads, Inc. | Analysis Year | EAPC (2021) |
| Jurisdiction | Caltrans | Time Period Analyzed | PM Peak Hour |
| Project Description | Rider 2 and 4 TIA Alt Analysis (JN 11557) - I-215 NB, Placentia Off-Ramp | | |

| Geometric Data | | |
|---|---|---|
| | Freeway | Ramp |
| Number of Lanes (N), ln | 3 | 1 |
| Free-Flow Speed (FFS), mi/h | 70.0 | 45.0 |
| Segment Length (L) / Deceleration Length (LA),ft | 1500 | 280 |
| Terrain Type | Level | Level |
| Percent Grade, % | - | - |
| Segment Type / Ramp Side | Freeway | Right |

| Adjustment Factors | | |
|---|---|---|
| Driver Population | All Familiar | All Familiar |
| Weather Type | Non-Severe Weather | Non-Severe Weather |
| Incident Type | No Incident | - |
| Final Speed Adjustment Factor (SAF) | 1.000 | 1.000 |
| Final Capacity Adjustment Factor (CAF) | 1.000 | 1.000 |
| Demand Adjustment Factor (DAF) | 1.000 | 1.000 |

| Demand and Capacity | | |
|---|---|---|
| Demand Volume (Vi) | 4377 | 485 |
| Peak Hour Factor (PHF) | 0.92 | 0.92 |
| Total Trucks, % | 3.00 | 10.00 |
| Single-Unit Trucks (SUT), % | - | - |
| Tractor-Trailers (TT), % | - | - |
| Heavy Vehicle Adjustment Factor (fHV) | 0.971 | 0.909 |
| Flow Rate (vi),pc/h | 4900 | 580 |
| Capacity (c), pc/h | 7200 | 2100 |
| Volume-to-Capacity Ratio (v/c) | 0.68 | 0.28 |

| Speed and Density | | | |
|---|---|---|---|
| Upstream Equilibrium Distance (LEQ), ft | - | Density in Ramp Influence Area (DR), pc/mi/ln | 29.4 |
| Distance to Upstream Ramp (LUP), ft | - | Speed Index (D) | 0.350 |
| Downstream Equilibrium Distance (LEQ), ft | - | Flow Outer Lanes (vOA), pc/mi/ln | 1680 |
| Distance to Downstream Ramp (LDOWN), ft | 1395 | Off-Ramp Influenece Area Speed (SR), mi/h | 60.2 |
| Prop. Freeway Vehicles in Lane 1 and 2 (PD) | 0.611 | Outer Lanes Freeway Speed (SO), mi/h | 74.1 |
| Flow in Lanes 1 and 2 (v12), pc/h | 3220 | Ramp Junction Speed (S), mi/h | 64.3 |
| Flow Entering Ramp-Infl. Area (vR12), pc/h | - | Average Density (D), pc/mi/ln | 25.4 |
| Level of Service (LOS) | D | | |


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# APPENDIX 8.11:

# EAC (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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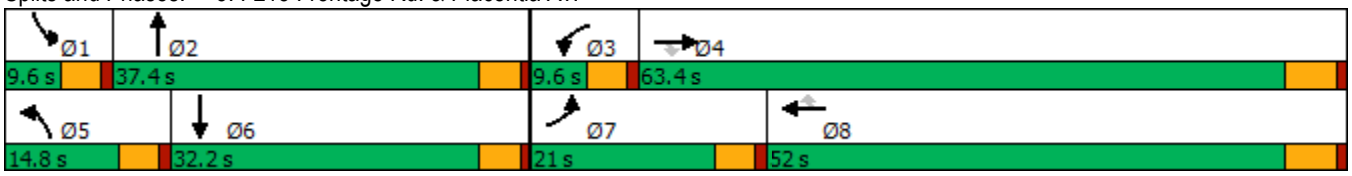
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 63.4 | 63.4 | 9.6 | 52.0 | 52.0 | 14.8 | 37.4 | 9.6 | 32.2 |
| Total Split (%) | 17.5% | 52.8% | 52.8% | 8.0% | 43.3% | 43.3% | 12.3% | 31.2% | 8.0% | 26.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 12.0 | 61.7 | 61.7 | 5.0 | 46.7 | 46.7 | 9.3 | 25.5 | 5.0 | 13.2 |
| Actuated g/C Ratio | 0.12 | 0.61 | 0.61 | 0.05 | 0.46 | 0.46 | 0.09 | 0.25 | 0.05 | 0.13 |
| v/c Ratio | 0.66 | 0.37 | 0.07 | 0.13 | 0.65 | 0.01 | 0.50 | 0.69 | 0.13 | 0.41 |
| Control Delay | 58.8 | 12.0 | 0.1 | 54.0 | 24.9 | 0.0 | 51.1 | 24.9 | 54.0 | 22.8 |
| Queue Delay | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.8 | 13.1 | 0.1 | 54.0 | 24.9 | 0.0 | 51.1 | 24.9 | 54.0 | 22.8 |
| LOS | E | B | A | D | C | A | D | C | D | C |
| Approach Delay | | 18.5 | | | 24.9 | | | 32.6 | | 25.7 |
| Approach LOS | | B | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 100.9 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 24.1 | Intersection LOS: C |
| Intersection Capacity Utilization 68.3% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 739 | 66 | 11 | 995 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 812 | 73 | 12 | 1093 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 172 | 1846 | 823 | 25 | 1553 | 693 | 226 | 76 | 348 | 80 | 145 | 258 |
| Arrive On Green | 0.09 | 0.51 | 0.51 | 0.01 | 0.43 | 0.43 | 0.06 | 0.26 | 0.26 | 0.04 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 3510 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 812 | 73 | 12 | 1093 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1755 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.6 | 16.0 | 2.6 | 0.7 | 27.9 | 0.5 | 5.1 | 0.0 | 25.7 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.6 | 16.0 | 2.6 | 0.7 | 27.9 | 0.5 | 5.1 | 0.0 | 25.7 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 172 | 1846 | 823 | 25 | 1553 | 693 | 226 | 0 | 425 | 80 | 0 | 403 |
| V/C Ratio(X) | 0.82 | 0.44 | 0.09 | 0.48 | 0.70 | 0.02 | 0.72 | 0.00 | 0.92 | 0.15 | 0.00 | 0.29 |
| Avail Cap(c_a), veh/h | 263 | 1846 | 823 | 80 | 1553 | 693 | 318 | 0 | 482 | 80 | 0 | 417 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.0 | 17.4 | 14.1 | 55.1 | 26.2 | 18.4 | 51.7 | 0.0 | 40.7 | 51.8 | 0.0 | 35.2 |
| Incr Delay (d2), s/veh | 6.5 | 0.8 | 0.2 | 5.1 | 2.7 | 0.0 | 4.5 | 0.0 | 20.8 | 0.8 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 6.3 | 0.9 | 0.4 | 11.8 | 0.2 | 2.4 | 0.0 | 12.9 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.5 | 18.1 | 14.3 | 60.3 | 28.9 | 18.5 | 56.3 | 0.0 | 61.5 | 52.6 | 0.0 | 35.6 |
| LnGrp LOS | E | B | B | E | C | B | E | A | E | D | A | D |
| Approach Vol, veh/h | | 1026 | | | 1117 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 23.1 | | | 29.1 | | | 60.0 | | | 37.2 | |
| Approach LOS | | C | | | C | | | E | | | D | |

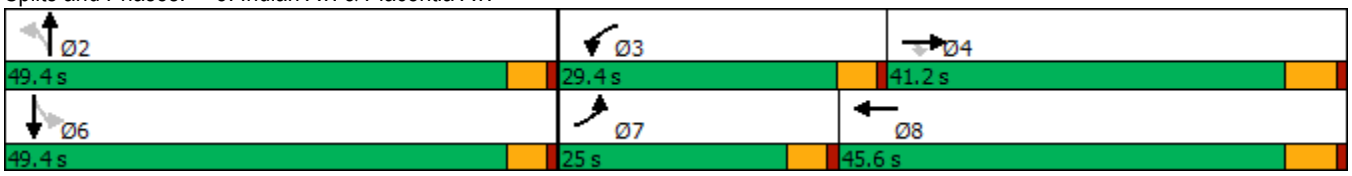
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 33.5 | 6.2 | 63.4 | 11.8 | 31.3 | 15.3 | 54.3 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 32.8 | 5.0 | 57.6 | 10.2 | 27.6 | 16.4 | 46.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.7 | 2.7 | 18.0 | 7.1 | 8.3 | 10.6 | 29.9 |
| Green Ext Time (p_c), s | 0.0 | 1.2 | 0.0 | 6.2 | 0.1 | 0.6 | 0.1 | 6.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.3 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 154 | 738 | 146 | 205 | 917 | 42 | 259 | 42 | 157 |
| Future Volume (vph) | 154 | 738 | 146 | 205 | 917 | 42 | 259 | 42 | 157 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 25.0 | 41.2 | 41.2 | 29.4 | 45.6 | 49.4 | 49.4 | 49.4 | 49.4 |
| Total Split (%) | 20.8% | 34.3% | 34.3% | 24.5% | 38.0% | 41.2% | 41.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 14.4 | 35.9 | 35.9 | 21.1 | 42.6 | 37.6 | 37.6 | 37.6 | 37.6 |
| Actuated g/C Ratio | 0.13 | 0.33 | 0.33 | 0.19 | 0.39 | 0.34 | 0.34 | 0.34 | 0.34 |
| v/c Ratio | 0.71 | 0.68 | 0.26 | 0.86 | 0.75 | 0.16 | 0.89 | 0.82 | 0.45 |
| Control Delay | 63.4 | 37.4 | 12.2 | 67.0 | 35.1 | 26.9 | 50.2 | 101.6 | 29.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 63.4 | 37.4 | 12.2 | 67.0 | 35.1 | 26.9 | 50.2 | 101.6 | 29.3 |
| LOS | E | D | B | E | D | C | D | F | C |
| Approach Delay | | 37.7 | | | 42.1 | | 48.5 | | 41.9 |
| Approach LOS | | D | | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 109.8 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 41.8 | Intersection LOS: D |
| Intersection Capacity Utilization 77.0% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 154 | 738 | 146 | 205 | 917 | 32 | 42 | 259 | 130 | 42 | 157 | 56 |
| Future Volume (veh/h) | 154 | 738 | 146 | 205 | 917 | 32 | 42 | 259 | 130 | 42 | 157 | 56 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 167 | 802 | 122 | 297 | 997 | 40 | 46 | 375 | 143 | 61 | 228 | 49 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 198 | 1178 | 525 | 328 | 1408 | 56 | 335 | 464 | 177 | 152 | 537 | 115 |
| Arrive On Green | 0.11 | 0.33 | 0.33 | 0.18 | 0.40 | 0.40 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3537 | 142 | 1120 | 1310 | 500 | 897 | 1516 | 326 |
| Grp Volume(v), veh/h | 167 | 802 | 122 | 297 | 509 | 528 | 46 | 0 | 518 | 61 | 0 | 277 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1874 | 1120 | 0 | 1810 | 897 | 0 | 1841 |
| Q Serve(g_s), s | 9.8 | 20.9 | 6.0 | 17.4 | 25.6 | 25.6 | 3.5 | 0.0 | 28.1 | 7.2 | 0.0 | 12.4 |
| Cycle Q Clear(g_c), s | 9.8 | 20.9 | 6.0 | 17.4 | 25.6 | 25.6 | 15.9 | 0.0 | 28.1 | 35.2 | 0.0 | 12.4 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.08 | 1.00 | | 0.28 | 1.00 | | 0.18 |
| Lane Grp Cap(c), veh/h | 198 | 1178 | 525 | 328 | 718 | 746 | 335 | 0 | 641 | 152 | 0 | 652 |
| V/C Ratio(X) | 0.84 | 0.68 | 0.23 | 0.91 | 0.71 | 0.71 | 0.14 | 0.00 | 0.81 | 0.40 | 0.00 | 0.42 |
| Avail Cap(c_a), veh/h | 340 | 1178 | 525 | 414 | 718 | 746 | 401 | 0 | 747 | 205 | 0 | 760 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 47.4 | 31.7 | 26.6 | 43.5 | 27.4 | 27.4 | 32.7 | 0.0 | 31.7 | 47.6 | 0.0 | 26.6 |
| Incr Delay (d2), s/veh | 3.7 | 3.2 | 1.0 | 17.9 | 5.8 | 5.6 | 0.2 | 0.0 | 5.7 | 1.7 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.5 | 9.2 | 2.4 | 9.1 | 11.5 | 11.9 | 1.0 | 0.0 | 13.2 | 1.7 | 0.0 | 5.6 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 51.1 | 34.8 | 27.7 | 61.4 | 33.2 | 33.0 | 32.9 | 0.0 | 37.4 | 49.3 | 0.0 | 27.1 |
| LnGrp LOS | D | C | C | E | C | C | C | A | D | D | A | C |
| Approach Vol, veh/h | | 1091 | | | 1334 | | | 564 | | | 338 | |
| Approach Delay, s/veh | | 36.5 | | | 39.4 | | | 37.1 | | | 31.1 | |
| Approach LOS | | D | | | D | | | D | | | C | |

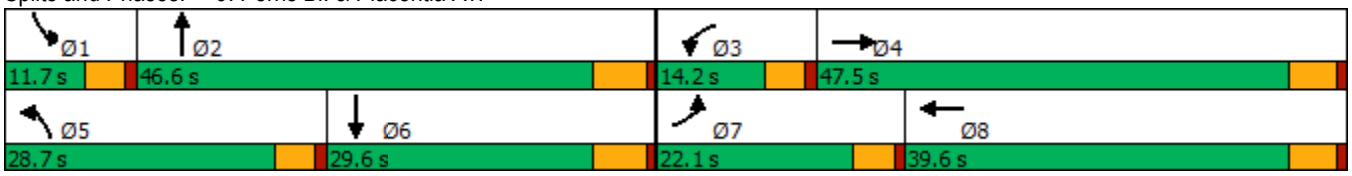
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.0 | 24.3 | 41.2 | | 43.0 | 16.5 | 49.0 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 44.8 | 24.8 | 35.4 | | 44.8 | 20.4 | 39.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 30.1 | 19.4 | 22.9 | | 37.2 | 11.8 | 27.6 | | | | |
| Green Ext Time (p_c), s | | 3.3 | 0.2 | 4.4 | | 1.2 | 0.1 | 4.8 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 37.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 180 | 421 | 59 | 598 | 271 | 1063 | 42 | 600 |
| Future Volume (vph) | 180 | 421 | 59 | 598 | 271 | 1063 | 42 | 600 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 |
| Total Split (s) | 22.1 | 47.5 | 14.2 | 39.6 | 28.7 | 46.6 | 11.7 | 29.6 |
| Total Split (%) | 18.4% | 39.6% | 11.8% | 33.0% | 23.9% | 38.8% | 9.8% | 24.7% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 15.0 | 41.1 | 7.8 | 31.6 | 20.9 | 41.6 | 6.4 | 24.8 |
| Actuated g/C Ratio | 0.13 | 0.36 | 0.07 | 0.28 | 0.19 | 0.37 | 0.06 | 0.22 |
| v/c Ratio | 0.79 | 0.53 | 0.50 | 0.89 | 0.85 | 0.62 | 0.43 | 0.76 |
| Control Delay | 71.5 | 26.5 | 66.9 | 48.9 | 68.9 | 32.3 | 67.5 | 44.2 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 71.5 | 26.5 | 66.9 | 48.9 | 68.9 | 32.3 | 67.5 | 44.2 |
| LOS | E | C | E | D | E | C | E | D |
| Approach Delay | | 36.2 | | 50.1 | | 39.4 | | 45.4 |
| Approach LOS | | D | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.9 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 42.4 | Intersection LOS: D |
| Intersection Capacity Utilization 83.3% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 180 | 421 | 239 | 59 | 598 | 242 | 271 | 1063 | 50 | 42 | 600 | 224 |
| Future Volume (veh/h) | 180 | 421 | 239 | 59 | 598 | 242 | 271 | 1063 | 50 | 42 | 600 | 224 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 189 | 443 | 247 | 62 | 629 | 153 | 285 | 1119 | 46 | 44 | 632 | 227 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 221 | 758 | 419 | 80 | 749 | 182 | 318 | 1986 | 82 | 62 | 937 | 330 |
| Arrive On Green | 0.12 | 0.34 | 0.34 | 0.04 | 0.26 | 0.26 | 0.18 | 0.39 | 0.39 | 0.03 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1810 | 2242 | 1240 | 1810 | 2877 | 699 | 1810 | 5107 | 210 | 1810 | 3783 | 1332 |
| Grp Volume(v), veh/h | 189 | 356 | 334 | 62 | 394 | 388 | 285 | 757 | 408 | 44 | 577 | 282 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1677 | 1810 | 1805 | 1770 | 1810 | 1729 | 1859 | 1810 | 1729 | 1656 |
| Q Serve(g_s), s | 10.7 | 17.1 | 17.3 | 3.6 | 21.7 | 21.8 | 16.2 | 18.0 | 18.0 | 2.5 | 15.8 | 16.2 |
| Cycle Q Clear(g_c), s | 10.7 | 17.1 | 17.3 | 3.6 | 21.7 | 21.8 | 16.2 | 18.0 | 18.0 | 2.5 | 15.8 | 16.2 |
| Prop In Lane | 1.00 | | 0.74 | 1.00 | | 0.39 | 1.00 | | 0.11 | 1.00 | | 0.80 |
| Lane Grp Cap(c), veh/h | 221 | 610 | 567 | 80 | 470 | 461 | 318 | 1344 | 723 | 62 | 857 | 410 |
| V/C Ratio(X) | 0.86 | 0.58 | 0.59 | 0.77 | 0.84 | 0.84 | 0.90 | 0.56 | 0.56 | 0.71 | 0.67 | 0.69 |
| Avail Cap(c_a), veh/h | 302 | 724 | 673 | 166 | 588 | 577 | 416 | 1344 | 723 | 122 | 857 | 410 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.2 | 28.6 | 28.7 | 49.6 | 36.7 | 36.7 | 42.3 | 25.1 | 25.1 | 50.1 | 35.6 | 35.8 |
| Incr Delay (d2), s/veh | 12.7 | 0.9 | 1.0 | 5.8 | 8.6 | 8.9 | 15.7 | 1.7 | 3.2 | 5.4 | 4.2 | 9.1 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.4 | 7.1 | 6.7 | 1.7 | 10.2 | 10.1 | 8.6 | 7.7 | 8.5 | 1.2 | 6.9 | 7.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 57.9 | 29.5 | 29.7 | 55.4 | 45.3 | 45.7 | 58.0 | 26.8 | 28.3 | 55.5 | 39.8 | 44.9 |
| LnGrp LOS | E | C | C | E | D | D | E | C | C | E | D | D |
| Approach Vol, veh/h | | 879 | | | 844 | | | 1450 | | | 903 | |
| Approach Delay, s/veh | | 35.7 | | | 46.2 | | | 33.4 | | | 42.2 | |
| Approach LOS | | D | | | D | | | C | | | D | |

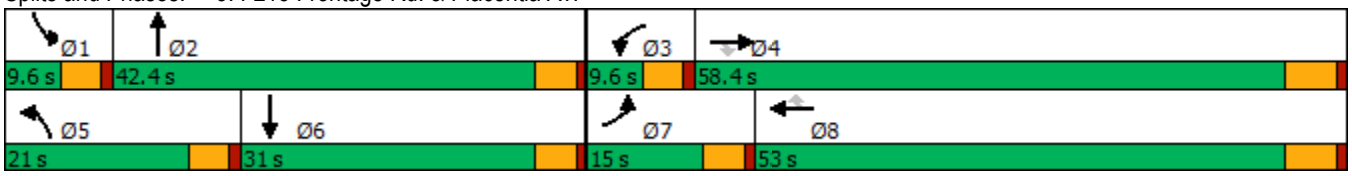
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 46.6 | 9.3 | 40.9 | 23.0 | 31.8 | 17.4 | 32.7 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 7.1 | 40.8 | 9.6 | 42.1 | 24.1 | 23.8 | 17.5 | 34.2 |
| Max Q Clear Time (g_c+I1), s | 4.5 | 20.0 | 5.6 | 19.3 | 18.2 | 18.2 | 12.7 | 23.8 |
| Green Ext Time (p_c), s | 0.0 | 8.6 | 0.0 | 4.0 | 0.2 | 2.5 | 0.1 | 3.3 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 38.5 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 15.0 | 58.4 | 58.4 | 9.6 | 53.0 | 53.0 | 21.0 | 42.4 | 9.6 | 31.0 |
| Total Split (%) | 12.5% | 48.7% | 48.7% | 8.0% | 44.2% | 44.2% | 17.5% | 35.3% | 8.0% | 25.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 10.4 | 58.5 | 58.5 | 5.0 | 47.2 | 47.2 | 13.4 | 40.6 | 5.0 | 26.4 |
| Actuated g/C Ratio | 0.09 | 0.50 | 0.50 | 0.04 | 0.40 | 0.40 | 0.11 | 0.35 | 0.04 | 0.23 |
| v/c Ratio | 1.27 | 0.53 | 0.32 | 0.16 | 0.99 | 0.02 | 0.62 | 0.63 | 0.16 | 1.29 |
| Control Delay | 205.8 | 22.2 | 9.9 | 59.7 | 55.8 | 0.0 | 56.6 | 22.3 | 59.7 | 182.3 |
| Queue Delay | 0.0 | 25.5 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 205.8 | 47.8 | 11.2 | 59.7 | 55.8 | 0.0 | 56.6 | 22.3 | 59.7 | 182.3 |
| LOS | F | D | B | E | E | A | E | C | E | F |
| Approach Delay | | 62.5 | | | 55.4 | | | 34.5 | | 179.7 |
| Approach LOS | | E | | | E | | | C | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.29 | |
| Intersection Signal Delay: 70.9 | Intersection LOS: E |
| Intersection Capacity Utilization 101.2% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 922 | 259 | 11 | 1396 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 1002 | 211 | 12 | 1517 | 9 | 249 | 74 | 362 | 12 | 251 | 152 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 165 | 1868 | 792 | 25 | 1574 | 667 | 318 | 87 | 423 | 25 | 257 | 155 |
| Arrive On Green | 0.09 | 0.54 | 0.49 | 0.01 | 0.46 | 0.41 | 0.09 | 0.31 | 0.31 | 0.01 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 3800 | 1610 | 1810 | 3800 | 1610 | 3510 | 281 | 1372 | 1810 | 1108 | 671 |
| Grp Volume(v), veh/h | 204 | 1002 | 211 | 12 | 1517 | 9 | 249 | 0 | 436 | 12 | 0 | 403 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 | 1755 | 0 | 1653 | 1810 | 0 | 1779 |
| Q Serve(g_s), s | 10.4 | 19.4 | 8.7 | 0.8 | 44.1 | 0.4 | 7.9 | 0.0 | 28.2 | 0.8 | 0.0 | 25.6 |
| Cycle Q Clear(g_c), s | 10.4 | 19.4 | 8.7 | 0.8 | 44.1 | 0.4 | 7.9 | 0.0 | 28.2 | 0.8 | 0.0 | 25.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.38 |
| Lane Grp Cap(c), veh/h | 165 | 1868 | 792 | 25 | 1574 | 667 | 318 | 0 | 510 | 25 | 0 | 412 |
| V/C Ratio(X) | 1.24 | 0.54 | 0.27 | 0.48 | 0.96 | 0.01 | 0.78 | 0.00 | 0.85 | 0.48 | 0.00 | 0.98 |
| Avail Cap(c_a), veh/h | 165 | 1868 | 792 | 79 | 1574 | 667 | 505 | 0 | 548 | 79 | 0 | 412 |
| HCM Platoon Ratio | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 17.8 | 16.9 | 55.8 | 30.2 | 19.7 | 50.7 | 0.0 | 37.0 | 55.8 | 0.0 | 43.5 |
| Incr Delay (d2), s/veh | 147.0 | 1.1 | 0.8 | 5.2 | 15.5 | 0.0 | 4.2 | 0.0 | 11.9 | 13.4 | 0.0 | 38.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.3 | 7.8 | 3.2 | 0.4 | 21.4 | 0.1 | 3.6 | 0.0 | 12.5 | 0.4 | 0.0 | 15.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 198.7 | 18.9 | 17.8 | 60.9 | 45.7 | 19.7 | 54.9 | 0.0 | 48.9 | 69.2 | 0.0 | 81.7 |
| LnGrp LOS | F | B | B | E | D | B | D | A | D | E | A | F |
| Approach Vol, veh/h | | 1417 | | | 1538 | | | 685 | | | 415 | |
| Approach Delay, s/veh | | 44.6 | | | 45.7 | | | 51.1 | | | 81.4 | |
| Approach LOS | | D | | | D | | | D | | | F | |

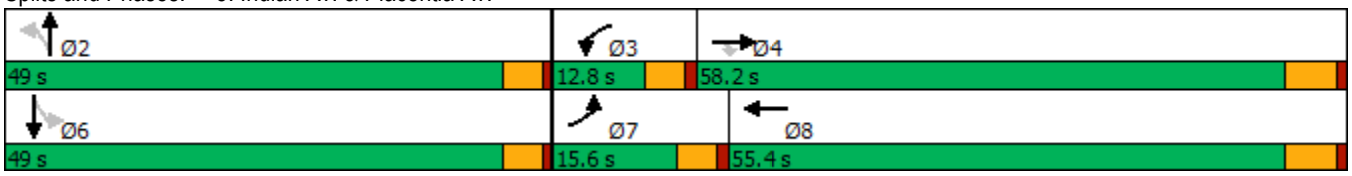
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.2 | 39.8 | 6.2 | 61.8 | 14.9 | 31.0 | 15.0 | 53.0 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 16.4 | 26.4 | 10.4 | 47.2 |
| Max Q Clear Time (g_c+I1), s | 2.8 | 30.2 | 2.8 | 21.4 | 9.9 | 27.6 | 12.4 | 46.1 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 8.5 | 0.4 | 0.0 | 0.0 | 0.9 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 49.9 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 81 | 1097 | 98 | 33 | 1122 | 50 | 85 | 61 | 166 |
| Future Volume (vph) | 81 | 1097 | 98 | 33 | 1122 | 50 | 85 | 61 | 166 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 15.6 | 58.2 | 58.2 | 12.8 | 55.4 | 49.0 | 49.0 | 49.0 | 49.0 |
| Total Split (%) | 13.0% | 48.5% | 48.5% | 10.7% | 46.2% | 40.8% | 40.8% | 40.8% | 40.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 8.9 | 53.4 | 53.4 | 6.9 | 51.6 | 32.8 | 32.8 | 32.8 | 32.8 |
| Actuated g/C Ratio | 0.08 | 0.50 | 0.50 | 0.07 | 0.49 | 0.31 | 0.31 | 0.31 | 0.31 |
| v/c Ratio | 0.58 | 0.65 | 0.12 | 0.41 | 0.75 | 0.75 | 0.26 | 0.24 | 0.88 |
| Control Delay | 65.7 | 24.2 | 4.9 | 62.2 | 28.5 | 88.6 | 26.2 | 29.0 | 48.0 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 65.7 | 24.2 | 4.9 | 62.2 | 28.5 | 88.6 | 26.2 | 29.0 | 48.0 |
| LOS | E | C | A | E | C | F | C | C | D |
| Approach Delay | | 25.3 | | | 29.7 | | 42.5 | | 45.2 |
| Approach LOS | | C | | | C | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 105.9 | |
| Natural Cycle: 80 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.88 | |
| Intersection Signal Delay: 31.3 | Intersection LOS: C |
| Intersection Capacity Utilization 81.7% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 81 | 1097 | 98 | 33 | 1122 | 64 | 50 | 85 | 21 | 61 | 166 | 244 |
| Future Volume (veh/h) | 81 | 1097 | 98 | 33 | 1122 | 64 | 50 | 85 | 21 | 61 | 166 | 244 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 88 | 1192 | 82 | 48 | 1220 | 74 | 54 | 123 | 23 | 88 | 241 | 218 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 112 | 1773 | 791 | 85 | 1645 | 100 | 144 | 501 | 94 | 400 | 296 | 267 |
| Arrive On Green | 0.06 | 0.49 | 0.49 | 0.05 | 0.48 | 0.48 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3458 | 209 | 947 | 1557 | 291 | 1262 | 919 | 831 |
| Grp Volume(v), veh/h | 88 | 1192 | 82 | 48 | 636 | 658 | 54 | 0 | 146 | 88 | 0 | 459 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1862 | 947 | 0 | 1848 | 1262 | 0 | 1750 |
| Q Serve(g_s), s | 5.1 | 26.8 | 2.9 | 2.8 | 30.4 | 30.6 | 5.9 | 0.0 | 6.2 | 5.9 | 0.0 | 25.7 |
| Cycle Q Clear(g_c), s | 5.1 | 26.8 | 2.9 | 2.8 | 30.4 | 30.6 | 31.7 | 0.0 | 6.2 | 12.1 | 0.0 | 25.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.16 | 1.00 | | 0.47 |
| Lane Grp Cap(c), veh/h | 112 | 1773 | 791 | 85 | 859 | 886 | 144 | 0 | 594 | 400 | 0 | 563 |
| V/C Ratio(X) | 0.78 | 0.67 | 0.10 | 0.57 | 0.74 | 0.74 | 0.38 | 0.00 | 0.25 | 0.22 | 0.00 | 0.82 |
| Avail Cap(c_a), veh/h | 187 | 1773 | 791 | 139 | 859 | 886 | 233 | 0 | 769 | 519 | 0 | 728 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 49.3 | 20.6 | 14.6 | 49.8 | 22.6 | 22.7 | 47.8 | 0.0 | 26.7 | 31.1 | 0.0 | 33.3 |
| Incr Delay (d2), s/veh | 4.5 | 2.1 | 0.3 | 2.2 | 5.7 | 5.6 | 1.6 | 0.0 | 0.2 | 0.3 | 0.0 | 5.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 2.4 | 10.8 | 1.1 | 1.3 | 13.1 | 13.5 | 1.4 | 0.0 | 2.7 | 1.8 | 0.0 | 11.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 53.8 | 22.7 | 14.8 | 52.0 | 28.3 | 28.2 | 49.5 | 0.0 | 26.9 | 31.4 | 0.0 | 38.9 |
| LnGrp LOS | D | C | B | D | C | C | D | A | C | C | A | D |
| Approach Vol, veh/h | | 1362 | | | 1342 | | | 200 | | | 547 | |
| Approach Delay, s/veh | | 24.2 | | | 29.1 | | | 33.0 | | | 37.7 | |
| Approach LOS | | C | | | C | | | C | | | D | |

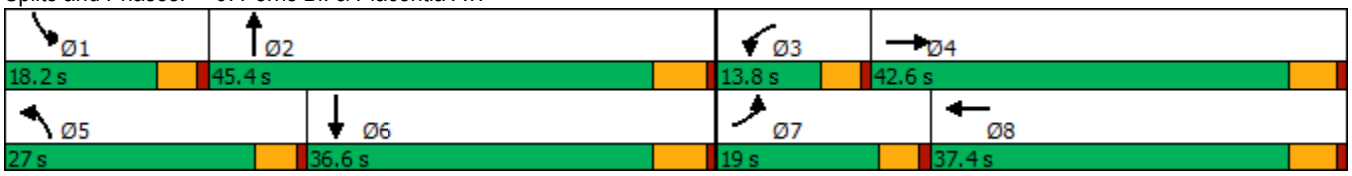
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 38.9 | 9.6 | 58.2 | | 38.9 | 11.2 | 56.6 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 44.4 | 8.2 | 52.4 | | 44.4 | 11.0 | 49.6 | | | | |
| Max Q Clear Time (g_c+I1), s | | 33.7 | 4.8 | 28.8 | | 27.7 | 7.1 | 32.6 | | | | |
| Green Ext Time (p_c), s | | 0.6 | 0.0 | 9.0 | | 2.8 | 0.0 | 7.6 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 28.8 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 232 | 595 | 92 | 536 | 379 | 906 | 142 | 1166 |
| Future Volume (vph) | 232 | 595 | 92 | 536 | 379 | 906 | 142 | 1166 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 |
| Total Split (s) | 19.0 | 42.6 | 13.8 | 37.4 | 27.0 | 45.4 | 18.2 | 36.6 |
| Total Split (%) | 15.8% | 35.5% | 11.5% | 31.2% | 22.5% | 37.8% | 15.2% | 30.5% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 14.4 | 35.2 | 8.7 | 29.4 | 22.4 | 41.0 | 12.3 | 30.9 |
| Actuated g/C Ratio | 0.12 | 0.30 | 0.07 | 0.25 | 0.19 | 0.35 | 0.10 | 0.26 |
| v/c Ratio | 1.10 | 0.87 | 0.73 | 0.70 | 1.16 | 0.54 | 0.79 | 0.99 |
| Control Delay | 139.3 | 43.1 | 84.4 | 43.4 | 142.8 | 32.1 | 79.9 | 64.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 139.3 | 43.1 | 84.4 | 43.4 | 142.8 | 32.1 | 79.9 | 64.7 |
| LOS | F | D | F | D | F | C | E | E |
| Approach Delay | | 61.6 | | 48.6 | | 62.4 | | 66.1 |
| Approach LOS | | E | | D | | E | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117.6 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.16 | |
| Intersection Signal Delay: 61.3 | Intersection LOS: E |
| Intersection Capacity Utilization 99.4% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 232 | 595 | 374 | 92 | 536 | 93 | 379 | 906 | 100 | 142 | 1166 | 237 |
| Future Volume (veh/h) | 232 | 595 | 374 | 92 | 536 | 93 | 379 | 906 | 100 | 142 | 1166 | 237 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 244 | 626 | 161 | 97 | 564 | 38 | 399 | 954 | 52 | 149 | 1227 | 118 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 236 | 780 | 200 | 122 | 720 | 48 | 366 | 2047 | 111 | 178 | 1425 | 137 |
| Arrive On Green | 0.13 | 0.27 | 0.27 | 0.07 | 0.20 | 0.20 | 0.20 | 0.38 | 0.38 | 0.10 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1810 | 2916 | 749 | 1810 | 3519 | 237 | 1810 | 5352 | 291 | 1810 | 5118 | 492 |
| Grp Volume(v), veh/h | 244 | 407 | 380 | 97 | 304 | 298 | 399 | 677 | 329 | 149 | 911 | 434 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1765 | 1810 | 1900 | 1856 | 1810 | 1900 | 1843 | 1810 | 1900 | 1810 |
| Q Serve(g_s), s | 14.4 | 22.1 | 22.2 | 5.8 | 16.8 | 16.8 | 22.4 | 14.8 | 14.9 | 9.0 | 25.2 | 25.2 |
| Cycle Q Clear(g_c), s | 14.4 | 22.1 | 22.2 | 5.8 | 16.8 | 16.8 | 22.4 | 14.8 | 14.9 | 9.0 | 25.2 | 25.2 |
| Prop In Lane | 1.00 | | 0.42 | 1.00 | | 0.13 | 1.00 | | 0.16 | 1.00 | | 0.27 |
| Lane Grp Cap(c), veh/h | 236 | 508 | 472 | 122 | 389 | 380 | 366 | 1454 | 705 | 178 | 1058 | 504 |
| V/C Ratio(X) | 1.04 | 0.80 | 0.80 | 0.80 | 0.78 | 0.78 | 1.09 | 0.47 | 0.47 | 0.84 | 0.86 | 0.86 |
| Avail Cap(c_a), veh/h | 236 | 639 | 594 | 150 | 550 | 537 | 366 | 1454 | 705 | 222 | 1058 | 504 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.1 | 37.8 | 37.8 | 50.8 | 41.7 | 41.7 | 44.1 | 25.7 | 25.7 | 49.0 | 37.9 | 37.9 |
| Incr Delay (d2), s/veh | 68.3 | 5.8 | 6.4 | 16.8 | 4.8 | 5.0 | 73.0 | 1.1 | 2.2 | 16.6 | 9.2 | 17.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.0 | 11.1 | 10.4 | 3.2 | 8.4 | 8.3 | 17.5 | 6.9 | 7.0 | 4.7 | 12.5 | 13.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 116.4 | 43.6 | 44.2 | 67.6 | 46.4 | 46.7 | 117.1 | 26.7 | 27.9 | 65.6 | 47.1 | 55.2 |
| LnGrp LOS | F | D | D | E | D | D | F | C | C | E | D | E |
| Approach Vol, veh/h | | 1031 | | | 699 | | | 1405 | | | 1494 | |
| Approach Delay, s/veh | | 61.1 | | | 49.5 | | | 52.7 | | | 51.3 | |
| Approach LOS | | E | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.5 | 48.1 | 12.1 | 35.0 | 27.0 | 36.6 | 19.0 | 28.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 13.6 | 39.6 | 9.2 | 37.2 | 22.4 | 30.8 | 14.4 | 32.0 |
| Max Q Clear Time (g_c+I1), s | 11.0 | 16.9 | 7.8 | 24.2 | 24.4 | 27.2 | 16.4 | 18.8 |
| Green Ext Time (p_c), s | 0.0 | 7.5 | 0.0 | 4.4 | 0.0 | 2.5 | 0.0 | 3.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 53.6 |
| HCM 6th LOS | D |

# APPENDIX 8.12:

# EAPC (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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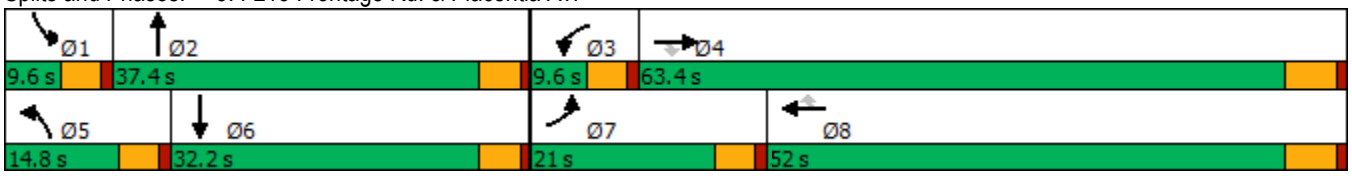
| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 11 | 38 |
| Future Volume (vph) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 11 | 38 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 21.0 | 63.4 | 63.4 | 9.6 | 52.0 | 52.0 | 14.8 | 37.4 | 9.6 | 32.2 |
| Total Split (%) | 17.5% | 52.8% | 52.8% | 8.0% | 43.3% | 43.3% | 12.3% | 31.2% | 8.0% | 26.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 12.0 | 61.7 | 61.7 | 5.0 | 46.7 | 46.7 | 9.3 | 25.5 | 5.0 | 13.2 |
| Actuated g/C Ratio | 0.12 | 0.61 | 0.61 | 0.05 | 0.46 | 0.46 | 0.09 | 0.25 | 0.05 | 0.13 |
| v/c Ratio | 0.66 | 0.41 | 0.07 | 0.13 | 0.67 | 0.01 | 0.50 | 0.69 | 0.13 | 0.41 |
| Control Delay | 58.8 | 12.5 | 0.1 | 54.0 | 25.3 | 0.0 | 51.1 | 24.9 | 54.0 | 22.8 |
| Queue Delay | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 58.8 | 14.0 | 0.1 | 54.0 | 25.3 | 0.0 | 51.1 | 24.9 | 54.0 | 22.8 |
| LOS | E | B | A | D | C | A | D | C | D | C |
| Approach Delay | | 18.7 | | | 25.3 | | | 32.6 | | 25.7 |
| Approach LOS | | B | | | C | | | C | | C |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 100.9 | |
| Natural Cycle: 90 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.69 | |
| Intersection Signal Delay: 24.2 | Intersection LOS: C |
| Intersection Capacity Utilization 69.0% | ICU Level of Service C |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Future Volume (veh/h) | 128 | 825 | 66 | 11 | 1019 | 11 | 147 | 64 | 290 | 11 | 38 | 68 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 141 | 907 | 73 | 12 | 1120 | 12 | 162 | 70 | 319 | 12 | 42 | 75 |
| Peak Hour Factor | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 172 | 1846 | 823 | 25 | 1553 | 693 | 226 | 76 | 348 | 80 | 145 | 258 |
| Arrive On Green | 0.09 | 0.51 | 0.51 | 0.01 | 0.43 | 0.43 | 0.06 | 0.26 | 0.26 | 0.04 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3610 | 1610 | 3510 | 298 | 1358 | 1810 | 611 | 1092 |
| Grp Volume(v), veh/h | 141 | 907 | 73 | 12 | 1120 | 12 | 162 | 0 | 389 | 12 | 0 | 117 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1610 | 1755 | 0 | 1656 | 1810 | 0 | 1703 |
| Q Serve(g_s), s | 8.6 | 18.5 | 2.6 | 0.7 | 28.9 | 0.5 | 5.1 | 0.0 | 25.7 | 0.7 | 0.0 | 6.3 |
| Cycle Q Clear(g_c), s | 8.6 | 18.5 | 2.6 | 0.7 | 28.9 | 0.5 | 5.1 | 0.0 | 25.7 | 0.7 | 0.0 | 6.3 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.82 | 1.00 | | 0.64 |
| Lane Grp Cap(c), veh/h | 172 | 1846 | 823 | 25 | 1553 | 693 | 226 | 0 | 425 | 80 | 0 | 403 |
| V/C Ratio(X) | 0.82 | 0.49 | 0.09 | 0.48 | 0.72 | 0.02 | 0.72 | 0.00 | 0.92 | 0.15 | 0.00 | 0.29 |
| Avail Cap(c_a), veh/h | 263 | 1846 | 823 | 80 | 1553 | 693 | 318 | 0 | 482 | 80 | 0 | 417 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 50.0 | 18.0 | 14.1 | 55.1 | 26.5 | 18.4 | 51.7 | 0.0 | 40.7 | 51.8 | 0.0 | 35.2 |
| Incr Delay (d2), s/veh | 6.5 | 0.9 | 0.2 | 5.1 | 2.9 | 0.0 | 4.5 | 0.0 | 20.8 | 0.8 | 0.0 | 0.4 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 4.1 | 7.3 | 0.9 | 0.4 | 12.2 | 0.2 | 2.4 | 0.0 | 12.9 | 0.3 | 0.0 | 2.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 56.5 | 18.9 | 14.3 | 60.3 | 29.4 | 18.5 | 56.3 | 0.0 | 61.5 | 52.6 | 0.0 | 35.6 |
| LnGrp LOS | E | B | B | E | C | B | E | A | E | D | A | D |
| Approach Vol, veh/h | | 1121 | | | 1144 | | | 551 | | | 129 | |
| Approach Delay, s/veh | | 23.3 | | | 29.6 | | | 60.0 | | | 37.2 | |
| Approach LOS | | C | | | C | | | E | | | D | |

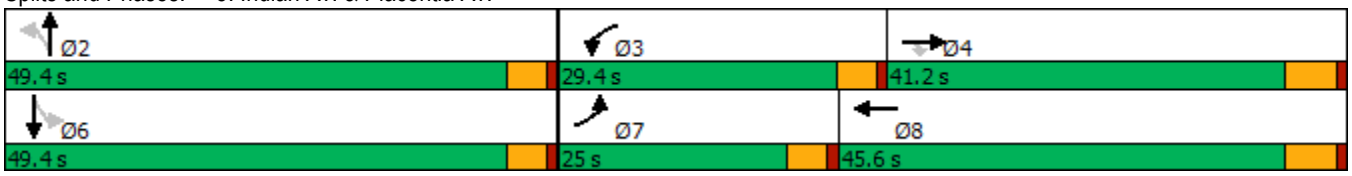
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 9.6 | 33.5 | 6.2 | 63.4 | 11.8 | 31.3 | 15.3 | 54.3 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 32.8 | 5.0 | 57.6 | 10.2 | 27.6 | 16.4 | 46.2 |
| Max Q Clear Time (g_c+I1), s | 2.7 | 27.7 | 2.7 | 20.5 | 7.1 | 8.3 | 10.6 | 30.9 |
| Green Ext Time (p_c), s | 0.0 | 1.2 | 0.0 | 7.1 | 0.1 | 0.6 | 0.1 | 6.6 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 33.2 |
| HCM 6th LOS | C |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 222 | 756 | 146 | 205 | 922 | 42 | 259 | 42 | 157 |
| Future Volume (vph) | 222 | 756 | 146 | 205 | 922 | 42 | 259 | 42 | 157 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 25.0 | 41.2 | 41.2 | 29.4 | 45.6 | 49.4 | 49.4 | 49.4 | 49.4 |
| Total Split (%) | 20.8% | 34.3% | 34.3% | 24.5% | 38.0% | 41.2% | 41.2% | 41.2% | 41.2% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 17.8 | 36.8 | 36.8 | 21.2 | 40.2 | 37.8 | 37.8 | 37.8 | 37.8 |
| Actuated g/C Ratio | 0.16 | 0.33 | 0.33 | 0.19 | 0.36 | 0.34 | 0.34 | 0.34 | 0.34 |
| v/c Ratio | 0.84 | 0.69 | 0.26 | 0.86 | 0.81 | 0.17 | 0.89 | 0.86 | 0.49 |
| Control Delay | 70.7 | 37.7 | 12.6 | 68.2 | 39.3 | 27.4 | 51.0 | 112.0 | 30.1 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 70.7 | 37.7 | 12.6 | 68.2 | 39.3 | 27.4 | 51.0 | 112.0 | 30.1 |
| LOS | E | D | B | E | D | C | D | F | C |
| Approach Delay | | 40.9 | | | 45.7 | | 49.2 | | 43.5 |
| Approach LOS | | D | | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 111 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 44.4 | Intersection LOS: D |
| Intersection Capacity Utilization 80.9% | ICU Level of Service D |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 222 | 756 | 146 | 205 | 922 | 32 | 42 | 259 | 130 | 42 | 157 | 75 |
| Future Volume (veh/h) | 222 | 756 | 146 | 205 | 922 | 32 | 42 | 259 | 130 | 42 | 157 | 75 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 241 | 822 | 122 | 297 | 1002 | 40 | 46 | 375 | 143 | 61 | 228 | 70 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 271 | 1189 | 530 | 327 | 1275 | 51 | 315 | 464 | 177 | 151 | 494 | 152 |
| Arrive On Green | 0.15 | 0.33 | 0.33 | 0.18 | 0.36 | 0.36 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3538 | 141 | 1098 | 1310 | 500 | 897 | 1395 | 428 |
| Grp Volume(v), veh/h | 241 | 822 | 122 | 297 | 511 | 531 | 46 | 0 | 518 | 61 | 0 | 298 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1874 | 1098 | 0 | 1810 | 897 | 0 | 1823 |
| Q Serve(g_s), s | 14.4 | 21.8 | 6.1 | 17.8 | 27.9 | 27.9 | 3.7 | 0.0 | 28.6 | 7.3 | 0.0 | 13.9 |
| Cycle Q Clear(g_c), s | 14.4 | 21.8 | 6.1 | 17.8 | 27.9 | 27.9 | 17.7 | 0.0 | 28.6 | 35.9 | 0.0 | 13.9 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.08 | 1.00 | | 0.28 | 1.00 | | 0.23 |
| Lane Grp Cap(c), veh/h | 271 | 1189 | 530 | 327 | 650 | 675 | 315 | 0 | 641 | 151 | 0 | 645 |
| V/C Ratio(X) | 0.89 | 0.69 | 0.23 | 0.91 | 0.79 | 0.79 | 0.15 | 0.00 | 0.81 | 0.41 | 0.00 | 0.46 |
| Avail Cap(c_a), veh/h | 334 | 1189 | 530 | 406 | 650 | 675 | 372 | 0 | 734 | 197 | 0 | 739 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 46.1 | 32.2 | 26.9 | 44.3 | 31.5 | 31.5 | 34.4 | 0.0 | 32.3 | 48.5 | 0.0 | 27.5 |
| Incr Delay (d2), s/veh | 18.8 | 3.3 | 1.0 | 18.8 | 9.3 | 9.0 | 0.2 | 0.0 | 6.0 | 1.7 | 0.0 | 0.5 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 7.7 | 9.6 | 2.4 | 9.4 | 13.1 | 13.6 | 1.0 | 0.0 | 13.5 | 1.7 | 0.0 | 6.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 64.9 | 35.5 | 27.9 | 63.2 | 40.8 | 40.5 | 34.6 | 0.0 | 38.2 | 50.3 | 0.0 | 28.1 |
| LnGrp LOS | E | D | C | E | D | D | C | A | D | D | A | C |
| Approach Vol, veh/h | | 1185 | | | 1339 | | | 564 | | | 359 | |
| Approach Delay, s/veh | | 40.7 | | | 45.6 | | | 37.9 | | | 31.8 | |
| Approach LOS | | D | | | D | | | D | | | C | |

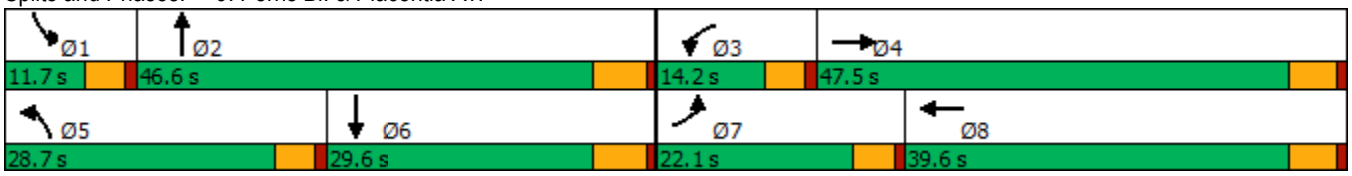
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 43.7 | 24.6 | 42.2 | | 43.7 | 21.1 | 45.6 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 44.8 | 24.8 | 35.4 | | 44.8 | 20.4 | 39.8 | | | | |
| Max Q Clear Time (g_c+I1), s | | 30.6 | 19.8 | 23.8 | | 37.9 | 16.4 | 29.9 | | | | |
| Green Ext Time (p_c), s | | 3.3 | 0.2 | 4.3 | | 1.2 | 0.1 | 4.3 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 41.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 186 | 433 | 59 | 602 | 271 | 1066 | 42 | 601 |
| Future Volume (vph) | 186 | 433 | 59 | 602 | 271 | 1066 | 42 | 601 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 |
| Total Split (s) | 22.1 | 47.5 | 14.2 | 39.6 | 28.7 | 46.6 | 11.7 | 29.6 |
| Total Split (%) | 18.4% | 39.6% | 11.8% | 33.0% | 23.9% | 38.8% | 9.8% | 24.7% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 15.3 | 41.6 | 7.8 | 31.7 | 20.9 | 41.6 | 6.4 | 24.7 |
| Actuated g/C Ratio | 0.14 | 0.37 | 0.07 | 0.28 | 0.18 | 0.37 | 0.06 | 0.22 |
| v/c Ratio | 0.80 | 0.54 | 0.50 | 0.89 | 0.86 | 0.62 | 0.43 | 0.77 |
| Control Delay | 73.0 | 27.0 | 67.2 | 49.5 | 69.3 | 32.5 | 67.8 | 44.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 73.0 | 27.0 | 67.2 | 49.5 | 69.3 | 32.5 | 67.8 | 44.6 |
| LOS | E | C | E | D | E | C | E | D |
| Approach Delay | | 36.9 | | 50.6 | | 39.7 | | 45.8 |
| Approach LOS | | D | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 113.3 | |
| Natural Cycle: 100 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.89 | |
| Intersection Signal Delay: 42.9 | Intersection LOS: D |
| Intersection Capacity Utilization 83.8% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 186 | 433 | 239 | 59 | 602 | 242 | 271 | 1066 | 50 | 42 | 601 | 226 |
| Future Volume (veh/h) | 186 | 433 | 239 | 59 | 602 | 242 | 271 | 1066 | 50 | 42 | 601 | 226 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 196 | 456 | 247 | 62 | 634 | 153 | 285 | 1122 | 46 | 44 | 633 | 229 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 227 | 776 | 417 | 80 | 752 | 181 | 317 | 1971 | 81 | 62 | 925 | 328 |
| Arrive On Green | 0.13 | 0.34 | 0.34 | 0.04 | 0.26 | 0.26 | 0.18 | 0.39 | 0.39 | 0.03 | 0.24 | 0.24 |
| Sat Flow, veh/h | 1810 | 2267 | 1219 | 1810 | 2882 | 694 | 1810 | 5108 | 209 | 1810 | 3775 | 1339 |
| Grp Volume(v), veh/h | 196 | 362 | 341 | 62 | 397 | 390 | 285 | 759 | 409 | 44 | 579 | 283 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1681 | 1810 | 1805 | 1771 | 1810 | 1729 | 1859 | 1810 | 1729 | 1655 |
| Q Serve(g_s), s | 11.2 | 17.5 | 17.7 | 3.6 | 22.0 | 22.1 | 16.3 | 18.3 | 18.3 | 2.5 | 16.0 | 16.5 |
| Cycle Q Clear(g_c), s | 11.2 | 17.5 | 17.7 | 3.6 | 22.0 | 22.1 | 16.3 | 18.3 | 18.3 | 2.5 | 16.0 | 16.5 |
| Prop In Lane | 1.00 | | 0.73 | 1.00 | | 0.39 | 1.00 | | 0.11 | 1.00 | | 0.81 |
| Lane Grp Cap(c), veh/h | 227 | 618 | 575 | 80 | 471 | 462 | 317 | 1335 | 718 | 62 | 847 | 405 |
| V/C Ratio(X) | 0.86 | 0.59 | 0.59 | 0.77 | 0.84 | 0.84 | 0.90 | 0.57 | 0.57 | 0.71 | 0.68 | 0.70 |
| Avail Cap(c_a), veh/h | 300 | 719 | 669 | 164 | 584 | 573 | 413 | 1335 | 718 | 122 | 847 | 405 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 45.3 | 28.6 | 28.7 | 50.0 | 37.0 | 37.0 | 42.7 | 25.5 | 25.5 | 50.5 | 36.2 | 36.3 |
| Incr Delay (d2), s/veh | 14.6 | 0.9 | 1.0 | 5.8 | 9.0 | 9.3 | 16.0 | 1.8 | 3.3 | 5.4 | 4.4 | 9.6 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 5.8 | 7.3 | 6.9 | 1.7 | 10.4 | 10.3 | 8.7 | 7.8 | 8.7 | 1.2 | 7.0 | 7.4 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 59.9 | 29.5 | 29.7 | 55.7 | 46.0 | 46.3 | 58.7 | 27.3 | 28.8 | 56.0 | 40.6 | 45.9 |
| LnGrp LOS | E | C | C | E | D | D | E | C | C | E | D | D |
| Approach Vol, veh/h | | 899 | | | 849 | | | 1453 | | | 906 | |
| Approach Delay, s/veh | | 36.2 | | | 46.8 | | | 33.9 | | | 43.0 | |
| Approach LOS | | D | | | D | | | C | | | D | |

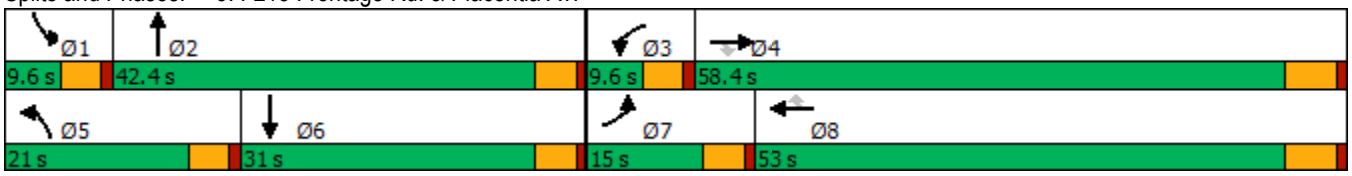
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 8.2 | 46.6 | 9.3 | 41.6 | 23.1 | 31.7 | 17.9 | 33.0 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 7.1 | 40.8 | 9.6 | 42.1 | 24.1 | 23.8 | 17.5 | 34.2 |
| Max Q Clear Time (g_c+I1), s | 4.5 | 20.3 | 5.6 | 19.7 | 18.3 | 18.5 | 13.2 | 24.1 |
| Green Ext Time (p_c), s | 0.0 | 8.5 | 0.0 | 4.1 | 0.2 | 2.4 | 0.1 | 3.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 39.1 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | |
| Traffic Volume (vph) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 11 | 231 |
| Future Volume (vph) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 11 | 231 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 5 | 2 | 1 | 6 |
| Permitted Phases | | | 4 | | | 8 | | | | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 27.8 | 9.6 | 26.6 | 9.6 | 26.6 |
| Total Split (s) | 15.0 | 58.4 | 58.4 | 9.6 | 53.0 | 53.0 | 21.0 | 42.4 | 9.6 | 31.0 |
| Total Split (%) | 12.5% | 48.7% | 48.7% | 8.0% | 44.2% | 44.2% | 17.5% | 35.3% | 8.0% | 25.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | Max | Max | None | Max | Max | None | None | None | None |
| Act Effct Green (s) | 10.4 | 58.5 | 58.5 | 5.0 | 47.2 | 47.2 | 13.4 | 40.6 | 5.0 | 26.4 |
| Actuated g/C Ratio | 0.09 | 0.50 | 0.50 | 0.04 | 0.40 | 0.40 | 0.11 | 0.35 | 0.04 | 0.23 |
| v/c Ratio | 1.27 | 0.55 | 0.32 | 0.16 | 1.05 | 0.02 | 0.62 | 0.64 | 0.16 | 1.29 |
| Control Delay | 205.8 | 22.6 | 10.2 | 59.7 | 71.0 | 0.0 | 56.6 | 22.7 | 59.7 | 182.3 |
| Queue Delay | 0.0 | 33.2 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 205.8 | 55.8 | 11.6 | 59.7 | 71.0 | 0.0 | 56.6 | 22.7 | 59.7 | 182.3 |
| LOS | F | E | B | E | E | A | E | C | E | F |
| Approach Delay | | 67.7 | | | 70.4 | | | 34.8 | | 179.7 |
| Approach LOS | | E | | | E | | | C | | F |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.29 | |
| Intersection Signal Delay: 77.9 | Intersection LOS: E |
| Intersection Capacity Utilization 103.4% | ICU Level of Service G |
| Analysis Period (min) 15 | |

Splits and Phases: 3: I-215 Frontage Rd. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Future Volume (veh/h) | 188 | 954 | 259 | 11 | 1477 | 11 | 229 | 68 | 344 | 11 | 231 | 280 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 204 | 1037 | 211 | 12 | 1605 | 9 | 249 | 74 | 362 | 12 | 251 | 152 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 165 | 1868 | 792 | 25 | 1574 | 667 | 318 | 87 | 423 | 25 | 257 | 155 |
| Arrive On Green | 0.09 | 0.54 | 0.49 | 0.01 | 0.46 | 0.41 | 0.09 | 0.31 | 0.31 | 0.01 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1810 | 3800 | 1610 | 1810 | 3800 | 1610 | 3510 | 281 | 1372 | 1810 | 1108 | 671 |
| Grp Volume(v), veh/h | 204 | 1037 | 211 | 12 | 1605 | 9 | 249 | 0 | 436 | 12 | 0 | 403 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1610 | 1810 | 1900 | 1610 | 1755 | 0 | 1653 | 1810 | 0 | 1779 |
| Q Serve(g_s), s | 10.4 | 20.4 | 8.7 | 0.8 | 47.2 | 0.4 | 7.9 | 0.0 | 28.2 | 0.8 | 0.0 | 25.6 |
| Cycle Q Clear(g_c), s | 10.4 | 20.4 | 8.7 | 0.8 | 47.2 | 0.4 | 7.9 | 0.0 | 28.2 | 0.8 | 0.0 | 25.6 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 0.83 | 1.00 | | 0.38 |
| Lane Grp Cap(c), veh/h | 165 | 1868 | 792 | 25 | 1574 | 667 | 318 | 0 | 510 | 25 | 0 | 412 |
| V/C Ratio(X) | 1.24 | 0.55 | 0.27 | 0.48 | 1.02 | 0.01 | 0.78 | 0.00 | 0.85 | 0.48 | 0.00 | 0.98 |
| Avail Cap(c_a), veh/h | 165 | 1868 | 792 | 79 | 1574 | 667 | 505 | 0 | 548 | 79 | 0 | 412 |
| HCM Platoon Ratio | 1.00 | 1.10 | 1.00 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 18.0 | 16.9 | 55.8 | 31.0 | 19.7 | 50.7 | 0.0 | 37.0 | 55.8 | 0.0 | 43.5 |
| Incr Delay (d2), s/veh | 147.0 | 1.2 | 0.8 | 5.2 | 27.7 | 0.0 | 4.2 | 0.0 | 11.9 | 13.4 | 0.0 | 38.3 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.3 | 8.2 | 3.2 | 0.4 | 25.3 | 0.1 | 3.6 | 0.0 | 12.5 | 0.4 | 0.0 | 15.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 198.7 | 19.2 | 17.8 | 60.9 | 58.7 | 19.7 | 54.9 | 0.0 | 48.9 | 69.2 | 0.0 | 81.7 |
| LnGrp LOS | F | B | B | E | F | B | D | A | D | E | A | F |
| Approach Vol, veh/h | | 1452 | | | 1626 | | | 685 | | | 415 | |
| Approach Delay, s/veh | | 44.2 | | | 58.5 | | | 51.1 | | | 81.4 | |
| Approach LOS | | D | | | E | | | D | | | F | |

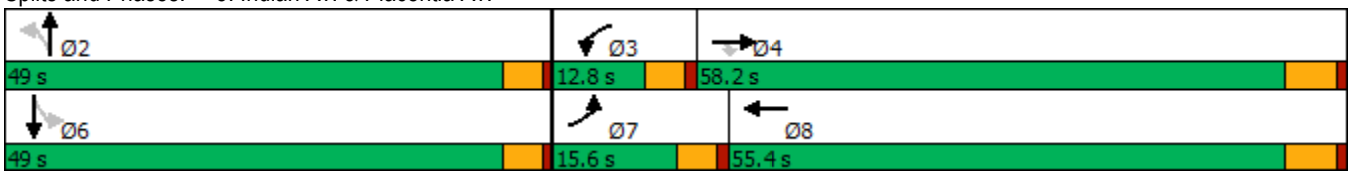
| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 6.2 | 39.8 | 6.2 | 61.8 | 14.9 | 31.0 | 15.0 | 53.0 |
| Change Period (Y+Rc), s | 4.6 | 4.6 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 5.8 |
| Max Green Setting (Gmax), s | 5.0 | 37.8 | 5.0 | 52.6 | 16.4 | 26.4 | 10.4 | 47.2 |
| Max Q Clear Time (g_c+I1), s | 2.8 | 30.2 | 2.8 | 22.4 | 9.9 | 27.6 | 12.4 | 49.2 |
| Green Ext Time (p_c), s | 0.0 | 1.6 | 0.0 | 8.8 | 0.4 | 0.0 | 0.0 | 0.0 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 54.6 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | EBR | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | |
| Traffic Volume (vph) | 104 | 1106 | 98 | 33 | 1145 | 50 | 85 | 61 | 166 |
| Future Volume (vph) | 104 | 1106 | 98 | 33 | 1145 | 50 | 85 | 61 | 166 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | NA | Perm | NA |
| Protected Phases | 7 | 4 | | 3 | 8 | | 2 | | 6 |
| Permitted Phases | | | 4 | | | 2 | | 6 | |
| Detector Phase | 7 | 4 | 4 | 3 | 8 | 2 | 2 | 6 | 6 |
| Switch Phase | | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 10.0 | 5.0 | 10.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Minimum Split (s) | 9.6 | 27.8 | 27.8 | 9.6 | 27.8 | 26.6 | 26.6 | 26.6 | 26.6 |
| Total Split (s) | 15.6 | 58.2 | 58.2 | 12.8 | 55.4 | 49.0 | 49.0 | 49.0 | 49.0 |
| Total Split (%) | 13.0% | 48.5% | 48.5% | 10.7% | 46.2% | 40.8% | 40.8% | 40.8% | 40.8% |
| Yellow Time (s) | 3.6 | 4.8 | 4.8 | 3.6 | 4.8 | 3.6 | 3.6 | 3.6 | 3.6 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.8 | 5.8 | 4.6 | 5.8 | 4.6 | 4.6 | 4.6 | 4.6 |
| Lead/Lag | Lead | Lag | Lag | Lead | Lag | | | | |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | | | | |
| Recall Mode | None | Max | Max | None | Max | None | None | None | None |
| Act Effct Green (s) | 9.8 | 55.1 | 55.1 | 6.9 | 49.9 | 37.7 | 37.7 | 37.7 | 37.7 |
| Actuated g/C Ratio | 0.09 | 0.49 | 0.49 | 0.06 | 0.44 | 0.33 | 0.33 | 0.33 | 0.33 |
| v/c Ratio | 0.72 | 0.68 | 0.13 | 0.43 | 0.84 | 0.81 | 0.24 | 0.22 | 0.91 |
| Control Delay | 76.6 | 26.7 | 5.1 | 65.5 | 35.2 | 102.9 | 25.5 | 28.1 | 51.5 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 76.6 | 26.7 | 5.1 | 65.5 | 35.2 | 102.9 | 25.5 | 28.1 | 51.5 |
| LOS | E | C | A | E | D | F | C | C | D |
| Approach Delay | | 29.1 | | | 36.3 | | 45.7 | | 48.4 |
| Approach LOS | | C | | | D | | D | | D |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 112.6 | |
| Natural Cycle: 75 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 0.91 | |
| Intersection Signal Delay: 36.2 | Intersection LOS: D |
| Intersection Capacity Utilization 87.2% | ICU Level of Service E |
| Analysis Period (min) 15 | |

Splits and Phases: 5: Indian Av. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 104 | 1106 | 98 | 33 | 1145 | 64 | 50 | 85 | 21 | 61 | 166 | 302 |
| Future Volume (veh/h) | 104 | 1106 | 98 | 33 | 1145 | 64 | 50 | 85 | 21 | 61 | 166 | 302 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 113 | 1202 | 82 | 48 | 1245 | 74 | 54 | 123 | 23 | 88 | 241 | 281 |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.69 | 0.92 | 0.69 | 0.92 | 0.69 | 0.69 | 0.69 | 0.69 | 0.92 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 139 | 1689 | 753 | 79 | 1505 | 89 | 134 | 556 | 104 | 444 | 285 | 333 |
| Arrive On Green | 0.08 | 0.47 | 0.47 | 0.04 | 0.43 | 0.43 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 |
| Sat Flow, veh/h | 1810 | 3610 | 1610 | 1810 | 3462 | 206 | 894 | 1557 | 291 | 1262 | 800 | 932 |
| Grp Volume(v), veh/h | 113 | 1202 | 82 | 48 | 648 | 671 | 54 | 0 | 146 | 88 | 0 | 522 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1805 | 1610 | 1810 | 1805 | 1863 | 894 | 0 | 1848 | 1262 | 0 | 1732 |
| Q Serve(g_s), s | 7.0 | 30.3 | 3.3 | 3.0 | 36.2 | 36.3 | 6.8 | 0.0 | 6.3 | 6.0 | 0.0 | 31.7 |
| Cycle Q Clear(g_c), s | 7.0 | 30.3 | 3.3 | 3.0 | 36.2 | 36.3 | 38.4 | 0.0 | 6.3 | 12.3 | 0.0 | 31.7 |
| Prop In Lane | 1.00 | | 1.00 | 1.00 | | 0.11 | 1.00 | | 0.16 | 1.00 | | 0.54 |
| Lane Grp Cap(c), veh/h | 139 | 1689 | 753 | 79 | 785 | 810 | 134 | 0 | 659 | 444 | 0 | 618 |
| V/C Ratio(X) | 0.81 | 0.71 | 0.11 | 0.61 | 0.83 | 0.83 | 0.40 | 0.00 | 0.22 | 0.20 | 0.00 | 0.84 |
| Avail Cap(c_a), veh/h | 174 | 1689 | 753 | 130 | 785 | 810 | 163 | 0 | 719 | 484 | 0 | 674 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 51.8 | 24.2 | 17.0 | 53.6 | 28.5 | 28.5 | 51.5 | 0.0 | 25.6 | 29.9 | 0.0 | 33.8 |
| Incr Delay (d2), s/veh | 16.4 | 2.6 | 0.3 | 2.8 | 9.7 | 9.6 | 1.9 | 0.0 | 0.2 | 0.2 | 0.0 | 9.0 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 3.7 | 12.6 | 1.2 | 1.4 | 16.6 | 17.2 | 1.5 | 0.0 | 2.7 | 1.8 | 0.0 | 14.1 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 68.2 | 26.8 | 17.3 | 56.3 | 38.2 | 38.0 | 53.4 | 0.0 | 25.8 | 30.1 | 0.0 | 42.8 |
| LnGrp LOS | E | C | B | E | D | D | D | A | C | C | A | D |
| Approach Vol, veh/h | | 1397 | | | 1367 | | | 200 | | | 610 | |
| Approach Delay, s/veh | | 29.6 | | | 38.7 | | | 33.2 | | | 41.0 | |
| Approach LOS | | C | | | D | | | C | | | D | |

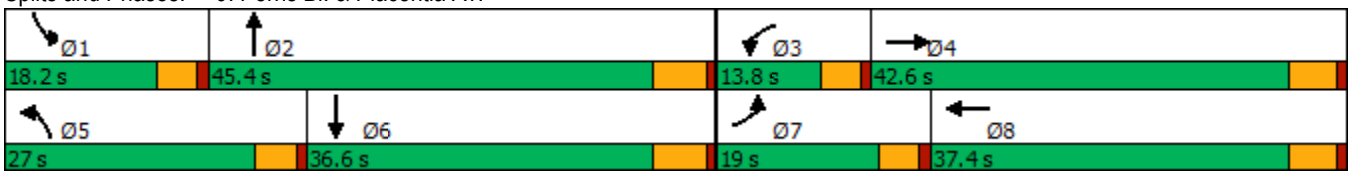
| Timer - Assigned Phs | | 2 | 3 | 4 | | 6 | 7 | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 45.3 | 9.6 | 59.2 | | 45.3 | 13.4 | 55.4 | | | | |
| Change Period (Y+Rc), s | | 4.6 | 4.6 | 5.8 | | 4.6 | 4.6 | 5.8 | | | | |
| Max Green Setting (Gmax), s | | 44.4 | 8.2 | 52.4 | | 44.4 | 11.0 | 49.6 | | | | |
| Max Q Clear Time (g_c+I1), s | | 40.4 | 5.0 | 32.3 | | 33.7 | 9.0 | 38.3 | | | | |
| Green Ext Time (p_c), s | | 0.3 | 0.0 | 8.4 | | 2.6 | 0.0 | 6.0 | | | | |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 35.2 |
| HCM 6th LOS | D |

| Lane Group | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | |
| Traffic Volume (vph) | 235 | 601 | 92 | 551 | 379 | 908 | 142 | 1170 |
| Future Volume (vph) | 235 | 601 | 92 | 551 | 379 | 908 | 142 | 1170 |
| Turn Type | Prot | NA | Prot | NA | Prot | NA | Prot | NA |
| Protected Phases | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Permitted Phases | | | | | | | | |
| Detector Phase | 7 | 4 | 3 | 8 | 5 | 2 | 1 | 6 |
| Switch Phase | | | | | | | | |
| Minimum Initial (s) | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 | 5.0 | 10.0 |
| Minimum Split (s) | 9.6 | 15.4 | 9.6 | 37.4 | 9.6 | 38.8 | 9.6 | 22.8 |
| Total Split (s) | 19.0 | 42.6 | 13.8 | 37.4 | 27.0 | 45.4 | 18.2 | 36.6 |
| Total Split (%) | 15.8% | 35.5% | 11.5% | 31.2% | 22.5% | 37.8% | 15.2% | 30.5% |
| Yellow Time (s) | 3.6 | 4.4 | 3.6 | 4.4 | 3.6 | 4.8 | 3.6 | 4.8 |
| All-Red Time (s) | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Lost Time Adjust (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Lost Time (s) | 4.6 | 5.4 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.8 |
| Lead/Lag | Lead | Lag | Lead | Lag | Lead | Lag | Lead | Lag |
| Lead-Lag Optimize? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Recall Mode | None | None | None | None | None | Max | None | Max |
| Act Effct Green (s) | 14.4 | 35.4 | 8.7 | 29.6 | 22.4 | 40.9 | 12.3 | 30.8 |
| Actuated g/C Ratio | 0.12 | 0.30 | 0.07 | 0.25 | 0.19 | 0.35 | 0.10 | 0.26 |
| v/c Ratio | 1.12 | 0.88 | 0.73 | 0.72 | 1.16 | 0.54 | 0.79 | 1.01 |
| Control Delay | 144.0 | 43.5 | 84.6 | 43.9 | 143.3 | 32.2 | 80.0 | 67.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 144.0 | 43.5 | 84.6 | 43.9 | 143.3 | 32.2 | 80.0 | 67.3 |
| LOS | F | D | F | D | F | C | E | E |
| Approach Delay | | 63.0 | | 49.0 | | 62.5 | | 68.5 |
| Approach LOS | | E | | D | | E | | E |

| Intersection Summary | |
|---|---|
| Cycle Length: 120 | |
| Actuated Cycle Length: 117.7 | |
| Natural Cycle: 120 | |
| Control Type: Actuated-Uncoordinated | |
| Maximum v/c Ratio: 1.16 | |
| Intersection Signal Delay: 62.5 | Intersection LOS: E |
| Intersection Capacity Utilization 99.8% | ICU Level of Service F |
| Analysis Period (min) 15 | |

Splits and Phases: 9: Perris Bl. & Placentia Av.



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 235 | 601 | 374 | 92 | 551 | 93 | 379 | 908 | 100 | 142 | 1170 | 245 |
| Future Volume (veh/h) | 235 | 601 | 374 | 92 | 551 | 93 | 379 | 908 | 100 | 142 | 1170 | 245 |
| Initial Q (Qb), veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ped-Bike Adj(A_pbT) | 1.00 | | 1.00 | 1.00 | | 0.99 | 1.00 | | 0.99 | 1.00 | | 1.00 |
| Parking Bus, 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 |
| Work Zone On Approach | | No | | | No | | | No | | | No | |
| Adj Sat Flow, veh/h/ln | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adj Flow Rate, veh/h | 247 | 633 | 161 | 97 | 580 | 38 | 399 | 956 | 52 | 149 | 1232 | 127 |
| Peak Hour Factor | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Percent Heavy Veh, % | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cap, veh/h | 234 | 791 | 201 | 122 | 735 | 48 | 365 | 2036 | 111 | 178 | 1408 | 145 |
| Arrive On Green | 0.13 | 0.27 | 0.27 | 0.07 | 0.21 | 0.21 | 0.20 | 0.38 | 0.38 | 0.10 | 0.28 | 0.28 |
| Sat Flow, veh/h | 1810 | 2924 | 743 | 1810 | 3526 | 231 | 1810 | 5353 | 291 | 1810 | 5081 | 524 |
| Grp Volume(v), veh/h | 247 | 411 | 383 | 97 | 312 | 306 | 399 | 678 | 330 | 149 | 921 | 438 |
| Grp Sat Flow(s),veh/h/ln | 1810 | 1900 | 1766 | 1810 | 1900 | 1857 | 1810 | 1900 | 1843 | 1810 | 1900 | 1804 |
| Q Serve(g_s), s | 14.4 | 22.4 | 22.5 | 5.9 | 17.3 | 17.4 | 22.4 | 15.0 | 15.0 | 9.0 | 25.7 | 25.7 |
| Cycle Q Clear(g_c), s | 14.4 | 22.4 | 22.5 | 5.9 | 17.3 | 17.4 | 22.4 | 15.0 | 15.0 | 9.0 | 25.7 | 25.7 |
| Prop In Lane | 1.00 | | 0.42 | 1.00 | | 0.12 | 1.00 | | 0.16 | 1.00 | | 0.29 |
| Lane Grp Cap(c), veh/h | 234 | 514 | 478 | 122 | 396 | 387 | 365 | 1445 | 701 | 178 | 1053 | 500 |
| V/C Ratio(X) | 1.05 | 0.80 | 0.80 | 0.80 | 0.79 | 0.79 | 1.09 | 0.47 | 0.47 | 0.84 | 0.88 | 0.88 |
| Avail Cap(c_a), veh/h | 234 | 636 | 591 | 150 | 547 | 535 | 365 | 1445 | 701 | 221 | 1053 | 500 |
| HCM Platoon Ratio | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh | 48.4 | 37.7 | 37.8 | 51.1 | 41.7 | 41.7 | 44.4 | 26.0 | 26.0 | 49.2 | 38.3 | 38.3 |
| Incr Delay (d2), s/veh | 73.6 | 5.9 | 6.4 | 17.0 | 5.3 | 5.5 | 74.8 | 1.1 | 2.3 | 16.9 | 10.1 | 18.9 |
| Initial Q Delay(d3),s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| %ile BackOfQ(50%),veh/ln | 11.3 | 11.2 | 10.5 | 3.3 | 8.7 | 8.6 | 17.6 | 7.0 | 7.1 | 4.8 | 12.9 | 13.5 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 122.0 | 43.6 | 44.1 | 68.1 | 46.9 | 47.2 | 119.2 | 27.1 | 28.3 | 66.1 | 48.5 | 57.2 |
| LnGrp LOS | F | D | D | E | D | D | F | C | C | E | D | E |
| Approach Vol, veh/h | | 1041 | | | 715 | | | 1407 | | | 1508 | |
| Approach Delay, s/veh | | 62.4 | | | 49.9 | | | 53.5 | | | 52.8 | |
| Approach LOS | | E | | | D | | | D | | | D | |

| Timer - Assigned Phs | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | 15.5 | 48.1 | 12.1 | 35.5 | 27.0 | 36.6 | 19.0 | 28.6 |
| Change Period (Y+Rc), s | 4.6 | 5.8 | 4.6 | 5.4 | 4.6 | 5.8 | 4.6 | 5.4 |
| Max Green Setting (Gmax), s | 13.6 | 39.6 | 9.2 | 37.2 | 22.4 | 30.8 | 14.4 | 32.0 |
| Max Q Clear Time (g_c+I1), s | 11.0 | 17.0 | 7.9 | 24.5 | 24.4 | 27.7 | 16.4 | 19.4 |
| Green Ext Time (p_c), s | 0.0 | 7.5 | 0.0 | 4.4 | 0.0 | 2.2 | 0.0 | 3.2 |

| Intersection Summary | |
|---|---|
| HCM 6th Ctrl Delay | 54.7 |
| HCM 6th LOS | D |

# APPENDIX 9.1:

# RIDER STREET BRIDGE DETOUR MEMO, APRIL 29, 2020

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# Memorandum

To: Stuart McKibbin, P.E. – City of Perris
City Engineer

From: Nicholas Lowe, P.E. – Albert A. Webb Associates
Senior Engineer

Date: April 29, 2020

Re: Rider Street Bridge Detour Travel Time Analysis

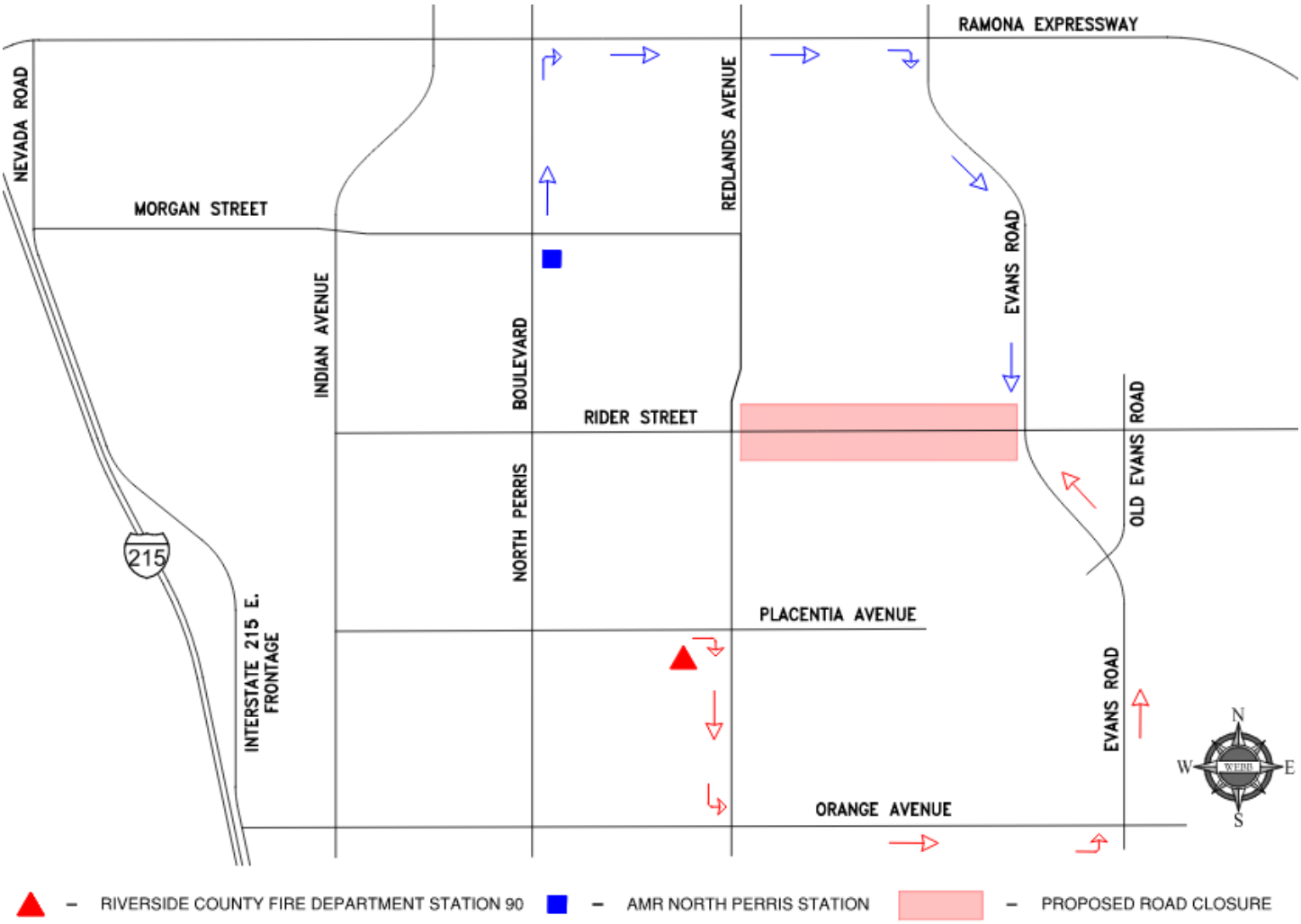
Albert A. Webb Associates (Webb) has prepared this detour analysis to determine any impacts on vehicular travel on Rider Street in the City of Perris (City). Rider Street between Redlands Avenue and Galway Lane is under design to be widened to its ultimate width (Project). The main part of the Project is to remove the existing box culvert over Perris Valley Storm Drain Channel (Channel) and construction of a new bridge. According to the structural engineer, it will take approximately 9 months to construct the bridge in one phase with a full road closure and 16 months if the bridge is constructed in in two phases with partial road closure. The main concern with a potential full closure of Rider Street would be emergency vehicle access and response times. Detours to get to the east or west side of the Channel would be accommodated by routes using Ramona Expressway to the north or Orange Avenue to the south. This travel time analysis was prepared to determine additional travel time needed during a full closure of Rider Street between Redlands Avenue and Evans Road.

The two emergency vehicles types that this memo is focused on are fire department vehicles and ambulances. The local fire station and American Medical Response (AMR) station are located to the west of the Channel. Riverside County Fire Department Station 90 is located at 333 Placentia Avenue, Perris. AMR North Perris station is located at 3553A North Perris Boulevard, Perris. Both sites are relatively close to the Project closure. **Figure 1** shows the location of the fire station and AMR station as well as the shortest potential detour routes to the eastern side of the road closure at the intersection of Rider Street and Evans Road. **Table 1** shows the approximate distance and estimated driving time from each station to the intersection of Rider Street and Evans Road. Distances and travel times were collected from Google Maps' navigation tool. Note that the times provided are for normal driving conditions and it is expected that an emergency vehicle would have lower travel times.

**Table 1 – Distance and Driving Time to Rider Street/Evans Road Intersection**

| | EXISTING ROUTE | | DETOUR ROUTE | |
|---|---|---|---|---|
| | DISTANCE (MI.) | TIME (MIN.) | DISTANCE (MI.) | TIME (MIN.) |
| **RIVERSIDE COUNTY FIRE STATION 90** | **1.3** | **3** | **2.8** | **6** |
| **AMR NORTH PERRIS** | **1.8** | **4** | **2.8** | **6** |

**Figure 1 – Emergency Vehicle Station Locations and Detour Routes**




As shown, the detour route is 1 to 1.5 miles longer and 2 to 3 minutes longer than with Rider Street open when traveling under normal conditions. The detour routes appear to be viable routes to the east side of the Rider Street closure. AMR Riverside was contacted and only requested that notification of construction be given prior to the closure.

If you have any questions about this analysis, feel free to contact us at (951) 248-4289.