## APENDICE H

# Estudio de Tránsito

Noviembre 2010

Declaración de Impacto Ambiental – Preliminar

**Planta de Generación de Energía Renovable y Recuperación de Recursos**

BARRIO CAMBALACHE DE ARECIBO

EnergyAnswers Arecibo

# Traffic Study

## Preliminary Environmental Impact Statement

## Renewable Power Generation and Resources Recovery Facility

CAMBALACHE - ARECIBO


CSA Group

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# 1 EXECUTIVE SUMMARY

Energy Answers International requested CSA Group (CSA) to perform a traffic study to determine the vehicular impact that the construction of the new Renewable Power Generation and Resources Recovery Facility will have to the surrounding area. The survey was prepared and organized according to the parameters set in the Department of Transportation and Public Works (DTPW) official document, "Puerto Rico Guidelines for the Preparation of Traffic and Access Operational Studies". The main purpose for the preparation of this technical document was to analyze and determine the existing and future traffic conditions in the area near the development. The proposed project will be built on the parcel of land where the Arecibo Paper Mill was formerly located. The area to be developed is approximately 82 acres. The current entrance to the estate is located on Highway PR-2, km. 73.1 in the Cambalache Ward of the Municipality of Arecibo.


**Figure 1. Aerial View of Puerto Rico**

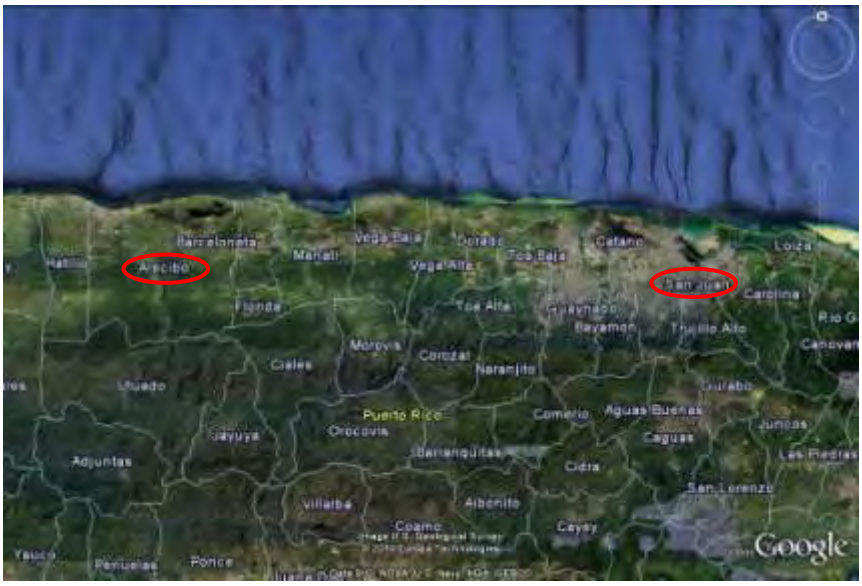



**Figure 2. Aerial View of Arecibo in reference to San Juan**


**Figure 3. Project Location**


**Figure 4. Project Location Map**

The vehicular flow generated by the Renewable Power Generation and Resources Recovery Facility as presented in this study, will not adversely affect the vehicular circulation of the area if changes in pavement markings in order to add right turning lanes and traffic signal reprogramming are done according to the study recommendations. During the project construction and as part of the construction of the proposed accesses to the site, a Maintenance of Traffic (MOT) plan shall be deployed and maintained, according to the DTPW guidelines. Once the project is completed, permanent pavement markings and traffic signing shall be installed according to established DTPW guidelines.

# 2 INTRODUCTION

Energy Answers International proposes the construction of the new Renewable Power Generation and Resources Recovery Facility. The project will be located on Highway PR-2, km. 73.1 in the Cambalache Ward of the Municipality of Arecibo. This location houses the remains of the former Arecibo Paper Mill.

The area to be developed is approximately 82 acres. The property is bordered on the north and south by property of the Puerto Rico Land Authority, on the west by the Río Grande de Arecibo, and on the east by Highway PR-2. As part of the proposed development, two accesses to the project are proposed, one exclusively for heavy vehicles and the second one for visitor/employee access.

This traffic study will evaluate the project's potential impact to the principal intersections surrounding the site and determine if improvements are needed, as a result of any possible impact the proposed development might have on said intersections.

# 3 PROJECT DESCRIPTION

The proposed project consists of the construction of a facility where municipal solid waste (MSW) will be used to produce nominal 80 megawatts of electricity and a number of by-products, including Boiler Aggregate™, conditioned fly ash, and recovered ferrous and nonferrous metals. The area to be developed is approximately 82 acres and will include:

- MSW Receiving and Processing Building
- Warehouse
- Processed Refuse Fuel™ (PRF) Storage Building
- Cafeteria, Training, and Lockers Building
- Boiler Building
- Power Block
- Ash Process Building
- Concrete Products Building
- Administration Building


**Figure 5. Northwest View of Project**


**Figure 6. Northwest Street View of Storage Building**

Two accesses to the project are proposed: a heavy vehicle access and a visitor/employee access. Each access will have two lanes, an entrance and an exit lane. Deceleration and acceleration lanes are proposed for both accesses in order to provide safety for those entering and exiting the project, as well as reduce conflicts with oncoming traffic on Highway PR-2.

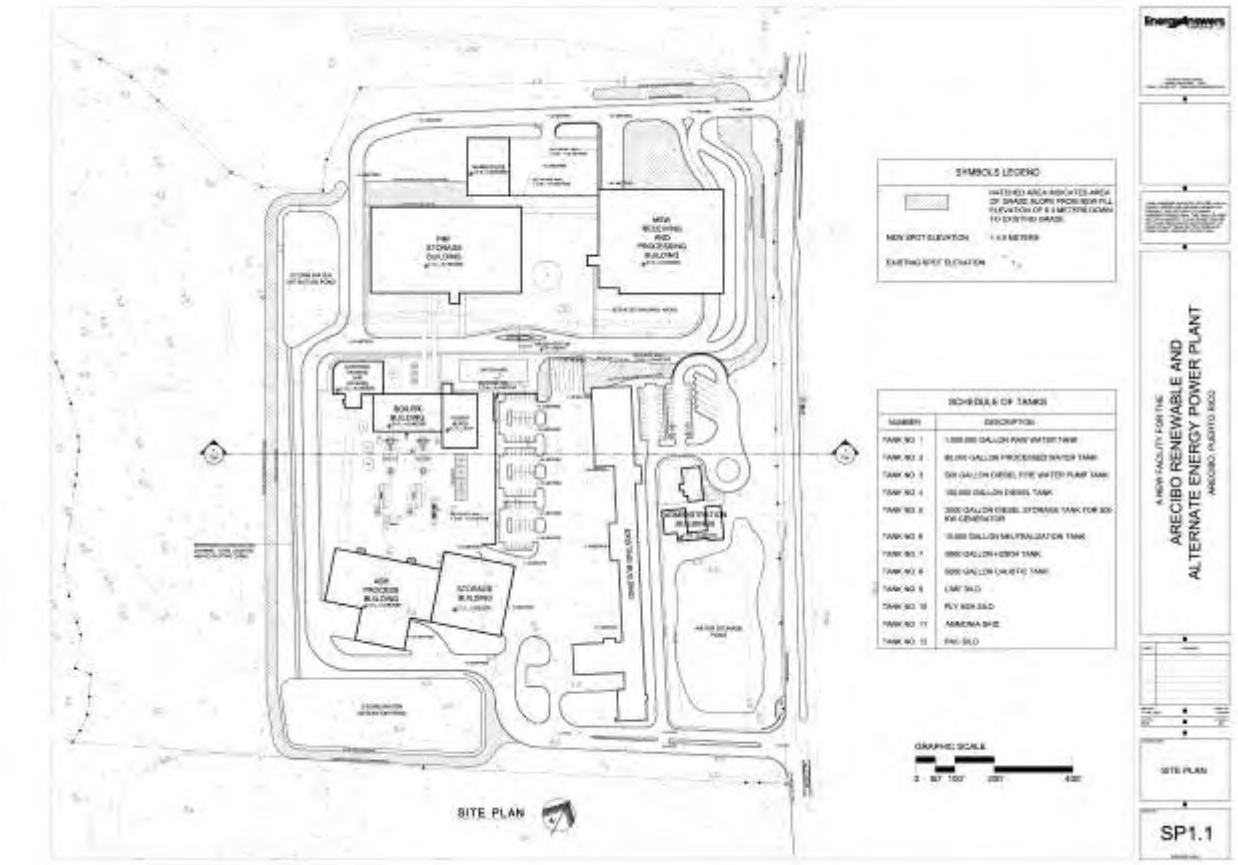



**Figure 7. Schematic Site Plan**

# 4 CONDITIONS OF THE ROAD NETWORK

The road network of the Municipality of Arecibo consists of a toll road, and several primary and secondary main highways of Puerto Rico. Among these are Highways PR-22, PR-2, and PR-10, which provide direct access and connect different state roads to the tertiary road network of the island.

## 4.1 HIGHWAY PR-22

Highway PR-22 is a toll road which begins in the Municipality of San Juan and extends from east to west to the Municipality of Hatillo. In the vicinity of the proposed development it consists of four lanes separated by a grassy median. Along the entire route, there are six alternating one-way toll plazas. Highway PR-22 connects the municipalities of the northern region of Puerto Rico.

## 4.2 HIGHWAY PR-2

Highway PR-2 is the longest road in the island's network system. It begins in its intersection with Ponce de León Avenue in the Santurce Sector of the Municipality of San Juan, and extends from east to west connecting all the municipalities of the north region. From the Municipality of Aguadilla, it extends from north to south through the western part of the island, and ends in the Municipality of Ponce.

In the area near the project, Highway PR-2 consists of four lanes divided by a concrete median barrier. There are several left turning lanes at the center of the road, protected by median barriers. In the area of this traffic study, there are two intersections with uncoordinated actuated traffic signals.

### 4.3 HIGHWAY PR-10

Highway PR-10 begins in the Municipality of Ponce and extends from south to north, ending in the Municipality of Arecibo. In the intersection included in this traffic study, it consists of four lanes with no median barrier.

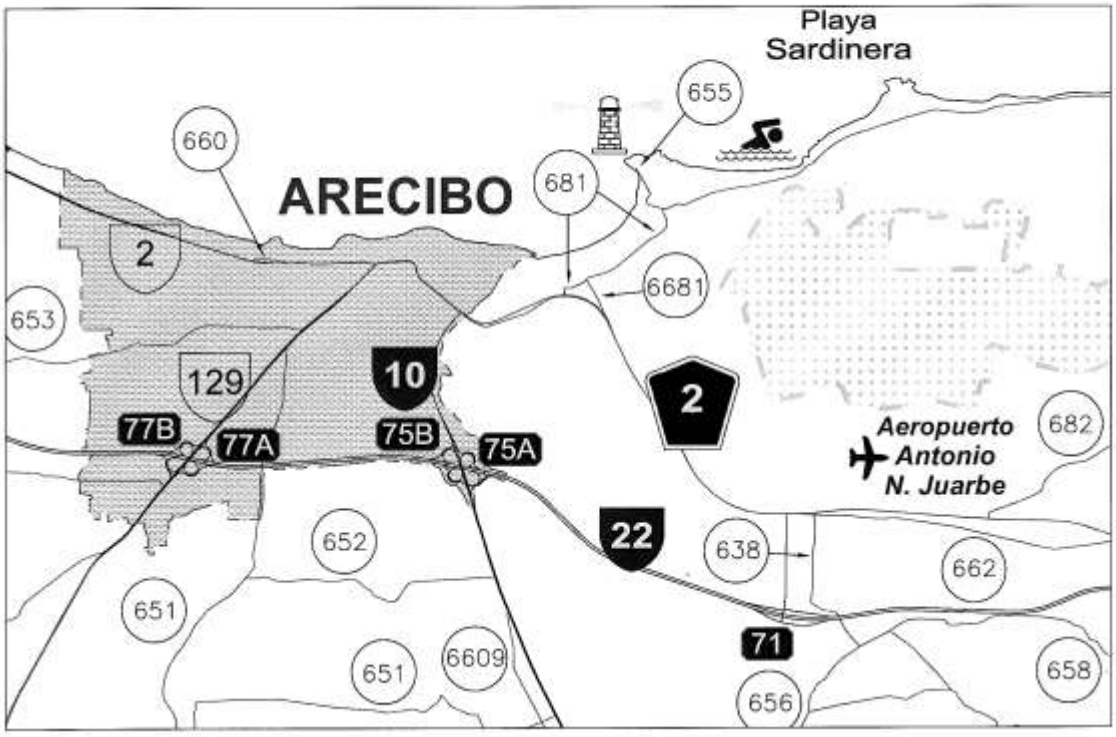



**Figure 8. Arecibo Road Network**

# 5 METHODOLOGY

This study assessed the capacity and the operation of the current and future traffic in the area near the proposed site for the new Renewable Power Generation and Resources Recovery Facility to determine if the proposed development will have an impact on the surrounding road network, and if geometric improvements are needed to mitigate any possible impact on the road system. For this purpose, the following procedures were used:

- Several field inspections were made in order to observe traffic patterns in the area. Also, no highway projects were observed under construction in the surrounding area.
- Proposed project developments in the area were searched in the Access Control Office of the Puerto Rico Highway and Transportation Authority (PRHTA), the Puerto Rico Planning Board (PRPB), and the Puerto Rico Regulations and Permits Administration (PRRPA). From the above mentioned research, the following project was identified; the Oceania residential project, located on Highway PR-681 km. 3.2 in the Islote Ward of Arecibo, was found in the PRPB database. A field inspection confirmed that the project was built and is in full operation. No other proposed projects that have approved construction permits or are under construction were found in the area.

  Two proposed projects, located approximately 7 kilometers from the Renewable Power Generation and Resources Recovery Facility, were identified in the PRHTA and the PRPB databases; but, both are still in the permitting process. The Island Cove Hotel and Condo Hotel proposed project will be located in Highway PR-681 km. 7.0 in the Islote Ward of Arecibo. This project is in the process of getting its Environmental Impact Assessment approved. The Corales Apartments proposed project will be located in Highway PR-681 km. 7.6 in the Islote Ward of Arecibo. This project is in the process of celebrating its public hearing.

  In addition, a field inspection was performed and no proposed developments were observed under construction in the surrounding area.
- Geometric data and information about the traffic control devices were gathered at the following intersections and segments:
  - PR-2 with PR-10, Llorens Torres Avenue and Juan Rosado Avenue
  - PR-2 with Victor Rojas Avenue

- Linear traffic count at PR-2 km 73.1

(See Appendix A)

- TeLPEG Engineering, traffic counting specialists, performed traffic data collection on Wednesday, January 27, 2010. Vehicle counting machines collected the data during a 24 hour period. (See Appendix B)
- The morning (AM) and afternoon (PM) peak hours were determined for all intersections being studied. The morning peak hour is from 7:15 AM to 8:15 AM, and the afternoon peak hour is from 2:15 PM to 3:15 PM. (See Appendix C)
- The annual traffic growth rate was analyzed, using the Highway Performance Monitoring System-2008 Classification Log of the Office of Highway Systems of the DTPW. According to this log, the growth rate in 20 years for the intersection of Highways PR-2 and PR-10, and for the intersection of Highway PR-2 and Victor Rojas Avenue, is 54%. The annual traffic growth rate was determined as follows:
    - Growth rate: 54% / 20 years = 2.7% increase/year
- The Institute of Transportation Engineers Trip Generation Manual, 7th edition, and the Microtrans Trip Generation Version 5.0 Software were used to estimate the trips generated by the project. Using the expected traffic data provided by Energy Answers, which included the amount and type of truck trips per day and the number of employees, it was determined that the trip generation description which best matched these parameters was the General Light Industrial project description. The AM and PM peak hour entrances and exits were estimated using this data. (See Appendix D)
- Once the traffic data was collected and projected, the capacity of the intersections was analyzed under the current geometric conditions and the effectiveness of the existing traffic control devices was evaluated. The elements of the road network were studied under the following conditions:
    - Existing Condition (2010) - current vehicular volumes were used for the AM and PM peak hours, according to the information gathered by TeLPEG Engineering. Geometric conditions, times and phase movements in the traffic signal systems were assessed. (See Appendix E)
    - Future Condition Opening Year (2013) – the project is presumed to be operating at full capacity by the year 2013. Vehicular volumes were projected to 2013

using the annual traffic growth rate computed above. The AM and PM peak hour flows were used. Geometric conditions, times and phase movements in the traffic signal systems were evaluated. (See Appendix F)

- Horizon Condition 5 years after opening (2018) – Vehicular volumes were projected to 2018 using the annual traffic growth rate computed above. The AM and PM peak hour flows were used. Geometric conditions, times and phase movements in the traffic signal systems were evaluated. (See Appendix G)

- The traffic simulations were done using Trafficware's Synchro 6 Signal Timing, Capacity Analysis, and Simulation Software. The results were analyzed taking into account the Levels of Service (LOS) and delays at each intersection for each scenario studied. (see Appendix H)
- Conclusions and recommendations based on the results achieved were presented.
- The LOS was used as the main criteria for the assessment of the operating conditions of the road network.

  This evaluation criterion includes different types of roads and its various components (ramps, intersections, etc.). The LOS "A" represents excellent and ideal traffic conditions, and LOS "F" represents the worst conditions and vehicular congestion in the facilities. The LOS is based on average delays experienced by vehicles crossing intersections, both signalized and unsignalized.

  The categories for each LOS are the following:

  *LOS A – Excellent (Free Flow)*

  This condition represents free flow accompanied by low volumes of traffic and high speeds. There is little or no restriction in the maneuvers of the driver, who can maintain desired speeds with little or no delay.

  *LOS B – Very Good (Reasonably free flow)*

  In this condition, operation speeds experience slight restrictions due to the traffic volume. Drivers still have a considerable amount of liberty for choosing their speed and lane used.

*LOS C – Good (Stable flow)*

Speed and maneuvering become more controlled due to higher traffic volumes. The driver's ability to choose their own speed, change lanes, or pass another driver is not always assured. At LOS C most experienced drivers are comfortable, roads remain safely below but efficiently close to capacity, and posted speed is maintained.

*LOS D – Acceptable (Approaching unstable flow)*

This LOS approaches unstable flow, with tolerable operation speeds being maintained, although considerably affected by changes in operating conditions. Drivers experience more restrictions in maneuvering and choosing their own speed.

*LOS E – Capacity (Unstable flow)*

Traffic flow becomes unstable and sudden stops may occur. Vehicular congestion and delays increase considerably. Flow becomes irregular and speed varies rapidly, but rarely reaches the posted limit.

*LOS F – Bad (Forced flow)*

Flow is forced; every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required.

Table 1 demonstrates the relationship between LOS and average delays per vehicle in signalized and unsignalized intersections. These delays have two components: the delay while crossing the intersection and the delay while stopping at the intersection.

**Table 1. Level of Service (LOS) Criteria for Intersections**

| | VEHICLE DELAYS (SECONDS) | |
|---|---|---|
| LOS | SIGNALIZED INTERSECTION AND ROUNDABOUTS | UNSIGNALIZED (STOP AND YIELD) |
| A | d < 10 | d < 10 |
| B | 10 < d < 20 | 10 < d < 15 |
| C | 20 < d < 35 | 15 < d < 25 |
| D | 35 < d < 55 | 25 < d < 35 |
| E | 55 < d < 80 | 35 < d < 50 |
| F | 80 < d | 50 < d |

The processes used to complete this study are in accordance with the guidelines established by the PRHTA of the DTPW, the design standards of the American Association of State Highway and Transportation Officials (AASHTO), the Transportation Research Board (TRB), and the Institute of Transportation Engineers (ITE) manuals. To complete this traffic study, Trafficware's Synchro 6 Signal Timing, Capacity Analysis, and Simulation Software was used, as well as the TRB's Highway Capacity Manual 2000 (HCM2000) and the ITE traffic assessment guidelines.

# 6 TRIP GENERATION AND DISTRIBUTION

To determine the trips generated by the new Renewable Power Generation and Resources Recovery Facility, the Trip Generation Manual of the ITE (7th edition) and Microtrans Trip Generation Version 5.0 software were used. Energy Answers provided the expected traffic data, which included the amount and type of truck trips per day and the number of employees (see Appendix I). This traffic data represents the impact throughout one weekday. For the traffic study purpose, the morning and afternoon peak hours were evaluated, since they are the most critical.

The trip generation description which best matched the conditions of the project was the General Light Industrial project description. Table 2 shows the estimated trips generated by the project during the AM and PM peak hours, using the mentioned parameters and the Trip Generation Software.

**Table 2. Trips Generated by the Resource Recovery Facility**

| Peak Hour Volume (AM) | | Peak Hour Volume (PM) | |
|---|---|---|---|
| **Enter** | **Exit** | **Enter** | **Exit** |
| 56 | 11 | 14 | 50 |

According to the data provided by Energy Answers, it was determined that 30% of the trips generated are cars and 70% of the trips generated are heavy vehicles. Table 3 shows the vehicle type distribution for the trips generated during the AM and PM peak hours.

**Table 3. Vehicle Type Distribution**

| Vehicle Type | Peak Hour Volume (AM) | | Peak Hour Volume (PM) | |
|---|---|---|---|---|
| | Enter | Exit | Enter | Exit |
| Cars | 17 | 3 | 4 | 15 |
| Heavy vehicles | 39 | 8 | 10 | 35 |
| **Total** | 56 | 11 | 14 | 50 |

Access #1, the north entrance, will be used for heavy vehicles only. Energy Answers estimates that 75% of the heavy vehicles will travel from the eastern part of the island, and 25% will travel from the west.

Access #2, the south entrance, will be mainly used as the employee/visitor entrance. For purposes of this traffic study, it was assumed that 50% of the cars will travel from the eastern part of the island, and 50% will travel from the west.

Tables 4 through 11 show the trip generation distributions for the AM and PM peak hours at each intersection.

**Table 4. Intersection #1: PR-2, PR-10 and Juan Rosado Avenue**

**AM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| PR-2 | EB-L | | | 0 |
| | EB-T | | | 0 |
| | EB-R | | | 0 |
| | WB-L | 1 | 2 | 3 |
| | WB-T | | | 0 |
| | WB-R | | | 0 |
| PR-10 | NB-L | | | 0 |
| | NB-T | | | 0 |
| | NB-R | 8 | 10 | 18 |
| Juan | SB-L | | | 0 |

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| Rosado Avenue | SB-T | | | 0 |
| | SB-R | | | 0 |

**Table 5. Intersection #2: PR-2 and Victor Rojas Avenue**

**AM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| PR-2 | EB-L | | | 0 |
| | EB-T | 8 | 10 | 18 |
| | WB-T | 1 | 2 | 3 |
| | WB-R | | | 0 |
| Victor Rojas Avenue | NB-T | | | 0 |
| | NB-R | | | 0 |

**Table 6. Intersection #3: PR-2 and Access #1**

**AM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| Access #1 | EB-L | | 2 | 2 |
| | EB-R | | 6 | 6 |
| PR-2 | NB-L | | 29 | 29 |
| | NB-T | 1 | | 1 |
| | SB-T | 8 | | 8 |
| | SB-R | | 10 | 10 |

## Table 7. Intersection #4: PR-2 and Access #2

**AM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| Access #2 | EB-L | 1 | | 1 |
| | EB-R | 2 | | 2 |
| PR-2 | NB-L | 9 | | 9 |
| | NB-T | | 29 | 29 |
| | SB-T | | 6 | 6 |
| | SB-R | 8 | | 8 |

## Table 8. Intersection #1: PR-2, PR-10 and Juan Rosado Avenue

**PM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| PR-2 | EB-L | | | 0 |
| | EB-T | | | 0 |
| | EB-R | | | 0 |
| | WB-L | 7 | 9 | 16 |
| | WB-T | | | 0 |
| | WB-R | | | 0 |
| PR-10 | NB-L | | | 0 |
| | NB-T | | | 0 |
| | NB-R | 2 | 2 | 4 |
| Juan Rosado Avenue | SB-L | | | 0 |
| | SB-T | | | 0 |
| | SB-R | | | 0 |

## Table 9. Intersection #2: PR-2 and Victor Rojas Avenue

**PM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| PR-2 | EB-L | | | 0 |
| | EB-T | 2 | 2 | 4 |
| | WB-T | 7 | 9 | 16 |
| | WB-R | | | 0 |
| Victor Rojas Avenue | NB-T | | | 0 |
| | NB-R | | | 0 |

## Table 10. Intersection #3: PR-2 and Access #1

**PM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| Access #1 | EB-L | | 9 | 9 |
| | EB-R | | 26 | 26 |
| PR-2 | NB-L | | 8 | 8 |
| | NB-T | 7 | | 7 |
| | SB-T | 2 | | 2 |
| | SB-R | | 2 | 2 |

## Table 11. Intersection #4: PR-2 and Access #2

**PM Peak Hour Trip Generation Distribution per Movement**

| | Movement | Cars | Heavy vehicles | Total |
|---|---|---|---|---|
| Access #2 | EB-L | 7 | | 7 |
| | EB-R | 8 | | 8 |
| PR-2 | NB-L | 2 | | 2 |
| | NB-T | | 8 | 8 |
| | SB-T | | 26 | 26 |
| | SB-R | 2 | | 2 |

# 7 OPERATIONAL ANALYSIS

The capacity analysis was completed using the HCM2000 guidelines. The traffic simulations were done using Trafficware's Synchro 6 Signal Timing, Capacity Analysis, and Simulation Software. Both signalized intersections (PR-2/PR-10/Juan Rosado Avenue and PR-2/Victor Rojas Avenue) were analyzed and optimized. The current and proposed geometric conditions of Highway PR-2 in front of the project were evaluated.

The area was studied under current conditions (2010), for future conditions in 2013 (the project is presumed to be operating at full capacity by this year), and for the horizon conditions in 2018, 5 years after opening day. Existing geometric conditions were evaluated for the AM and PM peak hours using the existing vehicular flows to establish the current LOS and delays. The current volumes were projected through 2013 and 2018. Using these volumes with the data gathered from the Trip Generation Software, the intersections were evaluated, compared and optimized (if necessary) in order to achieve or maintain adequate LOS and delays, according to the following guidelines established in the "Puerto Rico Guidelines for the Preparation of Traffic Access Operational Studies" of the DTPW, and shown in Tables 12 and 13.

**Table 12. Average delay impact in a signalized intersection**

| Existing LOS | Average additional delay allowed with project |
|---|---|
| A | 20 sec/veh |
| B | 20 sec/veh |
| C | 15 sec/veh |
| D | 15 sec/veh |
| E | Average delay shall not be $\geq$ 80 sec/veh |
| F | Automatically provide alternatives |

**Table 13. Average delay impact in an unsignalized intersection**

| Existing LOS | Average additional delay allowed with project |
|---|---|
| A | 15 sec/veh |
| B | 15 sec/veh |
| C | 10 sec/veh |
| D | 10 sec/veh |
| E | Average delay shall not be $\geq$ 50 sec/veh |
| F | Automatically provide alternatives |

In order not to exceed these allowed additional delays, exclusive right turning lanes were added for the northbound movement at Intersection #1 (PR-2, PR-10, and Juan Rosado Avenue), and for the westbound movement at Intersection #2 (PR-2 and Victor Rojas Avenue). At Intersection #1, the center lane, currently being used exclusively for the through eastbound movement, will be a shared lane for the left turn and through movements. Also at this intersection, the lane widths for the southbound movements were changed to accommodate an additional third lane. Traffic signal times at Intersections #1 and #2 were optimized.

Access #1, a heavy vehicle entrance, was first analyzed in the year 2013 as an unsignalized intersection. The LOS for the intersection was A (Excellent); the LOS for the northbound left turning movement was B (Very Good) and C (Good) for the AM and PM peak hours, respectively. For the vehicles exiting the premises (eastbound movement), delays of 124.2 seconds and 229.6 seconds were observed for both peak hours. However, the maximum queue for this access was two vehicles. This queue does not affect the operations of the proposed project or, more importantly, the traffic flow in Highway PR-2.

As per Energy Answers' request, CSA included as part of the improvements proposed for the project a traffic signal at Access #1, for ease of movement and safety precautions. After analyzing the intersection under this condition, a LOS of C (Good) or better was observed for all movements.

The results for the AM and PM peak hours at each intersection are shown in Tables 14 and 15.

**Table 14. Intersection Results: AM Peak Hour**

| | LOS / Delay (sec) | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intersection** | **Existing (2010)** | **2013** | **Difference (sec)** | **2013 with improvements** | **Difference (sec)** | **2018 with improvements** | **Difference (sec)** |
| PR-2, PR-10, & Juan Rosado Ave. | E/79.0 | F/108.8 | -29.80 | D/51.6 | 27.4 | D/53.9 | 25.1 |
| PR-2 & Victor Rojas Ave. | F/185.1 | F/230.5 | -45.40 | B/16.0 | 169.1 | D/36.6 | 148.5 |
| PR-2 & Access #1 | N/A | A/0.4 | N/A | B/10.7 | N/A | C/28.5 | N/A |
| PR-2 & Access #2 | N/A | A/0.0 | N/A | A/0.0 | N/A | A/0.0 | N/A |

**Table 15. Intersection Results: PM Peak Hour**

| | LOS / Delay (sec) | | | | | | |
|---|---|---|---|---|---|---|---|
| **Intersection** | **Existing (2010)** | **2013** | **Difference (sec)** | **2013 with improvements** | **Difference (sec)** | **2018 with improvements** | **Difference (sec)** |
| PR-2, PR-10, & Juan Rosado Ave. | D/45.9 | E/58.2 | -12.3 | D/42.7 | 3.2 | D/50.0 | -4.1 |
| PR-2 & Victor Rojas Ave. | E/61.6 | F/97.6 | -36.0 | C/20.9 | 40.7 | C/27.4 | 34.2 |
| PR-2 & Access #1 | N/A | A/2.9 | N/A | A/4.3 | N/A | A/5.2 | N/A |
| PR-2 & Access #2 | N/A | A/0.1 | N/A | A/0.1 | N/A | A/0.2 | N/A |

# 8 SUMMARY OF RESULTS

The results for the AM and PM peak hours for each movement are presented in Appendix J. The analysis was completed using SYNCHRO 6 for the existing and future conditions with the trips generated by the project.

***Intersection #1: PR-2, PR-10, and Juan Rosado Avenue***

At present, drivers are using the PR-10 shoulder as an exclusive right turning lane. In order to comply with the allowed delays for the northbound right turning movement, an exclusive right turning lane was added in PR-10 during the analysis. Other improvements proposed in this intersection are to change the current use for the center eastbound lane of PR-2, from being an exclusive through movement, to a shared lane for the left turn and through movements. Also, the lane widths for Juan Rosado Avenue have to be reduced in order to accommodate an additional third lane for the right turning southbound movement.

The traffic signal times should be changed for the AM and PM hours, as shown in Table 16.

**Table 16. Changes in traffic signal times at Intersection #1**

| Movement | Existing Times (Green+Yellow+All Red), in seconds | Proposed Times (Green+Yellow+All Red) for AM hours, in seconds | Proposed Times (Green+Yellow+All Red) for PM hours, in seconds |
|---|---|---|---|
| EB-L | 24.5 | 14.0 | 29.0 |
| EB-T | 59.5 | 31.0 | 63.5 |
| WB-L | 24.5 | 36.0 | 39.0 |
| WB-T | 59.5 | 53.0 | 73.5 |
| NB | 44.5 | 37.0 | 51.0 |
| SB | 24.5 | 16.0 | 23.5 |

***Intersection #2: PR-2 and Victor Rojas Avenue***

At present, drivers are using the PR-2 westbound shoulder as an exclusive right turning lane. In order to comply with the allowed delays for this movement, an exclusive right turning lane was added in PR-2 during the analysis.

The traffic signal time for the eastbound left turning movement should be changed for the PM hours, as shown in Table 17.

**Table 17. Changes in traffic signal times at Intersection #2**

| Movement | Existing Times (Green+Yellow+All Red), in seconds | Proposed Times (Green+Yellow+All Red) for AM hours, in seconds | Proposed Times (Green+Yellow+All Red) for PM hours, in seconds |
|---|---|---|---|
| EB-L | 24.0 | 24.0 | 26.0 |
| EB-T | 64.0 | 64.0 | 64.0 |
| WB | 40.0 | 40.0 | 40.0 |
| SB | 55.0 | 55.0 | 55.0 |

***Intersection #3: PR-2 and Access #1***

A traffic signal is proposed for this intersection. Table 18 shows the proposed times for the AM and PM hours.

**Table 18. Traffic signal times proposed at Intersection #3**

| Movement | Proposed Times (Green+Yellow+All Red) for AM and PM hours, in seconds |
|---|---|
| EB | 25.0 |
| NB-L | 20.0 |
| NB-T | 45.0 |
| SB | 25.0 |

***Intersection #4: PR-2 and Access #2***

Highway PR-2 runs freely at this intersection, except for the northbound left movement. Delays for this movement are not significant.

# 9 CONCLUSIONS AND RECOMMENDATIONS

This Traffic Study completed in the road network serving the new Renewable Power Generation and Resources Recovery Facility project has concluded that the vehicular flow generated by this project will not adversely affect traffic operations in the area. However, the following recommendations should be considered:

***Intersection #1: PR-2, PR-10, and Juan Rosado Avenue***

At present, drivers are using the PR-10 shoulder as an exclusive right turning lane. It is recommended that the shoulder pavement marking be erased and a right-only lane with a storage length of 18.3 m (60 ft) be marked. Traffic signs indicating this is a right-only lane should also be installed.

Another improvement proposed at this intersection is to change the current use for the center eastbound lane of PR-2, from being an exclusive through movement, to a shared lane for the left turn and through movements. Traffic signs and pavement marking symbols indicating the new lane uses should be installed.

At Juan Rosado Avenue, the lane widths should be reduced to 10 ft each in order to accommodate an additional third lane for the right turning southbound movement. Existing pavement markings should be erased and new markings should be painted at the final widths. The right turning lane should have a storage length of 18.3 m (60 ft). Traffic signs and pavement marking symbols indicating the new lane uses should be installed.

The traffic signal times should also be changed as previously discussed.

***Intersection #2: PR-2 and Victor Rojas Avenue***

At present, drivers are using the PR-2 westbound shoulder as an exclusive right turning lane. It is recommended that the shoulder pavement marking be erased and a right-only lane with a

storage length of 122 m (400 ft) be marked. Traffic signs and pavement marking symbols indicating the new lane uses should be installed

The traffic signal times should also be changed as previously discussed.

***Intersection #3: PR-2 and Access #1***

The project proposes a 122 m (400 ft) deceleration lane and a 107 m (350 ft) acceleration lane to enter and exit the project for southbound traffic. A 107 m (350 ft) left turning lane is proposed for northbound entering traffic. Proper pavement markings and traffic signing should be installed.

A traffic signal system will be installed at this intersection. Signal times were indicated in the Summary of Results section of this study.

***Intersection #4: PR-2 and Access #2***

The project proposes a 122 m (400 ft) deceleration lane and a 107 m (350 ft) acceleration lane to enter and exit the project for southbound traffic. A 107 m (350 ft) left turning lane is proposed for northbound entering traffic. Proper pavement markings and traffic signing should be installed. Drivers should be alerted with traffic signs that a truck crossing will be encountered ahead.

During the project construction, a Maintenance of Traffic (MOT) plan shall be performed, according to the DTPW guidelines. Once the project is completed, pavement markings and traffic signing shall be placed according to the MUTCD 2009 Edition.

# 10 REFERENCES


- Highway Capacity Manual 2000. Transportation Research Board, Washington, D.C., 2000.
- A Policy on Geometric Design of Highways and Streets. American Association of State Highway and Transportation Officials, Washington, D.C., 2001.
- Highway Design Manual. Departamento de Transportación y Obras Públicas, San Juan, PR, 1979.
- Transportation and Land Development. Institute of Transportation Engineering, Washington, D.C., 2002.
- http://www.dtop.gov.pr
- http://www.jp.gobierno.pr
- http://www.arpe.org
- Guías para la Preparación de Estudios Operacionales, Departamento de Transportación y Obras Públicas, San Juan, PR, 22 de diciembre de 2004
- Google Earth

## 11 CERTIFICATION

I, Ruth M. Vargas Vidal, married and resident of Trujillo Alto, Puerto Rico hereby certify that I am a professional member in good standing of the Professional Association of Engineers and Land Surveyors of Puerto Rico, with license PE 16565. I also certify that I have prepared and thoroughly reviewed the Renewable Power Generation and Resources Recovery Facility Traffic Study requested by Energy Answers International. All the information presented in this document is valid to this date.


Ruth M. Vargas Vidal

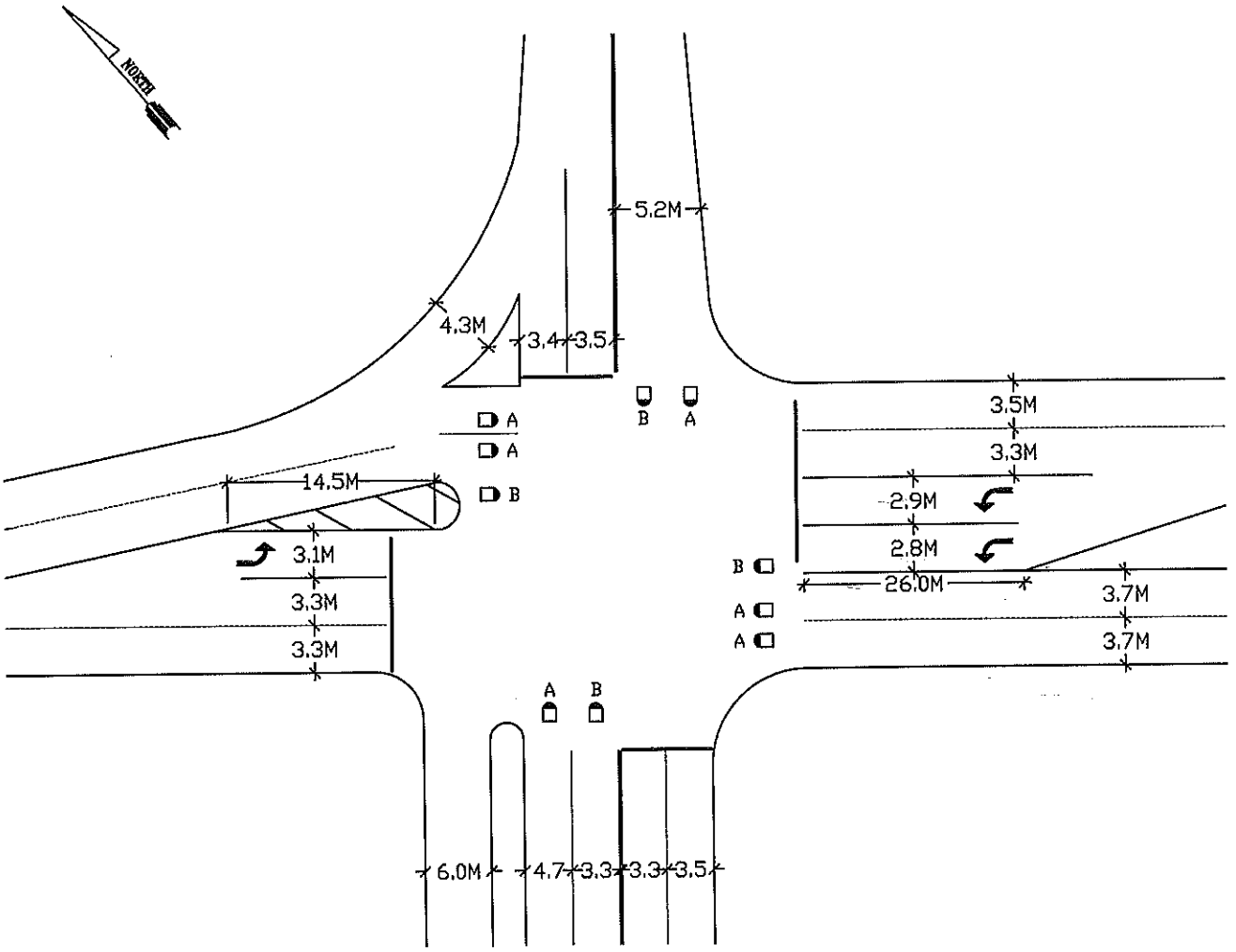
PE 16565

September 10, 2010

## APPENDICES


# APPENDIX – A

# PR-2 & PR-10 AND JUAN ROSADO AVENUE

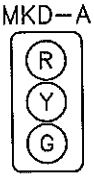



PHASE 1 PHASE 2 PHASE 3 PHASE 4

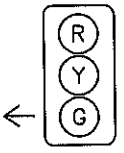
| V-20 S. A-3 S. | V-55 S. A-3 S. | V-40 S. A-3 S. | V-20 S. A-3 S. |
|---|---|---|---|

ALL RED = 1.5 S.

SIGNAL HEAD MKD-A




SIGNAL HEAD MKD-B

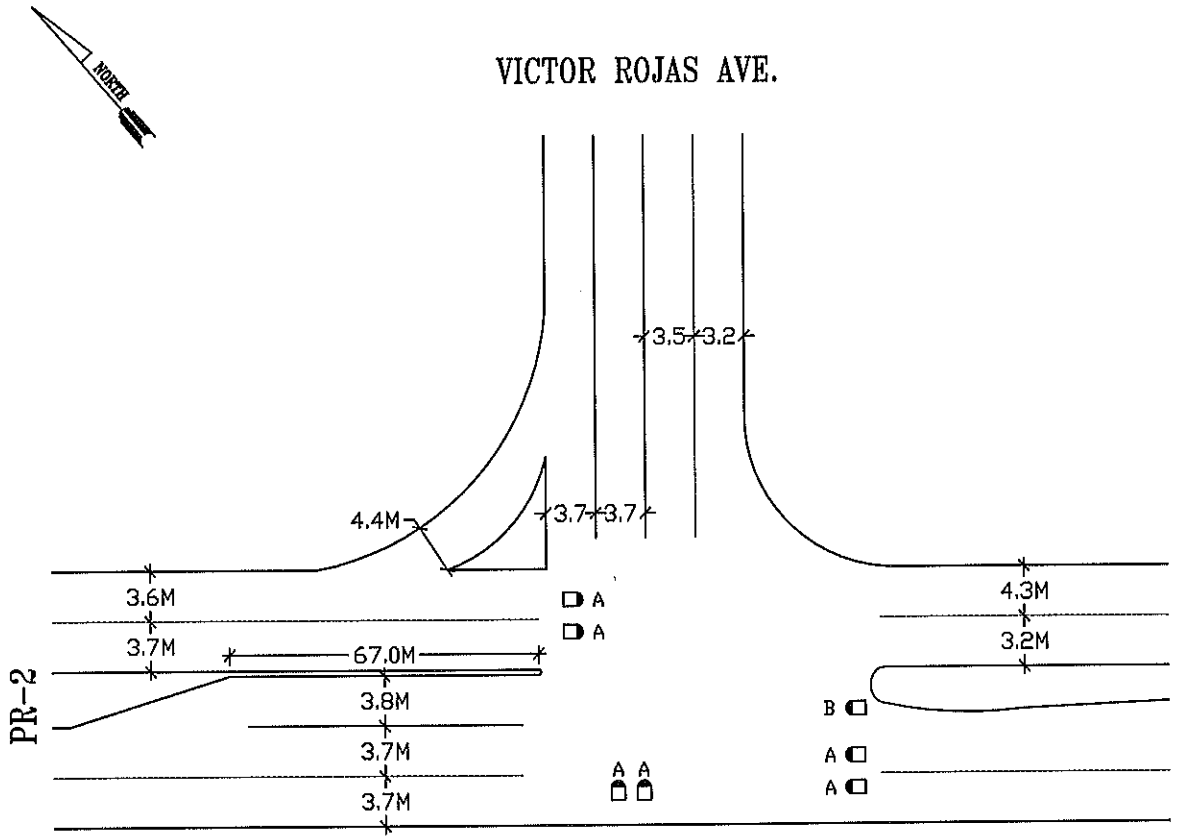




TELPEG ENGINEERING
TRAFFIC COUNTING SPECIALISTS

C: 787-366-1352 E: TELPEG@GMAIL.COM

# PR-2 & VICTOR ROJAS AVENUE, ARECIBO, P.R.

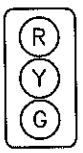



PHASE 1 PHASE 2 PHASE 3

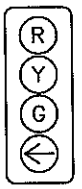
| V-20 S.<br>A-2 S. | V-35 S.<br>A-3 S. | V-50 S.<br>A-3 S. |
|---|---|---|

ALL RED = 2 S.

SIGNAL HEAD
MKD-A




SIGNAL HEAD
MKD-B





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# APPENDIX – B

**INTERSECTION: PR-2 & PR-10 AND JUAN ROSADO AVE., ARECIBO, P.R.**
**DATE: WEDNESDAY, JANUARY 27, 2010**

| TIME | PR-10 | | | J. ROSADO AVE. | | | PR-2 | | | | | | TOTAL | TOTAL | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | NB-L | NB-T | NB-R | SB-L | SB-T | SB-R | EB-L | EB-T | EB-R | WB-L | WB-T | WB-R | 15 MIN | 60 MIN | |
| 12:00 AM | 4 | 1 | 10 | 3 | 3 | 2 | 2 | 12 | 8 | 6 | 10 | 2 | 63 | | |
| 12:15 AM | 2 | 0 | 11 | 3 | 1 | 1 | 0 | 13 | 0 | 4 | 7 | 1 | 43 | | |
| 12:30 AM | 6 | 2 | 3 | 1 | 2 | 2 | 2 | 4 | 8 | 3 | 5 | 1 | 39 | | |
| 12:45 AM | 0 | 0 | 10 | 3 | 1 | 0 | 1 | 12 | 3 | 5 | 7 | 1 | 43 | 188 | |
| 1:00 AM | 1 | 0 | 8 | 2 | 2 | 1 | 0 | 10 | 2 | 3 | 5 | 1 | 35 | 160 | |
| 1:15 AM | 5 | 1 | 4 | 1 | 2 | 1 | 1 | 5 | 2 | 2 | 3 | 1 | 28 | 145 | |
| 1:30 AM | 2 | 1 | 6 | 2 | 2 | 2 | 1 | 8 | 5 | 1 | 2 | 0 | 32 | 138 | |
| 1:45 AM | 1 | 0 | 4 | 1 | 1 | 1 | 1 | 4 | 3 | 2 | 2 | 0 | 20 | 115 | |
| 2:00 AM | 2 | 0 | 6 | 2 | 1 | 0 | 1 | 8 | 3 | 2 | 3 | 1 | 29 | 109 | |
| 2:15 AM | 2 | 1 | 2 | 0 | 2 | 2 | 2 | 2 | 6 | 2 | 4 | 1 | 26 | 107 | |
| 2:30 AM | 2 | 0 | 5 | 1 | 2 | 2 | 2 | 6 | 10 | 3 | 5 | 1 | 39 | 114 | |
| 2:45 AM | 2 | 1 | 2 | 1 | 1 | 0 | 2 | 3 | 9 | 3 | 4 | 1 | 29 | 123 | |
| 3:00 AM | 3 | 1 | 4 | 1 | 1 | 1 | 2 | 5 | 7 | 2 | 4 | 1 | 32 | 126 | |
| 3:15 AM | 1 | 0 | 4 | 1 | 1 | 0 | 5 | 5 | 18 | 3 | 4 | 1 | 43 | 143 | |
| 3:30 AM | 2 | 0 | 5 | 1 | 1 | 1 | 2 | 6 | 6 | 4 | 5 | 1 | 34 | 138 | |
| 3:45 AM | 11 | 4 | 4 | 1 | 2 | 1 | 4 | 5 | 14 | 4 | 5 | 1 | 56 | 165 | |
| 4:00 AM | 7 | 2 | 6 | 2 | 1 | 1 | 8 | 8 | 32 | 6 | 10 | 2 | 85 | 218 | |
| 4:15 AM | 4 | 1 | 13 | 4 | 1 | 1 | 4 | 16 | 18 | 7 | 10 | 2 | 81 | 256 | |
| 4:30 AM | 11 | 4 | 6 | 2 | 3 | 2 | 8 | 7 | 34 | 10 | 14 | 2 | 103 | 325 | |
| 4:45 AM | 14 | 5 | 6 | 2 | 2 | 1 | 6 | 7 | 24 | 16 | 24 | 4 | 111 | 380 | |
| 5:00 AM | 8 | 2 | 16 | 4 | 1 | 0 | 3 | 18 | 13 | 18 | 27 | 4 | 114 | 409 | |
| 5:15 AM | 11 | 3 | 16 | 4 | 3 | 2 | 6 | 19 | 22 | 20 | 31 | 5 | 142 | 470 | |
| 5:30 AM | 11 | 3 | 18 | 5 | 4 | 3 | 7 | 21 | 26 | 30 | 45 | 7 | 180 | 547 | |
| 5:45 AM | 24 | 8 | 12 | 3 | 4 | 4 | 9 | 14 | 34 | 28 | 43 | 7 | 190 | 626 | |
| 6:00 AM | 34 | 11 | 14 | 4 | 3 | 2 | 8 | 16 | 34 | 36 | 55 | 9 | 226 | 738 | |
| 6:15 AM | 52 | 17 | 16 | 4 | 4 | 4 | 6 | 19 | 25 | 60 | 89 | 15 | 311 | 907 | |
| 6:30 AM | 68 | 22 | 22 | 6 | 8 | 6 | 10 | 26 | 38 | 95 | 143 | 24 | 468 | 1195 | |
| 6:45 AM | 82 | 27 | 20 | 6 | 21 | 18 | 15 | 24 | 62 | 93 | 139 | 23 | 530 | 1535 | |
| 7:00 AM | 92 | 30 | 28 | 8 | 13 | 10 | 15 | 33 | 62 | 133 | 199 | 33 | 656 | 1965 | |
| **7:15 AM** | 104 | 34 | 35 | 10 | 19 | 16 | 12 | 41 | 47 | 156 | 233 | 39 | 746 | 2400 | Peak Hour |
| **7:30 AM** | 124 | 41 | 37 | 10 | 23 | 18 | 12 | 43 | 46 | 124 | 185 | 31 | 694 | 2626 | |
| **7:45 AM** | 105 | 35 | 39 | 11 | 31 | 26 | 14 | 46 | 56 | 118 | 177 | 29 | 687 | 2783 | |
| **8:00 AM** | 84 | 28 | 47 | 13 | 21 | 18 | 13 | 55 | 54 | 130 | 194 | 32 | 689 | **2816** | |
| 8:15 AM | 83 | 28 | 47 | 13 | 18 | 15 | 23 | 55 | 90 | 106 | 158 | 26 | 662 | 2732 | |
| 8:30 AM | 90 | 30 | 38 | 11 | 28 | 22 | 26 | 45 | 105 | 105 | 158 | 26 | 684 | 2722 | |
| 8:45 AM | 103 | 34 | 48 | 13 | 33 | 27 | 24 | 57 | 95 | 87 | 131 | 22 | 674 | 2709 | |
| 9:00 AM | 80 | 27 | 41 | 11 | 26 | 22 | 25 | 48 | 102 | 91 | 136 | 23 | 632 | 2652 | |
| 9:15 AM | 95 | 32 | 53 | 15 | 31 | 25 | 22 | 62 | 90 | 71 | 107 | 18 | 621 | 2611 | |
| 9:30 AM | 75 | 25 | 60 | 17 | 28 | 23 | 22 | 71 | 89 | 83 | 124 | 21 | 638 | 2565 | |
| 9:45 AM | 83 | 27 | 60 | 17 | 30 | 24 | 25 | 71 | 101 | 71 | 106 | 18 | 633 | 2524 | |
| 10:00 AM | 77 | 25 | 59 | 16 | 28 | 23 | 23 | 70 | 92 | 83 | 124 | 21 | 641 | 2533 | |
| 10:15 AM | 80 | 26 | 66 | 18 | 26 | 22 | 23 | 78 | 91 | 77 | 115 | 19 | 641 | 2553 | |
| 10:30 AM | 74 | 24 | 62 | 17 | 24 | 19 | 23 | 72 | 93 | 71 | 107 | 18 | 604 | 2519 | |
| 10:45 AM | 57 | 19 | 78 | 21 | 25 | 20 | 25 | 92 | 99 | 68 | 101 | 17 | 622 | 2508 | |
| 11:00 AM | 65 | 21 | 68 | 19 | 32 | 26 | 23 | 80 | 90 | 76 | 113 | 19 | 632 | 2499 | |
| 11:15 AM | 69 | 23 | 70 | 19 | 31 | 26 | 21 | 82 | 85 | 82 | 122 | 20 | 650 | 2508 | |
| 11:30 AM | 81 | 27 | 66 | 18 | 28 | 23 | 27 | 77 | 106 | 74 | 110 | 18 | 655 | 2559 | |
| 11:45 AM | 76 | 25 | 67 | 18 | 40 | 32 | 27 | 79 | 107 | 70 | 104 | 17 | 662 | 2599 | |
| 12:00 PM | 71 | 24 | 74 | 20 | 27 | 22 | 22 | 87 | 88 | 78 | 118 | 19 | 650 | 2617 | |
| 12:15 PM | 62 | 21 | 70 | 19 | 26 | 21 | 22 | 82 | 86 | 83 | 124 | 20 | 636 | 2603 | |
| 12:30 PM | 77 | 25 | 78 | 21 | 31 | 25 | 21 | 92 | 84 | 84 | 126 | 21 | 685 | 2633 | |

| TIME | PR-10 | | | J. ROSADO AVE. | | | PR-2 | | | | | | TOTAL | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PERIOD | NB-L | NB-T | NB-R | SB-L | SB-T | SB-R | EB-L | EB-T | EB-R | WB-L | WB-T | WB-R | 15 MIN | 60 MIN |
| 12:45 PM | 77 | 26 | 75 | 21 | 30 | 25 | 22 | 88 | 87 | 91 | 136 | 22 | 700 | 2671 |
| 1:00 PM | 68 | 22 | 74 | 20 | 20 | 16 | 23 | 87 | 92 | 78 | 117 | 19 | 636 | 2657 |
| 1:15 PM | 65 | 21 | 74 | 20 | 26 | 22 | 22 | 86 | 87 | 83 | 125 | 21 | 652 | 2673 |
| 1:30 PM | 71 | 23 | 68 | 19 | 36 | 29 | 26 | 80 | 106 | 80 | 121 | 20 | 679 | 2667 |
| 1:45 PM | 84 | 28 | 68 | 19 | 30 | 24 | 25 | 80 | 101 | 81 | 121 | 20 | 681 | 2648 |
| 2:00 PM | 77 | 25 | 72 | 20 | 29 | 23 | 24 | 85 | 94 | 90 | 134 | 22 | 695 | 2707 |
| **2:15 PM** | 86 | 28 | 73 | 20 | 32 | 27 | 22 | 86 | 86 | 90 | 134 | 22 | 706 | 2761 |
| **2:30 PM** | 65 | 21 | 82 | 23 | 37 | 30 | 23 | 97 | 90 | 86 | 129 | 21 | 704 | 2786 |
| **2:45 PM** | 52 | 17 | 72 | 20 | 29 | 24 | 27 | 85 | 108 | 96 | 144 | 24 | 698 | 2803 |
| **3:00 PM** | 59 | 20 | 83 | 23 | 27 | 22 | 26 | 98 | 104 | 96 | 145 | 24 | 727 | **2835** |
| 3:15 PM | 86 | 29 | 75 | 21 | 31 | 25 | 24 | 88 | 94 | 84 | 125 | 21 | 703 | 2832 |
| 3:30 PM | 53 | 18 | 79 | 22 | 26 | 22 | 21 | 93 | 84 | 76 | 113 | 19 | 626 | 2754 |
| 3:45 PM | 59 | 20 | 76 | 21 | 36 | 29 | 22 | 89 | 87 | 74 | 112 | 18 | 643 | 2699 |
| 4:00 PM | 33 | 11 | 94 | 26 | 31 | 25 | 20 | 111 | 81 | 68 | 101 | 17 | 618 | 2590 |
| 4:15 PM | 56 | 18 | 82 | 22 | 32 | 26 | 24 | 96 | 97 | 74 | 110 | 18 | 655 | 2542 |
| 4:30 PM | 39 | 13 | 78 | 22 | 32 | 26 | 23 | 92 | 93 | 75 | 112 | 18 | 623 | 2539 |
| 4:45 PM | 54 | 18 | 78 | 21 | 39 | 32 | 31 | 91 | 123 | 70 | 105 | 17 | 679 | 2575 |
| 5:00 PM | 50 | 16 | 80 | 22 | 23 | 19 | 18 | 94 | 74 | 61 | 92 | 15 | 564 | 2521 |
| 5:15 PM | 29 | 9 | 89 | 25 | 14 | 12 | 12 | 105 | 49 | 61 | 91 | 15 | 511 | 2377 |
| 5:30 PM | 34 | 11 | 78 | 22 | 11 | 9 | 16 | 92 | 65 | 60 | 91 | 15 | 504 | 2258 |
| 5:45 PM | 32 | 10 | 70 | 19 | 17 | 13 | 13 | 82 | 54 | 42 | 64 | 11 | 427 | 2006 |
| 6:00 PM | 27 | 9 | 82 | 23 | 10 | 8 | 6 | 96 | 26 | 50 | 76 | 13 | 426 | 1868 |
| 6:15 PM | 32 | 10 | 65 | 18 | 12 | 9 | 12 | 76 | 46 | 43 | 64 | 11 | 398 | 1755 |
| 6:30 PM | 31 | 10 | 53 | 15 | 12 | 9 | 13 | 63 | 53 | 42 | 64 | 10 | 375 | 1626 |
| 6:45 PM | 35 | 11 | 60 | 17 | 6 | 4 | 11 | 71 | 42 | 42 | 64 | 10 | 373 | 1572 |
| 7:00 PM | 35 | 12 | 49 | 13 | 9 | 8 | 17 | 57 | 68 | 39 | 58 | 10 | 375 | 1521 |
| 7:15 PM | 44 | 15 | 47 | 13 | 12 | 10 | 12 | 55 | 47 | 35 | 53 | 9 | 352 | 1475 |
| 7:30 PM | 30 | 10 | 47 | 13 | 7 | 6 | 4 | 55 | 18 | 31 | 46 | 8 | 275 | 1375 |
| 7:45 PM | 28 | 9 | 39 | 11 | 10 | 9 | 13 | 46 | 51 | 26 | 40 | 7 | 289 | 1291 |
| 8:00 PM | 17 | 6 | 51 | 14 | 8 | 6 | 6 | 60 | 26 | 26 | 40 | 7 | 267 | 1183 |
| 8:15 PM | 24 | 8 | 41 | 11 | 8 | 7 | 12 | 48 | 50 | 23 | 35 | 6 | 273 | 1104 |
| 8:30 PM | 17 | 5 | 37 | 10 | 8 | 7 | 9 | 44 | 35 | 18 | 27 | 4 | 221 | 1050 |
| 8:45 PM | 15 | 5 | 41 | 11 | 15 | 13 | 8 | 48 | 32 | 20 | 29 | 5 | 242 | 1003 |
| 9:00 PM | 13 | 4 | 38 | 11 | 9 | 7 | 8 | 45 | 31 | 24 | 37 | 6 | 233 | 969 |
| 9:15 PM | 11 | 3 | 34 | 9 | 9 | 7 | 5 | 40 | 22 | 21 | 32 | 5 | 198 | 894 |
| 9:30 PM | 6 | 2 | 30 | 8 | 6 | 4 | 6 | 36 | 26 | 22 | 34 | 6 | 186 | 859 |
| 9:45 PM | 8 | 2 | 28 | 8 | 7 | 6 | 12 | 32 | 47 | 18 | 27 | 4 | 199 | 816 |
| 10:00 PM | 6 | 2 | 26 | 7 | 4 | 4 | 8 | 31 | 33 | 16 | 25 | 4 | 166 | 749 |
| 10:15 PM | 5 | 1 | 29 | 8 | 6 | 4 | 3 | 34 | 11 | 21 | 32 | 5 | 159 | 710 |
| 10:30 PM | 6 | 2 | 24 | 7 | 4 | 4 | 5 | 28 | 22 | 17 | 26 | 4 | 149 | 673 |
| 10:45 PM | 9 | 3 | 29 | 8 | 2 | 2 | 3 | 34 | 10 | 9 | 14 | 2 | 125 | 599 |
| 11:00 PM | 8 | 3 | 20 | 6 | 4 | 3 | 2 | 24 | 6 | 12 | 17 | 3 | 108 | 541 |
| 11:15 PM | 2 | 0 | 22 | 6 | 4 | 4 | 0 | 26 | 1 | 14 | 21 | 4 | 104 | 486 |
| 11:30 PM | 7 | 2 | 16 | 5 | 5 | 4 | 1 | 19 | 2 | 10 | 15 | 2 | 88 | 425 |
| 11:45 PM | 4 | 1 | 17 | 5 | 2 | 2 | 1 | 20 | 3 | 10 | 14 | 2 | 81 | 381 |
| **TOTAL** | **3928** | **1287** | **4089** | **1130** | **1466** | **1193** | **1249** | **4814** | **4988** | **4794** | **7189** | **1192** | | |

Peak Hour


**TELPEG ENGINEERING**

TRAFFIC COUNTING SPECIALISTS

C: 787-366-1352 E: TELPEG@GMAIL.COM

**INTERSECTION: PR-2 & VICTOR ROJAS AVENUE, ARECIBO, P.R.**
**DATE: WEDNESDAY, JANUARY 27, 2010**

| TIME | V. ROJAS AVE. | | PR-2 | | | | TOTAL | TOTAL |
|---|---|---|---|---|---|---|---|---|
| PERIOD | SB-L | SB-R | EB-L | EB-T | WB-T | WB-R | 15 MIN | 60 MIN |
| 12:00 AM | 2 | 4 | 8 | 18 | 14 | 8 | 54 | |
| 12:15 AM | 3 | 6 | 8 | 20 | 6 | 12 | 55 | |
| 12:30 AM | 3 | 6 | 2 | 6 | 3 | 2 | 22 | |
| 12:45 AM | 1 | 2 | 8 | 18 | 11 | 0 | 40 | 171 |
| 1:00 AM | 1 | 3 | 6 | 15 | 6 | 2 | 33 | 150 |
| 1:15 AM | 3 | 5 | 3 | 8 | 1 | 4 | 24 | 119 |
| 1:30 AM | 1 | 1 | 5 | 11 | 2 | 0 | 20 | 117 |
| 1:45 AM | 1 | 1 | 3 | 6 | 3 | 2 | 16 | 93 |
| 2:00 AM | 2 | 4 | 5 | 11 | 2 | 4 | 28 | 88 |
| 2:15 AM | 1 | 3 | 1 | 3 | 4 | 7 | 19 | 83 |
| 2:30 AM | 1 | 3 | 4 | 9 | 6 | 7 | 30 | 93 |
| 2:45 AM | 2 | 4 | 2 | 4 | 4 | 6 | 22 | 99 |
| 3:00 AM | 4 | 6 | 3 | 7 | 1 | 4 | 25 | 96 |
| 3:15 AM | 3 | 5 | 3 | 7 | 3 | 7 | 28 | 105 |
| 3:30 AM | 4 | 7 | 4 | 9 | 3 | 10 | 37 | 112 |
| 3:45 AM | 3 | 4 | 3 | 7 | 6 | 10 | 33 | 123 |
| 4:00 AM | 7 | 11 | 5 | 11 | 7 | 16 | 57 | 155 |
| 4:15 AM | 6 | 10 | 10 | 23 | 9 | 19 | 77 | 204 |
| 4:30 AM | 10 | 16 | 4 | 10 | 10 | 24 | 74 | 241 |
| 4:45 AM | 15 | 25 | 4 | 10 | 19 | 42 | 115 | 323 |
| 5:00 AM | 18 | 31 | 12 | 27 | 18 | 26 | 132 | 398 |
| 5:15 AM | 13 | 21 | 12 | 28 | 35 | 39 | 148 | 469 |
| 5:30 AM | 20 | 34 | 13 | 31 | 48 | 67 | 213 | 608 |
| 5:45 AM | 21 | 37 | 9 | 20 | 41 | 55 | 183 | 676 |
| 6:00 AM | 24 | 40 | 10 | 24 | 60 | 57 | 215 | 759 |
| 6:15 AM | 35 | 60 | 12 | 28 | 104 | 103 | 342 | 953 |
| 6:30 AM | 39 | 67 | 17 | 39 | 195 | 238 | 595 | 1335 |
| 6:45 AM | 58 | 100 | 15 | 35 | 155 | 197 | 560 | 1712 |
| 7:00 AM | 54 | 93 | 21 | 50 | 272 | 239 | 729 | 2226 |
| **7:15 AM** | 50 | 84 | 26 | 62 | 344 | 290 | 856 | 2740 |
| **7:30 AM** | 49 | 84 | 28 | 64 | 256 | 166 | 647 | 2792 |
| **7:45 AM** | 44 | 74 | 29 | 68 | 250 | 173 | 638 | 2870 |
| **8:00 AM** | 44 | 74 | 35 | 82 | 282 | 228 | 745 | **2886** |
| 8:15 AM | 44 | 74 | 35 | 82 | 216 | 179 | 630 | 2660 |
| 8:30 AM | 43 | 73 | 29 | 67 | 216 | 191 | 619 | 2632 |
| 8:45 AM | 59 | 71 | 36 | 85 | 169 | 134 | 554 | 2548 |
| 9:00 AM | 46 | 56 | 31 | 71 | 194 | 172 | 570 | 2373 |
| 9:15 AM | 64 | 78 | 40 | 92 | 118 | 138 | 530 | 2273 |
| 9:30 AM | 67 | 82 | 45 | 105 | 146 | 122 | 567 | 2221 |
| 9:45 AM | 59 | 73 | 45 | 106 | 122 | 101 | 506 | 2173 |
| 10:00 AM | 68 | 62 | 44 | 104 | 166 | 153 | 597 | 2200 |
| 10:15 AM | 66 | 61 | 50 | 116 | 150 | 121 | 564 | 2234 |
| 10:30 AM | 79 | 73 | 46 | 108 | 123 | 128 | 557 | 2224 |
| 10:45 AM | 82 | 76 | 59 | 136 | 110 | 115 | 578 | 2296 |
| 11:00 AM | 79 | 72 | 51 | 119 | 136 | 114 | 571 | 2270 |
| 11:15 AM | 92 | 84 | 52 | 122 | 140 | 124 | 614 | 2320 |
| 11:30 AM | 86 | 80 | 49 | 115 | 122 | 125 | 577 | 2340 |
| 11:45 AM | 76 | 70 | 50 | 118 | 121 | 92 | 527 | 2289 |
| 12:00 PM | 96 | 78 | 56 | 129 | 137 | 126 | 622 | 2340 |
| 12:15 PM | 88 | 72 | 52 | 122 | 155 | 121 | 610 | 2336 |
| 12:30 PM | 82 | 67 | 59 | 136 | 164 | 127 | 635 | 2394 |

Peak Hour

| TIME | V. ROJAS AVE. | | PR-2 | | | | TOTAL | TOTAL |
|---|---|---|---|---|---|---|---|---|
| PERIOD | SB-L | SB-R | EB-L | EB-T | WB-T | WB-R | 15 MIN | 60 MIN |
| 12:45 PM | 86 | 71 | 56 | 132 | 178 | 146 | 669 | 2536 |
| 1:00 PM | 92 | 76 | 56 | 130 | 138 | 100 | 592 | 2506 |
| 1:15 PM | 79 | 64 | 55 | 129 | 165 | 103 | 595 | 2491 |
| 1:30 PM | 101 | 64 | 51 | 120 | 157 | 120 | 613 | 2469 |
| 1:45 PM | 94 | 60 | 51 | 119 | 162 | 109 | 595 | 2395 |
| 2:00 PM | 91 | 58 | 54 | 126 | 188 | 127 | 644 | 2447 |
| **2:15 PM** | 89 | 57 | 55 | 127 | 189 | 149 | 666 | 2518 |
| **2:30 PM** | 109 | 69 | 62 | 144 | 167 | 107 | 658 | 2563 |
| **2:45 PM** | 87 | 55 | 54 | 126 | 209 | 108 | 639 | 2607 |
| **3:00 PM** | 83 | 53 | 62 | 146 | 212 | 163 | 719 | **2682** |
| 3:15 PM | 104 | 66 | 56 | 132 | 164 | 135 | 657 | 2673 |
| 3:30 PM | 94 | 60 | 59 | 139 | 148 | 82 | 582 | 2597 |
| 3:45 PM | 90 | 58 | 57 | 133 | 146 | 109 | 593 | 2551 |
| 4:00 PM | 107 | 69 | 71 | 165 | 117 | 121 | 650 | 2482 |
| 4:15 PM | 85 | 55 | 61 | 143 | 147 | 118 | 609 | 2434 |
| 4:30 PM | 99 | 63 | 59 | 137 | 142 | 147 | 647 | 2499 |
| 4:45 PM | 100 | 64 | 58 | 136 | 128 | 131 | 617 | 2523 |
| 5:00 PM | 81 | 51 | 60 | 139 | 117 | 70 | 518 | 2391 |
| 5:15 PM | 77 | 49 | 67 | 156 | 118 | 110 | 577 | 2359 |
| 5:30 PM | 86 | 55 | 59 | 137 | 111 | 124 | 572 | 2284 |
| 5:45 PM | 71 | 45 | 53 | 122 | 72 | 65 | 428 | 2095 |
| 6:00 PM | 76 | 49 | 62 | 143 | 90 | 77 | 497 | 2074 |
| 6:15 PM | 61 | 39 | 49 | 113 | 79 | 70 | 411 | 1908 |
| 6:30 PM | 79 | 50 | 40 | 93 | 66 | 75 | 403 | 1739 |
| 6:45 PM | 80 | 51 | 45 | 105 | 65 | 69 | 415 | 1726 |
| 7:00 PM | 62 | 39 | 37 | 85 | 68 | 57 | 348 | 1577 |
| 7:15 PM | 45 | 28 | 35 | 82 | 69 | 71 | 330 | 1496 |
| 7:30 PM | 58 | 37 | 35 | 83 | 48 | 51 | 312 | 1405 |
| 7:45 PM | 54 | 35 | 29 | 69 | 38 | 53 | 278 | 1268 |
| 8:00 PM | 61 | 39 | 38 | 90 | 34 | 53 | 315 | 1235 |
| 8:15 PM | 55 | 35 | 31 | 71 | 29 | 54 | 275 | 1180 |
| 8:30 PM | 48 | 30 | 28 | 65 | 19 | 38 | 228 | 1096 |
| 8:45 PM | 46 | 30 | 31 | 71 | 24 | 18 | 220 | 1038 |
| 9:00 PM | 34 | 22 | 29 | 67 | 45 | 42 | 239 | 962 |
| 9:15 PM | 39 | 25 | 26 | 60 | 33 | 50 | 233 | 920 |
| 9:30 PM | 30 | 28 | 23 | 53 | 34 | 34 | 202 | 894 |
| 9:45 PM | 21 | 20 | 21 | 48 | 29 | 17 | 156 | 830 |
| 10:00 PM | 7 | 6 | 20 | 46 | 39 | 17 | 135 | 726 |
| 10:15 PM | 9 | 9 | 22 | 51 | 49 | 40 | 180 | 673 |
| 10:30 PM | 9 | 12 | 18 | 42 | 35 | 26 | 142 | 613 |
| 10:45 PM | 12 | 14 | 22 | 50 | 11 | 14 | 123 | 580 |
| 11:00 PM | 10 | 16 | 15 | 35 | 16 | 18 | 110 | 555 |
| 11:15 PM | 8 | 12 | 17 | 38 | 27 | 25 | 127 | 502 |
| 11:30 PM | 8 | 12 | 12 | 29 | 15 | 13 | 89 | 449 |
| 11:45 PM | 5 | 8 | 13 | 30 | 18 | 25 | 99 | 425 |
| **TOTAL** | **4640** | **4135** | **3073** | **7161** | **9040** | **7898** | | |

Peak Hour


**TELPEG ENGINEERING**

TRAFFIC COUNTING SPECIALISTS

C: 787-366-1352 E: TELPEG@GMAIL.COM

**LOCATION: PR-2, EAST OF VICTOR ROSA AVENUE, ARECIBO**
**DATE: WEDNESDAY, JANUARY 27, 2010**

| TIME PERIOD | PR-2 | | TOTAL 15 MIN | TOTAL 60 MIN | |
|---|---|---|---|---|---|
| | EB | WB | | | |
| 12:00 AM | 20 | 23 | 43 | | |
| 12:15 AM | 23 | 19 | 42 | | |
| 12:30 AM | 9 | 5 | 14 | | |
| 12:45 AM | 19 | 12 | 31 | 130 | |
| 1:00 AM | 16 | 8 | 24 | 111 | |
| 1:15 AM | 12 | 5 | 17 | 86 | |
| 1:30 AM | 12 | 2 | 14 | 86 | |
| 1:45 AM | 7 | 5 | 12 | 67 | |
| 2:00 AM | 13 | 6 | 19 | 62 | |
| 2:15 AM | 4 | 12 | 16 | 61 | |
| 2:30 AM | 10 | 14 | 24 | 71 | |
| 2:45 AM | 6 | 11 | 17 | 76 | |
| 3:00 AM | 11 | 5 | 16 | 73 | |
| 3:15 AM | 10 | 11 | 21 | 78 | |
| 3:30 AM | 13 | 14 | 27 | 81 | |
| 3:45 AM | 10 | 17 | 27 | 91 | |
| 4:00 AM | 18 | 24 | 42 | 117 | |
| 4:15 AM | 29 | 29 | 58 | 154 | |
| 4:30 AM | 20 | 36 | 56 | 183 | |
| 4:45 AM | 25 | 64 | 89 | 245 | |
| 5:00 AM | 44 | 46 | 90 | 293 | |
| 5:15 AM | 41 | 78 | 119 | 354 | |
| 5:30 AM | 51 | 121 | 172 | 470 | |
| 5:45 AM | 41 | 101 | 142 | 523 | |
| 6:00 AM | 48 | 123 | 171 | 604 | |
| 6:15 AM | 63 | 217 | 280 | 765 | |
| 6:30 AM | 78 | 455 | 533 | 1126 | |
| 6:45 AM | 93 | 370 | 463 | 1447 | |
| 7:00 AM | 104 | 537 | 641 | 1917 | |
| **7:15 AM** | 112 | 666 | 778 | 2415 | Peak Hour |
| **7:30 AM** | 113 | 443 | 556 | 2438 | |
| **7:45 AM** | 112 | 444 | 556 | 2531 | |
| **8:00 AM** | 126 | 536 | 662 | **2552** | |
| 8:15 AM | 126 | 415 | 541 | 2315 | |
| 8:30 AM | 110 | 427 | 537 | 2296 | |
| 8:45 AM | 144 | 318 | 462 | 2202 | |
| 9:00 AM | 117 | 384 | 501 | 2041 | |
| 9:15 AM | 156 | 269 | 425 | 1925 | |
| 9:30 AM | 172 | 281 | 453 | 1841 | |
| 9:45 AM | 165 | 234 | 399 | 1778 | |
| 10:00 AM | 172 | 335 | 507 | 1784 | |
| 10:15 AM | 182 | 285 | 467 | 1826 | |
| 10:30 AM | 187 | 264 | 451 | 1824 | |
| 10:45 AM | 217 | 236 | 453 | 1878 | |
| 11:00 AM | 198 | 263 | 461 | 1832 | |
| 11:15 AM | 214 | 277 | 491 | 1856 | |
| 11:30 AM | 201 | 259 | 460 | 1865 | |
| 11:45 AM | 195 | 224 | 419 | 1831 | |
| 12:00 PM | 225 | 276 | 501 | 1871 | |
| 12:15 PM | 210 | 290 | 500 | 1880 | |

| | | | | |
|---|---|---|---|---|
| 12:30 PM | 218 | 306 | 524 | 1944 |
| 12:45 PM | 218 | 340 | 558 | 2083 |
| 1:00 PM | 222 | 250 | 472 | 2054 |
| 1:15 PM | 208 | 281 | 489 | 2043 |
| 1:30 PM | 221 | 291 | 512 | 2031 |
| 1:45 PM | 213 | 285 | 498 | 1971 |
| 2:00 PM | 217 | 331 | 548 | 2047 |
| **2:15 PM** | 216 | 355 | 571 | 2129 |
| **2:30 PM** | 253 | 288 | 541 | 2158 |
| **2:45 PM** | 218 | 333 | 551 | 2211 |
| **3:00 PM** | 229 | 394 | 623 | **2286** |
| 3:15 PM | 236 | 314 | 550 | 2265 |
| 3:30 PM | 233 | 242 | 475 | 2199 |
| 3:45 PM | 223 | 268 | 491 | 2139 |
| 4:00 PM | 272 | 250 | 522 | 2038 |
| 4:15 PM | 228 | 278 | 506 | 1994 |
| 4:30 PM | 236 | 303 | 539 | 2058 |
| 4:45 PM | 236 | 272 | 508 | 2075 |
| 5:00 PM | 220 | 196 | 416 | 1969 |
| 5:15 PM | 233 | 239 | 472 | 1935 |
| 5:30 PM | 223 | 247 | 470 | 1866 |
| 5:45 PM | 193 | 144 | 337 | 1695 |
| 6:00 PM | 219 | 175 | 394 | 1673 |
| 6:15 PM | 176 | 156 | 332 | 1533 |
| 6:30 PM | 172 | 148 | 320 | 1383 |
| 6:45 PM | 185 | 141 | 326 | 1372 |
| 7:00 PM | 147 | 131 | 278 | 1256 |
| 7:15 PM | 127 | 147 | 274 | 1198 |
| 7:30 PM | 141 | 104 | 245 | 1123 |
| 7:45 PM | 123 | 96 | 219 | 1016 |
| 8:00 PM | 151 | 91 | 242 | 980 |
| 8:15 PM | 126 | 87 | 213 | 919 |
| 8:30 PM | 113 | 60 | 173 | 847 |
| 8:45 PM | 117 | 44 | 161 | 789 |
| 9:00 PM | 101 | 91 | 192 | 739 |
| 9:15 PM | 99 | 87 | 186 | 712 |
| 9:30 PM | 83 | 71 | 154 | 693 |
| 9:45 PM | 69 | 48 | 117 | 649 |
| 10:00 PM | 53 | 59 | 112 | 569 |
| 10:15 PM | 60 | 93 | 153 | 536 |
| 10:30 PM | 51 | 64 | 115 | 497 |
| 10:45 PM | 62 | 26 | 88 | 468 |
| 11:00 PM | 45 | 36 | 81 | 437 |
| 11:15 PM | 46 | 55 | 101 | 385 |
| 11:30 PM | 37 | 29 | 66 | 336 |
| 11:45 PM | 38 | 45 | 83 | 331 |
| **TOTAL** | **11811** | **17787** | | |

Peak Hour


**TELPEG ENGINEERING**

TRAFFIC COUNTING SPECIALISTS

C: 787-366-1352 E: TELPEG@GMAIL.COM

# APPENDIX – C

DATA SUMMARY

INTERSECTION: PR-2 & PR-10 AND JUAN ROSADO AVE., ARECIBO, P.R.
DATE: WEDNESDAY, JANUARY 27, 2010

| PEAK HOUR (A.M.) | PR-10 | | | JUAN ROSADO AVE. | | | PR-2 | | | | | | TOTAL 15 MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NB-L | NB-T | NB-R | SB-L | SB-T | SB-R | EB-L | EB-T | EB-R | WB-L | WB-T | WB-R | |
| 7:15 - 7:30 AM | 104 | 34 | 35 | 10 | 19 | 16 | 12 | 41 | 47 | 156 | 233 | 39 | 746 |
| 7:30 - 7:45 AM | 124 | 41 | 37 | 10 | 23 | 18 | 12 | 43 | 46 | 124 | 185 | 31 | 694 |
| 7:45 - 8:00 AM | 105 | 35 | 39 | 11 | 31 | 26 | 14 | 46 | 56 | 118 | 177 | 29 | 687 |
| 8:00 - 8:15 AM | 84 | 28 | 47 | 13 | 21 | 18 | 13 | 55 | 54 | 130 | 194 | 32 | 689 |
| PEAK HOUR VOLUME (A.M.) | 417 | 138 | 158 | 44 | 94 | 78 | 51 | 185 | 203 | 528 | 789 | 131 | |
| PEAK HOUR FACTOR (A.M.) | 0.84 | 0.84 | 0.84 | 0.85 | 0.76 | 0.75 | 0.91 | 0.84 | 0.91 | 0.85 | 0.85 | 0.84 | |

| PEAK HOUR (P.M.) | PR-10 | | | JUAN ROSADO AVE. | | | PR-2 | | | | | | TOTAL 15 MIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NB-L | NB-T | NB-R | SB-L | SB-T | SB-R | EB-L | EB-T | EB-R | WB-L | WB-T | WB-R | |
| 2:15 - 2:30 PM | 86 | 28 | 73 | 20 | 32 | 27 | 22 | 86 | 86 | 90 | 134 | 22 | 706 |
| 2:30 - 2:45 PM | 65 | 21 | 82 | 23 | 37 | 30 | 23 | 97 | 90 | 86 | 129 | 21 | 704 |
| 2:45 - 3:00 PM | 52 | 17 | 72 | 20 | 29 | 24 | 27 | 85 | 108 | 96 | 144 | 24 | 698 |
| 3:00 - 3:15 PM | 59 | 20 | 83 | 23 | 27 | 22 | 26 | 98 | 104 | 96 | 145 | 24 | 727 |
| PEAK HOUR VOLUME (P.M.) | 262 | 86 | 310 | 86 | 125 | 103 | 98 | 366 | 388 | 368 | 552 | 91 | |
| PEAK HOUR FACTOR (P.M.) | 0.76 | 0.77 | 0.93 | 0.93 | 0.84 | 0.86 | 0.91 | 0.93 | 0.90 | 0.96 | 0.95 | 0.95 | |

| 24 HOUR VOLUME | PR-10 | | | JUAN ROSADO AVE. | | | PR-2 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | NB-L | NB-T | NB-R | SB-L | SB-T | SB-R | EB-L | EB-T | EB-R | WB-L | WB-T | WB-R |
| | 3928 | 1287 | 4089 | 1130 | 1466 | 1193 | 1249 | 4814 | 4988 | 4794 | 7189 | 1192 |


TELPEG ENGINEERING
TRAFFIC COUNTING SPECIALISTS

C: 787-366-1352 E: TELPEG@GMAIL.COM

DATA SUMMARY

INTERSECTION: PR-2 & VICTOR ROJAS AVENUE, ARECIBO, P.R.
DATE: WEDNESDAY, JANUARY 27, 2010

| PEAK HOUR (A.M.) | V. ROJAS AVE. | | PR-2 | | | | TOTAL 15 MIN |
|---|---|---|---|---|---|---|---|
| | SB-L | SB-R | EB-L | EB-T | WB-T | WB-R | |
| 7:15 - 7:30 AM | 50 | 84 | 26 | 62 | 344 | 290 | **856** |
| 7:30 - 7:45 AM | 49 | 84 | 28 | 64 | 256 | 166 | **647** |
| 7:45 - 8:00 AM | 44 | 74 | 29 | 68 | 250 | 173 | **638** |
| 8:00 - 8:15 AM | 44 | 74 | 35 | 82 | 282 | 228 | **745** |
| PEAK HOUR VOLUME (A.M.) | **187** | **316** | **118** | **276** | **1132** | **857** | |
| PEAK HOUR FACTOR (A.M.) | **0.94** | **0.94** | **0.84** | **0.84** | **0.82** | **0.74** | |

| PEAK HOUR (P.M.) | V. ROJAS AVE. | | PR-2 | | | | TOTAL 15 MIN |
|---|---|---|---|---|---|---|---|
| | SB-L | SB-R | EB-L | EB-T | WB-T | WB-R | |
| 2:15 - 2:30 PM | 89 | 57 | 55 | 127 | 189 | 149 | **666** |
| 2:30 - 2:45 PM | 109 | 69 | 62 | 144 | 167 | 107 | **658** |
| 2:45 - 3:00 PM | 87 | 55 | 54 | 126 | 209 | 108 | **639** |
| 3:00 - 3:15 PM | 83 | 53 | 62 | 146 | 212 | 163 | **719** |
| PEAK HOUR VOLUME (P.M.) | **368** | **234** | **233** | **543** | **777** | **527** | |
| PEAK HOUR FACTOR (P.M.) | **0.84** | **0.85** | **0.94** | **0.93** | **0.92** | **0.81** | |

| 24 HOUR VOLUME | V. ROJAS AVE. | | PR-2 | | | |
|---|---|---|---|---|---|---|
| | SB-L | SB-R | EB-L | EB-T | WB-T | WB-R |
| | **4640** | **4135** | **3073** | **7161** | **9040** | **7898** |


**TELPEG ENGINEERING**
TRAFFIC COUNTING SPECIALISTS

C: 787-366-1352 E: TELPEG@GMAIL.COM

DATA SUMMARY

LOCATION: PR-2, EAST OF VICTOR ROJAS AVENUE
DATE: WEDNESDAY, JANUARY 27, 2010

| PEAK HOUR (A.M.) | PR-2 | | TOTAL 15 MIN |
|---|---|---|---|
| | EB | WB | |
| 7:15 - 7:30 AM | 112 | 666 | 778 |
| 7:30 - 7:45 AM | 113 | 443 | 556 |
| 7:45 - 8:00 AM | 112 | 444 | 556 |
| 8:00 - 8:15 AM | 126 | 536 | 662 |
| PEAK HOUR VOLUME (A.M.) | 463 | 2089 | |
| PEAK HOUR FACTOR (A.M.) | 0.92 | 0.78 | |

| PEAK HOUR (P.M.) | PR-2 | | TOTAL 15 MIN |
|---|---|---|---|
| | EB | WB | |
| 2:15 - 2:30 PM | 216 | 355 | 571 |
| 2:30 - 2:45 PM | 253 | 288 | 541 |
| 2:45 - 3:00 PM | 218 | 333 | 551 |
| 3:00 - 3:15 PM | 229 | 394 | 623 |
| PEAK HOUR VOLUME (P.M.) | 916 | 1370 | |
| PEAK HOUR FACTOR (P.M.) | 0.91 | 0.87 | |

| 24 HOUR VOLUME | PR-2 | |
|---|---|---|
| | EB | WB |
| | 11811 | 17787 |

# APPENDIX – D

Arecibo
Summary of Trip Generation Calculation
For 150 Employees of General Light Industrial
March 20, 2010

| | Average Rate | Standard Deviation | Adjustment Factor | Driveway Volume |
|---|---|---|---|---|
| Avg. Weekday 2-Way Volume | 3.02 | 1.86 | 1.00 | 453 |
| 7-9 AM Peak Hour Enter | 0.37 | 0.00 | 1.00 | 56 |
| 7-9 AM Peak Hour Exit | 0.07 | 0.00 | 1.00 | 11 |
| 7-9 AM Peak Hour Total | 0.44 | 0.69 | 1.00 | 66 |
| 4-6 PM Peak Hour Enter | 0.09 | 0.00 | 1.00 | 14 |
| 4-6 PM Peak Hour Exit | 0.33 | 0.00 | 1.00 | 50 |
| 4-6 PM Peak Hour Total | 0.42 | 0.67 | 1.00 | 63 |
| Saturday 2-Way Volume | 0.48 | 0.72 | 1.00 | 72 |
| Saturday Peak Hour Enter | 0.02 | 0.00 | 1.00 | 3 |
| Saturday Peak Hour Exit | 0.03 | 0.00 | 1.00 | 5 |
| Saturday Peak Hour Total | 0.05 | 0.23 | 1.00 | 8 |

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Arecibo
Summary of Trip Generation Calculation
For 150 Employees of General Light Industrial
March 20, 2010

| | Average Rate | Standard Deviation | Adjustment Factor | Driveway Volume |
|---|---|---|---|---|
| Avg. Weekday 2-Way Volume | 3.02 | 1.86 | 1.00 | 453 |
| 7-9 AM Peak Hour Enter | 0.37 | 0.00 | 1.00 | 56 |
| 7-9 AM Peak Hour Exit | 0.07 | 0.00 | 1.00 | 11 |
| 7-9 AM Peak Hour Total | 0.44 | 0.69 | 1.00 | 66 |
| 4-6 PM Peak Hour Enter | 0.09 | 0.00 | 1.00 | 14 |
| 4-6 PM Peak Hour Exit | 0.33 | 0.00 | 1.00 | 50 |
| 4-6 PM Peak Hour Total | 0.42 | 0.67 | 1.00 | 63 |
| AM Pk Hr, Generator, Enter | 0.42 | 0.00 | 1.00 | 63 |
| AM Pk Hr, Generator, Exit | 0.06 | 0.00 | 1.00 | 9 |
| AM Pk Hr, Generator, Total | 0.48 | 0.72 | 1.00 | 72 |
| PM Pk Hr, Generator, Enter | 0.15 | 0.00 | 1.00 | 23 |
| PM Pk Hr, Generator, Exit | 0.36 | 0.00 | 1.00 | 54 |
| PM Pk Hr, Generator, Total | 0.51 | 0.75 | 1.00 | 77 |
| Saturday 2-Way Volume | 0.48 | 0.72 | 1.00 | 72 |
| Saturday Peak Hour Enter | 0.02 | 0.00 | 1.00 | 3 |
| Saturday Peak Hour Exit | 0.03 | 0.00 | 1.00 | 5 |
| Saturday Peak Hour Total | 0.05 | 0.23 | 1.00 | 8 |
| Sunday 2-Way Volume | 0.26 | 0.60 | 1.00 | 39 |
| Sunday Peak Hour Enter | 0.02 | 0.00 | 1.00 | 3 |
| Sunday Peak Hour Exit | 0.02 | 0.00 | 1.00 | 3 |
| Sunday Peak Hour Total | 0.04 | 0.20 | 1.00 | 6 |

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

TRIP GENERATION BY MICROTRANS

Arecibo
Summary of Trip Generation Rates
For 150 Employees of General Light Industrial
March 20, 2010

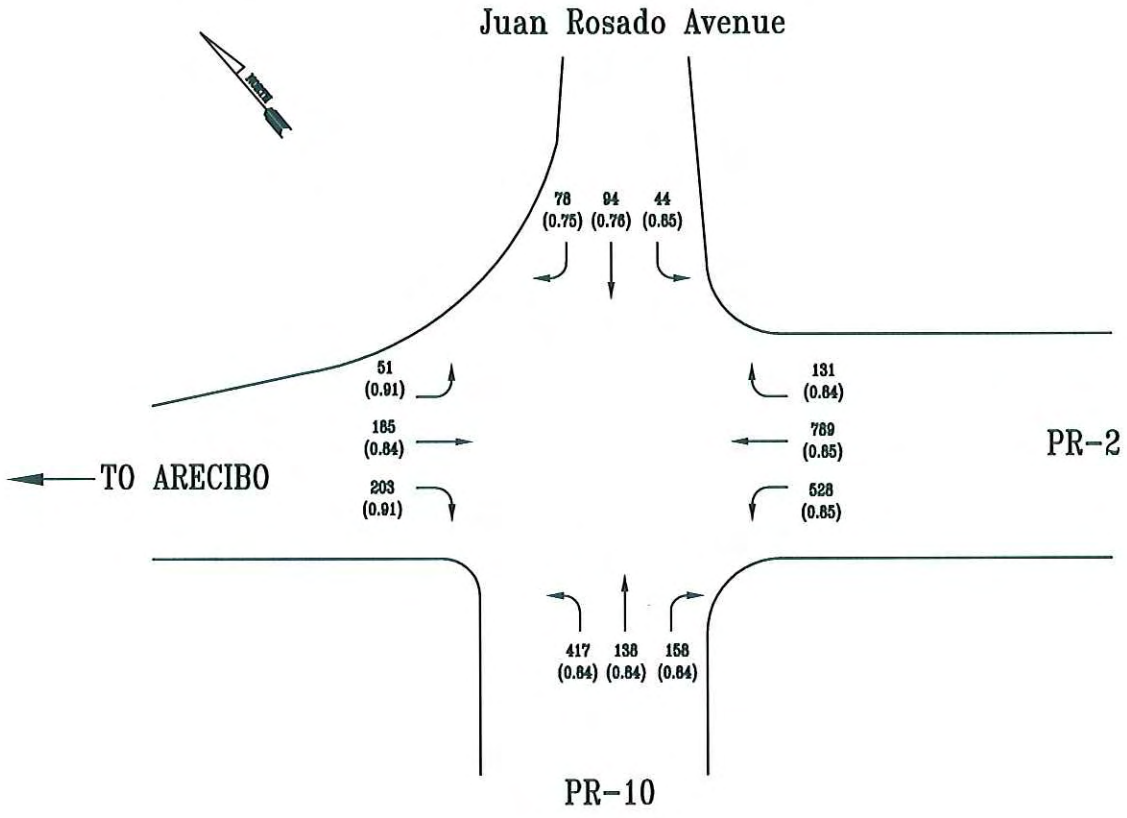
| | Avg. Trip Rate | Min. Trip Rate | Max. Trip Rate | Std. Dev. | No. of Studies |
|---|---|---|---|---|---|
| Avg. Weekday 2-Way Volume | 3.02 | 1.53 | 4.48 | 1.86 | 18 |
| 7-9 AM Peak Hour Enter | 0.37 | 0.07 | 0.85 | 0.00 | 0 |
| 7-9 AM Peak Hour Exit | 0.07 | 0.01 | 0.17 | 0.00 | 0 |
| 7-9 AM Peak Hour Total | 0.44 | 0.08 | 1.02 | 0.69 | 21 |
| 4-6 PM Peak Hour Enter | 0.09 | 0.01 | 0.20 | 0.00 | 0 |
| 4-6 PM Peak Hour Exit | 0.33 | 0.03 | 0.75 | 0.00 | 0 |
| 4-6 PM Peak Hour Total | 0.42 | 0.04 | 0.95 | 0.67 | 19 |
| AM Pk Hr, Generator, Enter | 0.42 | 0.22 | 0.89 | 0.00 | 0 |
| AM Pk Hr, Generator, Exit | 0.06 | 0.03 | 0.13 | 0.00 | 0 |
| AM Pk Hr, Generator, Total | 0.48 | 0.25 | 1.02 | 0.72 | 21 |
| PM Pk Hr, Generator, Enter | 0.15 | 0.10 | 0.34 | 0.00 | 0 |
| PM Pk Hr, Generator, Exit | 0.36 | 0.26 | 0.84 | 0.00 | 0 |
| PM Pk Hr, Generator, Total | 0.51 | 0.36 | 1.18 | 0.75 | 21 |
| Saturday 2-Way Volume | 0.48 | 0.29 | 1.32 | 0.72 | 6 |
| Saturday Peak Hour Enter | 0.02 | 0.02 | 0.10 | 0.00 | 0 |
| Saturday Peak Hour Exit | 0.03 | 0.02 | 0.11 | 0.00 | 0 |
| Saturday Peak Hour Total | 0.05 | 0.04 | 0.21 | 0.23 | 5 |
| Sunday 2-Way Volume | 0.26 | 0.12 | 2.09 | 0.60 | 4 |
| Sunday Peak Hour Enter | 0.02 | 0.01 | 0.14 | 0.00 | 0 |
| Sunday Peak Hour Exit | 0.02 | 0.01 | 0.15 | 0.00 | 0 |
| Sunday Peak Hour Total | 0.04 | 0.02 | 0.29 | 0.20 | 4 |

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation, 7th Edition, 2003.

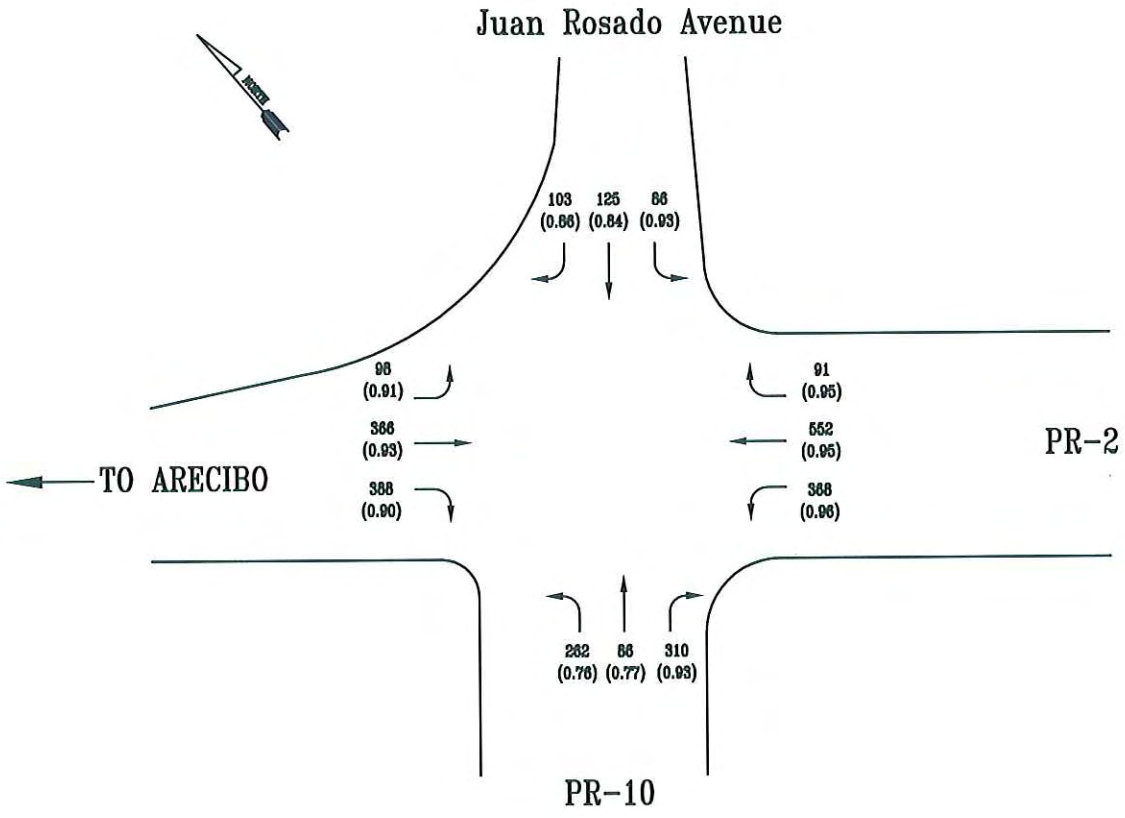
TRIP GENERATION BY MICROTRANS


# APPENDIX – E

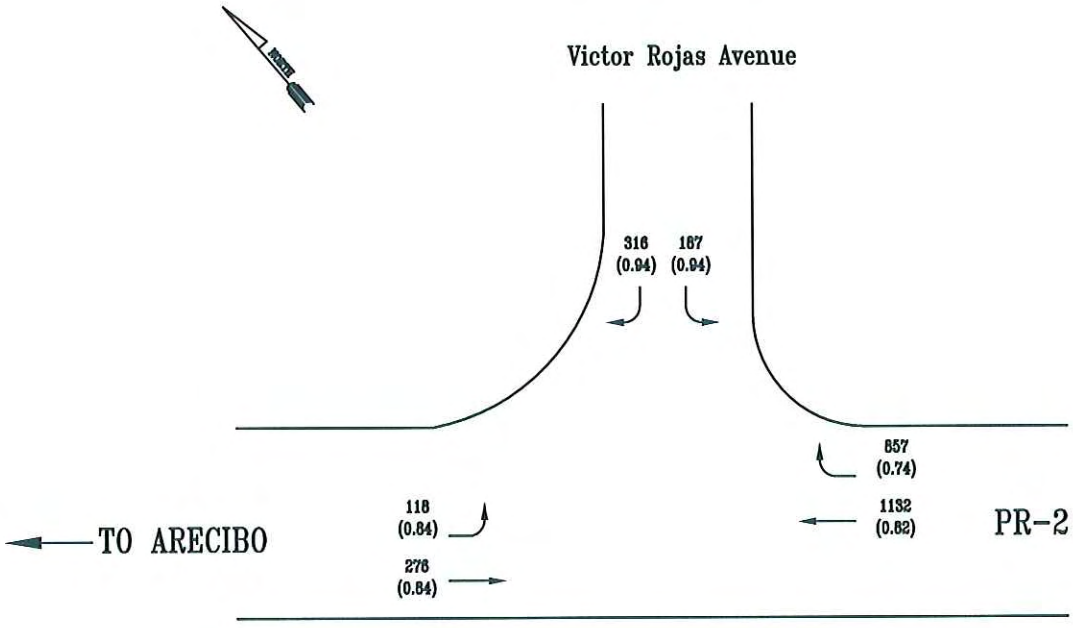
INTERSECTION #1: PR-2 & PR-10 AND JUAN ROSADO AVENUE
Existing AM Peak Hour Volumes and Peak Hour Factors



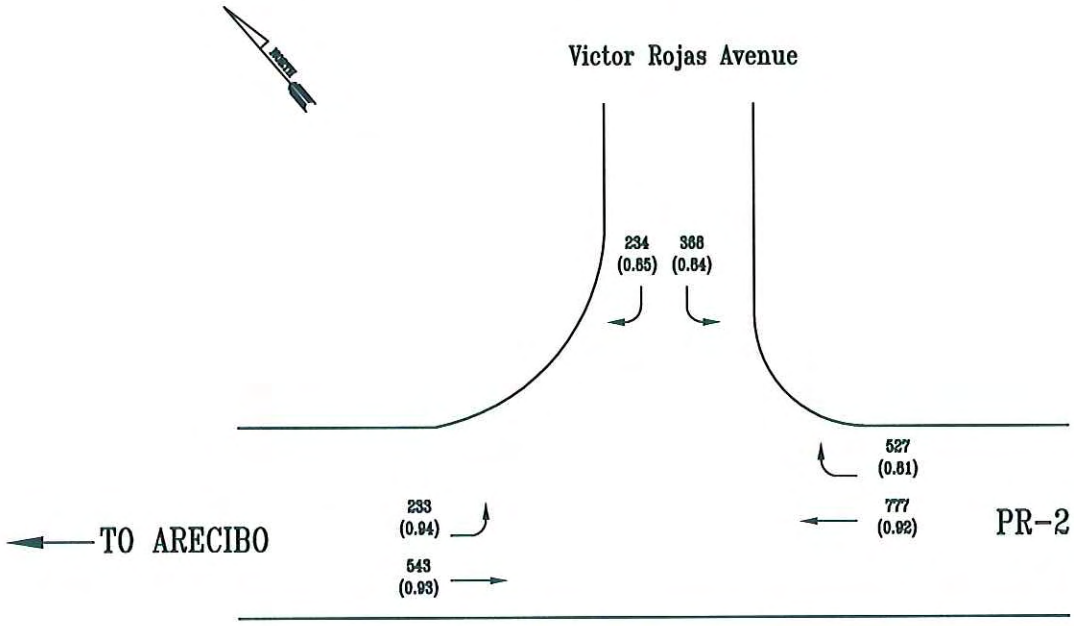
INTERSECTION #1: PR-2 & PR-10 AND JUAN ROSADO AVENUE
Existing PM Peak Hour Volumes and Peak Hour Factors



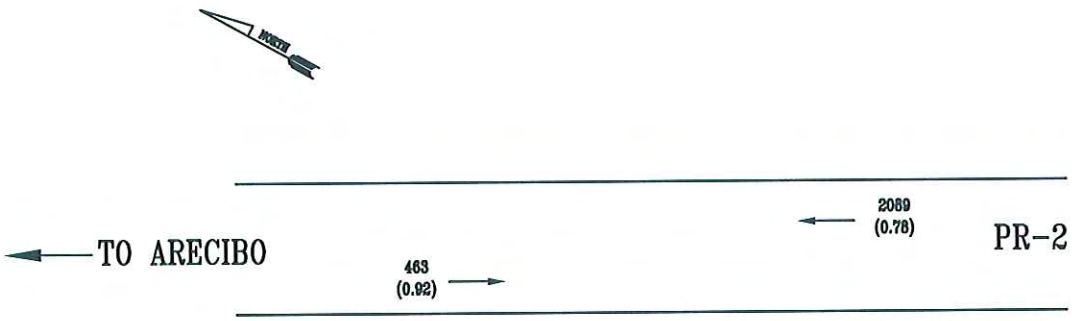
INTERSECTION #2: PR-2 & VICTOR ROJAS AVENUE
Existing AM Peak Hour Volumes and Peak Hour Factors



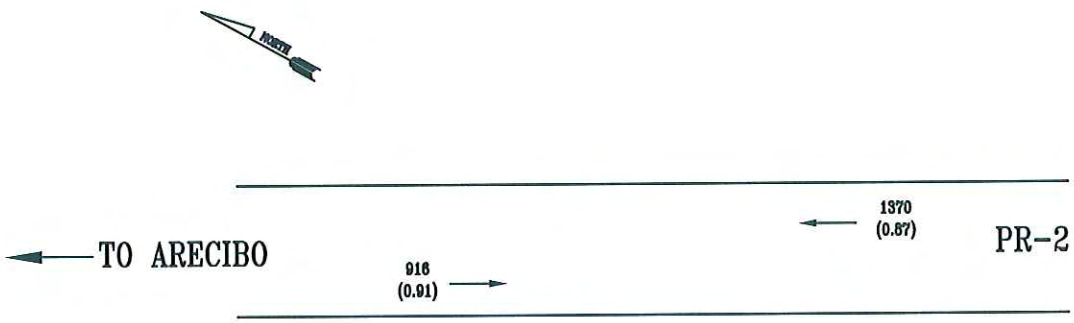
INTERSECTION #2: PR-2 & VICTOR ROJAS AVENUE
Existing PM Peak Hour Volumes and Peak Hour Factors



PR-2 KM. 73.1
Existing AM Peak Hour Volumes and Peak Hour Factors

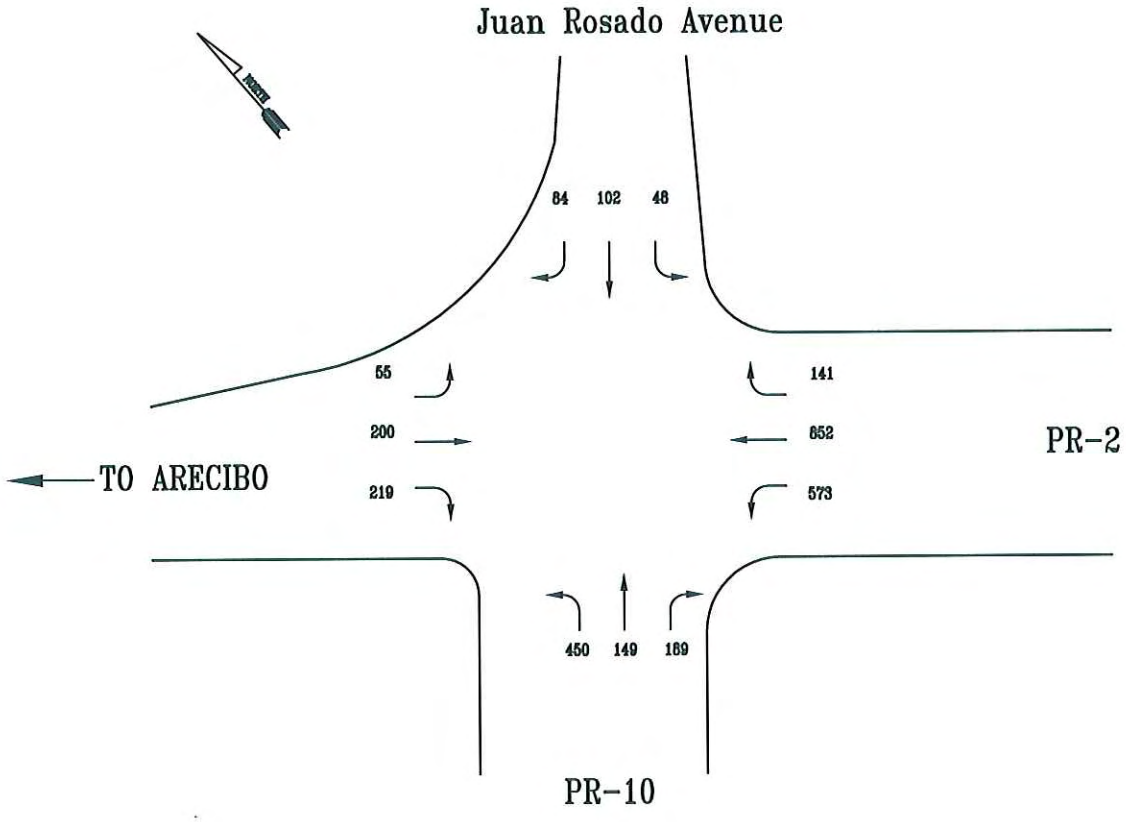


PR-2 KM. 73.1
Existing PM Peak Hour Volumes and Peak Hour Factors

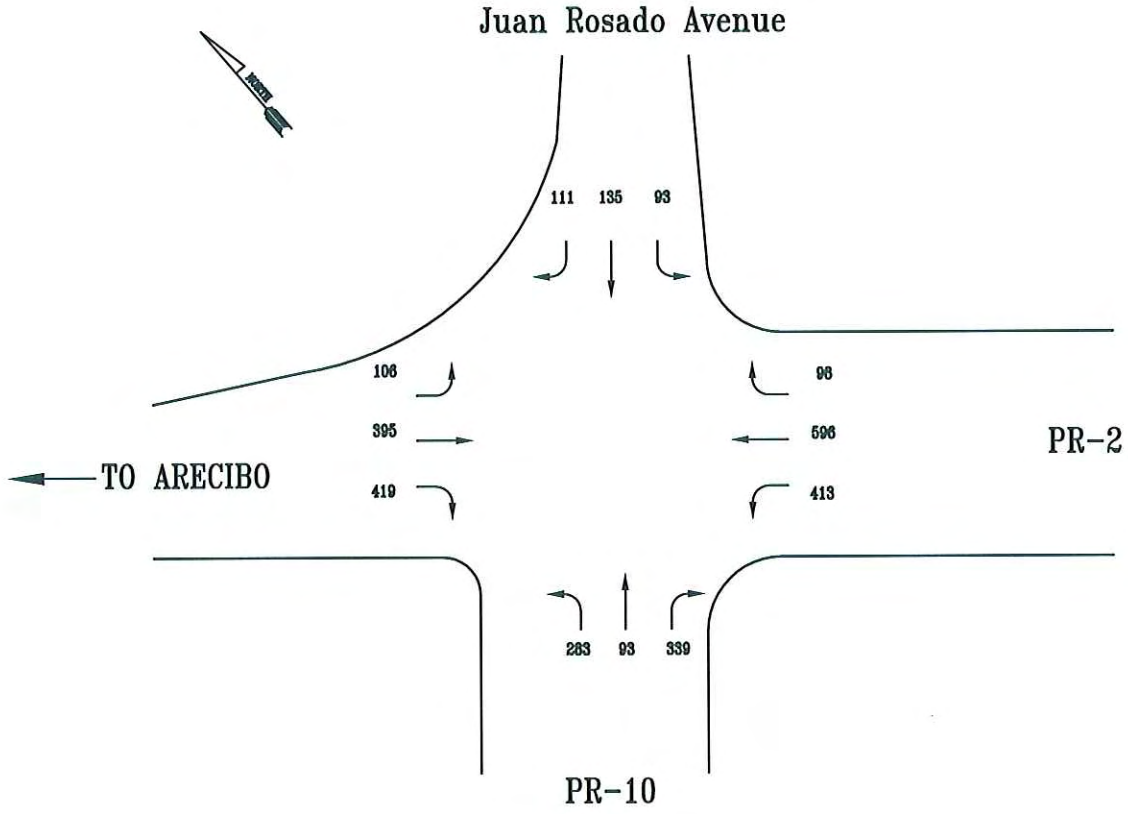



# APPENDIX – F

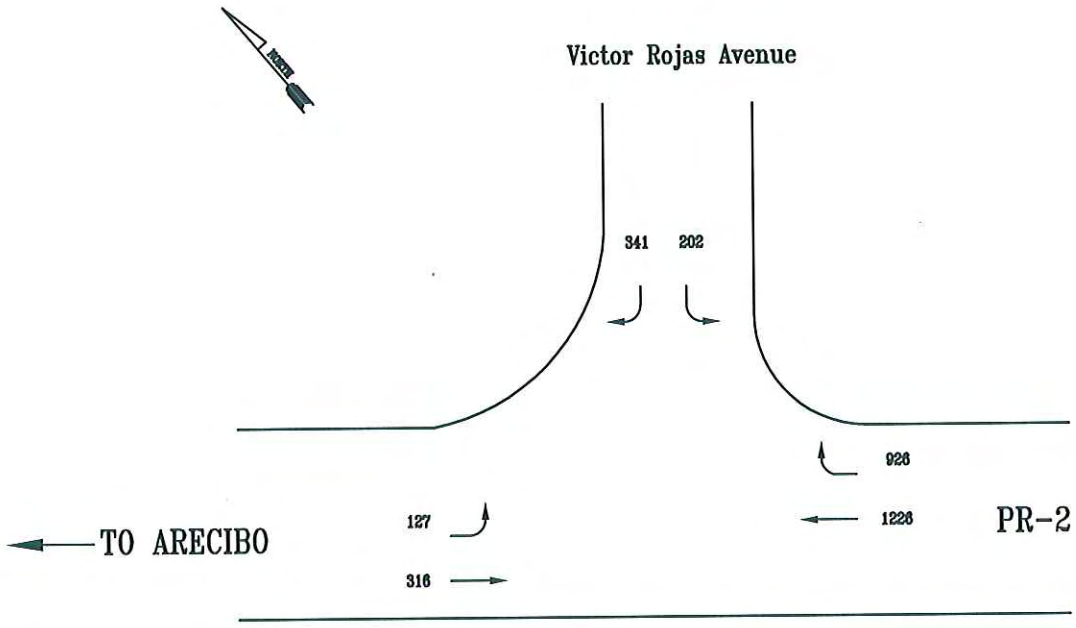
INTERSECTION #1: PR-2 & PR-10 AND JUAN ROSADO AVENUE
2013 AM Peak Hour Volumes



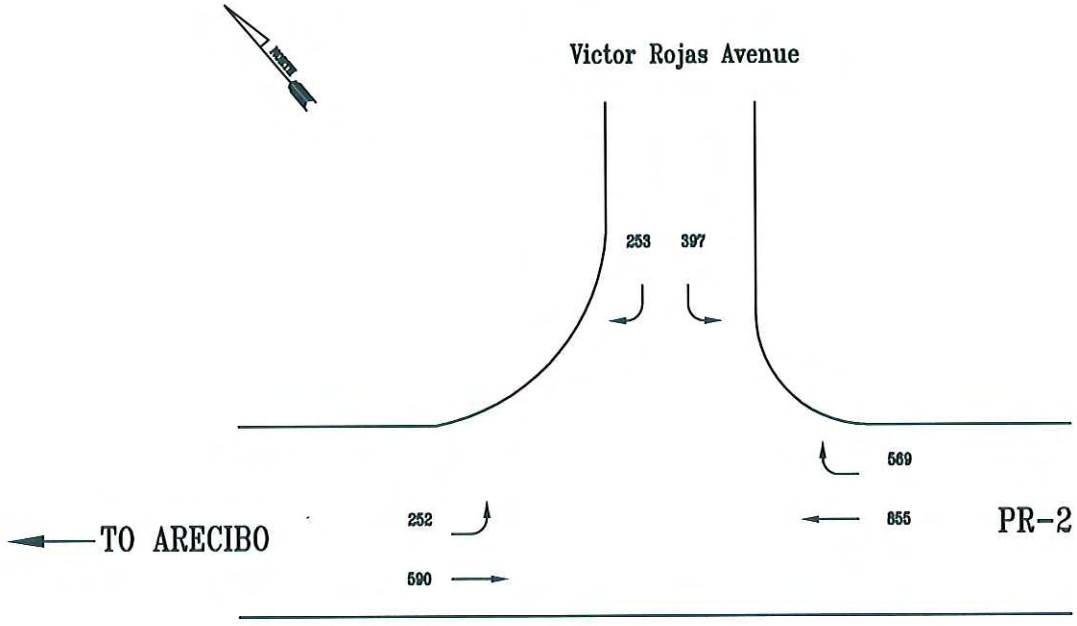
INTERSECTION #1: PR-2 & PR-10 AND JUAN ROSADO AVENUE
2013 PM Peak Hour Volumes



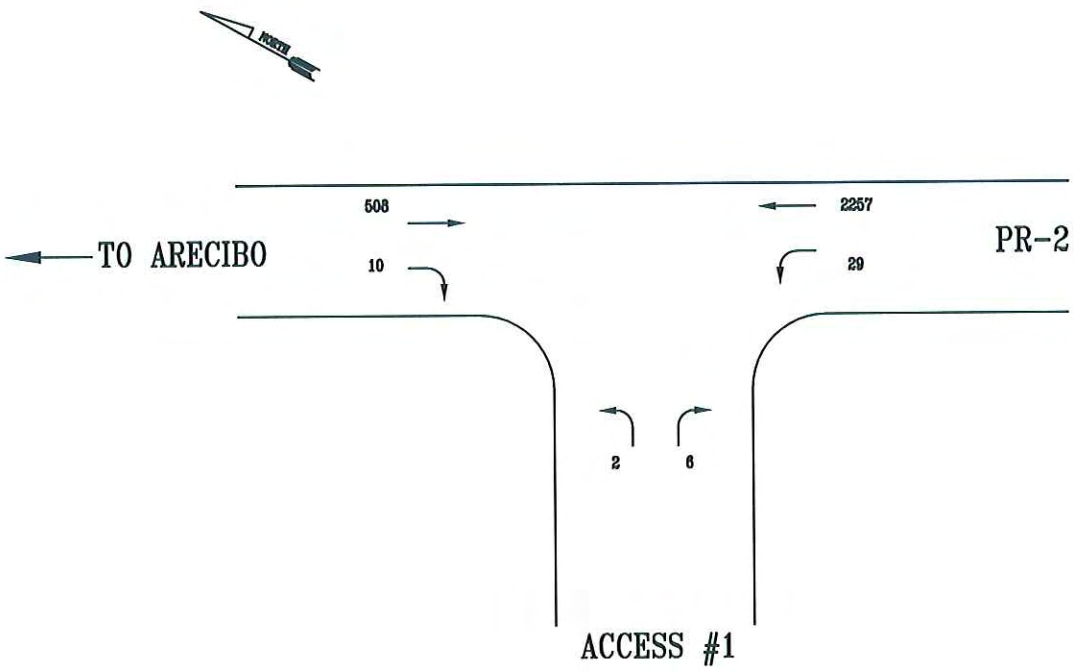
INTERSECTION #2: PR-2 & VICTOR ROJAS AVENUE
2013 AM Peak Hour Volumes



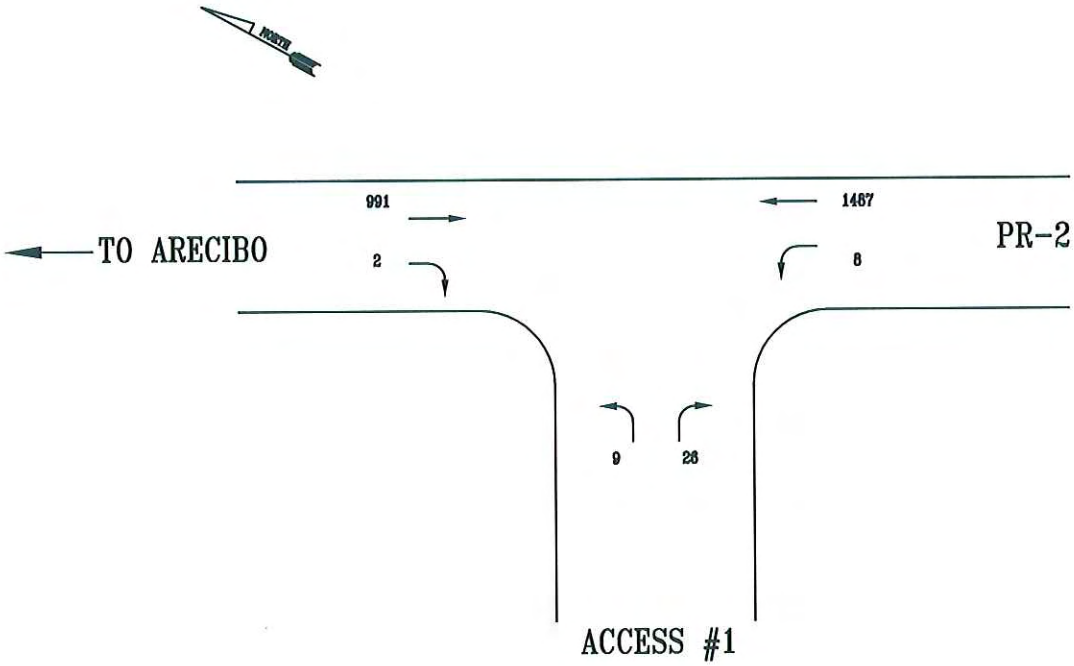
INTERSECTION #2: PR-2 & VICTOR ROJAS AVENUE
2013 PM Peak Hour Volumes



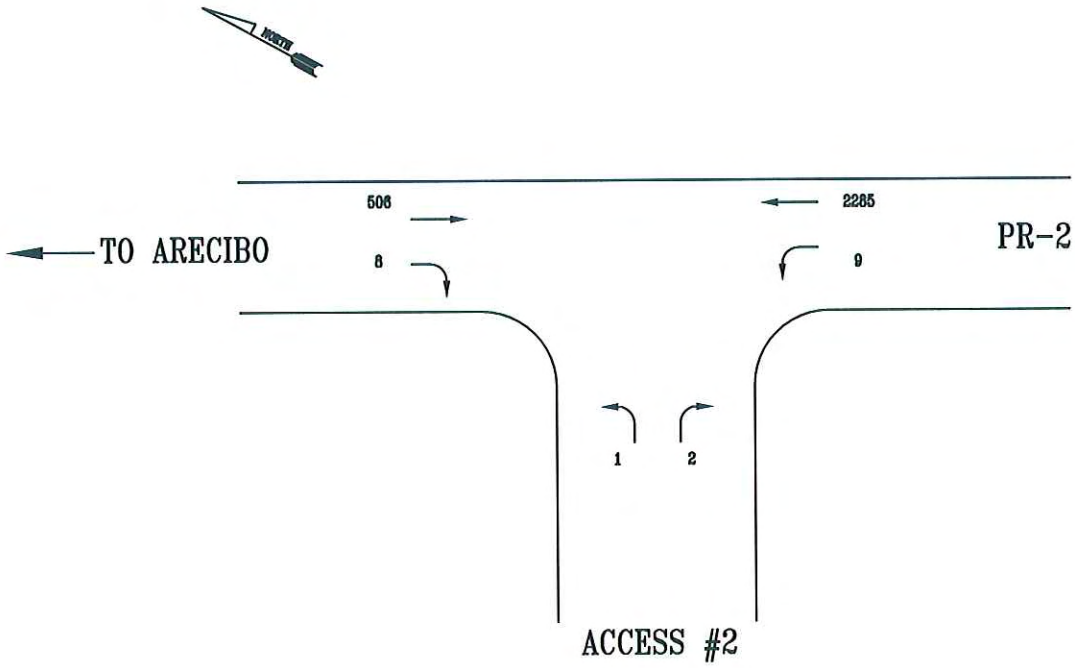
INTERSECTION #3: PR-2 AND ACCESS #1
2013 AM Peak Hour Volumes



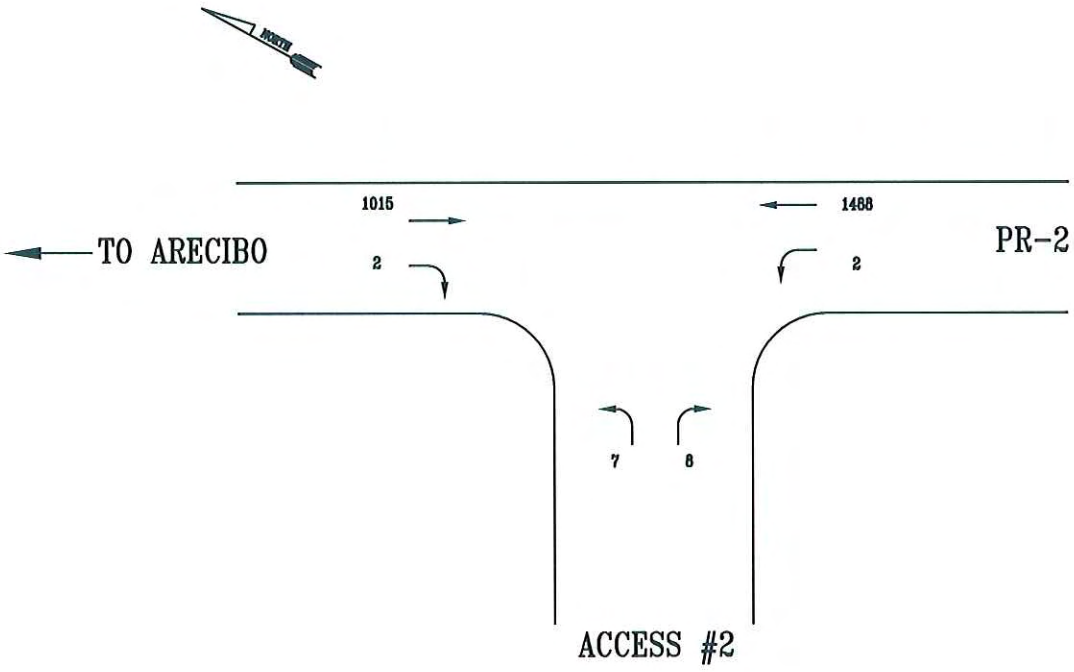
INTERSECTION #3: PR-2 AND ACCESS #1
2013 PM Peak Hour Volumes



INTERSECTION #4: PR-2 AND ACCESS #2
2013 AM Peak Hour Volumes

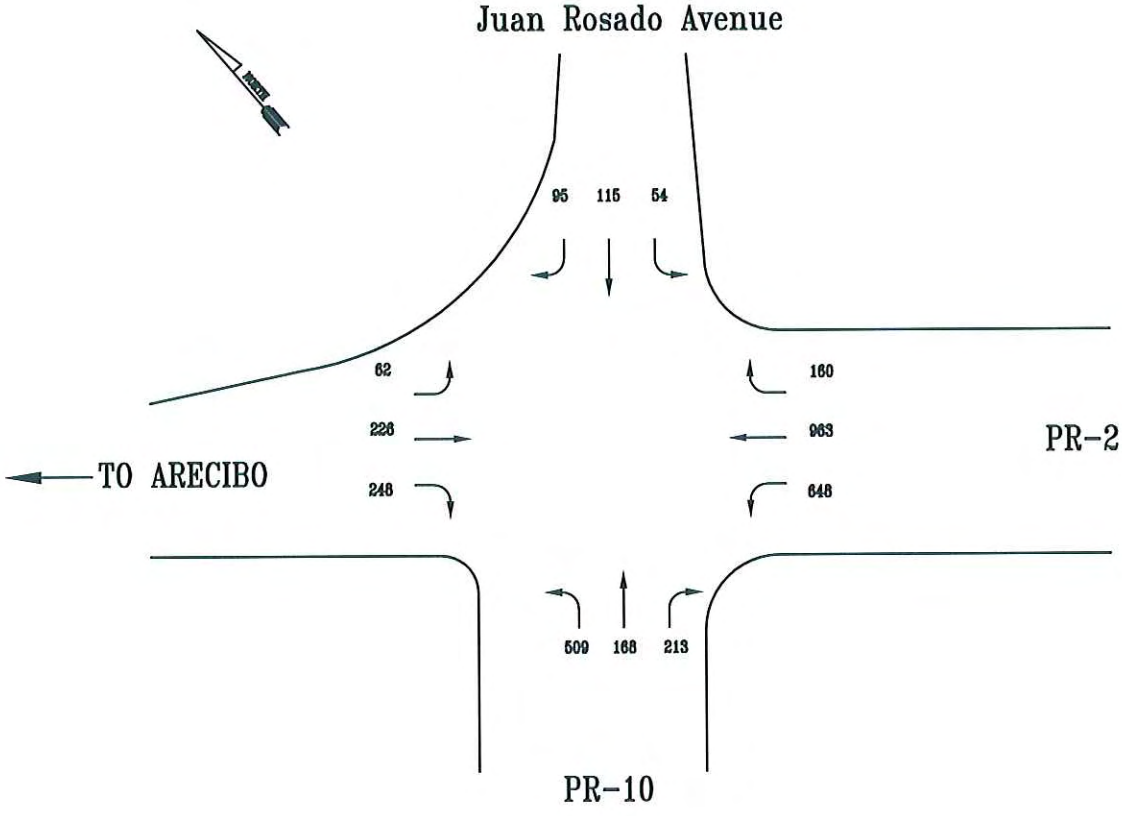


INTERSECTION #4: PR-2 AND ACCESS #2
2013 PM Peak Hour Volumes

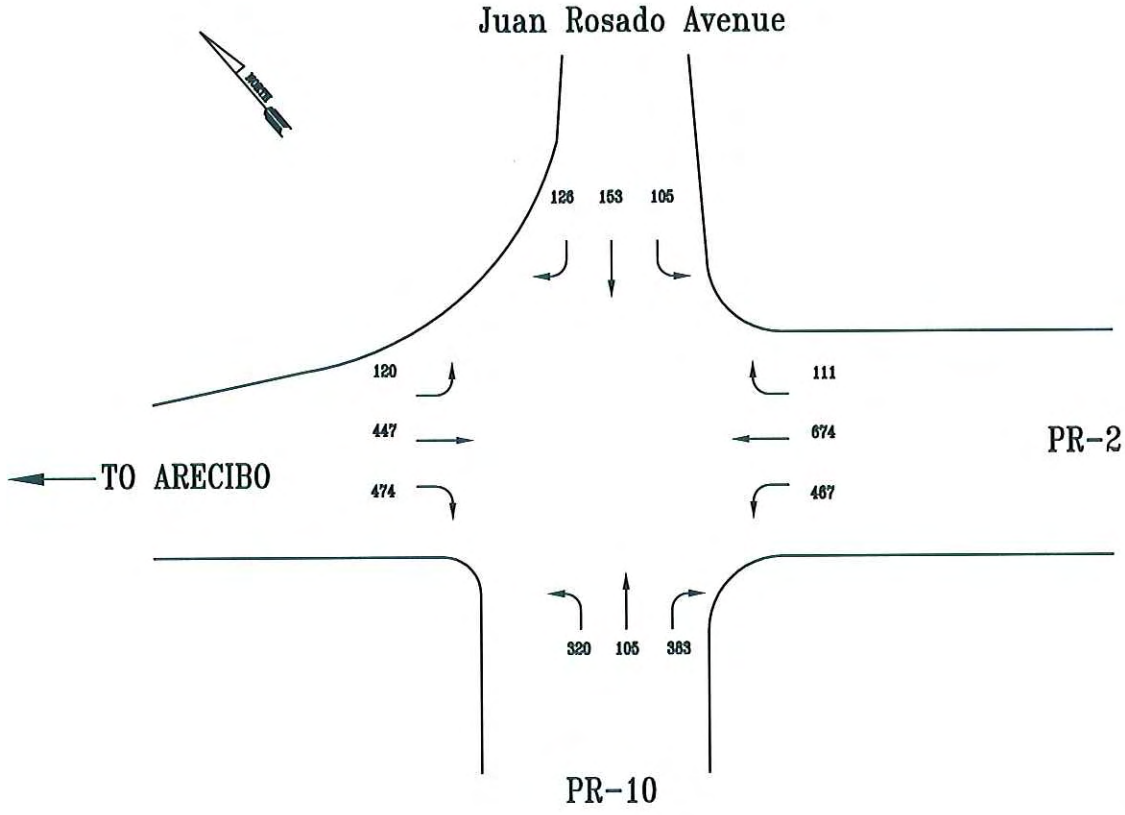



# APPENDIX – G

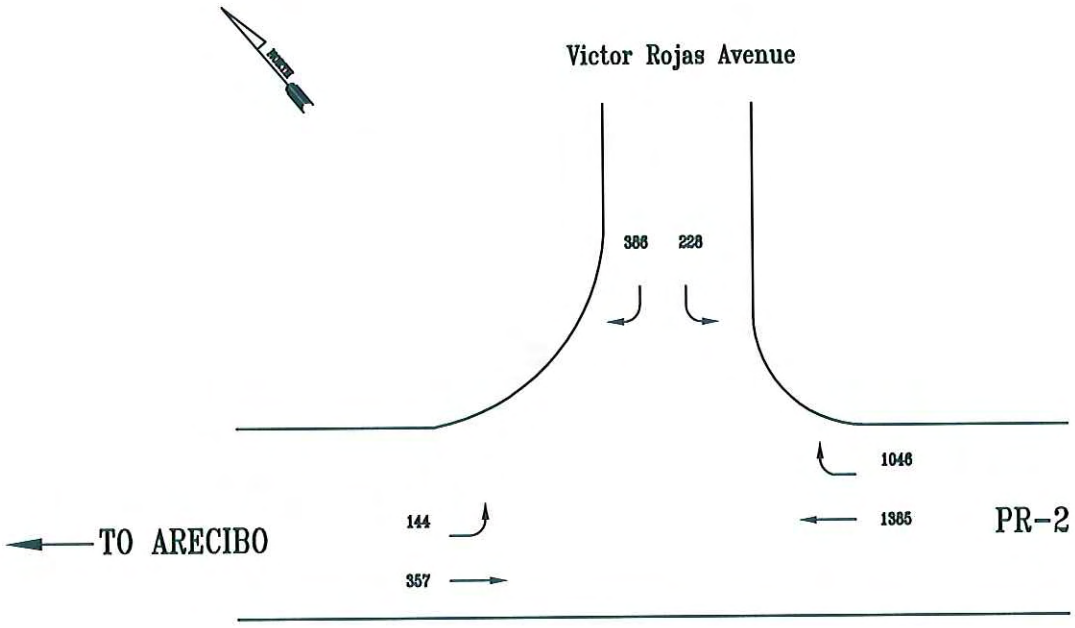
INTERSECTION #1: PR-2 & PR-10 AND JUAN ROSADO AVENUE
2018 AM Peak Hour Volumes



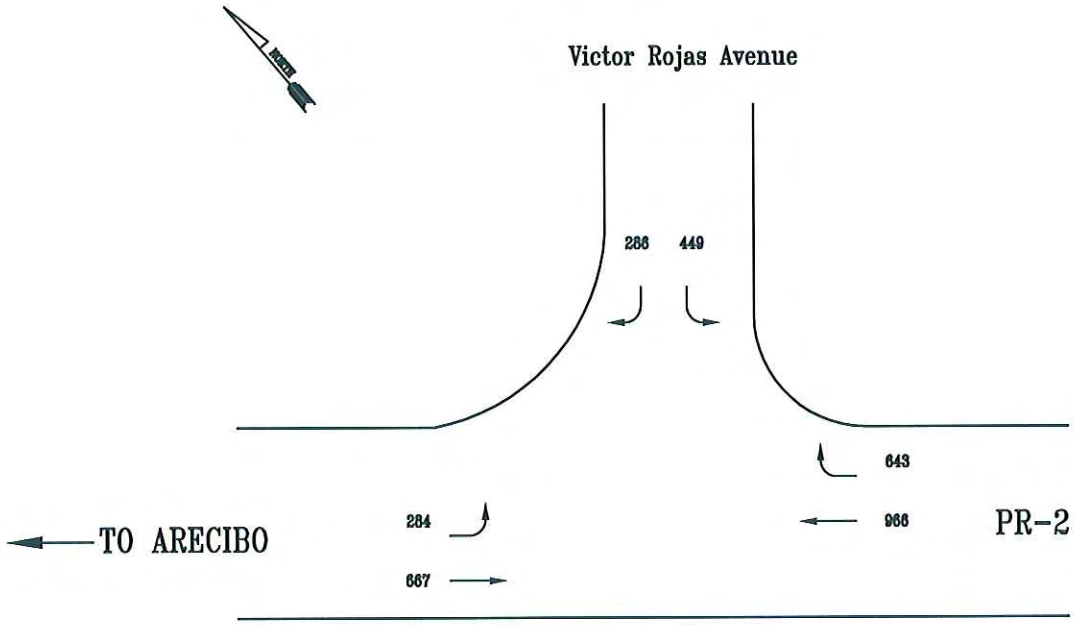
INTERSECTION #1: PR-2 & PR-10 AND JUAN ROSADO AVENUE
2018 PM Peak Hour Volumes



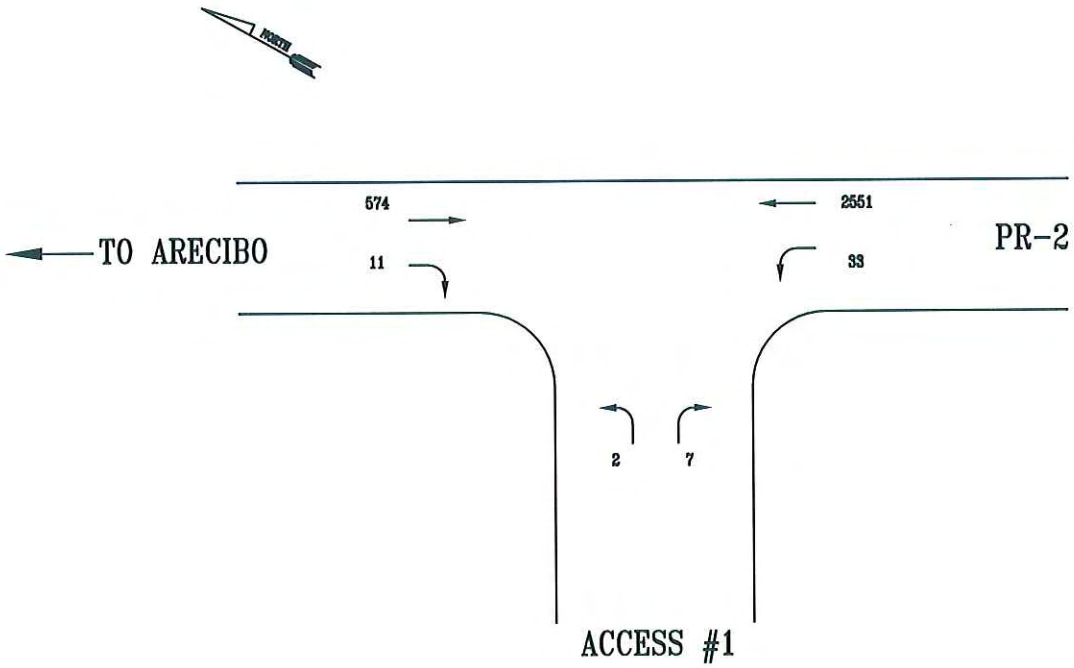
INTERSECTION #2: PR-2 & VICTOR ROJAS AVENUE
2018 AM Peak Hour Volumes



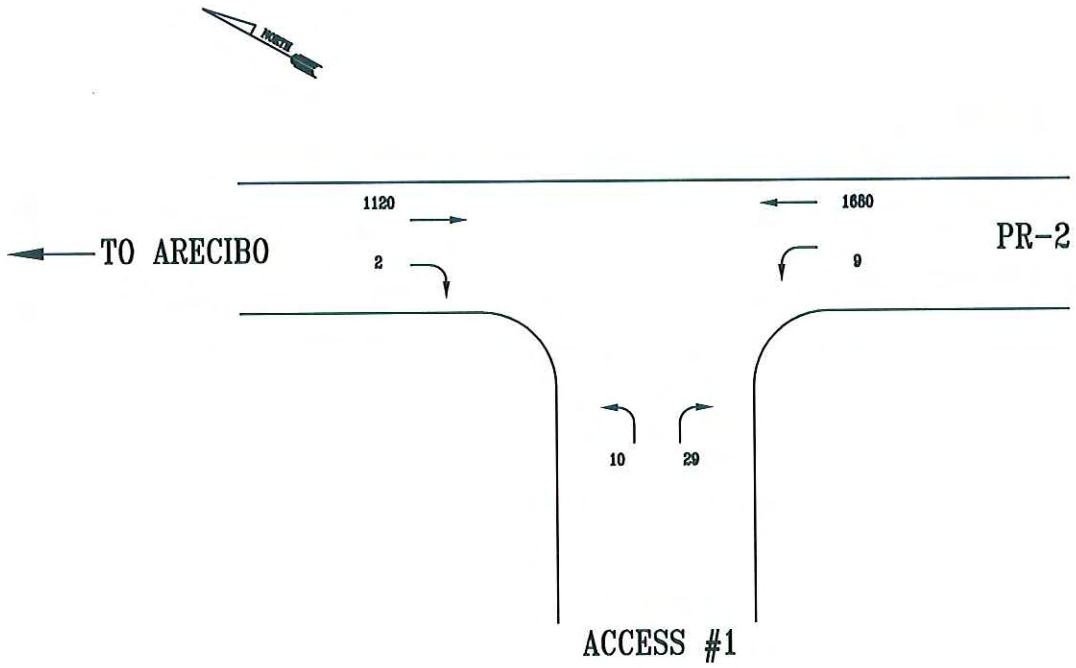
INTERSECTION #2: PR-2 & VICTOR ROJAS AVENUE
2018 PM Peak Hour Volumes



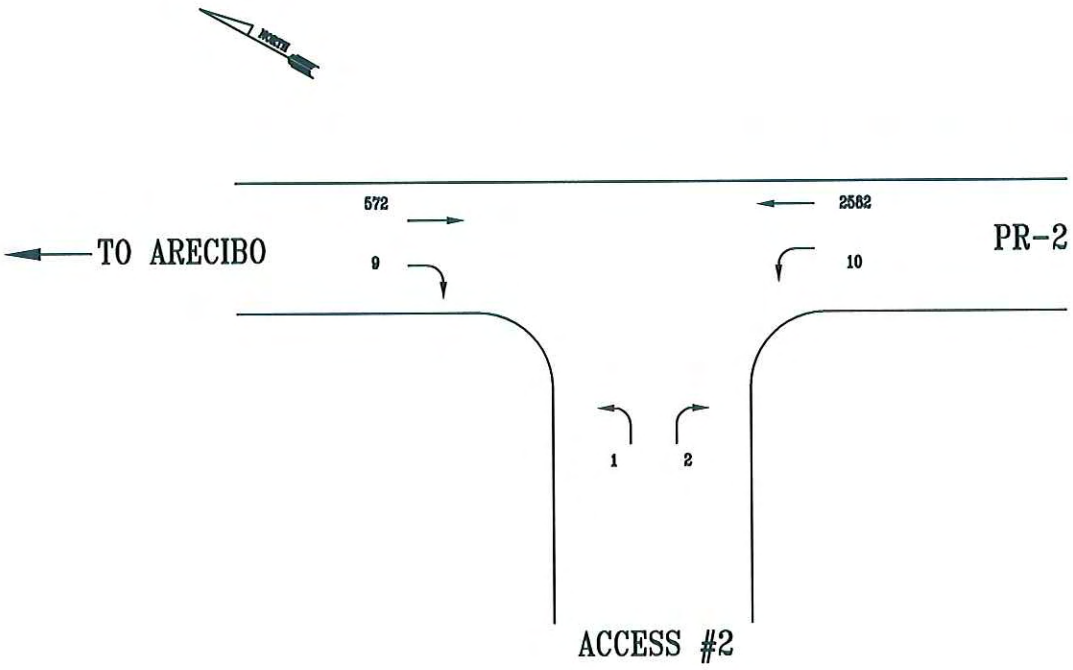
INTERSECTION #3: PR-2 AND ACCESS #1
2018 AM Peak Hour Volumes



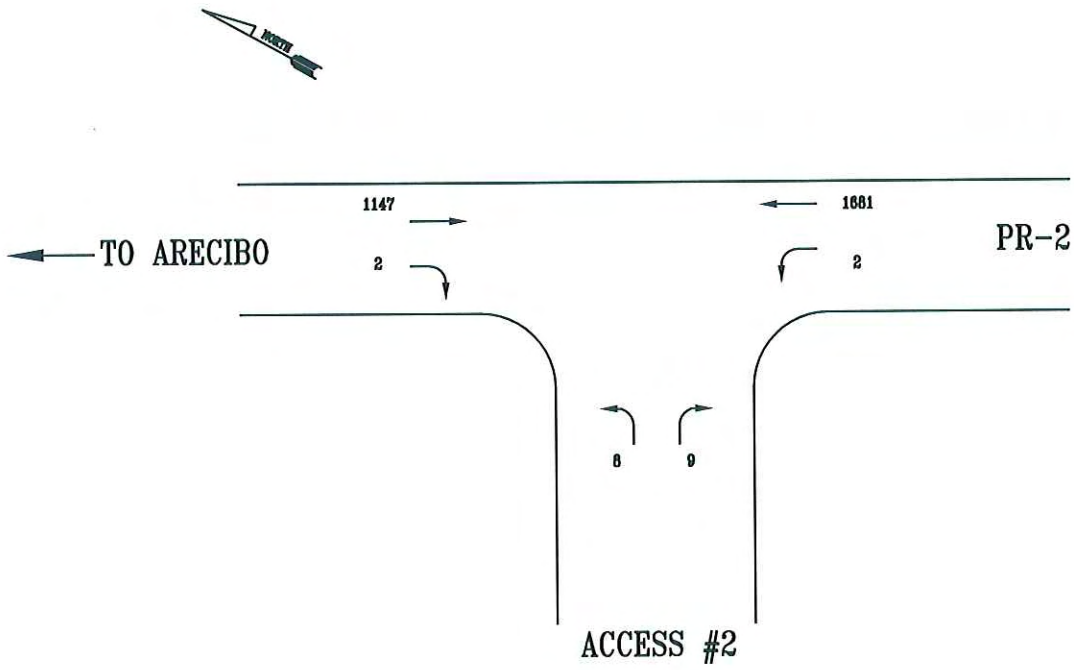
INTERSECTION #3: PR-2 AND ACCESS #1
2018 PM Peak Hour Volumes



INTERSECTION #4: PR-2 AND ACCESS #2
2018 AM Peak Hour Volumes



INTERSECTION #4: PR-2 AND ACCESS #2
2018 PM Peak Hour Volumes




# APPENDIX – H

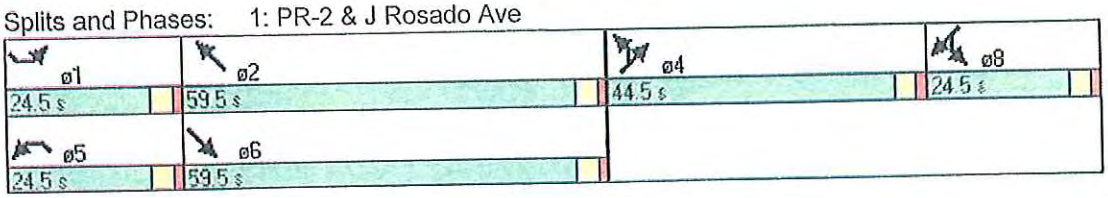
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 12 | 11 | 12 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.925 | | | 0.978 | | | 0.967 | | | 0.944 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.972 | | | 0.991 | |
| Satd. Flow (prot) | 1652 | 3165 | 0 | 3090 | 3346 | 0 | 0 | 3216 | 0 | 0 | 3201 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.972 | | | 0.991 | |
| Satd. Flow (perm) | 1652 | 3165 | 0 | 3090 | 3346 | 0 | 0 | 3216 | 0 | 0 | 3201 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 187 | | | 14 | | | 23 | | | 65 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 35 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 21.3 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 51 | 185 | 203 | 528 | 789 | 131 | 417 | 138 | 158 | 44 | 94 | 78 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.84 | 0.91 | 0.85 | 0.85 | 0.84 | 0.84 | 0.84 | 0.84 | 0.85 | 0.76 | 0.75 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 60 | 236 | 239 | 665 | 993 | 167 | 531 | 176 | 201 | 55 | 132 | 111 |
| Lane Group Flow (vph) | 60 | 475 | 0 | 665 | 1160 | 0 | 0 | 908 | 0 | 0 | 298 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 24.5 | 59.5 | 0.0 | 44.5 | 44.5 | 0.0 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 16.0% | 38.9% | 0.0% | 16.0% | 38.9% | 0.0% | 29.1% | 29.1% | 0.0% | 16.0% | 16.0% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 10.1 | 36.5 | | 20.5 | 49.7 | | | 41.0 | | | 14.7 | |
| Actuated g/C Ratio | 0.08 | 0.28 | | 0.16 | 0.38 | | | 0.31 | | | 0.11 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.48 | 0.47 | | 1.38 | 0.91 | | | 0.96dl | | | 0.72 | |
| Control Delay | 64.9 | 22.7 | | 223.2 | 45.7 | | | 55.9 | | | 49.5 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 64.9 | 22.7 | | 223.2 | 45.7 | | | 55.9 | | | 49.5 | |
| LOS | E | C | | F | D | | | E | | | D | |
| Approach Delay | | 27.5 | | | 110.4 | | | 55.9 | | | 49.5 | |
| Approach LOS | | C | | | F | | | E | | | D | |

Intersection Summary

Area Type: Other
Cycle Length: 153
Actuated Cycle Length: 131.2
Natural Cycle: 100
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.38
Intersection Signal Delay: 79.0 Intersection LOS: E
Intersection Capacity Utilization 77.7% ICU Level of Service D
Analysis Period (min) 15
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 1: PR-2 & J Rosado Ave



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.95 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.932 | | 0.906 | |
| Flt Protected | 0.950 | | | | 0.982 | |
| Satd. Flow (prot) | 1770 | 3539 | 3299 | 0 | 3215 | 0 |
| Flt Permitted | 0.950 | | | | 0.982 | |
| Satd. Flow (perm) | 1770 | 3539 | 3299 | 0 | 3215 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 180 | | 360 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 4074 | | 1144 | |
| Travel Time (s) | | 61.6 | 61.7 | | 22.3 | |
| Volume (vph) | 118 | 276 | 1132 | 857 | 187 | 316 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.84 | 0.84 | 0.82 | 0.74 | 0.94 | 0.94 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 150 | 352 | 1477 | 1239 | 213 | 360 |
| Lane Group Flow (vph) | 150 | 352 | 2716 | 0 | 573 | 0 |
| Turn Type | Prot | | | | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 11.1 | 48.5 | 36.0 | | 10.8 | |
| Actuated g/C Ratio | 0.16 | 0.70 | 0.52 | | 0.16 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.55 | 0.14 | 1.51 | | 0.71 | |
| Control Delay | 30.9 | 4.1 | 253.7 | | 11.3 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 30.9 | 4.1 | 253.7 | | 11.3 | |
| LOS | C | A | F | | B | |
| Approach Delay | | 12.1 | 253.7 | | 11.3 | |
| Approach LOS | | B | F | | B | |

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 69.6
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.51
Intersection Signal Delay: 185.1 Intersection LOS: F
Intersection Capacity Utilization 98.0% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: PR-2 & V Rojas Ave

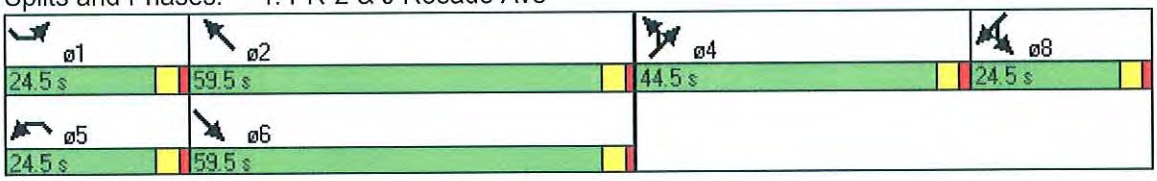
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 12 | 11 | 12 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.925 | | | 0.978 | | | 0.964 | | | 0.944 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.972 | | | 0.991 | |
| Satd. Flow (prot) | 1652 | 3165 | 0 | 3090 | 3346 | 0 | 0 | 3169 | 0 | 0 | 3201 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.972 | | | 0.991 | |
| Satd. Flow (perm) | 1652 | 3165 | 0 | 3090 | 3346 | 0 | 0 | 3169 | 0 | 0 | 3201 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 186 | | | 14 | | | 26 | | | 64 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 35 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 21.3 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 55 | 200 | 219 | 573 | 852 | 141 | 450 | 149 | 189 | 48 | 102 | 84 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.84 | 0.91 | 0.85 | 0.85 | 0.84 | 0.84 | 0.84 | 0.85 | 0.85 | 0.76 | 0.75 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 7% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 65 | 255 | 258 | 721 | 1073 | 180 | 573 | 190 | 238 | 60 | 144 | 120 |
| Lane Group Flow (vph) | 65 | 513 | 0 | 721 | 1253 | 0 | 0 | 1001 | 0 | 0 | 324 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 24.5 | 59.5 | 0.0 | 44.5 | 44.5 | 0.0 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 16.0% | 38.9% | 0.0% | 16.0% | 38.9% | 0.0% | 29.1% | 29.1% | 0.0% | 16.0% | 16.0% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 10.7 | 43.5 | | 20.1 | 55.3 | | | 40.2 | | | 16.0 | |
| Actuated g/C Ratio | 0.08 | 0.32 | | 0.15 | 0.40 | | | 0.29 | | | 0.12 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.51 | 0.46 | | 1.60 | 0.93 | | | 1.11dl | | | 0.76 | |
| Control Delay | 66.4 | 24.2 | | 317.2 | 52.6 | | | 92.8 | | | 53.9 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 66.4 | 24.2 | | 317.2 | 52.6 | | | 92.8 | | | 53.9 | |
| LOS | E | C | | F | D | | | F | | | D | |
| Approach Delay | | 28.9 | | | 149.3 | | | 92.8 | | | 53.9 | |
| Approach LOS | | C | | | F | | | F | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 153 | | | |
| Actuated Cycle Length: 138 | | | |
| Natural Cycle: 120 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.60 | | | |
| Intersection Signal Delay: 108.8 | | Intersection LOS: F | |
| Intersection Capacity Utilization 82.4% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 1: PR-2 & J Rosado Ave

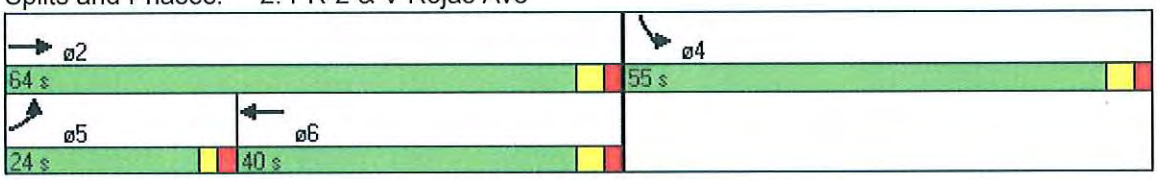


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.95 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.932 | | 0.906 | |
| Flt Protected | 0.950 | | | | 0.982 | |
| Satd. Flow (prot) | 1770 | 3438 | 3299 | 0 | 3215 | 0 |
| Flt Permitted | 0.950 | | | | 0.982 | |
| Satd. Flow (perm) | 1770 | 3438 | 3299 | 0 | 3215 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 179 | | 388 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 127 | 316 | 1226 | 926 | 202 | 341 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.84 | 0.85 | 0.82 | 0.74 | 0.94 | 0.94 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 5% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 162 | 398 | 1600 | 1339 | 230 | 388 |
| Lane Group Flow (vph) | 162 | 398 | 2939 | 0 | 618 | 0 |
| Turn Type | Prot | | | | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 11.6 | 49.1 | 36.2 | | 11.4 | |
| Actuated g/C Ratio | 0.16 | 0.69 | 0.51 | | 0.16 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.57 | 0.17 | 1.66 | | 0.73 | |
| Control Delay | 31.7 | 4.4 | 318.1 | | 11.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 31.7 | 4.4 | 318.1 | | 11.4 | |
| LOS | C | A | F | | B | |
| Approach Delay | | 12.3 | 318.1 | | 11.4 | |
| Approach LOS | | B | F | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 70.8 | | | |
| Natural Cycle: 150 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.66 | | | |
| Intersection Signal Delay: 230.5 | | Intersection LOS: F | |
| Intersection Capacity Utilization 105.0% | | ICU Level of Service G | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 2 | 6 | 29 | 2257 | 508 | 10 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.78 | 0.92 | 1.00 |
| Hourly flow rate (vph) | 2 | 6 | 31 | 3096 | 591 | 11 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2201 | 295 | 602 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 2201 | 295 | 602 | | | |
| tC, single (s) | 8.8 | 8.9 | 6.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 4.5 | 4.3 | 3.2 | | | |
| p0 queue free % | 79 | 99 | 94 | | | |
| cM capacity (veh/h) | 10 | 479 | 524 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 9 | 31 | 1548 | 1548 | 295 | 295 | 11 |
| Volume Left | 2 | 31 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 6 | 0 | 0 | 0 | 0 | 0 | 11 |
| cSH | 38 | 524 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.22 | 0.06 | 0.91 | 0.91 | 0.17 | 0.17 | 0.01 |
| Queue Length 95th (ft) | 18 | 5 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 124.2 | 12.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | F | B | | | | | |
| Approach Delay (s) | 124.2 | 0.1 | | | 0.0 | | |
| Approach LOS | F | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.4 | | |
| Intersection Capacity Utilization | 76.8% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 1 | 2 | 9 | 2285 | 506 | 8 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.92 | 1.00 |
| Hourly flow rate (vph) | 1 | 2 | 10 | 3095 | 588 | 9 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2155 | 294 | 597 | | | |
| vC1, stage 1 conf vol | 588 | | | | | |
| vC2, stage 2 conf vol | 1567 | | | | | |
| vCu, unblocked vol | 2155 | 294 | 597 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 99 | 100 | 99 | | | |
| cM capacity (veh/h) | 91 | 702 | 976 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 3 | 10 | 1547 | 1547 | 294 | 294 | 9 |
| Volume Left | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 2 | 0 | 0 | 0 | 0 | 0 | 9 |
| cSH | 216 | 976 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.01 | 0.01 | 0.91 | 0.91 | 0.17 | 0.17 | 0.01 |
| Queue Length 95th (ft) | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 21.9 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | C | A | | | | | |
| Approach Delay (s) | 21.9 | 0.0 | | | 0.0 | | |
| Approach LOS | C | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 77.6% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

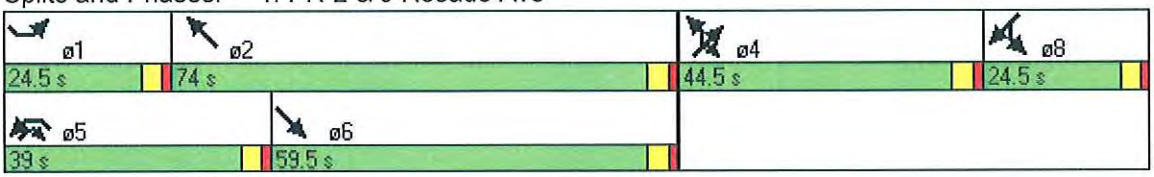
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 10 | 10 | 10 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 60 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 1 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.925 | | | 0.978 | | | | 0.850 | | 0.944 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.964 | | | 0.991 | |
| Satd. Flow (prot) | 1652 | 3165 | 0 | 3090 | 3346 | 0 | 0 | 3184 | 1409 | 0 | 3201 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.964 | | | 0.991 | |
| Satd. Flow (perm) | 1652 | 3165 | 0 | 3090 | 3346 | 0 | 0 | 3184 | 1409 | 0 | 3201 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 162 | | | 14 | | | | 78 | | 57 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.09 | 1.09 | 1.09 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 45 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 16.6 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 55 | 200 | 219 | 573 | 852 | 141 | 450 | 149 | 189 | 48 | 102 | 84 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.84 | 0.91 | 0.85 | 0.85 | 0.84 | 0.84 | 0.84 | 0.85 | 0.85 | 0.76 | 0.75 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 7% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 65 | 255 | 258 | 721 | 1073 | 180 | 573 | 190 | 238 | 60 | 144 | 120 |
| Lane Group Flow (vph) | 65 | 513 | 0 | 721 | 1253 | 0 | 0 | 763 | 238 | 0 | 324 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | pt+ov | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 39.0 | 74.0 | 0.0 | 44.5 | 44.5 | 83.5 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 14.6% | 35.5% | 0.0% | 23.3% | 44.2% | 0.0% | 26.6% | 26.6% | 49.9% | 14.6% | 14.6% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 10.9 | 34.5 | | 35.3 | 61.6 | | | 39.4 | 74.6 | | 16.3 | |
| Actuated g/C Ratio | 0.07 | 0.24 | | 0.25 | 0.43 | | | 0.27 | 0.52 | | 0.11 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.52 | 0.58 | | 0.95 | 0.87 | | | 1.27dl | 0.31 | | 0.78 | |
| Control Delay | 72.0 | 32.5 | | 77.1 | 43.4 | | | 61.9 | 9.8 | | 59.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 72.0 | 32.5 | | 77.1 | 43.4 | | | 61.9 | 9.8 | | 59.8 | |
| LOS | E | C | | E | D | | | E | A | | E | |
| Approach Delay | | 36.9 | | | 55.7 | | | 49.5 | | | 59.8 | |
| Approach LOS | | D | | | E | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 167.5 | | | |
| Actuated Cycle Length: 143.8 | | | |
| Natural Cycle: 100 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.95 | | | |
| Intersection Signal Delay: 51.6 | | Intersection LOS: D | |
| Intersection Capacity Utilization 82.4% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 1: PR-2 & J Rosado Ave

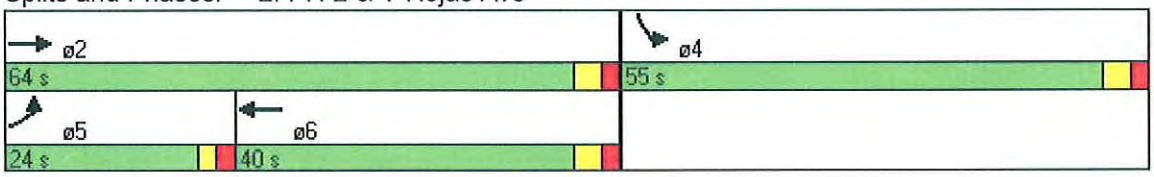


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 400 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | 0.906 | |
| Flt Protected | 0.950 | | | | 0.982 | |
| Satd. Flow (prot) | 1770 | 3438 | 3539 | 1583 | 3215 | 0 |
| Flt Permitted | 0.950 | | | | 0.982 | |
| Satd. Flow (perm) | 1770 | 3438 | 3539 | 1583 | 3215 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 818 | 388 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 127 | 316 | 1226 | 926 | 202 | 341 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.84 | 0.85 | 0.82 | 0.74 | 0.94 | 0.94 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 5% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 162 | 398 | 1600 | 1339 | 230 | 388 |
| Lane Group Flow (vph) | 162 | 398 | 1600 | 1339 | 618 | 0 |
| Turn Type | Prot | | | Free | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | Free | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 11.6 | 49.1 | 36.2 | 70.8 | 11.4 | |
| Actuated g/C Ratio | 0.16 | 0.69 | 0.51 | 1.00 | 0.16 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.57 | 0.17 | 0.88 | 0.85 | 0.73 | |
| Control Delay | 31.7 | 4.4 | 27.1 | 6.3 | 11.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 31.7 | 4.4 | 27.1 | 6.3 | 11.4 | |
| LOS | C | A | C | A | B | |
| Approach Delay | | 12.3 | 17.6 | | 11.4 | |
| Approach LOS | | B | B | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 70.8 | | | |
| Natural Cycle: 75 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.88 | | | |
| Intersection Signal Delay: 16.0 | | Intersection LOS: B | |
| Intersection Capacity Utilization 73.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave

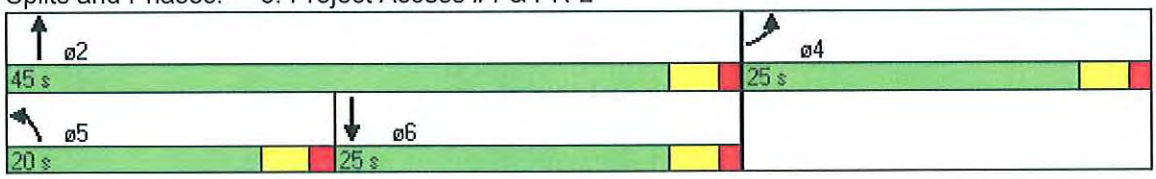


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 0 | 0 | 350 | | | 400 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 50 | | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.899 | | | | | 0.850 |
| Flt Protected | 0.988 | | 0.950 | | | |
| Satd. Flow (prot) | 844 | 0 | 902 | 3539 | 3539 | 808 |
| Flt Permitted | 0.988 | | 0.950 | | | |
| Satd. Flow (perm) | 844 | 0 | 902 | 3539 | 3539 | 808 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 6 | | | | | 11 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | 15 | | | 45 | 45 | |
| Link Distance (ft) | 773 | | | 848 | 3282 | |
| Travel Time (s) | 35.1 | | | 12.8 | 49.7 | |
| Volume (vph) | 2 | 6 | 29 | 2257 | 508 | 10 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.78 | 0.92 | 1.00 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 100% | 100% | 100% | 2% | 2% | 100% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 2 | 6 | 31 | 3096 | 591 | 11 |
| Lane Group Flow (vph) | 8 | 0 | 31 | 3096 | 591 | 11 |
| Turn Type | | | Prot | | | Free |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | | | | | Free |
| Detector Phases | 4 | | 5 | 2 | 6 | |
| Minimum Initial (s) | 10.0 | | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 25.0 | | 15.0 | 40.0 | 25.0 | |
| Total Split (s) | 25.0 | 0.0 | 20.0 | 45.0 | 25.0 | 0.0 |
| Total Split (%) | 35.7% | 0.0% | 28.6% | 64.3% | 35.7% | 0.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | 1.5 | 1.5 | |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | | None | Max | Max | |
| Act Effct Green (s) | 11.4 | | 10.0 | 89.4 | 79.8 | 94.8 |
| Actuated g/C Ratio | 0.11 | | 0.10 | 0.94 | 0.84 | 1.00 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.08 | | 0.35 | 0.93 | 0.20 | 0.01 |
| Control Delay | 15.1 | | 22.7 | 11.9 | 4.0 | 0.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 15.1 | | 22.7 | 11.9 | 4.0 | 0.0 |
| LOS | B | | C | B | A | A |
| Approach Delay | 15.1 | | | 12.0 | 3.9 | |
| Approach LOS | B | | | B | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 94.8 | | | |
| Natural Cycle: 150 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.93 | | | |
| Intersection Signal Delay: 10.7 | | Intersection LOS: B | |
| Intersection Capacity Utilization 81.8% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Project Access #1 & PR-2



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 1 | 2 | 9 | 2285 | 506 | 8 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.92 | 1.00 |
| Hourly flow rate (vph) | 1 | 2 | 10 | 3095 | 588 | 9 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2155 | 294 | 597 | | | |
| vC1, stage 1 conf vol | 588 | | | | | |
| vC2, stage 2 conf vol | 1567 | | | | | |
| vCu, unblocked vol | 2155 | 294 | 597 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 99 | 100 | 99 | | | |
| cM capacity (veh/h) | 91 | 702 | 976 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 3 | 10 | 1547 | 1547 | 294 | 294 | 9 |
| Volume Left | 1 | 10 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 2 | 0 | 0 | 0 | 0 | 0 | 9 |
| cSH | 216 | 976 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.01 | 0.01 | 0.91 | 0.91 | 0.17 | 0.17 | 0.01 |
| Queue Length 95th (ft) | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 21.9 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | C | A | | | | | |
| Approach Delay (s) | 21.9 | 0.0 | | | 0.0 | | |
| Approach LOS | C | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 77.6% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |

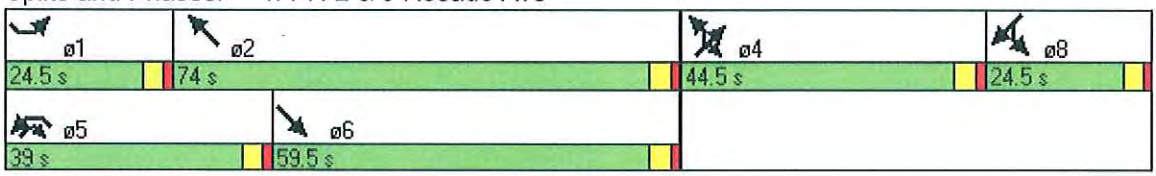
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 10 | 10 | 10 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 60 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 1 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.924 | | | 0.979 | | | | 0.850 | | 0.945 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.964 | | | 0.991 | |
| Satd. Flow (prot) | 1652 | 3161 | 0 | 3090 | 3349 | 0 | 0 | 3184 | 1409 | 0 | 3204 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.964 | | | 0.991 | |
| Satd. Flow (perm) | 1652 | 3161 | 0 | 3090 | 3349 | 0 | 0 | 3184 | 1409 | 0 | 3204 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 167 | | | 14 | | | | 75 | | 56 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.09 | 1.09 | 1.09 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 45 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 16.6 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 62 | 226 | 248 | 648 | 963 | 160 | 509 | 168 | 213 | 54 | 115 | 95 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.85 | 0.91 | 0.86 | 0.85 | 0.85 | 0.85 | 0.85 | 0.89 | 0.85 | 0.76 | 0.76 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 7% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 72 | 284 | 292 | 806 | 1212 | 201 | 641 | 211 | 256 | 68 | 162 | 134 |
| Lane Group Flow (vph) | 72 | 576 | 0 | 806 | 1413 | 0 | 0 | 852 | 256 | 0 | 364 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | pt+ov | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 39.0 | 74.0 | 0.0 | 44.5 | 44.5 | 83.5 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 14.6% | 35.5% | 0.0% | 23.3% | 44.2% | 0.0% | 26.6% | 26.6% | 49.9% | 14.6% | 14.6% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 12.2 | 47.2 | | 34.5 | 69.6 | | | 40.0 | 74.6 | | 18.7 | |
| Actuated g/C Ratio | 0.08 | 0.30 | | 0.22 | 0.44 | | | 0.25 | 0.47 | | 0.12 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.57 | 0.54 | | 1.20 | 0.96 | | | 1.54dl | 0.36 | | 0.85 | |
| Control Delay | 76.0 | 33.9 | | 153.9 | 57.8 | | | 104.0 | 12.3 | | 72.4 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 76.0 | 33.9 | | 153.9 | 57.8 | | | 104.0 | 12.3 | | 72.4 | |
| LOS | E | C | | F | E | | | F | B | | E | |
| Approach Delay | | 38.6 | | | 92.7 | | | 82.8 | | | 72.4 | |
| Approach LOS | | D | | | F | | | F | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 167.5 | | | |
| Actuated Cycle Length: 158.5 | | | |
| Natural Cycle: 130 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.20 | | | |
| Intersection Signal Delay: 80.4 | | Intersection LOS: F | |
| Intersection Capacity Utilization 91.1% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 1: PR-2 & J Rosado Ave

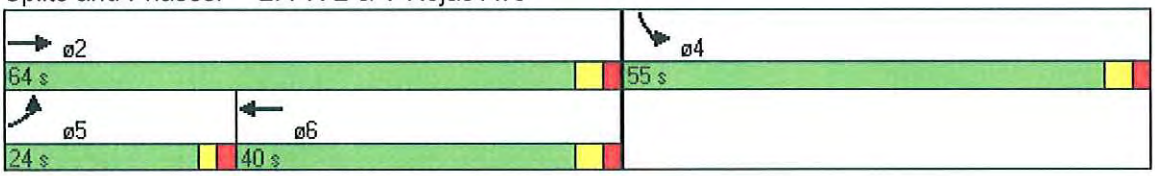


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 400 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | 0.906 | |
| Flt Protected | 0.950 | | | | 0.982 | |
| Satd. Flow (prot) | 1770 | 3438 | 3539 | 1583 | 3215 | 0 |
| Flt Permitted | 0.950 | | | | 0.982 | |
| Satd. Flow (perm) | 1770 | 3438 | 3539 | 1583 | 3215 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 817 | 397 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 144 | 357 | 1385 | 1046 | 228 | 386 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.85 | 0.88 | 0.83 | 0.75 | 0.94 | 0.95 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 5% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 181 | 434 | 1785 | 1492 | 260 | 435 |
| Lane Group Flow (vph) | 181 | 434 | 1785 | 1492 | 695 | 0 |
| Turn Type | Prot | | | Free | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | Free | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 12.9 | 52.6 | 35.6 | 76.5 | 13.7 | |
| Actuated g/C Ratio | 0.17 | 0.69 | 0.47 | 1.00 | 0.18 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.61 | 0.18 | 1.08 | 0.94 | 0.77 | |
| Control Delay | 33.6 | 5.1 | 72.0 | 14.7 | 13.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 33.6 | 5.1 | 72.0 | 14.7 | 13.2 | |
| LOS | C | A | E | B | B | |
| Approach Delay | | 13.5 | 45.9 | | 13.2 | |
| Approach LOS | | B | D | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 76.5 | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.08 | | | |
| Intersection Signal Delay: 36.6 | | Intersection LOS: D | |
| Intersection Capacity Utilization 81.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave

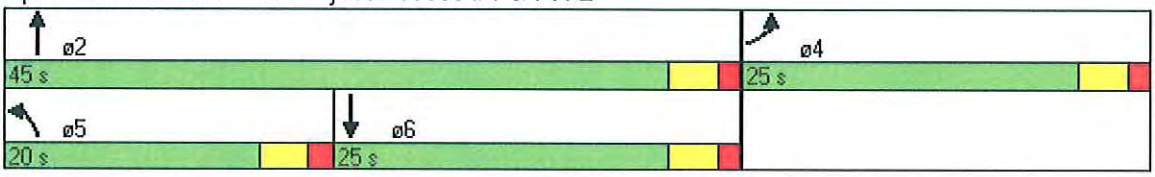


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 0 | 0 | 350 | | | 400 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 50 | | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.895 | | | | | 0.850 |
| Flt Protected | 0.989 | | 0.950 | | | |
| Satd. Flow (prot) | 841 | 0 | 902 | 3539 | 3539 | 808 |
| Flt Permitted | 0.989 | | 0.950 | | | |
| Satd. Flow (perm) | 841 | 0 | 902 | 3539 | 3539 | 808 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 7 | | | | | 12 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | 15 | | | 45 | 45 | |
| Link Distance (ft) | 773 | | | 848 | 3282 | |
| Travel Time (s) | 35.1 | | | 12.8 | 49.7 | |
| Volume (vph) | 2 | 7 | 33 | 2551 | 574 | 11 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.94 | 1.00 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 100% | 100% | 100% | 2% | 2% | 100% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 2 | 7 | 35 | 3455 | 653 | 12 |
| Lane Group Flow (vph) | 9 | 0 | 35 | 3455 | 653 | 12 |
| Turn Type | | | Prot | | | Free |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | | | | | Free |
| Detector Phases | 4 | | 5 | 2 | 6 | |
| Minimum Initial (s) | 10.0 | | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 25.0 | | 15.0 | 40.0 | 25.0 | |
| Total Split (s) | 25.0 | 0.0 | 20.0 | 45.0 | 25.0 | 0.0 |
| Total Split (%) | 35.7% | 0.0% | 28.6% | 64.3% | 35.7% | 0.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | 1.5 | 1.5 | |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | | None | Max | Max | |
| Act Effct Green (s) | 11.5 | | 10.4 | 86.9 | 76.9 | 92.3 |
| Actuated g/C Ratio | 0.11 | | 0.11 | 0.94 | 0.83 | 1.00 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.09 | | 0.37 | 1.04 | 0.22 | 0.01 |
| Control Delay | 14.6 | | 23.0 | 33.3 | 4.3 | 0.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.6 | | 23.0 | 33.3 | 4.3 | 0.0 |
| LOS | B | | C | C | A | A |
| Approach Delay | 14.6 | | | 33.2 | 4.2 | |
| Approach LOS | B | | | C | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 92.3 | | | |
| Natural Cycle: 150 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 1.04 | | | |
| Intersection Signal Delay: 28.5 | | Intersection LOS: C | |
| Intersection Capacity Utilization 90.5% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Project Access #1 & PR-2



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 1 | 2 | 10 | 2582 | 572 | 9 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.93 | 1.00 |
| Hourly flow rate (vph) | 1 | 2 | 11 | 3497 | 658 | 10 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2428 | 329 | 668 | | | |
| vC1, stage 1 conf vol | 658 | | | | | |
| vC2, stage 2 conf vol | 1770 | | | | | |
| vCu, unblocked vol | 2428 | 329 | 668 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 98 | 100 | 99 | | | |
| cM capacity (veh/h) | 71 | 667 | 918 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 3 | 11 | 1749 | 1749 | 329 | 329 | 10 |
| Volume Left | 1 | 11 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 2 | 0 | 0 | 0 | 0 | 0 | 10 |
| cSH | 175 | 918 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.02 | 0.01 | 1.03 | 1.03 | 0.19 | 0.19 | 0.01 |
| Queue Length 95th (ft) | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 25.9 | 9.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | A | | | | | |
| Approach Delay (s) | 25.9 | 0.0 | | | 0.0 | | |
| Approach LOS | D | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 86.4% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 10 | 10 | 10 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 60 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 1 | 0 | | 1 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 0.91 | 0.91 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.924 | | | 0.979 | | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.964 | | | 0.985 | |
| Satd. Flow (prot) | 1503 | 3028 | 0 | 3090 | 3349 | 0 | 0 | 3184 | 1409 | 0 | 3370 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.964 | | | 0.985 | |
| Satd. Flow (perm) | 1503 | 3028 | 0 | 3090 | 3349 | 0 | 0 | 3184 | 1409 | 0 | 3370 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 201 | | | 19 | | | | 125 | | | 134 |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.09 | 1.09 | 1.09 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 16.6 | | | 61.6 | | | 29.2 | | | 35.4 | |
| Volume (vph) | 62 | 226 | 248 | 648 | 963 | 160 | 509 | 168 | 213 | 54 | 115 | 95 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.85 | 0.91 | 0.86 | 0.85 | 0.85 | 0.85 | 0.85 | 0.89 | 0.85 | 0.76 | 0.76 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 7% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 72 | 284 | 292 | 806 | 1212 | 201 | 641 | 211 | 256 | 68 | 162 | 134 |
| Lane Group Flow (vph) | 72 | 576 | 0 | 806 | 1413 | 0 | 0 | 852 | 256 | 0 | 230 | 134 |
| Turn Type | Prot | | | Prot | | | Split | | pt+ov | Split | | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | 8 |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | 8 |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.5 | 8.5 | | 8.5 | 8.5 | | 8.5 | 8.5 | | 8.5 | 8.5 | 8.5 |
| Total Split (s) | 14.0 | 31.0 | 0.0 | 36.0 | 53.0 | 0.0 | 37.0 | 37.0 | 73.0 | 16.0 | 16.0 | 16.0 |
| Total Split (%) | 11.7% | 25.8% | 0.0% | 30.0% | 44.2% | 0.0% | 30.8% | 30.8% | 60.8% | 13.3% | 13.3% | 13.3% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | 1.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None |
| Act Effct Green (s) | 8.8 | 23.4 | | 31.6 | 48.7 | | | 32.6 | 64.2 | | 11.0 | 11.0 |
| Actuated g/C Ratio | 0.07 | 0.20 | | 0.27 | 0.42 | | | 0.28 | 0.55 | | 0.09 | 0.09 |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.65 | 0.75 | | 0.96 | 1.00 | | | 1.39dl | 0.31 | | 0.73 | 0.50 |
| Control Delay | 74.8 | 32.8 | | 66.3 | 59.3 | | | 63.9 | 5.1 | | 63.8 | 14.8 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 74.8 | 32.8 | | 66.3 | 59.3 | | | 63.9 | 5.1 | | 63.8 | 14.8 |
| LOS | E | C | | E | E | | | E | A | | E | B |
| Approach Delay | | 37.4 | | | 61.8 | | | 50.3 | | | 45.7 | |
| Approach LOS | | D | | | E | | | D | | | D | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 120 | | | |
| Actuated Cycle Length: 116.7 | | | |
| Natural Cycle: 100 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.00 | | | |
| Intersection Signal Delay: 53.9 | | Intersection LOS: D | |
| Intersection Capacity Utilization 95.6% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

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

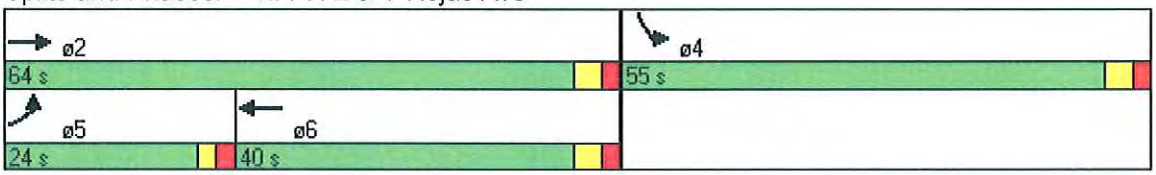
Splits and Phases: 1: PR-2 & J Rosado Ave

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 400 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | 0.906 | |
| Flt Protected | 0.950 | | | | 0.982 | |
| Satd. Flow (prot) | 1770 | 3438 | 3539 | 1583 | 3215 | 0 |
| Flt Permitted | 0.950 | | | | 0.982 | |
| Satd. Flow (perm) | 1770 | 3438 | 3539 | 1583 | 3215 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 817 | 397 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 144 | 357 | 1385 | 1046 | 228 | 386 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.85 | 0.88 | 0.83 | 0.75 | 0.94 | 0.95 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 5% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 181 | 434 | 1785 | 1492 | 260 | 435 |
| Lane Group Flow (vph) | 181 | 434 | 1785 | 1492 | 695 | 0 |
| Turn Type | Prot | | | Free | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | Free | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 12.9 | 52.6 | 35.6 | 76.5 | 13.7 | |
| Actuated g/C Ratio | 0.17 | 0.69 | 0.47 | 1.00 | 0.18 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.61 | 0.18 | 1.08 | 0.94 | 0.77 | |
| Control Delay | 33.6 | 5.1 | 72.0 | 14.7 | 13.2 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 33.6 | 5.1 | 72.0 | 14.7 | 13.2 | |
| LOS | C | A | E | B | B | |
| Approach Delay | | 13.5 | 45.9 | | 13.2 | |
| Approach LOS | | B | D | | B | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 76.5 | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.08 | | | |
| Intersection Signal Delay: 36.6 | | Intersection LOS: D | |
| Intersection Capacity Utilization 81.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave

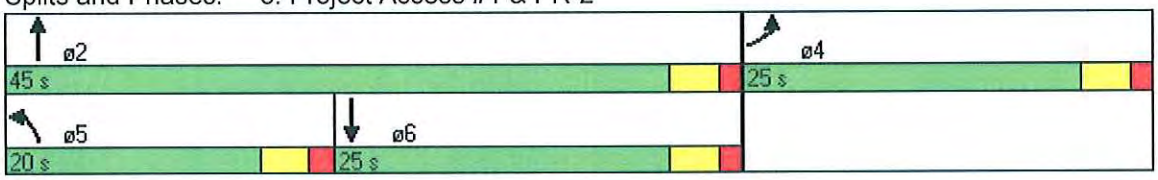


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 0 | 0 | 350 | | | 400 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 50 | | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.895 | | | | | 0.850 |
| Flt Protected | 0.989 | | 0.950 | | | |
| Satd. Flow (prot) | 841 | 0 | 902 | 3539 | 3539 | 808 |
| Flt Permitted | 0.989 | | 0.950 | | | |
| Satd. Flow (perm) | 841 | 0 | 902 | 3539 | 3539 | 808 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 7 | | | | | 12 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | 15 | | | 45 | 45 | |
| Link Distance (ft) | 773 | | | 848 | 3282 | |
| Travel Time (s) | 35.1 | | | 12.8 | 49.7 | |
| Volume (vph) | 2 | 7 | 33 | 2551 | 574 | 11 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.94 | 1.00 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 100% | 100% | 100% | 2% | 2% | 100% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 2 | 7 | 35 | 3455 | 653 | 12 |
| Lane Group Flow (vph) | 9 | 0 | 35 | 3455 | 653 | 12 |
| Turn Type | | | Prot | | | Free |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | | | | | Free |
| Detector Phases | 4 | | 5 | 2 | 6 | |
| Minimum Initial (s) | 10.0 | | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 25.0 | | 15.0 | 40.0 | 25.0 | |
| Total Split (s) | 25.0 | 0.0 | 20.0 | 45.0 | 25.0 | 0.0 |
| Total Split (%) | 35.7% | 0.0% | 28.6% | 64.3% | 35.7% | 0.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | 1.5 | 1.5 | |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | | None | Max | Max | |
| Act Effct Green (s) | 11.5 | | 10.4 | 86.9 | 76.9 | 92.3 |
| Actuated g/C Ratio | 0.11 | | 0.11 | 0.94 | 0.83 | 1.00 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.09 | | 0.37 | 1.04 | 0.22 | 0.01 |
| Control Delay | 14.6 | | 23.0 | 33.3 | 4.3 | 0.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.6 | | 23.0 | 33.3 | 4.3 | 0.0 |
| LOS | B | | C | C | A | A |
| Approach Delay | 14.6 | | | 33.2 | 4.2 | |
| Approach LOS | B | | | C | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 92.3 | | | |
| Natural Cycle: 150 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 1.04 | | | |
| Intersection Signal Delay: 28.5 | | Intersection LOS: C | |
| Intersection Capacity Utilization 90.5% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Project Access #1 & PR-2



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 1 | 2 | 10 | 2582 | 572 | 9 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.79 | 0.93 | 1.00 |
| Hourly flow rate (vph) | 1 | 2 | 11 | 3497 | 658 | 10 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2428 | 329 | 668 | | | |
| vC1, stage 1 conf vol | 658 | | | | | |
| vC2, stage 2 conf vol | 1770 | | | | | |
| vCu, unblocked vol | 2428 | 329 | 668 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 98 | 100 | 99 | | | |
| cM capacity (veh/h) | 71 | 667 | 918 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 3 | 11 | 1749 | 1749 | 329 | 329 | 10 |
| Volume Left | 1 | 11 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 2 | 0 | 0 | 0 | 0 | 0 | 10 |
| cSH | 175 | 918 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.02 | 0.01 | 1.03 | 1.03 | 0.19 | 0.19 | 0.01 |
| Queue Length 95th (ft) | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 25.9 | 9.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | A | | | | | |
| Approach Delay (s) | 25.9 | 0.0 | | | 0.0 | | |
| Approach LOS | D | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.0 | | |
| Intersection Capacity Utilization | 86.4% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 12 | 11 | 12 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.922 | | | 0.979 | | | 0.937 | | | 0.950 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.979 | | | 0.987 | |
| Satd. Flow (prot) | 1652 | 3154 | 0 | 3090 | 3349 | 0 | 0 | 3138 | 0 | 0 | 3208 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.979 | | | 0.987 | |
| Satd. Flow (perm) | 1652 | 3154 | 0 | 3090 | 3349 | 0 | 0 | 3138 | 0 | 0 | 3208 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 202 | | | 13 | | | 117 | | | 46 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 35 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 21.3 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 98 | 366 | 388 | 368 | 552 | 91 | 262 | 86 | 310 | 86 | 125 | 103 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.93 | 0.90 | 0.96 | 0.95 | 0.95 | 0.76 | 0.77 | 0.93 | 0.93 | 0.84 | 0.86 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 115 | 421 | 461 | 410 | 622 | 102 | 369 | 120 | 357 | 99 | 159 | 128 |
| Lane Group Flow (vph) | 115 | 882 | 0 | 410 | 724 | 0 | 0 | 846 | 0 | 0 | 386 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 24.5 | 59.5 | 0.0 | 44.5 | 44.5 | 0.0 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 16.0% | 38.9% | 0.0% | 16.0% | 38.9% | 0.0% | 29.1% | 29.1% | 0.0% | 16.0% | 16.0% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 13.6 | 34.9 | | 20.6 | 41.9 | | | 34.7 | | | 17.4 | |
| Actuated g/C Ratio | 0.11 | 0.28 | | 0.16 | 0.33 | | | 0.27 | | | 0.14 | |

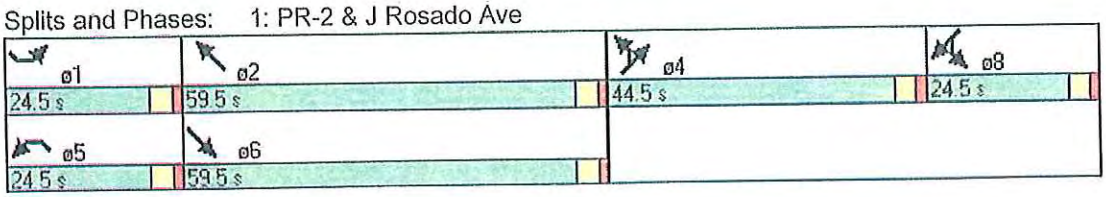
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.65 | 0.87 | | 0.81 | 0.65 | | | 0.89 | | | 0.80 | |
| Control Delay | 63.2 | 35.9 | | 67.1 | 38.5 | | | 45.3 | | | 55.8 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 63.2 | 35.9 | | 67.1 | 38.5 | | | 45.3 | | | 55.8 | |
| LOS | E | D | | E | D | | | D | | | E | |
| Approach Delay | | 39.1 | | | 48.9 | | | 45.3 | | | 55.8 | |
| Approach LOS | | D | | | D | | | D | | | E | |

## Intersection Summary

Area Type: Other
Cycle Length: 153
Actuated Cycle Length: 126.2
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 45.9
Intersection Capacity Utilization 81.7%
Analysis Period (min) 15

Intersection LOS: D
ICU Level of Service D

Splits and Phases: 1: PR-2 & J Rosado Ave



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.95 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.935 | | 0.942 | |
| Flt Protected | 0.950 | | | | 0.970 | |
| Satd. Flow (prot) | 1770 | 3539 | 3309 | 0 | 3302 | 0 |
| Flt Permitted | 0.950 | | | | 0.970 | |
| Satd. Flow (perm) | 1770 | 3539 | 3309 | 0 | 3302 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 166 | | 155 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 4074 | | 1144 | |
| Travel Time (s) | | 61.6 | 61.7 | | 22.3 | |
| Volume (vph) | 233 | 543 | 777 | 527 | 368 | 234 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.93 | 0.92 | 0.81 | 0.84 | 0.85 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 265 | 625 | 904 | 696 | 469 | 295 |
| Lane Group Flow (vph) | 265 | 625 | 1600 | 0 | 764 | 0 |
| Turn Type | Prot | | | | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 18.0 | 57.4 | 35.4 | | 23.2 | |
| Actuated g/C Ratio | 0.20 | 0.63 | 0.39 | | 0.26 | |

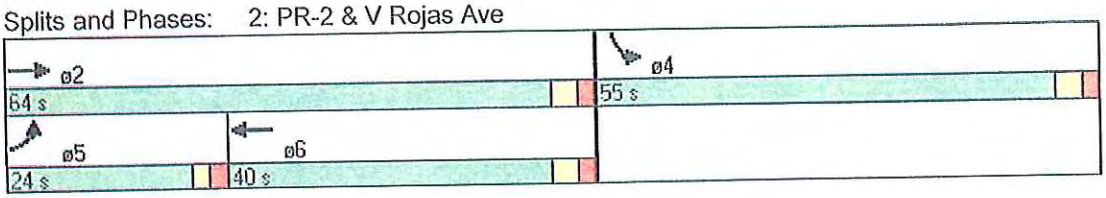
| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.76 | 0.28 | 1.15 | | 0.80 | |
| Control Delay | 46.0 | 8.6 | 101.9 | | 26.0 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 46.0 | 8.6 | 101.9 | | 26.0 | |
| LOS | D | A | F | | C | |
| Approach Delay | | 19.7 | 101.9 | | 26.0 | |
| Approach LOS | | B | F | | C | |

Intersection Summary

Area Type: Other
Cycle Length: 119
Actuated Cycle Length: 90.7
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.15
Intersection Signal Delay: 61.6
Intersection Capacity Utilization 85.7%
Analysis Period (min) 15

Intersection LOS: E
ICU Level of Service E

Splits and Phases: 2: PR-2 & V Rojas Ave

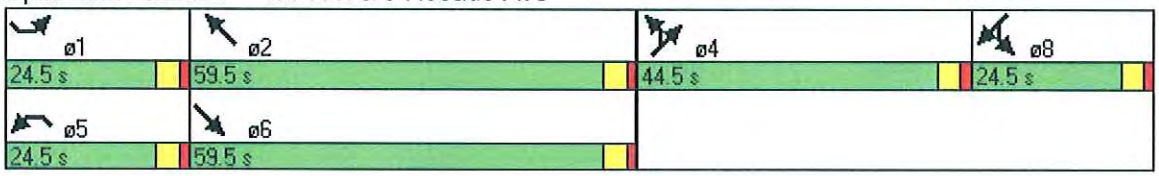


| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 12 | 11 | 12 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 0 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 0 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.922 | | | 0.979 | | | 0.936 | | | 0.950 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.979 | | | 0.987 | |
| Satd. Flow (prot) | 1652 | 3154 | 0 | 3030 | 3349 | 0 | 0 | 3122 | 0 | 0 | 3208 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.979 | | | 0.987 | |
| Satd. Flow (perm) | 1652 | 3154 | 0 | 3030 | 3349 | 0 | 0 | 3122 | 0 | 0 | 3208 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 203 | | | 13 | | | 118 | | | 46 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.00 | 1.04 | 1.00 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 35 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 21.3 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 106 | 395 | 419 | 413 | 596 | 98 | 283 | 93 | 339 | 93 | 135 | 111 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.93 | 0.90 | 0.96 | 0.95 | 0.95 | 0.76 | 0.77 | 0.93 | 0.93 | 0.84 | 0.86 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 4% | 2% | 2% | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 125 | 454 | 498 | 460 | 671 | 110 | 398 | 129 | 390 | 107 | 172 | 138 |
| Lane Group Flow (vph) | 125 | 952 | 0 | 460 | 781 | 0 | 0 | 917 | 0 | 0 | 417 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 24.5 | 59.5 | 0.0 | 44.5 | 44.5 | 0.0 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 16.0% | 38.9% | 0.0% | 16.0% | 38.9% | 0.0% | 29.1% | 29.1% | 0.0% | 16.0% | 16.0% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 15.0 | 41.1 | | 20.1 | 46.2 | | | 40.2 | | | 19.1 | |
| Actuated g/C Ratio | 0.11 | 0.30 | | 0.14 | 0.33 | | | 0.29 | | | 0.14 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.70 | 0.88 | | 1.05 | 0.69 | | | 0.93 | | | 0.87 | |
| Control Delay | 69.9 | 40.1 | | 111.9 | 42.2 | | | 57.8 | | | 67.6 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | | | 0.0 | |
| Total Delay | 69.9 | 40.1 | | 111.9 | 42.2 | | | 57.8 | | | 67.6 | |
| LOS | E | D | | F | D | | | E | | | E | |
| Approach Delay | | 43.5 | | | 68.1 | | | 57.8 | | | 67.6 | |
| Approach LOS | | D | | | E | | | E | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 153 | | | |
| Actuated Cycle Length: 138.7 | | | |
| Natural Cycle: 100 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.05 | | | |
| Intersection Signal Delay: 58.2 | | Intersection LOS: E | |
| Intersection Capacity Utilization 87.6% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 1: PR-2 & J Rosado Ave

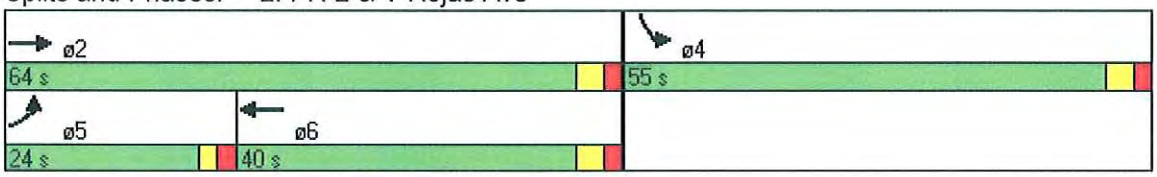


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 0 | 0 | 0 |
| Storage Lanes | 1 | | | 0 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.95 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | 0.935 | | 0.942 | |
| Flt Protected | 0.950 | | | | 0.970 | |
| Satd. Flow (prot) | 1770 | 3539 | 3291 | 0 | 3302 | 0 |
| Flt Permitted | 0.950 | | | | 0.970 | |
| Satd. Flow (perm) | 1770 | 3539 | 3291 | 0 | 3302 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | 163 | | 155 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 252 | 590 | 855 | 569 | 397 | 253 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.93 | 0.92 | 0.81 | 0.84 | 0.85 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 287 | 679 | 994 | 752 | 506 | 318 |
| Lane Group Flow (vph) | 287 | 679 | 1746 | 0 | 824 | 0 |
| Turn Type | Prot | | | | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 19.5 | 58.8 | 35.2 | | 25.7 | |
| Actuated g/C Ratio | 0.21 | 0.62 | 0.37 | | 0.27 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.79 | 0.31 | 1.31 | | 0.82 | |
| Control Delay | 51.9 | 9.7 | 172.6 | | 27.1 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 51.9 | 9.7 | 172.6 | | 27.1 | |
| LOS | D | A | F | | C | |
| Approach Delay | | 22.2 | 172.6 | | 27.1 | |
| Approach LOS | | C | F | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 94.5 | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 1.31 | | | |
| Intersection Signal Delay: 97.6 | | Intersection LOS: F | |
| Intersection Capacity Utilization 92.1% | | ICU Level of Service F | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 9 | 26 | 8 | 1487 | 991 | 2 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.87 | 0.91 | 1.00 |
| Hourly flow rate (vph) | 10 | 28 | 9 | 1829 | 1165 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | None | | | | | |
| Median storage veh) | | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2097 | 583 | 1167 | | | |
| vC1, stage 1 conf vol | | | | | | |
| vC2, stage 2 conf vol | | | | | | |
| vCu, unblocked vol | 2097 | 583 | 1167 | | | |
| tC, single (s) | 8.8 | 8.9 | 6.1 | | | |
| tC, 2 stage (s) | | | | | | |
| tF (s) | 4.5 | 4.3 | 3.2 | | | |
| p0 queue free % | 26 | 90 | 97 | | | |
| cM capacity (veh/h) | 13 | 275 | 250 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 37 | 9 | 914 | 914 | 583 | 583 | 2 |
| Volume Left | 10 | 9 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 28 | 0 | 0 | 0 | 0 | 0 | 2 |
| cSH | 44 | 250 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.84 | 0.03 | 0.54 | 0.54 | 0.34 | 0.34 | 0.00 |
| Queue Length 95th (ft) | 83 | 3 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 229.6 | 19.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | F | C | | | | | |
| Approach Delay (s) | 229.6 | 0.1 | | | 0.0 | | |
| Approach LOS | F | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 2.9 | | |
| Intersection Capacity Utilization | 54.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 7 | 8 | 2 | 1488 | 1015 | 2 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.87 | 0.91 | 1.00 |
| Hourly flow rate (vph) | 7 | 9 | 2 | 1830 | 1193 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2113 | 597 | 1196 | | | |
| vC1, stage 1 conf vol | 1193 | | | | | |
| vC2, stage 2 conf vol | 919 | | | | | |
| vCu, unblocked vol | 2113 | 597 | 1196 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 93 | 98 | 100 | | | |
| cM capacity (veh/h) | 113 | 446 | 580 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 16 | 2 | 915 | 915 | 597 | 597 | 2 |
| Volume Left | 7 | 2 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 9 | 0 | 0 | 0 | 0 | 0 | 2 |
| cSH | 188 | 580 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.09 | 0.00 | 0.54 | 0.54 | 0.35 | 0.35 | 0.00 |
| Queue Length 95th (ft) | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 25.9 | 11.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | B | | | | | |
| Approach Delay (s) | 25.9 | 0.0 | | | 0.0 | | |
| Approach LOS | D | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 54.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

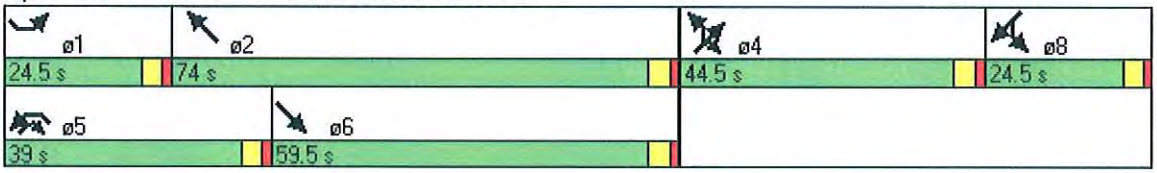
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 10 | 10 | 10 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 60 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 1 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.922 | | | 0.979 | | | | 0.850 | | 0.950 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.964 | | | 0.987 | |
| Satd. Flow (prot) | 1652 | 3154 | 0 | 3030 | 3349 | 0 | 0 | 3184 | 1463 | 0 | 3208 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.964 | | | 0.987 | |
| Satd. Flow (perm) | 1652 | 3154 | 0 | 3030 | 3349 | 0 | 0 | 3184 | 1463 | 0 | 3208 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 177 | | | 13 | | | | 185 | | 42 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.09 | 1.09 | 1.09 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 45 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 16.6 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 106 | 395 | 419 | 413 | 596 | 98 | 283 | 93 | 339 | 93 | 135 | 111 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.91 | 0.93 | 0.90 | 0.96 | 0.95 | 0.95 | 0.76 | 0.77 | 0.93 | 0.93 | 0.84 | 0.86 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 4% | 2% | 2% | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 125 | 454 | 498 | 460 | 671 | 110 | 398 | 129 | 390 | 107 | 172 | 138 |
| Lane Group Flow (vph) | 125 | 952 | 0 | 460 | 781 | 0 | 0 | 527 | 390 | 0 | 417 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | pt+ov | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 39.0 | 74.0 | 0.0 | 44.5 | 44.5 | 83.5 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 14.6% | 35.5% | 0.0% | 23.3% | 44.2% | 0.0% | 26.6% | 26.6% | 49.9% | 14.6% | 14.6% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 14.4 | 39.1 | | 25.1 | 53.5 | | | 27.5 | 52.6 | | 20.3 | |
| Actuated g/C Ratio | 0.11 | 0.30 | | 0.19 | 0.41 | | | 0.21 | 0.40 | | 0.15 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.70 | 0.90 | | 0.79 | 0.57 | | | 1.15dl | 0.56 | | 0.79 | |
| Control Delay | 69.9 | 40.0 | | 56.5 | 32.6 | | | 53.7 | 10.5 | | 60.7 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 69.9 | 40.0 | | 56.5 | 32.6 | | | 53.7 | 10.5 | | 60.7 | |
| LOS | E | D | | E | C | | | D | B | | E | |
| Approach Delay | | 43.5 | | | 41.4 | | | 35.3 | | | 60.7 | |
| Approach LOS | | D | | | D | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 167.5 | | | |
| Actuated Cycle Length: 131.2 | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.90 | | | |
| Intersection Signal Delay: 42.7 | | Intersection LOS: D | |
| Intersection Capacity Utilization 81.2% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 1: PR-2 & J Rosado Ave



| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 400 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | 0.942 | |
| Flt Protected | 0.950 | | | | 0.970 | |
| Satd. Flow (prot) | 1770 | 3539 | 3505 | 1583 | 3302 | 0 |
| Flt Permitted | 0.950 | | | | 0.970 | |
| Satd. Flow (perm) | 1770 | 3539 | 3505 | 1583 | 3302 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 739 | 155 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 252 | 590 | 855 | 569 | 397 | 253 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.94 | 0.93 | 0.92 | 0.81 | 0.84 | 0.85 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 287 | 679 | 994 | 752 | 506 | 318 |
| Lane Group Flow (vph) | 287 | 679 | 994 | 752 | 824 | 0 |
| Turn Type | Prot | | | Free | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | Free | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 19.3 | 54.9 | 31.5 | 89.8 | 24.6 | |
| Actuated g/C Ratio | 0.21 | 0.61 | 0.35 | 1.00 | 0.27 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.76 | 0.31 | 0.81 | 0.48 | 0.81 | |
| Control Delay | 47.6 | 9.7 | 31.8 | 1.0 | 25.9 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 47.6 | 9.7 | 31.8 | 1.0 | 25.9 | |
| LOS | D | A | C | A | C | |
| Approach Delay | | 21.0 | 18.5 | | 25.9 | |
| Approach LOS | | C | B | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 89.8 | | | |
| Natural Cycle: 65 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.81 | | | |
| Intersection Signal Delay: 20.9 | | Intersection LOS: C | |
| Intersection Capacity Utilization 72.5% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

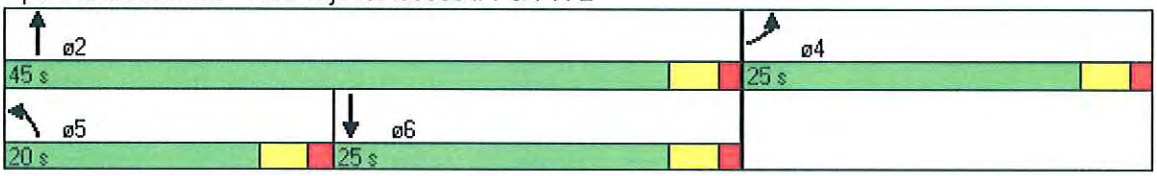
Splits and Phases: 2: PR-2 & V Rojas Ave

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 0 | 0 | 350 | | | 400 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 50 | | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.901 | | | | | 0.850 |
| Flt Protected | 0.987 | | 0.950 | | | |
| Satd. Flow (prot) | 845 | 0 | 902 | 3539 | 3539 | 808 |
| Flt Permitted | 0.987 | | 0.950 | | | |
| Satd. Flow (perm) | 845 | 0 | 902 | 3539 | 3539 | 808 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 28 | | | | | 2 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | 15 | | | 45 | 45 | |
| Link Distance (ft) | 773 | | | 848 | 3282 | |
| Travel Time (s) | 35.1 | | | 12.8 | 49.7 | |
| Volume (vph) | 9 | 26 | 8 | 1487 | 991 | 2 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.87 | 0.91 | 1.00 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 100% | 100% | 100% | 2% | 2% | 100% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 10 | 28 | 9 | 1829 | 1165 | 2 |
| Lane Group Flow (vph) | 38 | 0 | 9 | 1829 | 1165 | 2 |
| Turn Type | | | Prot | | | Free |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | | | | | Free |
| Detector Phases | 4 | | 5 | 2 | 6 | |
| Minimum Initial (s) | 10.0 | | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 25.0 | | 15.0 | 40.0 | 25.0 | |
| Total Split (s) | 25.0 | 0.0 | 20.0 | 45.0 | 25.0 | 0.0 |
| Total Split (%) | 35.7% | 0.0% | 28.6% | 64.3% | 35.7% | 0.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | 1.5 | 1.5 | |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | | None | Max | Max | |
| Act Effct Green (s) | 11.7 | | 7.7 | 83.8 | 79.9 | 94.1 |
| Actuated g/C Ratio | 0.11 | | 0.08 | 0.89 | 0.85 | 1.00 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.31 | | 0.13 | 0.58 | 0.39 | 0.00 |
| Control Delay | 13.4 | | 25.4 | 3.8 | 4.7 | 0.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.4 | | 25.4 | 3.8 | 4.7 | 0.0 |
| LOS | B | | C | A | A | A |
| Approach Delay | 13.4 | | | 3.9 | 4.7 | |
| Approach LOS | B | | | A | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 94.1 | | | |
| Natural Cycle: 70 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.58 | | | |
| Intersection Signal Delay: 4.3 | | Intersection LOS: A | |
| Intersection Capacity Utilization 59.0% | | ICU Level of Service B | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Project Access #1 & PR-2



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 7 | 8 | 2 | 1488 | 1015 | 2 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.87 | 0.91 | 1.00 |
| Hourly flow rate (vph) | 7 | 9 | 2 | 1830 | 1193 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2113 | 597 | 1196 | | | |
| vC1, stage 1 conf vol | 1193 | | | | | |
| vC2, stage 2 conf vol | 919 | | | | | |
| vCu, unblocked vol | 2113 | 597 | 1196 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 93 | 98 | 100 | | | |
| cM capacity (veh/h) | 113 | 446 | 580 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 16 | 2 | 915 | 915 | 597 | 597 | 2 |
| Volume Left | 7 | 2 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 9 | 0 | 0 | 0 | 0 | 0 | 2 |
| cSH | 188 | 580 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.09 | 0.00 | 0.54 | 0.54 | 0.35 | 0.35 | 0.00 |
| Queue Length 95th (ft) | 7 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 25.9 | 11.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | B | | | | | |
| Approach Delay (s) | 25.9 | 0.0 | | | 0.0 | | |
| Approach LOS | D | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.1 | | |
| Intersection Capacity Utilization | 54.0% | ICU Level of Service | A |
| Analysis Period (min) | 15 | | |

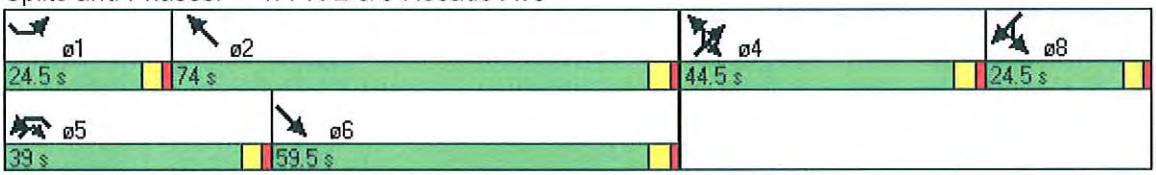
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 10 | 10 | 10 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 60 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 1 | 0 | | 0 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 0.95 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.922 | | | 0.979 | | | | 0.850 | | 0.950 | |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.964 | | | 0.987 | |
| Satd. Flow (prot) | 1652 | 3154 | 0 | 3030 | 3349 | 0 | 0 | 3184 | 1463 | 0 | 3208 | 0 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.964 | | | 0.987 | |
| Satd. Flow (perm) | 1652 | 3154 | 0 | 3030 | 3349 | 0 | 0 | 3184 | 1463 | 0 | 3208 | 0 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 176 | | | 14 | | | | 182 | | 42 | |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.09 | 1.09 | 1.09 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 45 | | | 45 | | | 35 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 16.6 | | | 61.6 | | | 20.8 | | | 35.4 | |
| Volume (vph) | 120 | 447 | 474 | 467 | 674 | 111 | 320 | 105 | 383 | 105 | 153 | 126 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.94 | 0.91 | 0.98 | 0.96 | 0.96 | 0.77 | 0.77 | 0.95 | 0.94 | 0.85 | 0.87 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 4% | 2% | 2% | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 140 | 509 | 557 | 510 | 751 | 124 | 445 | 146 | 431 | 120 | 193 | 155 |
| Lane Group Flow (vph) | 140 | 1066 | 0 | 510 | 875 | 0 | 0 | 591 | 431 | 0 | 468 | 0 |
| Turn Type | Prot | | | Prot | | | Split | | pt+ov | Split | | |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | |
| Minimum Split (s) | 8.5 | 20.5 | | 8.5 | 20.5 | | 20.5 | 20.5 | | 20.0 | 20.0 | |
| Total Split (s) | 24.5 | 59.5 | 0.0 | 39.0 | 74.0 | 0.0 | 44.5 | 44.5 | 83.5 | 24.5 | 24.5 | 0.0 |
| Total Split (%) | 14.6% | 35.5% | 0.0% | 23.3% | 44.2% | 0.0% | 26.6% | 26.6% | 49.9% | 14.6% | 14.6% | 0.0% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | |
| Act Effct Green (s) | 16.4 | 48.1 | | 29.6 | 61.3 | | | 33.0 | 62.6 | | 20.6 | |
| Actuated g/C Ratio | 0.11 | 0.32 | | 0.20 | 0.41 | | | 0.22 | 0.42 | | 0.14 | |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.77 | 0.94 | | 0.85 | 0.63 | | | 1.22dl | 0.60 | | 0.98 | |
| Control Delay | 81.5 | 49.9 | | 66.7 | 37.2 | | | 62.4 | 13.4 | | 95.3 | |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | |
| Total Delay | 81.5 | 49.9 | | 66.7 | 37.2 | | | 62.4 | 13.4 | | 95.3 | |
| LOS | F | D | | E | D | | | E | B | | F | |
| Approach Delay | | 53.6 | | | 48.0 | | | 41.8 | | | 95.3 | |
| Approach LOS | | D | | | D | | | D | | | F | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 167.5 | | | |
| Actuated Cycle Length: 149.8 | | | |
| Natural Cycle: 90 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.98 | | | |
| Intersection Signal Delay: 53.5 | | Intersection LOS: D | |
| Intersection Capacity Utilization 89.9% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 1: PR-2 & J Rosado Ave

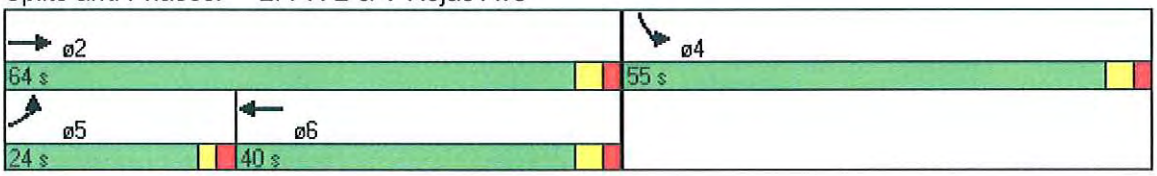


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 400 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | 0.942 | |
| Flt Protected | 0.950 | | | | 0.970 | |
| Satd. Flow (prot) | 1770 | 3539 | 3505 | 1583 | 3302 | 0 |
| Flt Permitted | 0.950 | | | | 0.970 | |
| Satd. Flow (perm) | 1770 | 3539 | 3505 | 1583 | 3302 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 738 | 156 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 284 | 667 | 966 | 643 | 449 | 286 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.94 | 0.93 | 0.82 | 0.85 | 0.86 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 320 | 759 | 1111 | 839 | 565 | 356 |
| Lane Group Flow (vph) | 320 | 759 | 1111 | 839 | 921 | 0 |
| Turn Type | Prot | | | Free | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | Free | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 24.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 20.2% | 53.8% | 33.6% | 0.0% | 46.2% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 20.1 | 59.3 | 35.2 | 99.4 | 30.1 | |
| Actuated g/C Ratio | 0.20 | 0.60 | 0.35 | 1.00 | 0.30 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.89 | 0.36 | 0.90 | 0.53 | 0.83 | |
| Control Delay | 68.3 | 11.9 | 42.3 | 1.3 | 28.3 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 68.3 | 11.9 | 42.3 | 1.3 | 28.3 | |
| LOS | E | B | D | A | C | |
| Approach Delay | | 28.6 | 24.7 | | 28.3 | |
| Approach LOS | | C | C | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 119 | | | |
| Actuated Cycle Length: 99.4 | | | |
| Natural Cycle: 75 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.90 | | | |
| Intersection Signal Delay: 26.6 | | Intersection LOS: C | |
| Intersection Capacity Utilization 80.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave

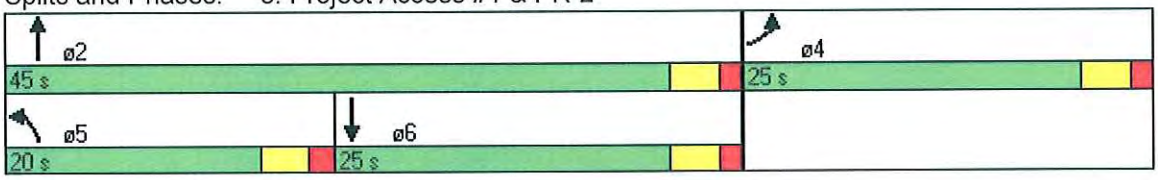


| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 0 | 0 | 350 | | | 400 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 50 | | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.900 | | | | | 0.850 |
| Flt Protected | 0.987 | | 0.950 | | | |
| Satd. Flow (prot) | 844 | 0 | 902 | 3539 | 3539 | 808 |
| Flt Permitted | 0.987 | | 0.950 | | | |
| Satd. Flow (perm) | 844 | 0 | 902 | 3539 | 3539 | 808 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 31 | | | | | 2 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | 15 | | | 45 | 45 | |
| Link Distance (ft) | 773 | | | 848 | 3282 | |
| Travel Time (s) | 35.1 | | | 12.8 | 49.7 | |
| Volume (vph) | 10 | 29 | 9 | 1680 | 1120 | 2 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.88 | 0.91 | 1.00 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 100% | 100% | 100% | 2% | 2% | 100% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 11 | 31 | 10 | 2043 | 1317 | 2 |
| Lane Group Flow (vph) | 42 | 0 | 10 | 2043 | 1317 | 2 |
| Turn Type | | | Prot | | | Free |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | | | | | Free |
| Detector Phases | 4 | | 5 | 2 | 6 | |
| Minimum Initial (s) | 10.0 | | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 25.0 | | 15.0 | 40.0 | 25.0 | |
| Total Split (s) | 25.0 | 0.0 | 20.0 | 45.0 | 25.0 | 0.0 |
| Total Split (%) | 35.7% | 0.0% | 28.6% | 64.3% | 35.7% | 0.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | 1.5 | 1.5 | |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | | None | Max | Max | |
| Act Effct Green (s) | 11.8 | | 7.8 | 82.4 | 78.5 | 92.7 |
| Actuated g/C Ratio | 0.12 | | 0.08 | 0.89 | 0.85 | 1.00 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.34 | | 0.14 | 0.65 | 0.44 | 0.00 |
| Control Delay | 13.4 | | 25.7 | 5.0 | 5.2 | 0.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.4 | | 25.7 | 5.0 | 5.2 | 0.0 |
| LOS | B | | C | A | A | A |
| Approach Delay | 13.4 | | | 5.1 | 5.2 | |
| Approach LOS | B | | | A | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 92.7 | | | |
| Natural Cycle: 75 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 5.2 | | Intersection LOS: A | |
| Intersection Capacity Utilization 64.7% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Project Access #1 & PR-2



| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 8 | 9 | 2 | 1681 | 1147 | 2 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.88 | 0.91 | 1.00 |
| Hourly flow rate (vph) | 9 | 10 | 2 | 2044 | 1349 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2375 | 674 | 1351 | | | |
| vC1, stage 1 conf vol | 1349 | | | | | |
| vC2, stage 2 conf vol | 1026 | | | | | |
| vCu, unblocked vol | 2375 | 674 | 1351 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 91 | 98 | 100 | | | |
| cM capacity (veh/h) | 93 | 397 | 505 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 18 | 2 | 1022 | 1022 | 674 | 674 | 2 |
| Volume Left | 9 | 2 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 10 | 0 | 0 | 0 | 0 | 0 | 2 |
| cSH | 157 | 505 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.12 | 0.00 | 0.60 | 0.60 | 0.40 | 0.40 | 0.00 |
| Queue Length 95th (ft) | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 31.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | B | | | | | |
| Approach Delay (s) | 31.0 | 0.0 | | | 0.0 | | |
| Approach LOS | D | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.2 | | |
| Intersection Capacity Utilization | 59.7% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |

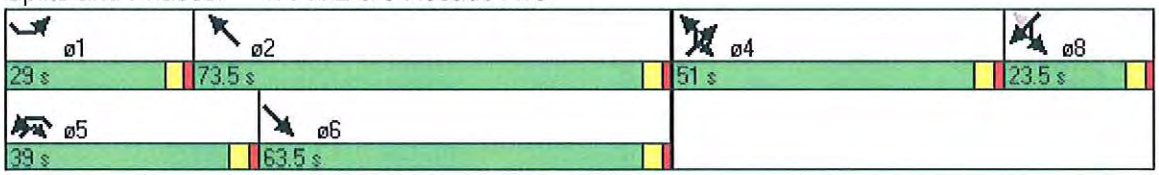
| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 10 | 11 | 11 | 9 | 11 | 11 | 10 | 10 | 10 | 12 | 11 | 12 |
| Grade (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Storage Length (ft) | 48 | | 0 | 85 | | 0 | 0 | | 60 | 0 | | 0 |
| Storage Lanes | 1 | | 0 | 2 | | 0 | 0 | | 1 | 0 | | 1 |
| Total Lost Time (s) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| Leading Detector (ft) | 48 | 50 | | 50 | 50 | | 50 | 50 | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | | 9 | 15 | | 9 | 15 | | 9 | 15 | | 9 |
| Lane Util. Factor | 0.91 | 0.91 | 0.95 | 0.97 | 0.95 | 0.95 | 0.95 | 0.95 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | | | | | | | |
| Frt | | 0.922 | | | 0.979 | | | | 0.850 | | | 0.850 |
| Flt Protected | 0.950 | | | 0.950 | | | | 0.964 | | | 0.981 | |
| Satd. Flow (prot) | 1503 | 3022 | 0 | 3030 | 3349 | 0 | 0 | 3184 | 1463 | 0 | 3356 | 1583 |
| Flt Permitted | 0.950 | | | 0.950 | | | | 0.964 | | | 0.981 | |
| Satd. Flow (perm) | 1503 | 3022 | 0 | 3030 | 3349 | 0 | 0 | 3184 | 1463 | 0 | 3356 | 1583 |
| Right Turn on Red | | | Yes | | | Yes | | | Yes | | | Yes |
| Satd. Flow (RTOR) | | 168 | | | 12 | | | | 172 | | | 155 |
| Headway Factor | 1.09 | 1.04 | 1.04 | 1.14 | 1.04 | 1.04 | 1.09 | 1.09 | 1.09 | 1.00 | 1.04 | 1.00 |
| Link Speed (mph) | | 45 | | | 45 | | | 25 | | | 25 | |
| Link Distance (ft) | | 1093 | | | 4064 | | | 1070 | | | 1297 | |
| Travel Time (s) | | 16.6 | | | 61.6 | | | 29.2 | | | 35.4 | |
| Volume (vph) | 120 | 447 | 474 | 467 | 674 | 111 | 320 | 105 | 383 | 105 | 153 | 126 |
| Confl. Peds. (#/hr) | | | | | | | | | | | | |
| Confl. Bikes (#/hr) | | | | | | | | | | | | |
| Peak Hour Factor | 0.92 | 0.94 | 0.91 | 0.98 | 0.96 | 0.96 | 0.77 | 0.77 | 0.95 | 0.94 | 0.85 | 0.87 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 2% | 4% | 2% | 2% | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | | | | | | | |
| Mid-Block Traffic (%) | | 0% | | | 0% | | | 0% | | | 0% | |
| Adj. Flow (vph) | 140 | 509 | 557 | 510 | 751 | 124 | 445 | 146 | 431 | 120 | 193 | 155 |
| Lane Group Flow (vph) | 140 | 1066 | 0 | 510 | 875 | 0 | 0 | 591 | 431 | 0 | 313 | 155 |
| Turn Type | Prot | | | Prot | | | Split | | pt+ov | Split | | Perm |
| Protected Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | |
| Permitted Phases | | | | | | | | | | | | 8 |
| Detector Phases | 1 | 6 | | 5 | 2 | | 4 | 4 | 4 5 | 8 | 8 | 8 |
| Minimum Initial (s) | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | | 4.0 | 4.0 | 4.0 |
| Minimum Split (s) | 8.5 | 8.5 | | 8.5 | 8.5 | | 8.5 | 8.5 | | 8.5 | 8.5 | 8.5 |
| Total Split (s) | 29.0 | 63.5 | 0.0 | 39.0 | 73.5 | 0.0 | 51.0 | 51.0 | 90.0 | 23.5 | 23.5 | 23.5 |
| Total Split (%) | 16.4% | 35.9% | 0.0% | 22.0% | 41.5% | 0.0% | 28.8% | 28.8% | 50.8% | 13.3% | 13.3% | 13.3% |
| Yellow Time (s) | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | | 3.0 | 3.0 | 3.0 |
| All-Red Time (s) | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | | 1.5 | 1.5 | 1.5 |
| Lead/Lag | Lead | Lag | | Lead | Lag | | | | | | | |
| Lead-Lag Optimize? | Yes | Yes | | Yes | Yes | | | | | | | |
| Recall Mode | None | Min | | None | Min | | None | None | | None | None | None |
| Act Effct Green (s) | 18.5 | 52.1 | | 30.1 | 63.8 | | | 35.3 | 65.4 | | 17.5 | 17.5 |
| Actuated g/C Ratio | 0.12 | 0.34 | | 0.20 | 0.41 | | | 0.23 | 0.42 | | 0.11 | 0.11 |

| Lane Group | SEL | SET | SER | NWL | NWT | NWR | NEL | NET | NER | SWL | SWT | SWR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| v/c Ratio | 0.78 | 0.94 | | 0.86 | 0.63 | | | 1.17dl | 0.60 | | 0.82 | 0.49 |
| Control Delay | 80.3 | 50.5 | | 69.4 | 38.8 | | | 60.9 | 14.2 | | 80.4 | 14.5 |
| Queue Delay | 0.0 | 0.0 | | 0.0 | 0.0 | | | 0.0 | 0.0 | | 0.0 | 0.0 |
| Total Delay | 80.3 | 50.5 | | 69.4 | 38.8 | | | 60.9 | 14.2 | | 80.4 | 14.5 |
| LOS | F | D | | E | D | | | E | B | | F | B |
| Approach Delay | | 54.0 | | | 50.1 | | | 41.2 | | | 58.6 | |
| Approach LOS | | D | | | D | | | D | | | E | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 177 | | | |
| Actuated Cycle Length: 153.9 | | | |
| Natural Cycle: 80 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.94 | | | |
| Intersection Signal Delay: 50.0 | | Intersection LOS: D | |
| Intersection Capacity Utilization 87.6% | | ICU Level of Service E | |
| Analysis Period (min) 15 | | | |

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

Splits and Phases: 1: PR-2 & J Rosado Ave

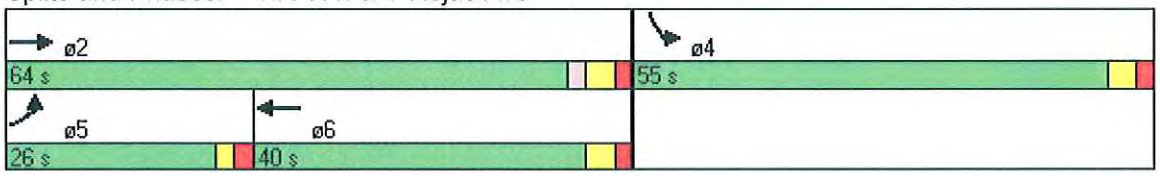


| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | | 0% | 0% | | 0% | |
| Storage Length (ft) | 220 | | | 400 | 0 | 0 |
| Storage Lanes | 1 | | | 1 | 2 | 0 |
| Total Lost Time (s) | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Leading Detector (ft) | 50 | 50 | 50 | 50 | 50 | |
| Trailing Detector (ft) | 0 | 0 | 0 | 0 | 0 | |
| Turning Speed (mph) | 15 | | | 9 | 15 | 9 |
| Lane Util. Factor | 1.00 | 0.95 | 0.95 | 1.00 | 0.97 | 0.95 |
| Ped Bike Factor | | | | | | |
| Frt | | | | 0.850 | 0.942 | |
| Flt Protected | 0.950 | | | | 0.970 | |
| Satd. Flow (prot) | 1770 | 3539 | 3505 | 1583 | 3302 | 0 |
| Flt Permitted | 0.950 | | | | 0.970 | |
| Satd. Flow (perm) | 1770 | 3539 | 3505 | 1583 | 3302 | 0 |
| Right Turn on Red | | | | Yes | | Yes |
| Satd. Flow (RTOR) | | | | 725 | 152 | |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | | 45 | 45 | | 35 | |
| Link Distance (ft) | | 4064 | 3282 | | 1144 | |
| Travel Time (s) | | 61.6 | 49.7 | | 22.3 | |
| Volume (vph) | 284 | 667 | 966 | 643 | 449 | 286 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 0.95 | 0.94 | 0.93 | 0.82 | 0.85 | 0.86 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 2% | 2% | 3% | 2% | 2% | 2% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | | 0% | 0% | | 0% | |
| Adj. Flow (vph) | 320 | 759 | 1111 | 839 | 565 | 356 |
| Lane Group Flow (vph) | 320 | 759 | 1111 | 839 | 921 | 0 |
| Turn Type | Prot | | | Free | | |
| Protected Phases | 5 | 2 | 6 | | 4 | |
| Permitted Phases | | | | Free | | |
| Detector Phases | 5 | 2 | 6 | | 4 | |
| Minimum Initial (s) | 4.0 | 4.0 | 4.0 | | 4.0 | |
| Minimum Split (s) | 8.0 | 21.0 | 21.0 | | 21.0 | |
| Total Split (s) | 26.0 | 64.0 | 40.0 | 0.0 | 55.0 | 0.0 |
| Total Split (%) | 21.5% | 52.9% | 33.1% | 0.0% | 45.5% | 0.0% |
| Yellow Time (s) | 2.0 | 3.0 | 3.0 | | 3.0 | |
| All-Red Time (s) | 2.0 | 2.0 | 2.0 | | 2.0 | |
| Lead/Lag | Lead | | Lag | | | |
| Lead-Lag Optimize? | Yes | | Yes | | | |
| Recall Mode | None | Min | Min | | None | |
| Act Effct Green (s) | 22.1 | 61.3 | 35.2 | 102.2 | 30.9 | |
| Actuated g/C Ratio | 0.22 | 0.60 | 0.34 | 1.00 | 0.30 | |

| Lane Group | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.84 | 0.36 | 0.92 | 0.53 | 0.83 | |
| Control Delay | 59.7 | 12.0 | 46.6 | 1.3 | 29.4 | |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Total Delay | 59.7 | 12.0 | 46.6 | 1.3 | 29.4 | |
| LOS | E | B | D | A | C | |
| Approach Delay | | 26.1 | 27.1 | | 29.4 | |
| Approach LOS | | C | C | | C | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 121 | | | |
| Actuated Cycle Length: 102.2 | | | |
| Natural Cycle: 75 | | | |
| Control Type: Actuated-Uncoordinated | | | |
| Maximum v/c Ratio: 0.92 | | | |
| Intersection Signal Delay: 27.4 | | Intersection LOS: C | |
| Intersection Capacity Utilization 80.4% | | ICU Level of Service D | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 2: PR-2 & V Rojas Ave



| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Lane Width (ft) | 12 | 12 | 12 | 12 | 12 | 12 |
| Grade (%) | 0% | | | 0% | 0% | |
| Storage Length (ft) | 0 | 0 | 350 | | | 400 |
| Storage Lanes | 1 | 0 | 1 | | | 1 |
| Total Lost Time (s) | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| Leading Detector (ft) | 50 | | 50 | 50 | 50 | 50 |
| Trailing Detector (ft) | 0 | | 0 | 0 | 0 | 0 |
| Turning Speed (mph) | 15 | 9 | 15 | | | 9 |
| Lane Util. Factor | 1.00 | 1.00 | 1.00 | 0.95 | 0.95 | 1.00 |
| Ped Bike Factor | | | | | | |
| Frt | 0.900 | | | | | 0.850 |
| Flt Protected | 0.987 | | 0.950 | | | |
| Satd. Flow (prot) | 844 | 0 | 902 | 3539 | 3539 | 808 |
| Flt Permitted | 0.987 | | 0.950 | | | |
| Satd. Flow (perm) | 844 | 0 | 902 | 3539 | 3539 | 808 |
| Right Turn on Red | | Yes | | | | Yes |
| Satd. Flow (RTOR) | 31 | | | | | 2 |
| Headway Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Link Speed (mph) | 15 | | | 45 | 45 | |
| Link Distance (ft) | 773 | | | 848 | 3282 | |
| Travel Time (s) | 35.1 | | | 12.8 | 49.7 | |
| Volume (vph) | 10 | 29 | 9 | 1680 | 1120 | 2 |
| Confl. Peds. (#/hr) | | | | | | |
| Confl. Bikes (#/hr) | | | | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.88 | 0.91 | 1.00 |
| Growth Factor | 107% | 107% | 107% | 107% | 107% | 107% |
| Heavy Vehicles (%) | 100% | 100% | 100% | 2% | 2% | 100% |
| Bus Blockages (#/hr) | 0 | 0 | 0 | 0 | 0 | 0 |
| Parking (#/hr) | | | | | | |
| Mid-Block Traffic (%) | 0% | | | 0% | 0% | |
| Adj. Flow (vph) | 11 | 31 | 10 | 2043 | 1317 | 2 |
| Lane Group Flow (vph) | 42 | 0 | 10 | 2043 | 1317 | 2 |
| Turn Type | | | Prot | | | Free |
| Protected Phases | 4 | | 5 | 2 | 6 | |
| Permitted Phases | | | | | | Free |
| Detector Phases | 4 | | 5 | 2 | 6 | |
| Minimum Initial (s) | 10.0 | | 4.0 | 4.0 | 4.0 | |
| Minimum Split (s) | 25.0 | | 15.0 | 40.0 | 25.0 | |
| Total Split (s) | 25.0 | 0.0 | 20.0 | 45.0 | 25.0 | 0.0 |
| Total Split (%) | 35.7% | 0.0% | 28.6% | 64.3% | 35.7% | 0.0% |
| Yellow Time (s) | 3.0 | | 3.0 | 3.0 | 3.0 | |
| All-Red Time (s) | 1.5 | | 1.5 | 1.5 | 1.5 | |
| Lead/Lag | | | Lead | | Lag | |
| Lead-Lag Optimize? | | | Yes | | Yes | |
| Recall Mode | None | | None | Max | Max | |
| Act Effct Green (s) | 11.8 | | 7.8 | 82.4 | 78.5 | 92.7 |
| Actuated g/C Ratio | 0.12 | | 0.08 | 0.89 | 0.85 | 1.00 |

| Lane Group | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| v/c Ratio | 0.34 | | 0.14 | 0.65 | 0.44 | 0.00 |
| Control Delay | 13.4 | | 25.7 | 5.0 | 5.2 | 0.0 |
| Queue Delay | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.4 | | 25.7 | 5.0 | 5.2 | 0.0 |
| LOS | B | | C | A | A | A |
| Approach Delay | 13.4 | | | 5.1 | 5.2 | |
| Approach LOS | B | | | A | A | |

| Intersection Summary | | | |
|---|---|---|---|
| Area Type: | Other | | |
| Cycle Length: 70 | | | |
| Actuated Cycle Length: 92.7 | | | |
| Natural Cycle: 75 | | | |
| Control Type: Semi Act-Uncoord | | | |
| Maximum v/c Ratio: 0.65 | | | |
| Intersection Signal Delay: 5.2 | | Intersection LOS: A | |
| Intersection Capacity Utilization 64.7% | | ICU Level of Service C | |
| Analysis Period (min) 15 | | | |

Splits and Phases: 3: Project Access #1 & PR-2

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Sign Control | Stop | | | Free | Free | |
| Grade | 0% | | | 0% | 0% | |
| Volume (veh/h) | 8 | 9 | 2 | 1681 | 1147 | 2 |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 0.88 | 0.91 | 1.00 |
| Hourly flow rate (vph) | 9 | 10 | 2 | 2044 | 1349 | 2 |
| Pedestrians | | | | | | |
| Lane Width (ft) | | | | | | |
| Walking Speed (ft/s) | | | | | | |
| Percent Blockage | | | | | | |
| Right turn flare (veh) | | | | | | |
| Median type | Raised | | | | | |
| Median storage veh) | 0 | | | | | |
| Upstream signal (ft) | | | | | | |
| pX, platoon unblocked | | | | | | |
| vC, conflicting volume | 2375 | 674 | 1351 | | | |
| vC1, stage 1 conf vol | 1349 | | | | | |
| vC2, stage 2 conf vol | 1026 | | | | | |
| vCu, unblocked vol | 2375 | 674 | 1351 | | | |
| tC, single (s) | 6.8 | 6.9 | 4.1 | | | |
| tC, 2 stage (s) | 5.8 | | | | | |
| tF (s) | 3.5 | 3.3 | 2.2 | | | |
| p0 queue free % | 91 | 98 | 100 | | | |
| cM capacity (veh/h) | 93 | 397 | 505 | | | |

| Direction, Lane # | EB 1 | NB 1 | NB 2 | NB 3 | SB 1 | SB 2 | SB 3 |
|---|---|---|---|---|---|---|---|
| Volume Total | 18 | 2 | 1022 | 1022 | 674 | 674 | 2 |
| Volume Left | 9 | 2 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 10 | 0 | 0 | 0 | 0 | 0 | 2 |
| cSH | 157 | 505 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Volume to Capacity | 0.12 | 0.00 | 0.60 | 0.60 | 0.40 | 0.40 | 0.00 |
| Queue Length 95th (ft) | 10 | 0 | 0 | 0 | 0 | 0 | 0 |
| Control Delay (s) | 31.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Lane LOS | D | B | | | | | |
| Approach Delay (s) | 31.0 | 0.0 | | | 0.0 | | |
| Approach LOS | D | | | | | | |

| Intersection Summary | | | |
|---|---|---|---|
| Average Delay | 0.2 | | |
| Intersection Capacity Utilization | 59.7% | ICU Level of Service | B |
| Analysis Period (min) | 15 | | |


# APPENDIX – I

## ***Maximum Daily Heavy Vehicle Volume Distribution***

| Type of Heavy Vehicle | Maximum Daily Volume | Comments |
|---|---|---|
| Fuel Receiving: Transfer Trailers | 65 | Trailer capacity is approximately 100 $yd^3$. Trailer length is approximately 50 ft. |
| Fuel Receiving: Roll-Off and Collection Trucks | 189 | Collection trucks: front end loaders and rear loaders . |
| Bottom Ash Metals Recovery | 6 | Roll-off truck. |
| Boiler Aggregate | 14 | Trailer capacity is between 40-60 $yd^3$. |
| Conditioned Fly Ash | 16 | Trailer capacity is between 40-60 $yd^3$. |
| Lime Delivery Truck | 1 | Pneumatic tankers (800-100 $ft^3$). |
| Alternative Fuels | 20 | Fuel tanker. |
| **Maximum Total Daily Heavy Vehicle Volume** | **311** | |

Energy Answers International
Arecibo Puerto Rico
70MW Resource Recovery Facility
RRF

Note: 5 shift crews needed to cover Power Block. 3 shift crews needed to cover Processing. Two (main) shifts needed to cover ash processing.

**70MW - Puerto Rico Facility**

| Position | Status | EX/NE | Hourly Rate | # of Positions | Shift Worked 1st | 2nd | 3rd | 4th |
|---|---|---|---|---|---|---|---|---|
| **Administration** | | | | | | | | |
| Facility Manager / General Manager | FT | EX | | 1 | 1 | | | |
| O&M Manager | FT | EX | | 1 | 1 | | | |
| Maintenance Manager | FT | EX | | 1 | 1 | | | |
| Plant Engineer | FT | EX | | 1 | 1 | | | |
| Environmental Health/Safety Manager | FT | EX | | 1 | 1 | | | |
| HR Specialist | FT | EX | | 1 | 1 | | | |
| Office Manager | FT | EX | | 1 | 1 | | | |
| Plant Accountant | FT | EX | | 1 | 1 | | | |
| Receptionist | FT | NE | | 1 | 1 | | | |
| A/R Clerk | FT | NE | | 1 | 1 | | | |
| A/P Clerk | FT | NE | | 1 | 1 | | | |
| **Waste Processing Operations** | | | | | | | | |
| Shift Supervisor - Fuels/Ash | FT | EX | | 3 | 1 | 1 | 1 | |
| Heavy Equip. Opr. - MSW to PRF | FT | NE | | 6 | 2 | 2 | 2 | |
| Utility Operator - Picker (front end) | FT | NE | | 6 | 2 | 2 | 2 | |
| CRO - Fuel Handling | FT | NE | | 3 | 1 | 1 | 1 | |
| Plant Operator - Fuels | FT | NE | | 12 | 4 | 4 | 4 | |
| Weighmaster | FT | NE | | 2 | 1 | 1 | | |
| Utility Operator | FT | NE | | 4 | 2 | 2 | | |
| **Power Block Operations** | | | | | | | | |
| Shift Supervisor - Power | FT | EX | | 5 | 2 | 1 | 1 | 1 |
| CRO - Power | FT | NE | | 5 | 2 | 1 | 1 | 1 |
| Assistant CRO - Power | FT | NE | | 5 | 2 | 1 | 1 | 1 |
| Plant Operator - Power | FT | NE | | 10 | 4 | 2 | 2 | 2 |
| Utility Operator-Power Block | FT | NE | | 5 | 2 | 1 | 1 | 1 |
| Water Treatment Technician | FT | NE | | 1 | 1 | | | |
| **Ash Processing** | | | | | | | | |
| Plant Operator - Ash | FT | NE | | 4 | 2 | 2 | | |
| Utility Operator - Picker (ash) | FT | NE | | 2 | 1 | 1 | | |
| Heavy Equipment Operator-Ash | FT | NE | | 6 | 2 | 2 | 1 | 1 |
| **Maintenance** | | | | | | | | |
| Sr. Maintenance Mechanic | FT | NE | | 9 | 4 | 1 | 3 | 1 |
| Jr. Maintenance Mechanic | FT | NE | | 8 | 3 | 1 | 3 | 1 |
| Sr. Electrician | FT | NE | | 2 | 2 | | | |
| Electrician | FT | NE | | 2 | 2 | | | |
| I & C Technician | FT | NE | | 2 | 2 | | | |
| Utility Worker | FT | NE | | 14 | 2 | 2 | 8 | 2 |
| Warehouse Attendant | FT | NE | | 1 | 1 | | | |
| **Total Plant Employees** | | | | **128** | | | | |
| **Tractor Trailer Drivers** | | | | **13** | | | | |
| **Corproate Management** | | | | **9** | | | | |
| **Total Employment** | | | | **150** | | | | |


# APPENDIX – J

# AM Peak Hour Analysis

## *Existing (2010) vs. Opening Day (2013) Conditions*

PR-2, PR-10, & Juan Rosado Ave.

| | | 2010 | | | 2013 Delays with existing traffic signal times and geometry | 2013 Allowed delay (sec) | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 64.9 | E | 5 | 66.4 | < 80 | 72 | E | 5 |
| | EB-T | 22.7 | C | 6 | 24.2 | 37.7 | 32.5 | C | 8 |
| | EB-R | | | | | | | | |
| | WB-L | 223.2 | F | 22 | 317.2 | < 80 | 77.1 | E | 22 |
| | WB-T | 45.7 | D | 25 | 52.6 | 60.7 | 43.4 | D | 28 |
| | WB-R | | | | | | | | |
| PR-10 | NB-L | | | | | | | | |
| | NB-T | 55.9 | E | 22 | 92.8 | < 80 | 61.9 | E | 21 |
| | NB-R | | | | | | 9.8 | A | 5 |
| Juan Rosado Avenue | SB-L | | | | | | | | |
| | SB-T | 49.5 | D | 6 | 53.9 | 64.5 | 59.8 | E | 7 |
| | SB-R | | | | | | | | |

PR-2 & Victor Rojas Ave.

| | | 2010 | | | 2013 Delays with existing traffic signal times and geometry | 2013 Allowed delay (sec) | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 30.9 | C | 5 | 31.7 | 45.9 | 31.7 | C | 6 |
| | EB-T | 4.1 | A | 2 | 4.4 | 24.1 | 4.4 | A | 3 |
| | WB-T | 253.7 | F | 46 | 318.1 | < 80 | 27.1 | C | 23 |
| | WB-R | | | | | | 6.3 | A | 0 |
| Victor Rojas Avenue | SB-L | 11.3 | B | 4 | 11.4 | 31.3 | 11.4 | B | 5 |
| | SB-R | | | | | | | | |

PR-2 & Access #1

| | | 2010 | | | 2013 Delays with existing geometry | 2013 Allowed delay (sec) | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #1 | NB-L | N/A | N/A | N/A | 12.3 | N/A | 22.7 | C | 1 |
| | NB-T | N/A | N/A | N/A | N/A | N/A | 11.9 | B | 30 |
| | SB-T | N/A | N/A | N/A | N/A | N/A | 4 | A | 5 |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 124.2 | N/A | 15.1 | B | 1 |
| | EB-R | | | | | | | | |

PR-2 & Access #2

| | | 2010 | | | 2013 Delays with existing geometry | 2013 Allowed delay (sec) | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #2 | NB-L | N/A | N/A | N/A | 8.7 | N/A | 8.7 | A | 1 |
| | NB-T | | | | | | | | |
| | SB-T | | | | | | | | |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 21.9 | N/A | 21.9 | C | 1 |
| | EB-R | | | | | | | | |

## *Existing (2010) vs. 5 Years after Opening Day (2018) Conditions*

PR-2, PR-10, & Juan Rosado Ave.

| | | 2010 | | | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 64.9 | E | 5 | 76 | < 80 | 74.8 | E | 6 |
| | EB-T | 22.7 | C | 6 | 33.9 | 37.7 | 32.8 | C | 8 |
| | EB-R | | | | | | | | |
| | WB-L | 223.2 | F | 22 | 153.9 | < 80 | 66.3 | E | 17 |
| | WB-T | 45.7 | D | 25 | 57.8 | 60.7 | 59.3 | E | 28 |
| | WB-R | | | | | | | | |
| PR-10 | NB-L | | | | | | | | |
| | NB-T | 55.9 | E | 22 | 104 | < 80 | 63.9 | E | 18 |
| | NB-R | | | | 12.3 | 29.8 | 5.1 | A | 3 |
| Juan Rosado Avenue | SB-L | | | | | | | | |
| | SB-T | 49.5 | D | 6 | 72.4 | 64.5 | 63.8 | E | 5 |
| | SB-R | | | | | | 14.8 | B | 2 |

PR-2 & Victor Rojas Ave.

| | | 2010 | | | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 30.9 | C | 5 | 33.6 | 45.9 | 33.6 | C | 6 |
| | EB-T | 4.1 | A | 2 | 5.1 | 24.1 | 5.1 | A | 3 |
| | WB-T | 253.7 | F | 46 | 72 | <80 | 72 | E | 31 |
| | WB-R | | | | 14.7 | 26.3 | 14.7 | B | 0 |
| Victor Rojas Avenue | SB-L | 11.3 | B | 4 | 13.2 | 31.3 | 13.2 | B | 6 |
| | SB-R | | | | | | | | |

PR-2 & Access #1

| | | 2010 | | | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #1 | NB-L | N/A | N/A | N/A | 23 | N/A | 23 | C | 1 |
| | NB-T | N/A | N/A | N/A | 33.3 | N/A | 33.3 | C | 36 |
| | SB-T | N/A | N/A | N/A | 4.3 | N/A | 4.3 | A | 5 |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 14.6 | N/A | 14.6 | B | 1 |
| | EB-R | | | | | | | | |

PR-2 & Access #2

| | | 2010 | | | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | | | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #2 | NB-L | N/A | N/A | N/A | 9 | N/A | 9 | A | 1 |
| | NB-T | | | | | | | | |
| | SB-T | | | | | | | | |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 25.9 | N/A | 25.9 | D | 1 |
| | EB-R | | | | | | | | |

# PM Peak Hour Analysis

## *Existing (2010) vs. Opening Day (2013) Conditions*

PR-2, PR-10, & Juan Rosado Ave.

| | | 2010 | | | | | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2013 Delays with existing traffic signal times and geometry | 2013 Allowed Delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 63.2 | E | 7 | 69.9 | < 80 | 69.9 | E | 9 |
| | EB-T | 35.9 | D | 16 | 40.1 | 50.9 | 40 | D | 21 |
| | EB-R | | | | | | | | |
| | WB-L | 67.1 | E | 13 | 111.9 | < 80 | 56.5 | E | 13 |
| | WB-T | 38.5 | D | 15 | 42.2 | 53.5 | 32.6 | C | 17 |
| | WB-R | | | | | | | | |
| PR-10 | NB-L | | | | | | | | |
| | NB-T | 45.3 | D | 15 | 57.8 | 60.3 | 53.7 | D | 12 |
| | NB-R | | | | | | 10.5 | B | 7 |
| Juan Rosado Avenue | SB-L | | | | | | | | |
| | SB-T | 55.8 | E | 9 | 67.6 | < 80 | 60.7 | E | 13 |
| | SB-R | | | | | | | | |

PR-2 & Victor Rojas Ave.

| | | 2010 | | | | | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2013 Delays with existing traffic signal times and geometry | 2013 Allowed Delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 46 | D | 12 | 51.9 | 61 | 47.6 | D | 14 |
| | EB-T | 8.6 | A | 6 | 9.7 | 28.6 | 9.7 | A | 7 |
| | WB-T | 101.9 | F | 33 | 172.6 | < 80 | 31.8 | C | 17 |
| | WB-R | | | | | | 1 | A | 0 |
| Victor Rojas Avenue | SB-L | 26 | C | 9 | 27.1 | 41 | 25.9 | C | 10 |
| | SB-R | | | | | | | | |

PR-2 & Access #1

| | | 2010 | | | | | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2013 Delays with existing geometry | 2013 Allowed Delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #1 | NB-L | N/A | N/A | N/A | 19.9 | N/A | 25.4 | C | 1 |
| | NB-T | N/A | N/A | N/A | N/A | N/A | 3.8 | A | 10 |
| | SB-T | N/A | N/A | N/A | N/A | N/A | 4.7 | A | 9 |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 229.6 | N/A | 13.4 | B | 1 |
| | EB-R | | | | | | | | |

PR-2 & Access #2

| | | 2010 | | | | | 2013 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2013 Delays with existing geometry | 2013 Allowed Delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #2 | NB-L | N/A | N/A | N/A | 11.2 | N/A | 11.2 | B | 0 |
| | NB-T | | | | | | | | |
| | SB-T | | | | | | | | |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 25.9 | N/A | 25.9 | D | 1 |
| | EB-R | | | | | | | | |

## *Existing (2010) vs. 5 Years after Opening Day (2018) Conditions*

PR-2, PR-10, & Juan Rosado Ave.

| | | 2010 | | | | | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 63.2 | E | 7 | 81.5 | < 80 | 80.3 | F | 11 |
| | EB-T | 35.9 | D | 16 | 49.9 | 50.9 | 50.5 | D | 30 |
| | EB-R | | | | | | | | |
| | WB-L | 67.1 | E | 13 | 66.7 | < 80 | 69.4 | E | 16 |
| | WB-T | 38.5 | D | 15 | 37.2 | 53.5 | 38.8 | D | 21 |
| | WB-R | | | | | | | | |
| PR-10 | NB-L | | | | | | | | |
| | NB-T | 45.3 | D | 15 | 62.4 | 60.3 | 60.9 | E | 14 |
| | NB-R | | | | 13.4 | 30.5 | 14.2 | B | 10 |
| Juan Rosado Avenue | SB-L | | | | | | | | |
| | SB-T | 55.8 | E | 9 | 95.3 | <80 | 80.4 | F | 10 |
| | SB-R | | | | | | 14.5 | B | 3 |

PR-2 & Victor Rojas Ave.

| | | 2010 | | | | | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 | EB-L | 46 | D | 12 | 68.3 | 61 | 59.7 | E | 17 |
| | EB-T | 8.6 | A | 6 | 11.9 | 28.6 | 12 | B | 9 |
| | WB-T | 101.9 | F | 33 | 42.3 | <80 | 46.6 | D | 24 |
| | WB-R | | | | 1.3 | 21 | 1.3 | A | 0 |
| Victor Rojas Avenue | SB-L | 26 | C | 9 | 28.3 | 41 | 29.4 | C | 12 |
| | SB-R | | | | | | | | |

PR-2 & Access #1

| | | 2010 | | | | | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #1 | NB-L | N/A | N/A | N/A | 25.7 | N/A | 25.7 | C | 1 |
| | NB-T | N/A | N/A | N/A | 5 | N/A | 5 | A | 13 |
| | SB-T | N/A | N/A | N/A | 5.2 | N/A | 5.2 | A | 11 |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 13.4 | N/A | 13.4 | B | 1 |
| | EB-R | | | | | | | | |

PR-2 & Access #2

| | | 2010 | | | | | 2018 with Improvements | | |
|---|---|---|---|---|---|---|---|---|---|
| | Movement | Delay (sec) | LOS | Queue (veh) | 2018 Delays with 2013 Conditions | 2018 Allowed delay (sec) | Delay (sec) | LOS | Queue (veh) |
| PR-2 / Access #2 | NB-L | N/A | N/A | N/A | 12.2 | N/A | 12.2 | B | 0 |
| | NB-T | | | | | | | | |
| | SB-T | | | | | | | | |
| | SB-R | | | | | | | | |
| | EB-L | N/A | N/A | N/A | 31 | N/A | 31 | D | 1 |
| | EB-R | | | | | | | | |


# APPENDIX – K

# Intersection #1

## PR-2, PR-10 & Juan Rosado Avenue

# Intersection #2

## PR-2 & Victor Rojas Avenue

# PR-2 Km. 73.1

## Proposed Project Area