



# City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 1/2016)

**Project Title:** La Cuentista Building Permit #: \_\_\_\_\_ Hydrology File #: \_\_\_\_\_

DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: Tract B-1 and B-2 of La Cuentista Subdivision

City Address: North of Rosa Parks between Unser and Paseo del Norte

**Applicant:** Pulte Homes Contact: Kevin Patton

Address: 7601 Jefferson St

Phone#: 505-341-8591 Fax#: 505-761-9850 E-mail: Kevin.Patton@PulteGroup.com

**Other Contact:** Bohannan Huston Contact: Eric Wrage

Address: 7500 Jefferson

Phone#: 505-798-7859 Fax#: 505-798-7988 E-mail: ewrage@bhinc.com

Check all that Apply:

**DEPARTMENT:**

- HYDROLOGY/ DRAINAGE
- TRAFFIC/ TRANSPORTATION
- MS4/ EROSION & SEDIMENT CONTROL

**TYPE OF SUBMITTAL:**

- AS-BUILT CERTIFICATION
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- DRAINAGE MASTER PLAN
- DRAINAGE REPORT
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- TRAFFIC IMPACT STUDY (TIS)
- NEIGHBORHOOD IMPACT ASSESMENT (NIA)
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- OTHER (SPECIFY) \_\_\_\_\_

**TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- GRADING/ESC PERMIT APPROVAL
- PRELIMINARY PLAT APPROVAL
- SITE PLAN FOR SUB'D APPROVAL
- SITE PLAN FOR BLDG. PERMIT APPROVAL
- FINAL PLAT APPROVAL
- SIA/ RELEASE OF FINANCIAL GUARANTEE
- FOUNDATION PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING/ PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- PRE-DESIGN MEETING?**
- OTHER (SPECIFY) \_\_\_\_\_

IS THIS A RESUBMITTAL?:  Yes  No

DATE SUBMITTED: July 27, 2021 By: Eric Wrage

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE RECEIVED: \_\_\_\_\_

# LA CUENTISTA

## TRAFFIC IMPACT ANALYSIS

### INITIAL SUBMITTAL

**JULY 27, 2021**

**Prepared For:**

Pulte Homes

7601 Jefferson St NE, Suite 320

Albuquerque, NM 87109

HT# D10D002  
received 7/27/2021

**Prepared By:**

**Bohannon  Huston**

Engineering

Spatial Data

Advanced Technologies



# LA CUENTISTA TRAFFIC IMPACT ANALYSIS

INITIAL SUBMITTAL

Date:

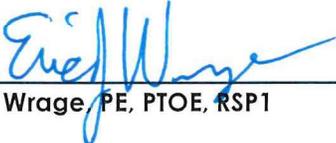
**July 27, 2021**

Prepared by:

**Bohannon Huston, Inc.**  
7500 Jefferson St NE  
Courtyard Two  
Albuquerque, NM 87109

Prepared for:

**Pulte Homes**  
7601 Jefferson St NE, Suite 320  
Albuquerque, NM 87109

  
Eric J. Wrage, PE, PTOE, RSP1

  
Date

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## I. INTRODUCTION AND SUMMARY

Pulte Homes proposes to develop approximately 59.08 acres, situated southeast of the Paseo del Norte and Unser intersection. The proposed development will include 244 single-family residential units.

### A. STUDY PURPOSE

The purpose of the traffic study is to determine the impacts of the proposed development on the surrounding roadway network, evaluate the operation of the proposed site entrances, and to recommend any mitigation measures that may be necessary to support additional traffic generated by the new development.

### B. EXECUTIVE SUMMARY

#### 1. SITE LOCATION AND STUDY AREA

The site is located southeast of the Paseo del Norte and Unser intersection in Albuquerque, New Mexico. A vicinity map and site plan are shown in Figure 1, and the proposed site plan of the future development is shown in Figure 2.

The study area consists of the following intersections:

- Paseo del Norte and Kimmick Drive (existing 3-way intersection with existing signal bagged/turned off, future signalized intersection)
- Unser Blvd and Rosa Parks (existing 3-way unsignalized intersection)
- Rosa Parks and Azucena (existing 3-way unsignalized intersection, future 4-way unsignalized intersection)
- Rosa Parks and Redroot (existing 3-way unsignalized intersection, future 4-way unsignalized intersection)

The intersection evaluations include analysis for the AM and PM peak hours for the following traffic conditions:

- Existing traffic (2019)
- 2024 Completion Year without the proposed site development (2024 No Build)
- 2024 Completion Year with proposed site development (2024 Build)

Due to the impact of approved additional development within the study area, for Paseo del Norte and Kimmick Drive, the intersection evaluation include analysis for the AM and PM peak hours with the following conditions.

- Existing traffic (2019 unsignalized intersection)

- Existing traffic (2019 signalized intersection)
- 2024 Completion Year without the proposed site development, without the Cliffs development (2024 No Build\_ Without Cliffs)
- 2024 Completion Year without the proposed site development, with the Cliffs development (2024 No Build\_ With Cliffs)
- 2024 Completion Year with the proposed site development, without the Cliffs development (2024 Build\_ Without Cliffs)
- 2024 Completion Year with the proposed site development, with the Cliffs development (2024 Build\_ With Cliffs)

## 2. PRINCIPAL FINDINGS

The traffic analysis found that all intersections operate overall acceptably in the Existing conditions.

The total trips for the future Cliffs on Paseo development significantly impact the adjacent Paseo del Norte and Kimmick Drive intersection. For both the 2024 No Build and 2024 Build studies, the intersection of Paseo del Norte and Kimmick Drive operates at overall acceptable levels of service. Under these conditions, not including the Cliffs on Paseo development, a signal was not warranted.

For the evaluations with the Cliffs development included, the exiting minor street northbound left movement at Paseo del Norte and Kimmick does not operate at an acceptable level of service in either the 2024 No Build nor the 2024 Build scenario. For these conditions where the Cliffs on Paseo development is included, a traffic signal was warranted.

In the Build scenario, the exiting minor street westbound left and right movements at Unser Boulevard and Rosa Parks Road do not operate at acceptable conditions in both the AM and PM peak hours for 1-stage left turns. The Unser and Rosa Parks intersection operates at acceptable levels of service for the 2-stage, 2024 Build analysis. This intersection does not warrant a traffic signal analysis.

The intersections of Rosa Parks and Azucena, and Rosa Parks and Redroot operate at acceptable levels of service for all conditions including Existing, 2024 No Build and 2024 Build scenarios.

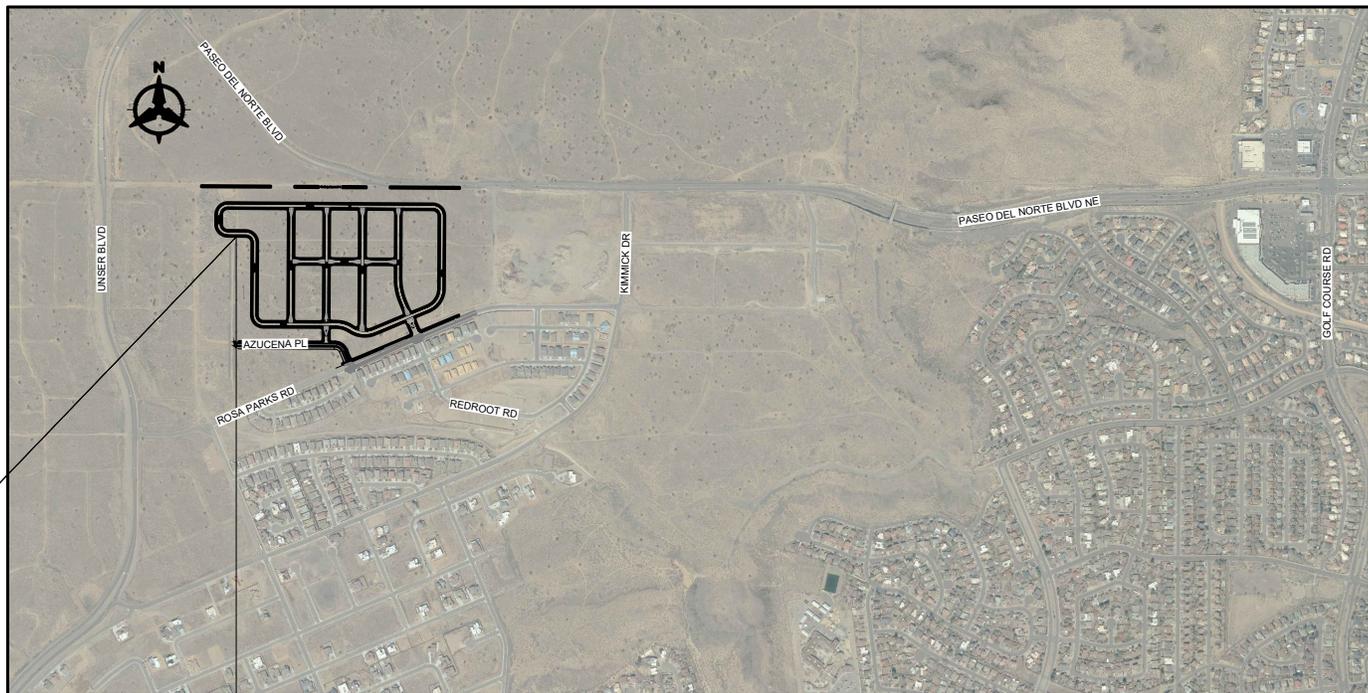
## 3. RECOMMENDATIONS

- All designs shall satisfy the Manual on Uniform Traffic Control Devices (MUTCD) and the City of Albuquerque requirements.
- Since a signal is only warranted at the Paseo del Norte and Kimmick Drive intersection when the traffic generated from the Cliffs on Paseo

development is included, it is not recommended to turn on the existing signal at this time.



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## II. PROPOSED DEVELOPMENT

### A. LAND USE AND INTENSITY

The proposed development is a 244-unit single family residential development on approximately 59.08 acres.

The development is situated at the southeast corner of Paseo del Norte and Unser. The study area is partially developed. The Cliffs on Paseo development, Sonata Apartments, and Ventana Ranch Retail are approved developments to the north and northeast of the La Cuentista development. There is also established residential zones in the surrounding area.

### B. DEVELOPMENT PHASING AND TIMING

The project is expected to be developed by 2024, phasing is not anticipated.

## III. STUDY AREA CONDITIONS

### A. STUDY AREA

The study area consists of the following intersections:

- Paseo del Norte and Kimmick Drive (existing 3-way intersection with existing signal bagged/turned off, future signalized intersection)
- Unser Blvd and Rosa Parks (existing 3-way unsignalized intersection)
- Rosa Parks and Azucena (existing 3-way unsignalized intersection, future 4-way unsignalized intersection)
- Rosa Parks and Redroot (existing 3-way unsignalized intersection, future 4-way unsignalized intersection)

### B. SITE ACCESSIBILITY

The development will have access via two future driveways. The primary driveway will be located at the Rosa Parks-Azucena intersection, and the secondary driveway is to be located at the Rosa Parks-Redroot intersection. Both Azucena and Redroot are existing 3-way intersections, future 4-way intersections.

The primary routes to the site are anticipated to be either Paseo del Norte or Unser Boulevard.

**C. DATA SOURCES**

The data used in this report consist of the traffic volumes described below, aerial photography and mapping from Google Earth®, information is provided by the Projected Turning Movements Worksheets for the Cliffs on Paseo development dated 2017, the Cliffs on Paseo TIA dated 2017 as well as information provided by TAQA Traffic Counts, and Streetlight.

## IV. EXISTING CONDITIONS ANALYSIS

### A. BACKGROUND

Roadway federal classification is updated approximately every four years. The classification process involves local governments, the Mid Region Council of Governments (MRCOG), New Mexico Department of Transportation (NMDOT), and the Federal Highway Administration (FHWA). The 2016 MRCOG Roadway Functional Classification Map classifies roadways based on their function. Roadways are subject to design guidance based on their functional classification, design speed, or based on Comprehensive Plan corridor designations.

#### 1. ADJACENT ROADWAYS

The following are adjacent roadways:

- Paseo del Norte is a principal arterial with 2 lanes west of Kimmick and 4 lanes east of Kimmick. The transition segment from 4 lanes to 2 lanes is located just to the west of the Paseo-Kimmick intersection. Therefore, this intersection was evaluated with two through lanes in each direction on Paseo del Norte. There is an existing signal at this intersection however, it is not currently in use/turned on. Paseo del Norte provides regional connectivity within Albuquerque, serving as a river crossing east of the study area. To the west, Paseo del Norte turns into Atrisco Vista and heads south to connect with I-40. The posted speed limit for Paseo del Norte is 35 miles per hour (MPH) Sidewalks and bicycle lanes are not present on Paseo del Norte in this area. The City DMD has a project NMDOT CN A300261, to widen Paseo del Norte from west of Kimmick to the west to Universe.
- Unser Blvd is a principal arterial, currently with one lane in each direction, as well as curb and gutter along the east side of the roadway. Unser has a posted speed limit of 35 MPH. Unser provides regional connectivity within the greater Albuquerque area, serving as a link between major/minor roadways which travel east-west directions, including I-40, Paseo del Norte, Central Ave, Paseo del Volcan, Norther and Southern Blvd. The City DMD has a partially funded project, MPO#465.3/NMDOT CNA300304 Unser Boulevard Gap Widening Phase 2 – Kimmick Drive to Paradise Boulevard, that will widen Unser to 4 lanes, including on-street bicycles lanes. Due to the uncertainty of the construction timeline this project, Unser Boulevard was evaluated as a 2-lane road as it is today, in all scenarios.
- Rosa Parks is a major collector with one lane in each direction and a two-way left-turn lane to the southwest of Azucena. Rosa Parks has a posted speed limit

of 30 MPH. Rosa Parks has paved, separated multi-use facilities on the south side of the roadway.

- Kimmick Drive is a minor collector with one lane in each direction and a posted speed limit of 30 MPH. Kimmick is an undivided roadway with curb and gutter along the west side of the roadway. No sidewalk or bike paths exist on this roadway.
- The future Cliffs on Paseo Development, located at the southwest corner of Paseo del Norte and Kimmick Drive, is expected to have a significant impact on the adjacent transportation system. This will be discussed in more detail later in the report.

## 2. MULTI-MODAL CONDITIONS

Sidewalks and bicycle lanes are not present on Paseo del Norte in this area. The City of Albuquerque Bike Map identifies future bicycle lanes on Paseo del Norte and a future paved trail on the north side of Paseo del Norte west of Ventana West.

Unser, Rosa Parks, and Kimmick do not currently have any type of multi-use trails.

### B. EXISTING TRAFFIC CONDITIONS

The NMDOT has developed guidelines for *Alternative Means to Develop Base Turning Movements Volumes for Traffic Impact Studies During COVID-19 Times*, released October 5, 2020. These guidelines provide three (3) methods to develop traffic counts for use in traffic studies. This analysis utilizes Method 2 as reliable link volume data from MRCOG and Streetlight Data for Unser and Paseo del Norte. TAQA does not report data for Rosa Parks or Kimmick, and Streetlight Data was considered unreliable due to small sample sizes. Existing traffic for the existing subdivisions was estimated by counting the houses, developing trip generation, and distributing those trips onto the existing roadway network, similar to a normal traffic study.

#### 1. APPROVED DEVELOPMENT

The area surrounding La Cuentista is the future Cliffs on Paseo development as offices (general and medical/dental), residential apartments and retail buildings. This development is located southwest of the Paseo del Norte and Kimmick Drive intersection.

The total trips for the future Cliffs on Paseo development are included in the 2024 No Build and 2024 Build volumes as approved development. Since this development has not yet started construction, the scenarios for 2024 No Build and 2024 Build are also evaluated without including the trips generated by the future Cliffs on Paseo.

In addition, traffic from the Sonata Apartments and Ventana Ranch Commercial projects was also included in the background traffic.

C. LEVEL OF SERVICE DEFINITIONS

The *Highway Capacity Manual Sixth Edition* (HCM) defines Level of Service (LOS) for un-signalized intersections in Table 1 as follows:

Table 1   LOS Definitions			
Level of Service	Definition	Signalized (sec/veh)	Unsignalized (sec/veh)
A	Most vehicles do not stop	<10	<10
B	Some vehicles stop	>10 and <20	>10 and <15
C	Significant numbers of vehicles stop	>20 and <35	>15 and <25
D	Many vehicles stop	>35 and <55	>25 and <35
E	Limit of acceptable delay	>55 and <80	>35 and <50
F	Unacceptable delay	>80	>50

The City of Albuquerque has established LOS D as the generally acceptable level of service in urban areas. When intersections operate below this level, improvements are considered, where feasible. Other critical movements are also desired to have LOS D or better if possible.

D. EXISTING INTERSECTION CAPACITY ANALYSIS

The existing intersections traffic volume were analyzed using Highway Capacity Software version 7 (HCS7), which uses the intersection methodology from the Sixth Edition of the Highway Capacity Manual (HCM). Individual intersection output for the existing conditions analysis is included in Appendix B. The results are summarized in Table 2.

The one-way stop-controlled intersections of Paseo del Norte and Kimmick Drive, and Unser Boulevard and Rosa Parks Road both operate at acceptable levels of service in the AM and PM peak hours for 1-stage left turns. For 1-stage left turns, the vehicle will wait for a gap large enough in both directions of travel before turning.

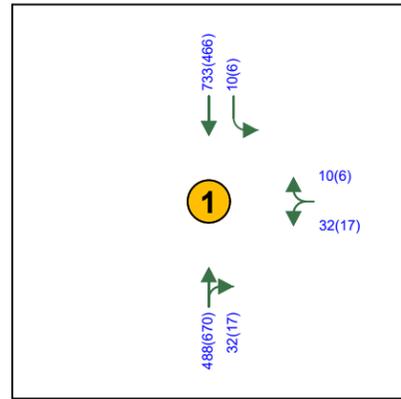
For 2-stage left turns, the vehicle will cross into the median and wait until it can merge with the same directional traffic. This type of movement helps decrease the delay time per vehicle and generate a better level of service, however it is acknowledged that not all drivers are comfortable with this maneuver.

The 2-stage analysis for the intersections of Paseo del Norte and Kimmick Drive, plus Unser Boulevard and Rosa Parks Road was not necessary as both operate at

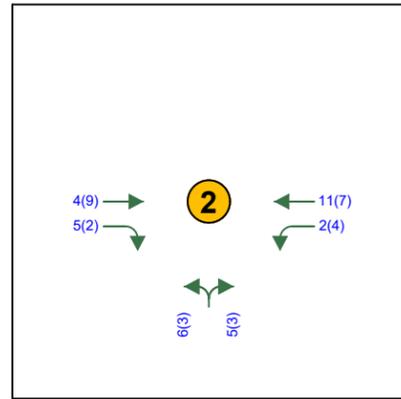
acceptable levels of service in the AM and PM peak hours with 1-stage left turns in existing conditions.

The existing westbound left, northbound left and right movements at intersections of Rosa Parks Road and Azucena Place, and Rosa Parks Road and Redroot Road operate at acceptable levels of service in the AM and PM peak hours.

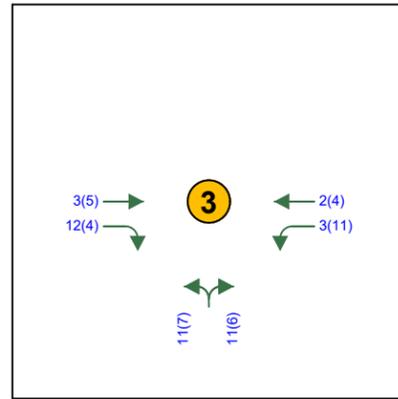
Table 2   Existing Unsignalized Intersection Results								
Intersection/Movement	2019 AM Peak				2019 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Paseo & Kimmick (1-Stage)								
Westbound Left	11.3	0.03	25	B	8.4	0.05	25	A
Northbound Left	33.2	0.03	25	D	24.7	0.01	0	C
Northbound Right	14.1	0.12	25	B	9.8	0.05	25	A
Unser & Rosa Parks (1-Stage)								
Westbound Left & Right	29.4	0.24	25	D	23.5	0.11	25	C
Southbound Left	8.6	0.01	0	A	9.2	0.01	0	A
Rosa Parks & Azucena								
Westbound Left	7.2	0.00	0	A	7.2	0.00	0	A
Northbound Left & Right	8.6	0.01	0	A	8.5	0.01	0	A
Rosa Parks & Redroot								
Westbound Left	7.2	0.00	0	A	7.3	0.01	0	A
Northbound Left & Right	8.6	0.02	25	A	8.6	0.01	0	A
* – HCM 95 <sup>th</sup> percentile queue rounded to next 25-foot increment								



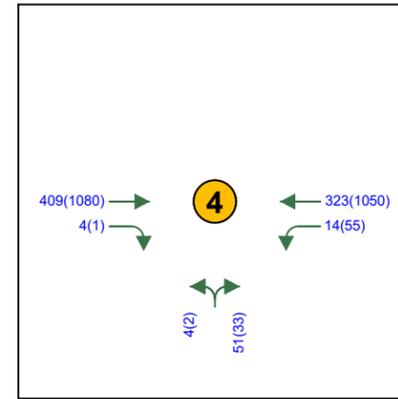
UNSER / ROSA PARKS



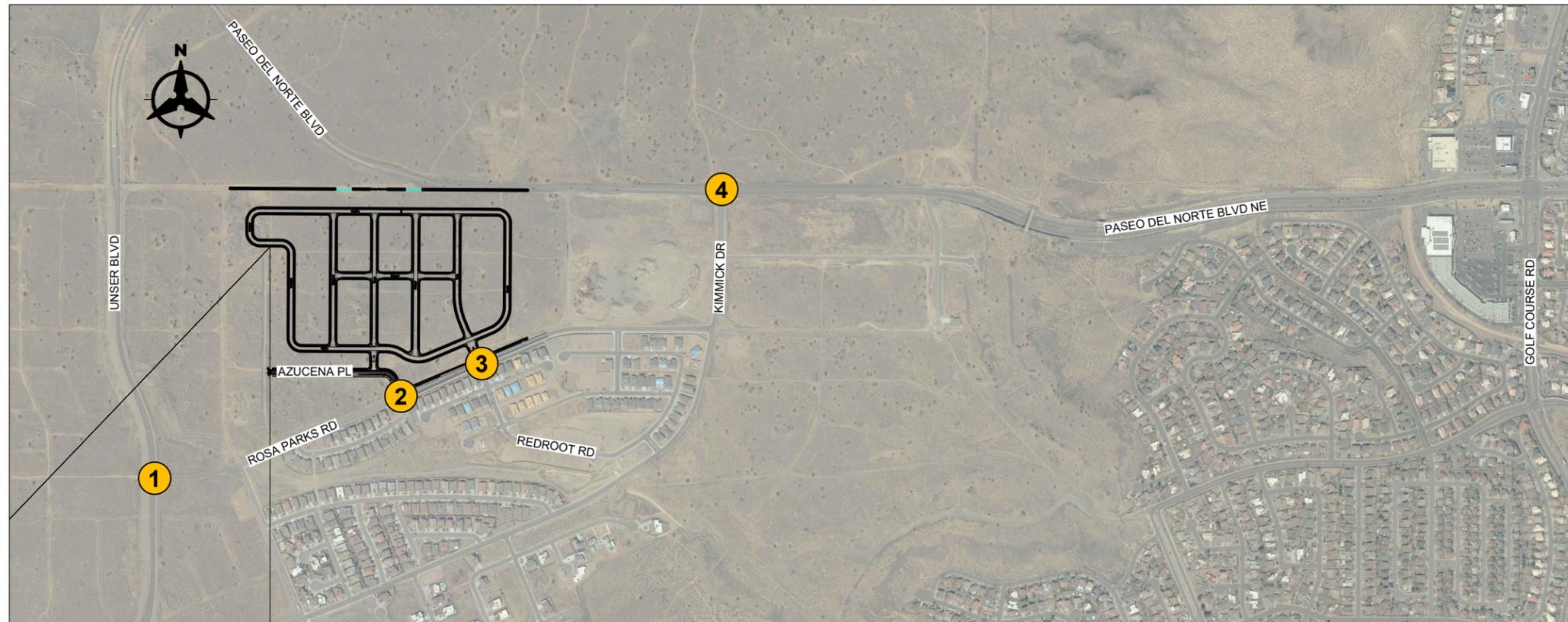
ROSA PARKS / AZUCENA



ROSA PARKS / REDROOT



PASEO DEL NORTE / KIMMICK



LA CUENTISTA  
CITY OF ALBUQUERQUE  
SITE TRAFFIC ANALYSIS

FIGURE 3  
EXISTING TRAFFIC VOLUMES

V. PROJECTED TRAFFIC

A. SITE TRAFFIC FORECASTING

1. TRIP GENERATION

Generated trips are broken down into three types; 1) primary, 2) pass-by trips, and 3) diverted link. The Trip Generation report defines these trips as follows:

- **Primary Trips** – These trips are made for the specific purpose of visiting the generator. The stop at that generator is the primary reason for the trip. For example, a home to shopping to home combination of trips is a primary trip set.
- **Pass-by Trips** – These trips are made as intermediate stops on the way from an origin to a primary trip generation. Pass-by trips are attracted from the traffic passing the site on an adjacent street that contains direct access to the generator site. These trips do not require a diversion from another roadway. For example, stopping at the store on the way home from work is an example of a pass-by trip. No pass-by trips were used in this analysis.
- **Diverted Linked Trips** – These trips are attracted from the traffic volume on the roadway within the vicinity of the generator, but which require a diversion from that roadway to another roadway to gain access to the site. The roadways could include streets or freeways adjacent to the generator, but without access to the generator. For this study, the diverted link trips have been included in with the primary trips.

This study evaluates primary trips only.

The trip generation based on the 10<sup>th</sup> Edition of the Institute of Transportation engineer's (ITE) Trip Generation Manual is shown in Table 3 below with the following considerations. The trip generation is based on the peak hour of the adjacent street traffic.

Table 3   Trip Generation							
Land Use	ITE Code	Size	Daily	AM Enter	AM Exit	PM Enter	PM Exit
Single Family Detached	210	244	2362	44	134	239	89

## 2. TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution was determined using a modified gravity model that considered a region-wide travel shed for employment trips. As the development is residential, standard traffic analysis assumes the trips in the peak hour to be primarily employment trips, so the destinations for the AM trips are employment locations, with the origins the site. In the PM peak hour, the destination is the site, and the origins are the employment locations.

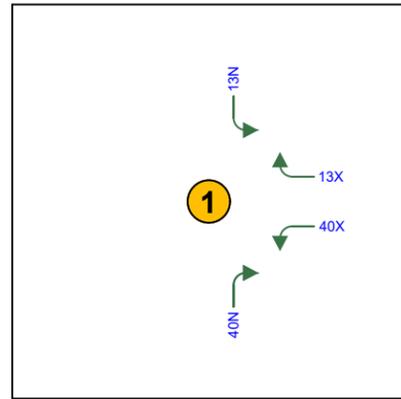
The gravity model uses the locations of employment, which are weighted by the number of jobs in the Subareas in the Albuquerque Metropolitan area divided by their distance from the site. This means that employment locations closer to the site are considered more likely, with those farther away to be less likely, depending on how many jobs are in each Subarea.

The gravity model utilized socioeconomic data obtained from the Mid Region Council of Governments (MRCOG), which included population and employment estimates for each subarea within the Albuquerque Metropolitan Planning Area to develop the trip distribution.

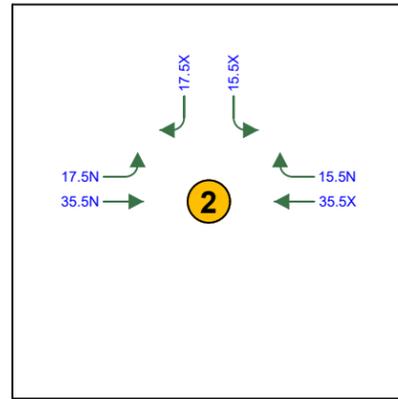
Spreadsheets showing the development of the trip distribution are included in Appendix C. The trip distribution percentages and assigned traffic volumes is shown in Figure 4 and Figure 5.

## 3. TRAFFIC PROJECTIONS

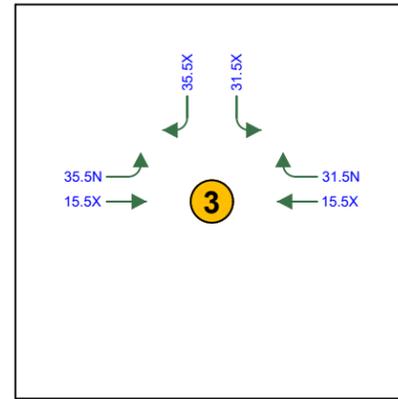
A background growth rate of 3.5% was applied to provide an estimate of potential future growth of traffic at all intersections evaluated. The growth rate determination and data are summarized in the spreadsheets included in Appendix C. Figure 6 on page 20 shows the 2024 No Build traffic volumes. Figure 7 on page 24 shows the 2024 No Build traffic volumes.



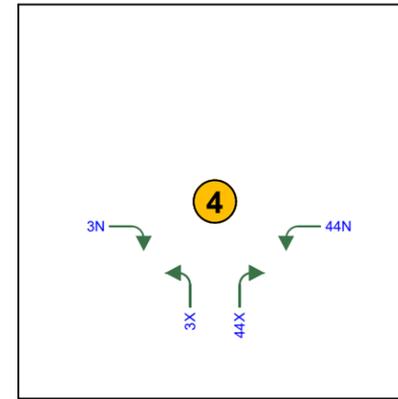
UNSER / ROSA PARKS



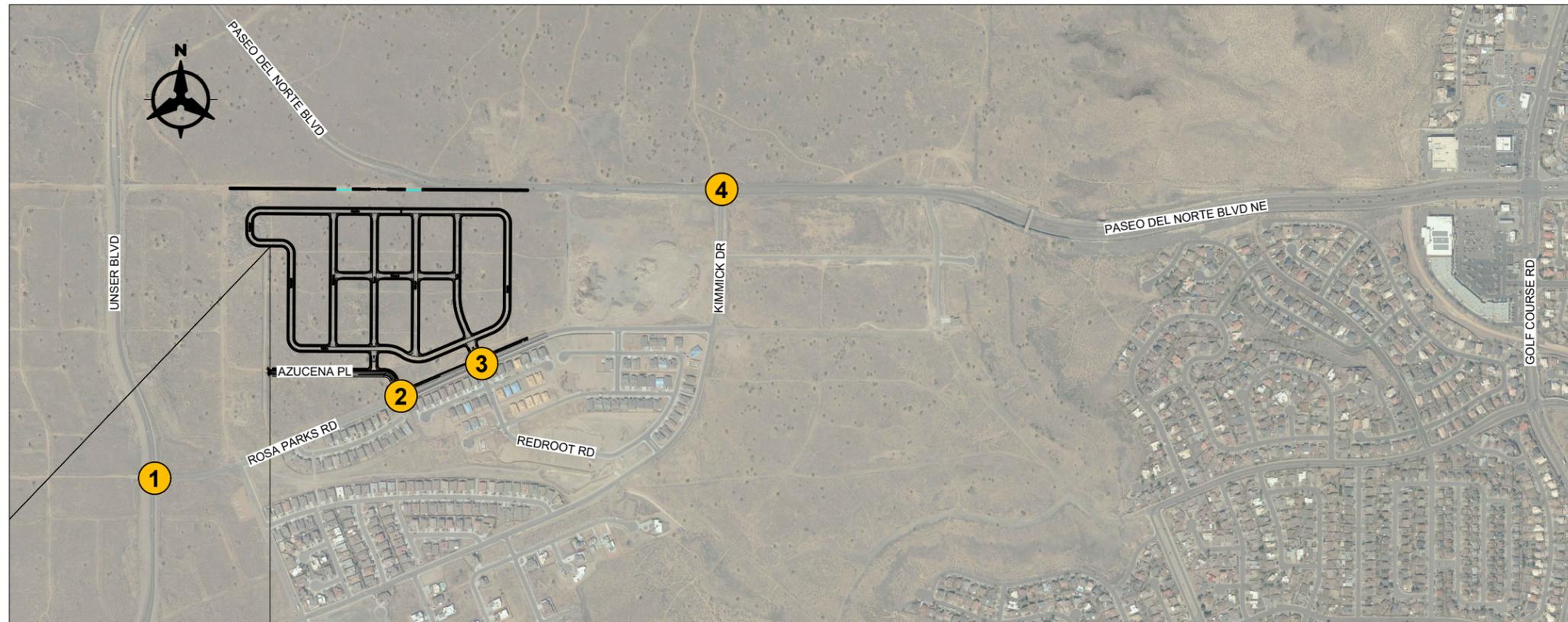
ROSA PARKS / AZUCENA



ROSA PARKS / REDROOT

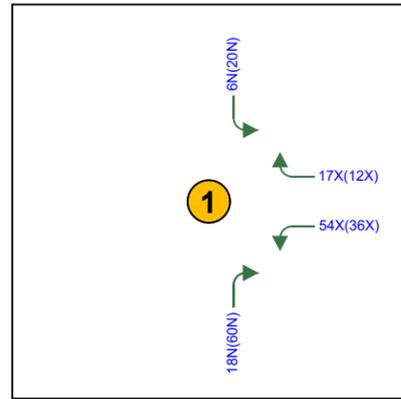


PASEO DEL NORTE / KIMMICK

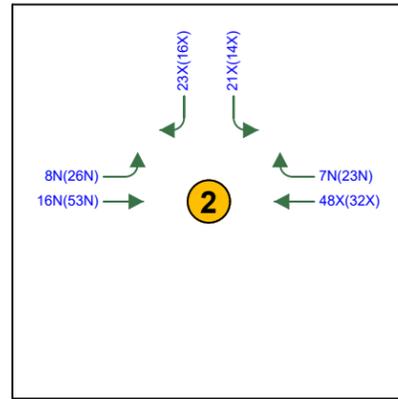


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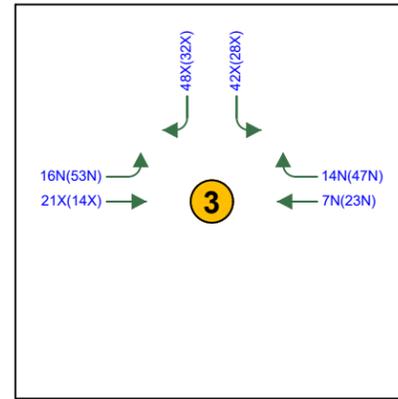
- ↑↑↑ Thru Lanes (# as indicated)
- ↔↔↔ Turning Lanes (# as indicated)
- 1234(1234) Trip Assignment Percentages
- N Entering
- X Exiting



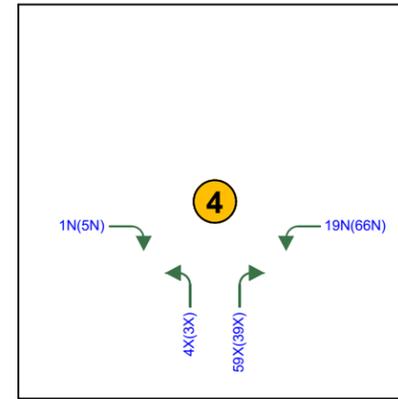
UNSER / ROSA PARKS



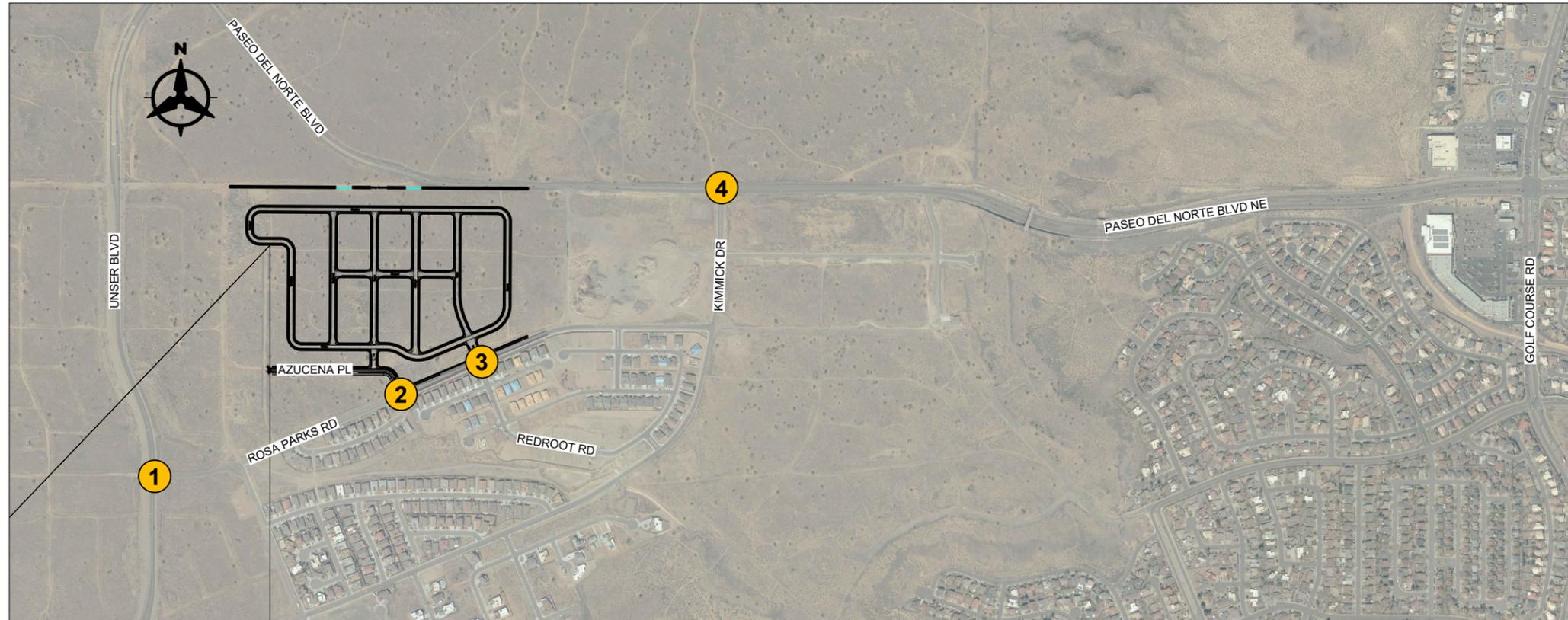
ROSA PARKS / AZUCENA



ROSA PARKS / REDROOT



PASEO DEL NORTE / KIMMICK



**LEGEND**

- ↑↑↑ Thru Lanes (# as indicated)
- ↔↔↔ Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts

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## VI. TRAFFIC AND IMPROVEMENT ANALYSIS

The following section will discuss the results of the future year traffic analysis. The intersection capacity analysis was completed using HCS7 which implements the Highway Capacity Manual procedures.

### 1. NO BUILD INTERSECTION CAPACITY ANALYSIS

The 2024 No Build analysis consists of two scenarios; 1) without the proposed Cliffs Development, and 2) with Cliffs Development included. Table 4 and Table 5 show the 2024 No Build results. The HCS output is included in Appendix D. As mentioned, the large number of trips resulting from the Cliffs development substantially affects operation of the Kimmick and Paseo del Norte intersection.

The unsignalized intersection of Paseo del Norte and Kimmick Drive was evaluated for two no build conditions including one analysis with the Cliffs Development and the other without the development. Since there is an existing painted median at this intersection, these two conditions were modeled for both 1-stage and 2-stage left turns. For the condition with the Cliffs development excluded, all approaches operate at acceptable levels of service. When the traffic generated from the Cliffs on Paseo development is included, the northbound left movement operates poorly.

Due to the poor operation, a peak hour traffic signal warrant analysis was performed for the intersections of Paseo del Norte and Kimmick Drive.

The peak hour traffic signal warrant analysis for the intersection of Paseo del Norte and Kimmick Drive was performed for both conditions, with and without the Cliffs Development traffic volumes. Each condition was evaluated for both 1-stage and 2-stage left turns. For 1-stage left turns, the vehicle will wait for a gap large enough in both directions of travel before turning. For 2-stage left turns, the vehicle will cross into the median and wait until it can merge with same directional traffic. This type of movement helps decrease the delay time per vehicle and generate a better level of service.

The analysis excluding the Cliffs Development does not warrant a traffic signal. For the condition which includes the additional traffic due to the Cliffs Development, the scenario did warrant a signal for both 1-stage and 2-stage left turns. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

The analysis found the signalized intersection of Paseo del Norte and Kimmick Drive operates at overall acceptable levels of service in the AM and PM peak hours for both scenarios. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

Under the condition with the Proposed Cliffs Development, the signalized intersection of Paseo del Norte and Kimmick Drive operate with an increased delay and lower

level of service for the eastbound and westbound approaches compared to the study excluding the Cliffs Development. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

<b>Table 4   2024 No Build Signalized Intersection Results</b>						
<b>Intersection</b>	<b>2024 AM Peak</b>			<b>2024 PM Peak</b>		
	<b>Delay</b>	<b>LOS</b>	<b>Max V/C</b>	<b>Delay</b>	<b>LOS</b>	<b>Max V/C</b>
Paseo & Kimmick (w/out Cliffs)						
Eastbound Thru & Right	6.4	A	0.544	5.9	A	0.233
Westbound Left	18.4	B	0.107	4.8	A	0.119
Westbound Thru	2.1	A	0.148	2.9	A	0.490
Northbound Left	33.7	C	0.039	29.7	C	0.024
Northbound Right	34.0	C	0.475	26.5	C	0.225
Paseo & Kimmick (w/Cliffs)						
Eastbound Thru & Right	11.5	B	0.539	16.1	B	0.319
Westbound Left	26.4	C	0.092	11.7	B	0.547
Westbound Thru	3.2	A	0.124	10.2	B	0.602
Northbound Left	34.6	C	0.042	28.2	C	0.331
Northbound Right	31.5	C	0.437	26.0	C	0.069

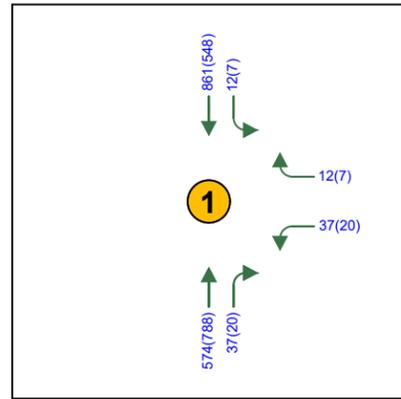
The unsignalized intersection of Unser and Rosa Parks was modeled for both 1-stage and 2-stage left turns. For AM and PM peak hour, the 2024 No Build westbound left and right turn volumes operate below acceptable levels of service for 1-stage type turns. However, when this same scenario is evaluated using 2-stage left turns, all approaches operate at acceptable levels of service.

The peak hour traffic signal warrant analysis for the intersection of Unser Boulevard and Rosa Park Road was evaluated for both 1-stage and 2-stage left turns. This intersection does not warrant a traffic signal. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

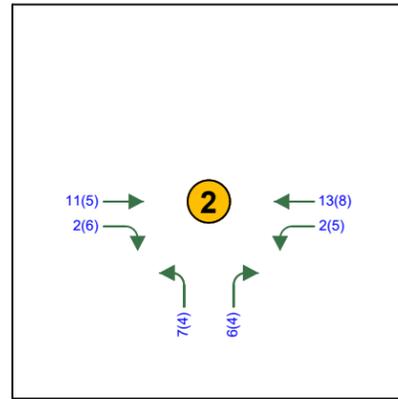
The unsignalized intersections of Rosa Parks and Azucena as well as Rosa Parks and Red Root operate at acceptable levels of service in the 2024 No Build condition.

Table 5   2024 No Build Unsignalized Intersection Results								
Intersection/Movement	2024 AM Peak				2024 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Paseo & Kimmick (w/out Cliffs, 1-Stage)								
Westbound Left	12.7	0.04	25	B	8.8	0.07	25	A
Northbound Left	48.5	0.05	25	E	33.0	0.02	25	D
Northbound Right	16.4	0.17	25	C	10.2	0.06	25	B
Paseo & Kimmick (w/out Cliffs, 2-Stage)								
Westbound Left	12.7	0.04	25	B	8.8	0.07	25	A
Northbound Left	27.6	0.03	25	D	19.1	0.01	0	C
Northbound Right	16.4	0.17	25	C	10.2	0.06	25	B
Paseo & Kimmick (w/Cliffs, 1-Stage)								
Westbound Left	18.2	0.44	25	C	10.0	0.29	25	A
Northbound Left	450.1	1.19	25	F	1055.5	2.95	25	F
Northbound Right	21.2	0.42	25	C	15.6	0.54	25	C
Paseo & Kimmick (w/Cliffs, 2-Stage)								
Westbound Left	18.2	0.44	25	C	10.0	0.29	25	A
Northbound Left	48.1	0.28	25	E	188.6	1.14	25	F
Northbound Right	21.2	0.42	25	C	15.6	0.54	25	C
Unser & Rosa Parks (1-Stage)								
Westbound Left & Right	45.7	0.38	25	E	31.9	0.18	25	D
Southbound Left	8.9	0.01	0	A	9.7	0.01	0	A
Unser & Rosa Parks (2-Stage)								
Westbound Left & Right	20.9	0.19	25	C	18.8	0.10	25	C
Northbound Left	8.9	0.01	0	A	9.7	0.01	0	A
Rosa Parks & Azucena								
Westbound Left	7.2	0.00	0	A	7.2	0.00	0	A
Northbound Left & Right	8.6	0.01	25	A	8.5	0.01	0	A
Rosa Parks & Redroot								
Westbound Left	7.2	0.00	0	A	7.3	0.01	0	A
Northbound Left & Right	8.6	0.03	25	A	8.6	0.02	0	A

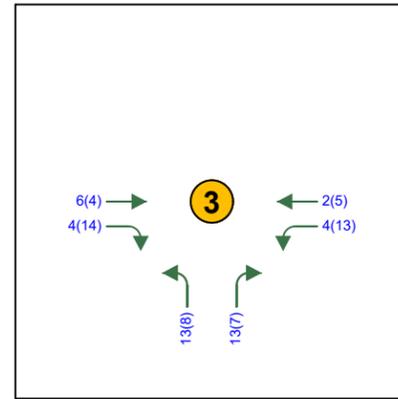
\* – HCM 95<sup>th</sup> percentile queue rounded to next 25-foot increment



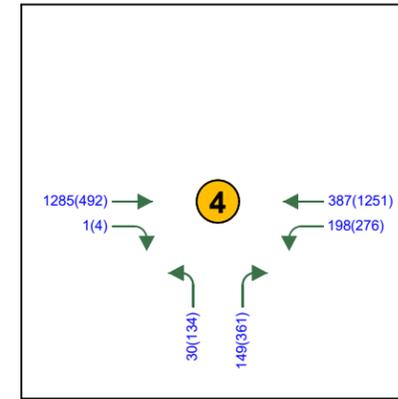
UNSER / ROSA PARKS



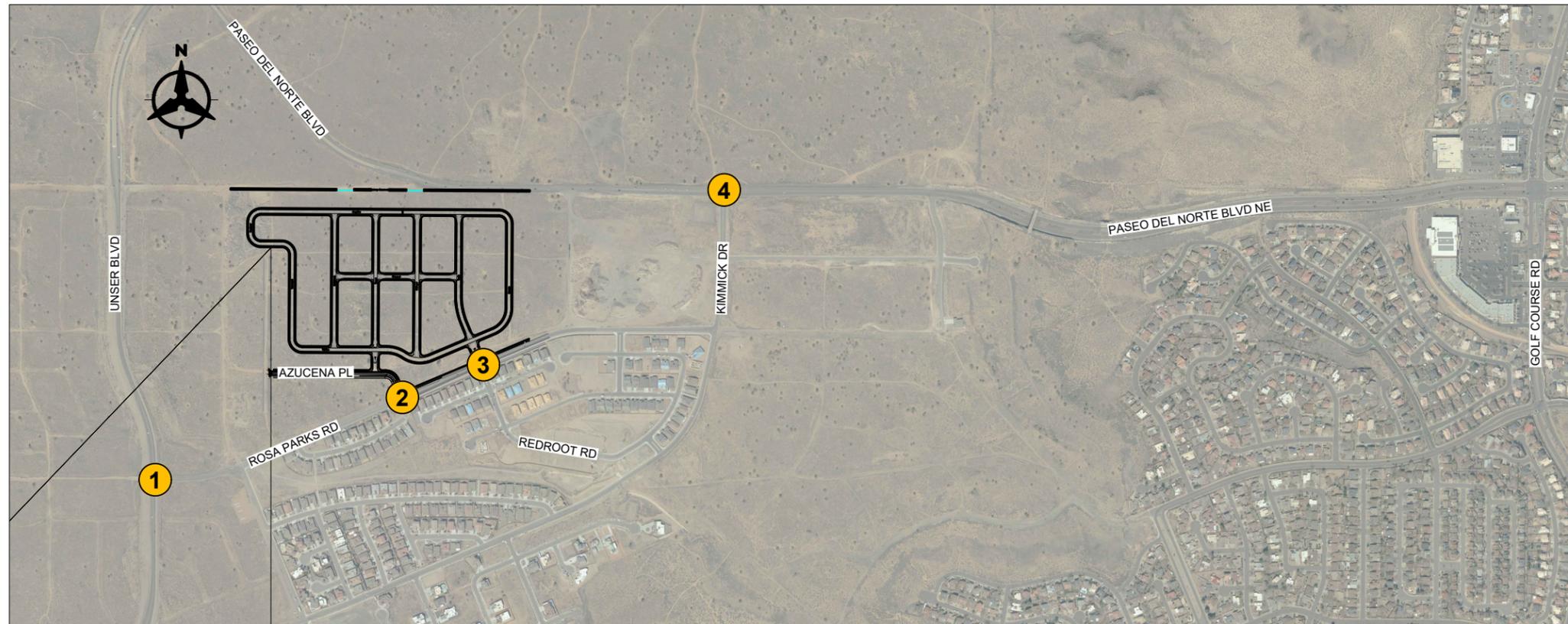
ROSA PARKS / AZUCENA



ROSA PARKS / REDROOT



PASEO DEL NORTE / KIMMICK



**LEGEND**

- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)

**2. BUILD INTERSECTION CAPACITY ANALYSIS**

The trips generated by the site (Table 3) were assigned to the intersections using the trip percentages and associated volumes, shown in Figure 4 and Figure 5. These trips were added to the 2024 No Build traffic projections shown in Appendix C. The 2024 Build capacity analysis is shown in Table 6 and Table 7. The individual intersection output is included in Appendix E.

The peak hour traffic signal warrant analysis for the intersection of Paseo del Norte and Kimmick Drive was performed for both conditions, with and without the Cliffs Development traffic volumes. Each condition was evaluated for both 1-stage and 2-stage left turns. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

The analysis, excluding the Cliffs Development, does not warrant a traffic signal. For the condition including the additional traffic due to the Cliffs Development, a signal was warranted for both 1-stage and 2-stage left turns. In light of this information, activating of the existing traffic signal is likely needed upon development of the Cliff's project, but is not needed for La Cuentista if the Cliff's project is not present. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

The analysis found the signalized intersection of Paseo del Norte and Kimmick Drive operates at overall acceptable levels of service in the AM and PM peak hours, for both scenarios.

<b>Table 6   2024 Build Signalized Intersection Results</b>						
<b>Intersection</b>	<b>2024 AM Peak</b>			<b>2024 PM Peak</b>		
	<b>Delay</b>	<b>LOS</b>	<b>Max V/C</b>	<b>Delay</b>	<b>LOS</b>	<b>Max V/C</b>
Paseo & Kimmick (w/out Cliffs)						
Eastbound Thru & Right	8.7	A	0.579	7.0	A	0.246
Westbound Left	19.2	B	0.199	5.5	A	0.238
Westbound Thru	2.8	A	0.153	3.4	A	0.499
Northbound Left	33.2	C	0.049	29.7	C	0.042
Northbound Right	33.3	C	0.567	26.2	C	0.343
Paseo & Kimmick (w/Cliffs)						
Eastbound Thru & Right	14.5	B	0.658	18.9	B	0.343
Westbound Left	28.6	C	0.853	13.3	B	0.651
Westbound Thru	4.1	A	0.161	11.2	B	0.607
Northbound Left	34.1	C	0.136	29.0	C	0.320
Northbound Right	31.0	C	0.570	25.8	C	0.688

The unsignalized intersection of Paseo del Norte and Kimmick Drive was evaluated for two 2024 Build conditions, with one analysis including the Cliffs Development, and the other without the Cliffs Development. Since there is an existing painted median at this intersection, these two conditions were modeled for both 1-stage and 2-stage left turns. For the condition with the Cliffs development excluded, all approaches operate

at acceptable levels of service for the 2-stage analysis. When the traffic generated from the Cliffs on Paseo development is included, the northbound left movement operates poorly.

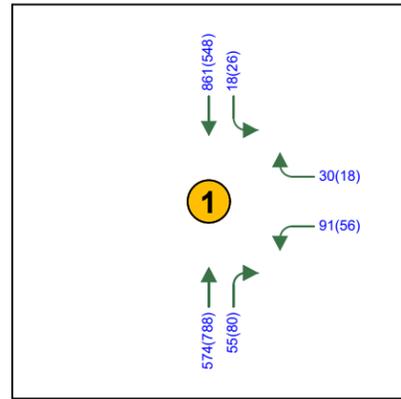
The unsignalized intersection of Unser and Rosa Parks was modeled for both 1-stage and 2-stage left turns. For AM and PM peak hour, the 2024 Build westbound left and right turn volumes operate below acceptable levels of service for 1-stage type turns. However, when this same scenario is evaluated using 2-stage left turns, all approaches operate at acceptable levels of service.

The peak hour traffic signal warrant analysis for the intersection of Unser Boulevard and Rosa Park Road was evaluated for both 1-stage and 2-stage left turns. This intersection does not warrant a traffic signal. A copy of the peak hour traffic signal warrant analysis is included in Appendix E.

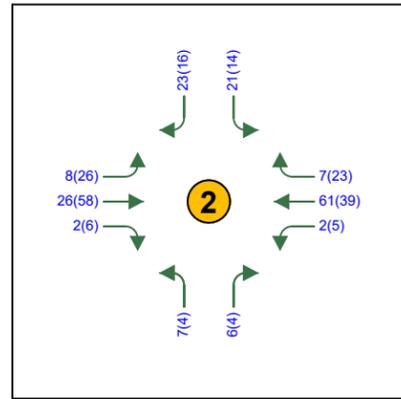
The unsignalized intersections of Rosa Parks and Azucena, as well as Rosa Parks and Red Root operate at acceptable levels of service in the 2024 Build condition.

Table 7   2024 Build Unsignalized Intersection Results								
Intersection/Movement	2024 AM Peak				2024 PM Peak			
	Delay (sec)	V/C	Queue* (ft)	LOS	Delay (sec)	V/C	Queue* (ft)	LOS
Paseo & Kimmick (w/out Cliffs, 1-Stage)								
Westbound Left	13.1	0.08	25	B	9.1	0.14	25	A
Northbound Left	56.9	0.11	25	F	44.5	0.06	25	E
Northbound Right	19.2	0.34	25	C	10.6	0.12	25	B
Paseo & Kimmick (w/out Cliffs, 2-Stage)								
Westbound Left	13.1	0.08	25	B	9.1	0.14	25	A
Northbound Left	28.8	0.05	25	D	22.7	0.03	25	C
Northbound Right	19.2	0.34	25	C	10.6	0.12	25	B
Paseo & Kimmick (w/Cliffs, 1-Stage)								
Westbound Left	19.3	0.49	25	C	10.5	0.36	25	B
Northbound Left	638.3	1.57	25	F	1676.7	4.21	25	F
Northbound Right	27.1	0.59	25	D	17.1	0.60	25	C
Paseo & Kimmick (w/Cliffs, 2-Stage)								
Westbound Left	19.3	0.49	25	C	10.5	0.36	25	B
Northbound Left	54.7	0.34	25	F	348.9	1.50	25	F
Northbound Right	27.1	0.59	25	D	17.1	0.60	25	C
Unser & Rosa Parks (1-Stage)								
Westbound Left & Right	133.5	0.97	25	F	59.0	0.57	25	F
Southbound Left	9.0	0.02	25	A	10.2	0.04	25	B
Unser & Rosa Parks (2-Stage)								
Westbound Left & Right	29.7	0.48	25	D	23.8	0.30	25	C
Northbound Left	9.0	0.02	25	A	10.2	0.04	25	B
Rosa Parks & Azucena								
Eastbound Left	7.4	0.01	0	A	7.4	0.02	25	A
Westbound Left	7.3	0.00	0	A	7.4	0.00	0	A
Northbound Approach	9.0	0.02	0	A	9.3	0.01	0	A
Southbound Approach	9.2	0.05	25	A	9.3	0.04	25	A
Rosa Parks & Redroot								
Eastbound Left	7.3	0.01	0	A	7.5	0.04	25	A
Westbound Left	7.3	0.00	0	A	7.3	0.01	0	A
Northbound Approach	9.1	0.03	25	A	9.6	0.02	25	A
Southbound Approach	9.2	0.10	25	A	9.7	0.08	25	A

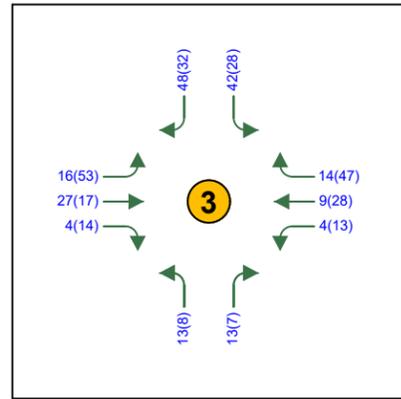
\* – HCM 95<sup>th</sup> percentile queue rounded to next 25-foot increment



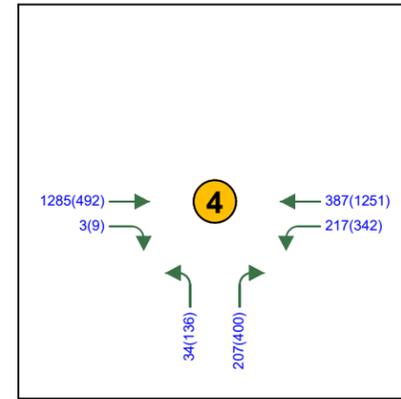
UNSER / ROSA PARKS



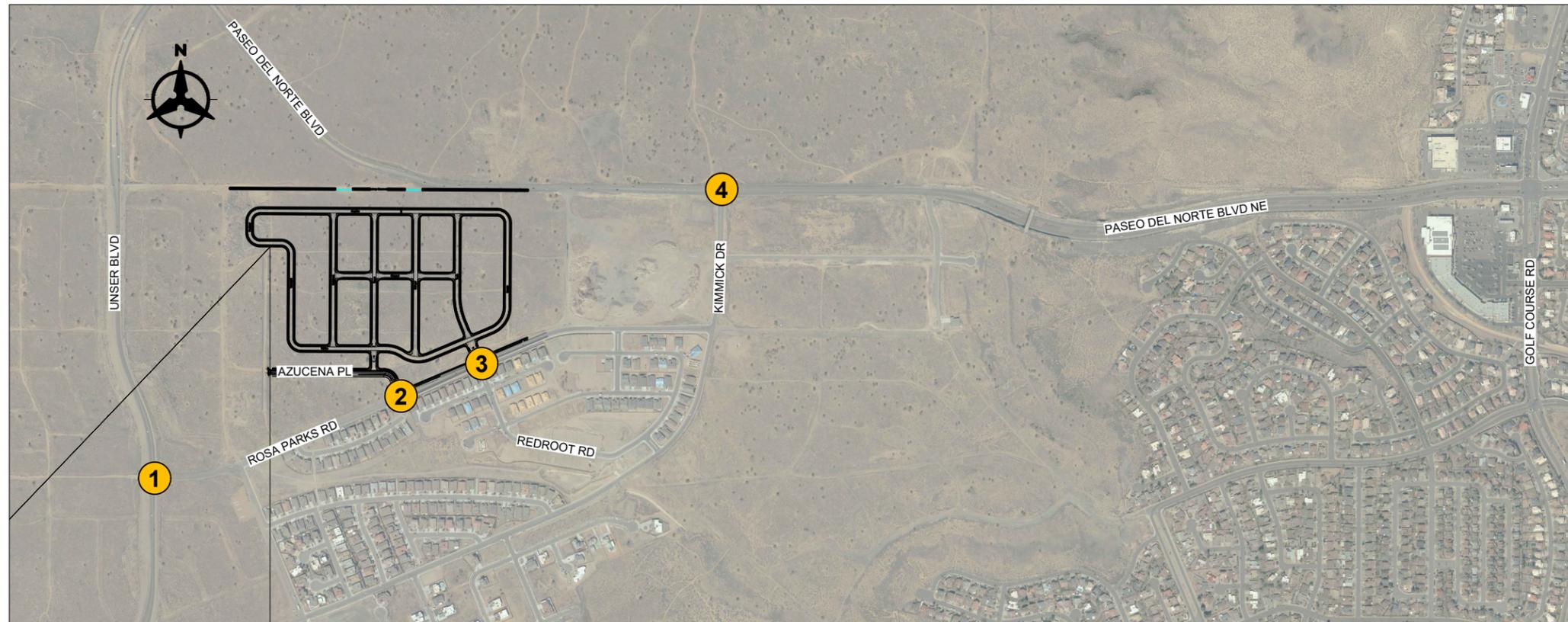
ROSA PARKS / AZUCENA



ROSA PARKS / REDROOT



PASEO DEL NORTE / KIMMICK



**LEGEND**

- Thru Lanes (# as indicated)
- Turning Lanes (# as indicated)
- 1234(1234) AM(PM) Traffic Counts
- X(X) AM(PM) Level of Service (LOS)

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## VII. CONCLUSIONS AND RECOMMENDATIONS

### A. CONCLUSIONS

The traffic analysis found that all intersections operate overall acceptably with Existing conditions.

The total trips for the future Cliffs on Paseo development significantly impact the adjacent Paseo del Norte and Kimmick Drive intersection. For both the 2024 No Build and 2024 Build studies, the intersection of Paseo del Norte and Kimmick Drive operates at acceptable levels of service. Under these conditions, not including the Cliffs on Paseo development, a signal was not warranted.

For the evaluations with the Cliffs development included, the northbound left movement at Paseo del Norte and Kimmick does not operate at an acceptable level of service in the 2024 No Build and 2024 Build scenarios. For these conditions where the Cliffs on Paseo development is included, a traffic signal was warranted.

In the Build the westbound left and right movements at Unser Boulevard and Rosa Parks Road do not operate acceptably in either the AM or PM peak hours for 1-stage left turns. The Unser and Rosa Parks intersection does operate at acceptable levels of service for the 2-stage, 2024 Build analysis. This intersection does not warrant an analysis.

The intersections of Rosa Parks and Azucena and Rosa Parks and Redroot operate at acceptable levels of service for all conditions including Existing, 2024 No Build and 2024 Build scenarios.

### B. RECOMMENDATIONS

- All designs shall satisfy the Manual on Uniform Traffic Control Devices (MUTCD) and City of Albuquerque requirements.
- Since a signal is warranted at the Paseo del Norte and Kimmick Drive intersection only when the traffic generated from the Cliffs on Paseo development is included, it is not recommended to turn on the existing signal at this time. Application of signalization without the Cliffs on Paseo development is unwarranted.

**APPENDIX A  
EXISTING DATA**

**MIRCOG Traffic Counts  
Summary Statistics**  
See notes, bottom of report

4/27/2021 8:38:51 AM

COGID	Route Name	Location Description	Count Date	Total Volume	Direction 1		Direction 2		AM Peak Hour					PM Peak Hour					Count Type	
					Daily Volume	Dir	Daily Volume	Dir	Time Begin	Volume	% Daily	Dir Split	Pk Dir	Time Begin	Volume	% Daily	Dir Split	Pk Dir		Count Quality
250842	PASEO DEL NORTE	WEST OF KIMMICK	4/1/2009	14,466	6,521	E	7,945	W	700	1,033	7.14	0.73	E	1730	1,531	10.58	0.78	W	T	Vol
250842	PASEO DEL NORTE	WEST OF KIMMICK	5/7/2013	16,166	8,232	E	7,934	W	630	1,438	8.90	0.76	E	1700	1,475	9.12	0.66	W	T	Vol
250842	PASEO DEL NORTE	WEST OF KIMMICK	3/15/2016	17,354	9,104	E	8,250	W	645	1,370	7.89	0.82	E	1630	1,357	7.82	0.68	W	T	VC
250842	PASEO DEL NORTE	WEST OF KIMMICK	4/27/2020	11,773	6,205	E	5,568	W	645	704	5.98	0.80	E	1645	970	8.24	0.63	W	T	VC
250842	PASEO DEL NORTE	WEST OF KIMMICK	9/1/2020	13,836	7,654	E	6,182	W	700	1,075	7.77	0.81	E	1645	1,125	8.13	0.60	W	T	VC
250842	PASEO DEL NORTE	WEST OF KIMMICK	3/30/2021	14,842	10,780	E	4,062	W	700	1,102	7.42	0.87	E	1700	1,090	7.34	0.69	E	T	VC
250842	PASEO DEL NORTE	WEST OF KIMMICK	3/11/2019	17,023	9,124	E	7,899	W	630	1,070	6.29	0.84	E	1700	1,450	8.52	0.60	E	T	Vol
250842	PASEO DEL NORTE	WEST OF KIMMICK	6/15/2020	15,526	7,974	E	7,552	W	700	910	5.86	0.79	E	1630	1,313	8.46	0.66	W	T	VC
250862	PASEO DEL NORTE	WEST OF GOLF COURSE RD.	3/1/2009	13,113	6,292	E	6,821	W	700	977	7.45	0.75	E	1700	1,265	9.65	0.69	W	T	Vol
250862	PASEO DEL NORTE	WEST OF GOLF COURSE RD.	3/12/2012	12,776	6,563	E	6,213	W	545	814	6.37	0.85	E	1600	1,185	9.28	0.67	W	T	Vol
250862	PASEO DEL NORTE	WEST OF GOLF COURSE RD.	3/17/2015	17,604	9,248	E	8,356	W	645	1,535	8.72	0.77	E	1600	1,417	8.05	0.61	W	T	Vol
250862	PASEO DEL NORTE	WEST OF GOLF COURSE RD.	3/5/2018	17,970	9,088	E	8,882	W	630	1,368	7.61	0.77	E	1615	1,386	7.71	0.65	W	T	VC
250862	PASEO DEL NORTE	WEST OF GOLF COURSE RD.	3/9/2021	18,564	9,844	E	8,720	W	700	1,240	6.68	0.78	E	1630	1,687	9.09	0.60	W	T	Vol
207931	UNSER BLVD.	NORTH OF ROSA PARKS	4/30/2012	8,433	4,403	N	4,030	S	700	807	9.57	0.62	S	1700	852	10.10	0.65	N	T	Vol
207932	UNSER BLVD.	SW OF PASEO DEL NORTE	5/7/2013	8,824	4,502	N	4,322	S	630	688	7.80	0.58	S	1615	663	7.51	0.58	N	T	VC
207932	UNSER BLVD.	SW OF PASEO DEL NORTE	4/14/2015	12,084	6,322	N	5,762	S	715	1,048	8.67	0.55	S	1530	981	8.12	0.62	N	T	VC
207932	UNSER BLVD.	SW OF PASEO DEL NORTE	4/6/2021	14,357	7,413	N	6,944	S	730	1,157	8.06	0.55	N	1630	1,165	8.11	0.57	N	T	VC
207932	UNSER BLVD.	SW OF PASEO DEL NORTE	4/10/2018	14,515	7,302	N	7,213	S	645	1,221	8.41	0.60	S	1630	1,136	7.83	0.59	N	T	VC
207941	UNSER BLVD.	N.E. OF PASEO DEL NORTE	5/7/2013	11,159	5,462	N	5,697	S	645	1,033	9.26	0.65	S	1645	1,032	9.25	0.60	N	T	Vol
207941	UNSER BLVD.	N.E. OF PASEO DEL NORTE	4/14/2015	15,208	6,932	N	8,276	S	645	1,424	9.36	0.69	S	1700	1,299	8.54	0.53	N	T	Vol
207941	UNSER BLVD.	N.E. OF PASEO DEL NORTE	4/6/2021	15,867	8,066	N	7,801	S	700	1,277	8.05	0.57	S	1700	1,310	8.26	0.54	N	T	VC
207941	UNSER BLVD.	N.E. OF PASEO DEL NORTE	4/10/2018	13,014	4,491	N	8,523	S	630	1,011	7.77	0.80	S	1545	859	6.60	0.74	S	T	VC
206552	PASEO DEL NORTE	WEST OF UNSER	5/7/2013	12,549	6,107	E	6,442	W	630	1,151	9.17	0.74	E	1715	1,005	8.01	0.75	W	T	VC
206552	PASEO DEL NORTE	WEST OF UNSER	3/15/2016	14,263	7,202	E	7,061	W	630	1,078	7.56	0.78	E	1630	1,203	8.43	0.67	W	T	Vol
206552	PASEO DEL NORTE	WEST OF UNSER	4/27/2020	9,942	4,974	E	4,968	W	645	530	5.33	0.81	E	1645	896	9.01	0.65	W	T	Vol
206552	PASEO DEL NORTE	WEST OF UNSER	8/11/2020	13,250	6,692	E	6,558	W	700	823	6.21	0.76	E	1700	1,117	8.43	0.64	W	T	Vol
206552	PASEO DEL NORTE	WEST OF UNSER	11/3/2020	11,889	5,823	E	6,066	W	700	849	7.14	0.78	E	1700	1,074	9.03	0.65	W	T	Vol
206552	PASEO DEL NORTE	WEST OF UNSER	3/30/2021	13,867	6,984	E	6,883	W	645	914	6.59	0.80	E	1700	1,171	8.44	0.62	W	T	Vol
206552	PASEO DEL NORTE	WEST OF UNSER	3/11/2019	12,922	6,678	E	6,244	W	645	815	6.31	0.83	E	1745	966	7.48	0.67	W	T	Vol

**Notes:**

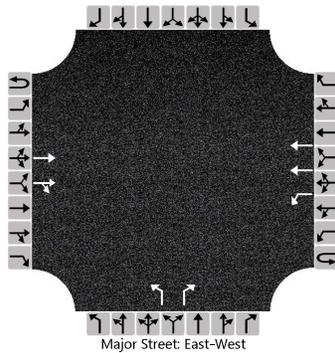
1. Daily volumes are averages for a 24 hour period.
2. AM Peak Period: 6 AM to 9 AM; PM Peak Period: 3 PM to 6 PM.
3. Peak **hours** are defined by the maximum hourly 2-way volume occurring during the peak **period**.
4. 'Time Begin' is the beginning time of the peak hour (24 hour military time)
5. Peak hour % is the percentage of 2-way volume appearing in the peak hour.
6. 'Dir Split' is the directional split: the percentage of the 2-way peak hour volume traveling in the peak direction.
7. 'Pk Dir' indicates the peak direction. E.g., 'E' means "Eastbound".
8. 'Count Quality' is defined by NMDOT and MRCOG count standards. 'T' indicates a good count. 'Q' indicates a count that meets NMDOT standards but does not meet MRCOG standards. 'F' indicates a bad count.
9. 'Count Type': 'Vol' refers to a regular volume tube count; 'VC' refers to a vehicle classification count.

**APPENDIX B**  
**2019 EXISTING INTERSECTION CAPACITY ANALYSIS**

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2019	North/South Street	Kimmick				
Time Analyzed	EXIST_2019_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1080	1	0	14	323			4		51				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.5		6.9			
Critical Headway (sec)						4.14					6.84		6.94			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

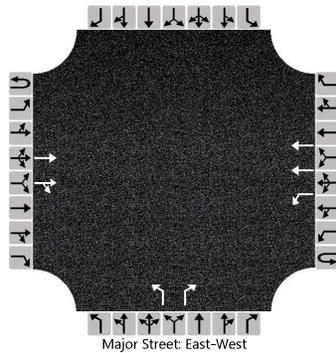
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						15					4		55			
Capacity, c (veh/h)						590					132		453			
v/c Ratio						0.03					0.03		0.12			
95% Queue Length, Q <sub>95</sub> (veh)						0.1					0.1		0.4			
Control Delay (s/veh)						11.3					33.2		14.1			
Level of Service (LOS)						B					D		B			
Approach Delay (s/veh)					0.5				15.5							
Approach LOS									C							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2019	North/South Street	Kimmick				
Time Analyzed	EXIST_2019_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			409	4	0	55	1050			2		33				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

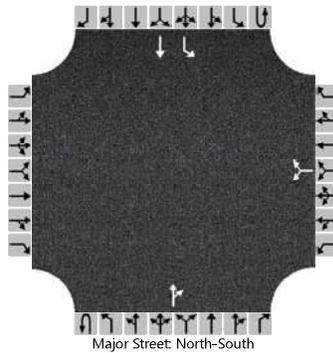
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						60				2		36				
Capacity, c (veh/h)						1108				185		779				
v/c Ratio						0.05				0.01		0.05				
95% Queue Length, Q <sub>95</sub> (veh)						0.2				0.0		0.1				
Control Delay (s/veh)						8.4				24.7		9.8				
Level of Service (LOS)						A				C		A				
Approach Delay (s/veh)					0.4				10.7							
Approach LOS					B				B							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2019	North/South Street	Unser Blvd				
Time Analyzed	EXIST_2019_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						32		10			488	32		10	733	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type   Storage					Undivided											

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.22						4.12		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.32						2.22		

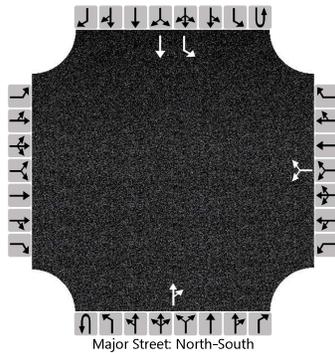
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						46								11		
Capacity, c (veh/h)						193								1007		
v/c Ratio						0.24								0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.9								0.0		
Control Delay (s/veh)						29.4								8.6		
Level of Service (LOS)						D								A		
Approach Delay (s/veh)					29.4								0.1			
Approach LOS					D											

# HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MG	Intersection	Unser and Rosa Parks
Agency/Co.	BHI	Jurisdiction	COA
Date Performed	5/5/2021	East/West Street	Rosa Parks
Analysis Year	2019	North/South Street	Unser Blvd
Time Analyzed	EXIST_2019_PM PEAK	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	La Cuentista (1-stage)		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						17		6			670	17		6	466	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.42		6.22							4.12	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.52		3.32							2.22	

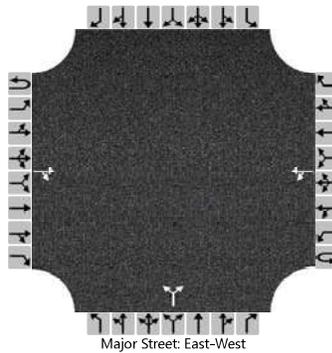
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						25									7	
Capacity, c (veh/h)						219									862	
v/c Ratio						0.11									0.01	
95% Queue Length, Q <sub>95</sub> (veh)						0.4									0.0	
Control Delay (s/veh)						23.5									9.2	
Level of Service (LOS)						C									A	
Approach Delay (s/veh)					23.5								0.1			
Approach LOS					C											

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Azucena		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2019			North/South Street	Azucena		
Time Analyzed	EXIST_2019_AM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			9	2		2	11			6		5				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.12					6.42		6.22			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

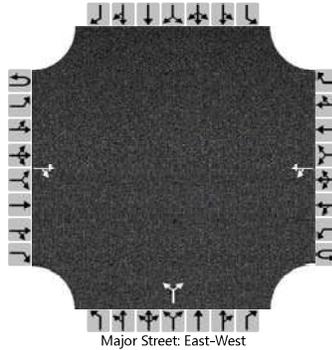
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					2						12					
Capacity, c (veh/h)					1607						1023					
v/c Ratio					0.00						0.01					
95% Queue Length, Q <sub>95</sub> (veh)					0.0						0.0					
Control Delay (s/veh)					7.2						8.6					
Level of Service (LOS)					A						A					
Approach Delay (s/veh)					1.1				8.6							
Approach LOS									A							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Azucena		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2019			North/South Street	Azucena		
Time Analyzed	EXIST_2019_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			4	5		4	7			3		3				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.12					6.42		6.22			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

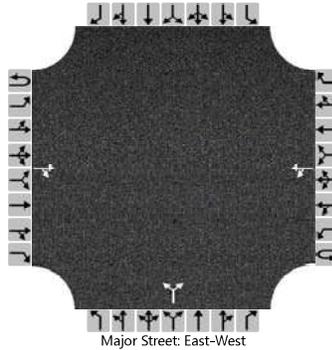
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						4						7				
Capacity, c (veh/h)						1610						1031				
v/c Ratio						0.00						0.01				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.0				
Control Delay (s/veh)						7.2						8.5				
Level of Service (LOS)						A						A				
Approach Delay (s/veh)					2.6				8.5							
Approach LOS									A							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Redroot		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2019			North/South Street	Redroot		
Time Analyzed	EXIST_2019_AM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			5	4		3	2			11		11				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.12				6.42		6.22				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

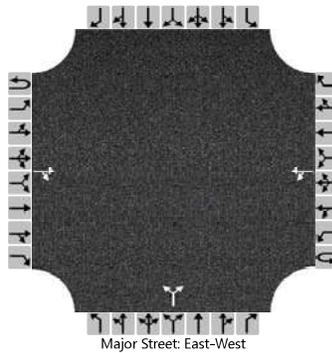
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)					3					24						
Capacity, c (veh/h)					1610					1036						
v/c Ratio					0.00					0.02						
95% Queue Length, Q <sub>95</sub> (veh)					0.0					0.1						
Control Delay (s/veh)					7.2					8.6						
Level of Service (LOS)					A					A						
Approach Delay (s/veh)					4.4				8.6							
Approach LOS									A							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Redroot		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2019			North/South Street	Redroot		
Time Analyzed	EXIST_2019_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			3	12		11	4			7		6				
Percent Heavy Vehicles (%)						2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

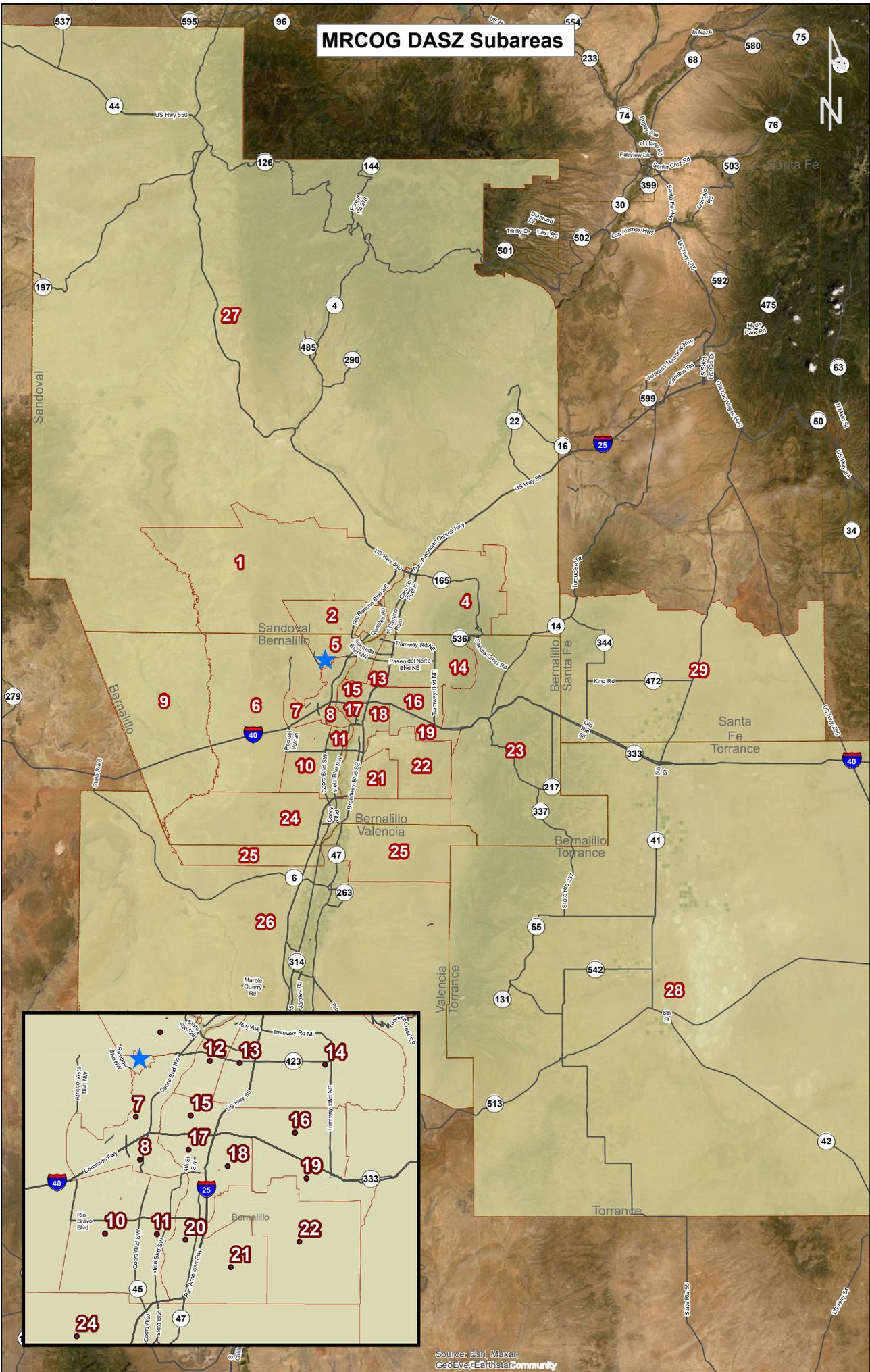
Base Critical Headway (sec)						4.1					7.1		6.2			
Critical Headway (sec)						4.12					6.42		6.22			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						12						14				
Capacity, c (veh/h)						1601						1012				
v/c Ratio						0.01						0.01				
95% Queue Length, Q <sub>95</sub> (veh)						0.0						0.0				
Control Delay (s/veh)						7.3						8.6				
Level of Service (LOS)						A						A				
Approach Delay (s/veh)						5.3						8.6				
Approach LOS												A				

**APPENDIX C**  
**TURNING MOVEMENT DEVELOPMENT**

# MRCOG DASZ Subareas



Zone 6395

Zone 6397

Zone 6334

Zone 6396

Subarea 5

Subarea 6

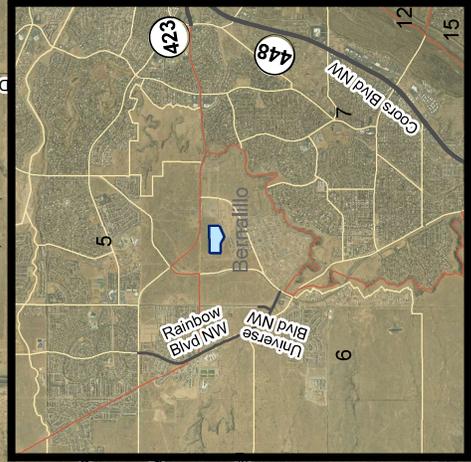
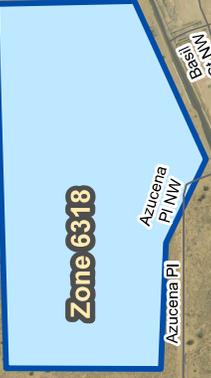
Subarea 7

Zone 6226

Zone 6226

Zone 6317

# La Cuentista MRCOG DASZ Subarea 6



**La Cuentista 2025 Build Trip Distribution - Residential Trips  
Employment by Subarea**

Subarea	Employment* 2016	2040	2025	Distance	Employment / distance 2030	% Emp / Dist	% Utilizing	Unser to/from North % Emp/ Dist.	Emp
1	8,373	11,695	9,619	11.8	819	1.41%	80%	1.13%	7,695
2	16,177	19,251	17,330	4.9	3,533	6.10%	70%	4.27%	12,131
3	1,579	1,775	1,653	7.1	233	0.40%	65%	0.26%	1,074
4	3,725	4,083	3,859	15.9	243	0.42%			
5	14,923	16,730	15,601	2.1	7,347	12.68%	45%	5.71%	7,020
6	2,051	5,205	3,234	1.0	3,234	5.58%	24%	1.32%	767
7	9,234	11,922	10,242	3.8	2,685	4.63%			
8	9,101	12,837	10,502	6.6	1,598	2.76%			
9	671	970	783	19.4	40	0.07%	35%	0.02%	274
10	3,409	5,486	4,188	11.6	362	0.62%			
11	5,699	6,882	6,143	11.5	536	0.93%			
12	6,287	7,474	6,732	4.5	1,485	2.56%			
13	38,387	42,986	40,112	6.5	6,199	10.70%			
14	37,516	41,146	38,877	12.0	3,243	5.60%			
15	17,358	20,784	18,643	5.0	3,741	6.46%			
16	54,135	60,416	56,490	11.1	5,069	8.75%			
17	39,647	47,495	42,590	6.7	6,315	10.90%			
18	47,403	53,720	49,772	9.0	5,514	9.52%			
19	26,057	30,705	27,800	13.3	2,090	3.61%			
20	5,978	8,831	7,048	12.1	581	1.00%			
21	1,755	4,714	2,865	14.8	194	0.34%			
22	28,349	31,083	29,374	15.7	1,866	3.22%			
23	2,923	3,349	3,083	23.9	129	0.22%			
24	1,271	1,266	1,269	18.5	69	0.12%			
25	112	112	112	23.6	5	0.01%			
26	18,011	21,494	19,317	33.8	572	0.99%			
27	5,846	6,024	5,913	39.6	149	0.26%			
28	4,322	5,118	4,621	61.5	75	0.13%	75%	0.19%	4,435
29	1,784	2,111	1,907	41.0	46	0.08%			
<b>Total</b>	<b>412,083</b>	<b>485,664</b>			<b>57,926</b>	<b>100.00%</b>		<b>12.91%</b>	
<b>USE</b>								<b>13.00%</b>	

from MRCOG website

**La Cuentista 2025 Build Trip Distribution - Residential Trips  
Employment by Subarea**

Subarea	Employment* 2016	2040	2025	Distance	Employment / distance 2030	% Emp / Dist	US		PW		PE	
							% Utilizing	Emp	% Utilizing	Emp	% Utilizing	Emp
1	8,373	11,695	9,619	11.8	819	1.41%						
2	16,177	19,251	17,330	4.9	3,533	6.10%						
3	1,579	1,775	1,653	7.1	233	0.40%						
4	3,725	4,083	3,859	15.9	243	0.42%						
5	14,923	16,730	15,601	2.1	7,347	12.68%						
6	2,051	5,205	3,234	1.0	3,234	5.58%	45%	7,020	5%	780	10%	962
7	9,234	11,922	10,242	3.8	2,685	4.63%	51%	1,648	19%	621	6%	197
8	9,101	12,837	10,502	6.6	1,598	2.76%	95%	9,730			5%	512
9	671	970	783	19.4	40	0.07%	70%	7,351	15%	1,575	15%	1,575
10	3,409	5,486	4,188	11.6	362	0.62%	35%	274	15%	117	15%	117
11	5,699	6,882	6,143	11.5	536	0.93%	70%	2,932	30%	1,256	30%	1,256
12	6,287	7,474	6,732	4.5	1,485	2.56%	70%	4,300	30%	1,843	30%	1,843
13	38,387	42,986	40,112	6.5	6,199	10.70%	10%	673	90%	6,059	90%	6,059
14	37,516	41,146	38,877	12.0	3,243	5.60%	40%	16,045	60%	24,067	60%	24,067
15	17,358	20,784	18,643	5.0	3,741	6.46%	55%	10,254	100%	38,877	100%	38,877
16	54,135	60,416	56,490	11.1	5,069	8.75%	25%	14,123	75%	8,389	75%	8,389
17	39,647	47,495	42,590	6.7	6,315	10.90%	40%	17,036	45%	42,368	45%	42,368
18	47,403	53,720	49,772	9.0	5,514	9.52%	45%	22,397	60%	25,554	60%	25,554
19	26,057	30,705	27,800	13.3	2,090	3.61%	45%	12,510	55%	27,375	55%	27,375
20	5,978	8,831	7,048	12.1	581	1.00%	45%	3,172	55%	15,290	55%	15,290
21	1,755	4,714	2,865	14.8	194	0.34%	45%	1,289	55%	3,876	55%	3,876
22	28,349	31,083	29,374	15.7	1,866	3.22%	45%	13,218	55%	1,576	55%	1,576
23	2,923	3,349	3,083	23.9	129	0.22%	40%	1,233	60%	16,156	60%	16,156
24	1,271	1,266	1,269	18.5	69	0.12%	65%	825	35%	1,850	35%	1,850
25	112	112	112	23.6	5	0.01%	45%	50	55%	444	55%	444
26	18,011	21,494	19,317	33.8	572	0.99%	45%	8,693	20%	62	55%	62
27	5,846	6,024	5,913	39.6	149	0.26%				10,624		10,624
28	4,322	5,118	4,621	61.5	75	0.13%	60%	2,772		296	5%	296
29	1,784	2,111	1,907	41.0	46	0.08%	40%	763		1,848	40%	1,848
Total	412,083	485,664	57,926			100.00%	39.31%		2.97%	44.88%		
USE							40.00%		3.00%	44.00%		

from MRCOG website

**La Cuentista 2025 Build Trip Distribution - Residential Trips  
Employment by Subarea**

Subarea	Employment* 2016	2040	2025	Distance	Employment / distance 2030	% Emp / Dist
1	8,373	11,695	9,619	11.8	819	1.41%
2	16,177	19,251	17,330	4.9	3,533	6.10%
3	1,579	1,775	1,653	7.1	233	0.40%
4	3,725	4,083	3,859	15.9	243	0.42%
5	14,923	16,730	15,601	2.1	7,347	12.68%
6	2,051	5,205	3,234	1.0	3,234	5.58%
7	9,234	11,922	10,242	3.8	2,685	4.63%
8	9,101	12,837	10,502	6.6	1,598	2.76%
9	671	970	783	19.4	40	0.07%
10	3,409	5,486	4,188	11.6	362	0.62%
11	5,699	6,882	6,143	11.5	536	0.93%
12	6,287	7,474	6,732	4.5	1,485	2.56%
13	38,387	42,986	40,112	6.5	6,199	10.70%
14	37,516	41,146	38,877	12.0	3,243	5.60%
15	17,358	20,784	18,643	5.0	3,741	6.46%
16	54,135	60,416	56,490	11.1	5,069	8.75%
17	39,647	47,495	42,590	6.7	6,315	10.90%
18	47,403	53,720	49,772	9.0	5,514	9.52%
19	26,057	30,705	27,800	13.3	2,090	3.61%
20	5,978	8,631	7,048	12.1	581	1.00%
21	1,755	4,714	2,865	14.8	194	0.34%
22	28,349	31,083	29,374	15.7	1,866	3.22%
23	2,923	3,349	3,083	23.9	129	0.22%
24	1,271	1,266	1,269	18.5	69	0.12%
25	112	112	112	23.6	5	0.01%
26	18,011	21,494	19,317	33.8	572	0.99%
27	5,846	6,024	5,913	39.6	149	0.26%
28	4,322	5,118	4,621	61.5	75	0.13%
29	1,784	2,111	1,907	41.0	46	0.08%
<b>Total</b>	<b>412,083</b>	<b>485,664</b>			<b>57,926</b>	<b>100.00%</b>

**USE**  
from MRCOG website

La Cuentista Subdivision Trip Distribution - Residential Trips  
Employment by Data Analysis Subzone for Subarea 6

DASZ's of Subarea 6	Employment*		2025 EMP%	5.58% Zone % Emp % * 5.58%	UN		US		PW	
	2016	2040			Unser to/from North		Unser to/from South		Paseo to/from West	
	2025	2025			% Utilizing	% Emp/ Dist.	% Utilizing	% Emp/ Dist.	% Utilizing	% Emp/ Dist.
5901	0	0	0.00%	0.0%	30%	0.00%	0	5%	0.00%	0
5911	113	170	4.16%	0.2%	40%	0.09%	54	10%	0.02%	13
6313	172	196	5.60%	0.3%		0.00%	181		0.00%	0
6314	0	0	0.00%	0.0%		0.00%	0		0.00%	0
6315	25	26	0.78%	0.0%		0.00%	25		0.00%	0
6316	59	60	1.84%	0.1%	30%	0.03%	18		0.03%	18
6317	5	5	0.15%	0.0%	100%	0.01%	5		0.00%	0
6318	15	96	1.40%	0.1%	35%	0.03%	16		0.00%	2
6336	21	21	0.65%	0.0%	35%	0.01%	7		0.01%	6
6337	0	0	0.00%	0.0%	35%	0.00%	0		0.00%	0
6451	0	0	0.00%	0.0%	45%	0.00%	0		0.00%	0
6452	0	0	0.00%	0.0%	40%	0.00%	0		0.00%	0
6453	0	0	0.00%	0.0%	40%	0.00%	0		0.00%	0
6454	0	86	1.00%	0.1%	40%	0.02%	13		0.02%	10
6461	0	0	0.00%	0.0%	40%	0.00%	0		0.00%	0
6462	0	0	0.00%	0.0%	40%	0.00%	0		0.00%	0
6463	0	0	0.00%	0.0%	40%	0.00%	0		0.00%	0
6471	12	23	0.50%	0.0%	40%	0.01%	6		0.01%	6
6472	13	14	0.41%	0.0%	40%	0.01%	5		0.01%	5
6473	138	272	5.82%	0.3%	40%	0.13%	75		0.13%	75
6481	9	10	0.29%	0.0%	30%	0.00%	3		0.00%	2
6482	520	3272	47.99%	2.7%	30%	0.80%	466		0.67%	388
6491	0	0	0.00%	0.0%	85%	0.00%	0		0.00%	0
6492	11	12	0.35%	0.0%	40%	0.01%	5		0.00%	1
9683	938	942	29.05%	1.6%	10%	0.16%	94		0.16%	94
Total	2,051	5,205	100.00%	5.58%	9	1.32%				1.07%

\* - Subarea Population from MRCOG 2040 Socioeconomic Forecasts  
from MRCOG website

**La Cuentista Subdivision Trip Distribution - Residential Trips  
Employment by Data Analysis Subzone for Subarea 6**

DASZ's of Subarea 6	Employment*		2025 EMP%	Zone % Emp % * 5.58%	PE	
	2016	2025			% Utilizing	% Emp/ Dist. Utilizing
5901	0	0	0.00%	0.0%	5%	0.00%
5911	113	170	4.16%	0.2%	10%	0.02%
6313	172	196	5.60%	0.3%		0.00%
6314	0	0	0.00%	0.0%		0.00%
6315	25	26	0.78%	0.0%		0.00%
6316	59	60	1.84%	0.1%		0.00%
6317	5	5	0.15%	0.0%		0.00%
6318	15	96	1.40%	0.1%	5%	0.00%
6336	21	21	0.65%	0.0%		0.00%
6337	0	0	0.00%	0.0%	35%	0.00%
6451	0	0	0.00%	0.0%	40%	0.00%
6452	0	0	0.00%	0.0%	30%	0.00%
6453	0	0	0.00%	0.0%	30%	0.00%
6454	0	86	1.00%	0.1%	30%	0.02%
6461	0	0	0.00%	0.0%		0.00%
6462	0	0	0.00%	0.0%		0.00%
6463	0	0	0.00%	0.0%		0.00%
6471	12	23	0.50%	0.0%		0.00%
6472	13	14	0.41%	0.0%		0.00%
6473	138	272	5.82%	0.3%		0.00%
6481	9	10	0.29%	0.0%		0.00%
6482	520	3272	47.99%	2.7%	5%	0.13%
6491	0	0	0.00%	0.0%		0.00%
6492	11	12	0.35%	0.0%		0.00%
9683	938	942	29.05%	1.6%	10%	0.16%
<b>Total</b>	<b>2,051</b>	<b>5,205</b>	<b>100.00%</b>	<b>5.58%</b>		<b>0.34%</b>

\* - Subarea Population from MRCOG 2040 Socioeconomic Forecasts from MRCOG website

La Cuentista Subdivision Trip Distribution - Residential Trips  
 Employment by Data Analysis Subzone for Subarea 6

DASZ's of Subarea 6	Employment*		2025	2025 EMP%	Zone % Emp % * 5.58%
	2016	2040			
5901	0	0	0	0.00%	0.0%
5911	113	170	134	4.16%	0.2%
6313	172	196	181	5.60%	0.3%
6314	0	0	0	0.00%	0.0%
6315	25	26	25	0.78%	0.0%
6316	59	60	59	1.84%	0.1%
6317	5	5	5	0.15%	0.0%
6318	15	96	45	1.40%	0.1%
6336	21	21	21	0.65%	0.0%
6337	0	0	0	0.00%	0.0%
6451	0	0	0	0.00%	0.0%
6452	0	0	0	0.00%	0.0%
6453	0	0	0	0.00%	0.0%
6454	0	86	32	1.00%	0.1%
6461	0	0	0	0.00%	0.0%
6462	0	0	0	0.00%	0.0%
6463	0	0	0	0.00%	0.0%
6471	12	23	16	0.50%	0.0%
6472	13	14	13	0.41%	0.0%
6473	138	272	188	5.82%	0.3%
6481	9	10	9	0.29%	0.0%
6482	520	3272	1,552	47.99%	2.7%
6491	0	0	0	0.00%	0.0%
6492	11	12	11	0.35%	0.0%
9683	938	942	940	29.05%	1.6%
Total	2,051	5,205	3,234	100.00%	5.58%

\* - Subarea Population from MRCOG 2040 Socioeconomic Forecasts  
 from MRCOG website

## La Cuentista Subdivision Growth Rate Determination

AWDT on Unser  
(Between Paseo Del Norte & Rosa Parks)

Year	AWDT
2015	11,115
2016	11,304
2017	11,558
2018	14,072
2019	14,489

$$\text{Linear Growth Rate} = \frac{(14,489 - 11,115)/4}{14,489} \times 100 = 5.82\%$$

<i>Regression Output</i>	
R Square	0.85
Standard Error	7.32E+02
Observations	5
Intercept	-1,906,870
Std Err of Intercept	5.E+05
Coefficient	952
Std Err of Coefficient	231

Projected AWDT

2015	10,604
2016	11,556
2017	12,508
2018	13,459
2019	14,411
2020	15,362
2021	16,314
2022	17,266
2023	18,217
2024	19,169

Regression Equation

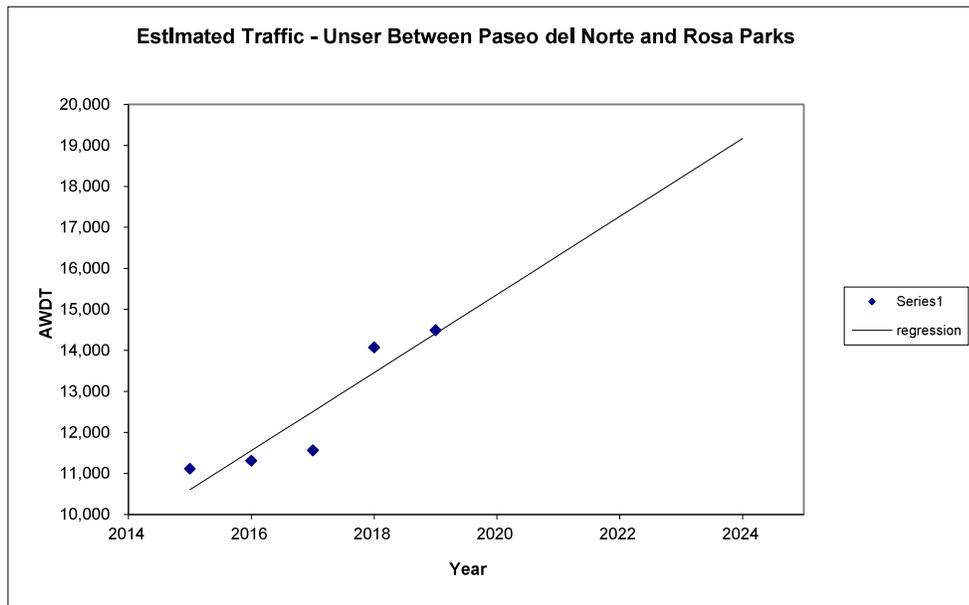
$$\text{AWDT} = 952 \times \text{Year} - 1,906,870$$

Coefficient Growth Rate 6.57%

Estimated Annual Growth Rate

$$\frac{(19,169 - 14,489)/4}{14,489} \times 100\% = 32.30\%$$

$$32.30\%/5 = 6.46\%$$



## La Cuentista Subdivision Growth Rate Determination

AWDT on Unser  
(South of Rosa Parks)

Year	AWDT
2015	12,368
2016	12,578
2017	12,860
2018	14,327
2019	14,752

$$\text{Linear Growth Rate} = \frac{((14,752 - 12,368)/4)/14,752 \times 100 = 4.04\%}$$

Regression Output	
R Square	0,900
Standard Error	3.96E+02
Observations	5
Intercept	-1,301,102
Std Err of Intercept	2.52E+05
Coefficient	652
Std Err of Coefficient	125

Projected AWDT	
2015	12,074
2016	12,725
2017	13,377
2018	14,029
2019	14,680
2020	15,332
2021	15,984
2022	16,636
2023	17,287
2024	17,939

Regression Equation

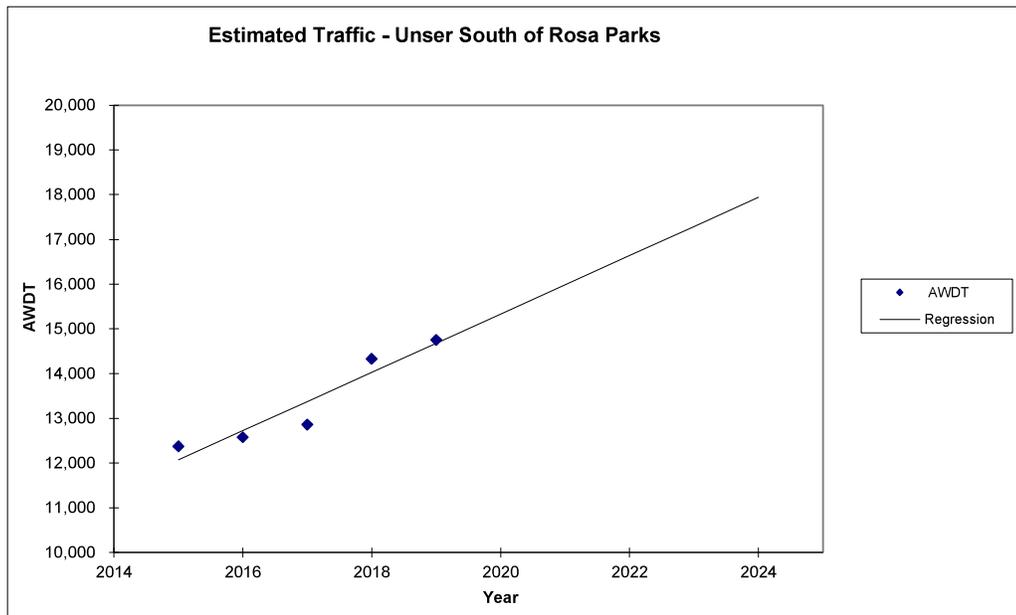
$$\text{AWDT} = 652 \times \text{Year} - 1,301,102$$

Coefficient Growth Rate 4.42%

Estimated Annual Growth Rate

$$\frac{((17,939 - 14,752)/14,752) \times 100\% = 21.60\%}{5} = 4.32\%$$

$$21.60\% / 5 = 4.32\%$$



## La Cuentista Subdivision Growth Rate Determination

AWDT on Paseo del Norte  
(Between Unser & Kimmick)

Year	AWDT
2015	15,398
2016	16,370
2017	16,737
2018	17,019
2019	16,234

$$\text{Linear Growth Rate} = \frac{(16,234 - 15,398) / 4}{16,234} \times 100 = 1.29\%$$

<i>Regression Output</i>	
R Square	0.35
Standard Error	5.71E+02
Observations	5
Intercept	-451,794
Std Err of Intercept	364,323
Coefficient	232
Std Err of Coefficient	1.81E+02

Projected AWDT

2015	15,887
2016	16,119
2017	16,352
2018	16,584
2019	16,816
2020	17,048
2021	17,280
2022	17,512
2023	17,744
2024	17,976

Regression Equation

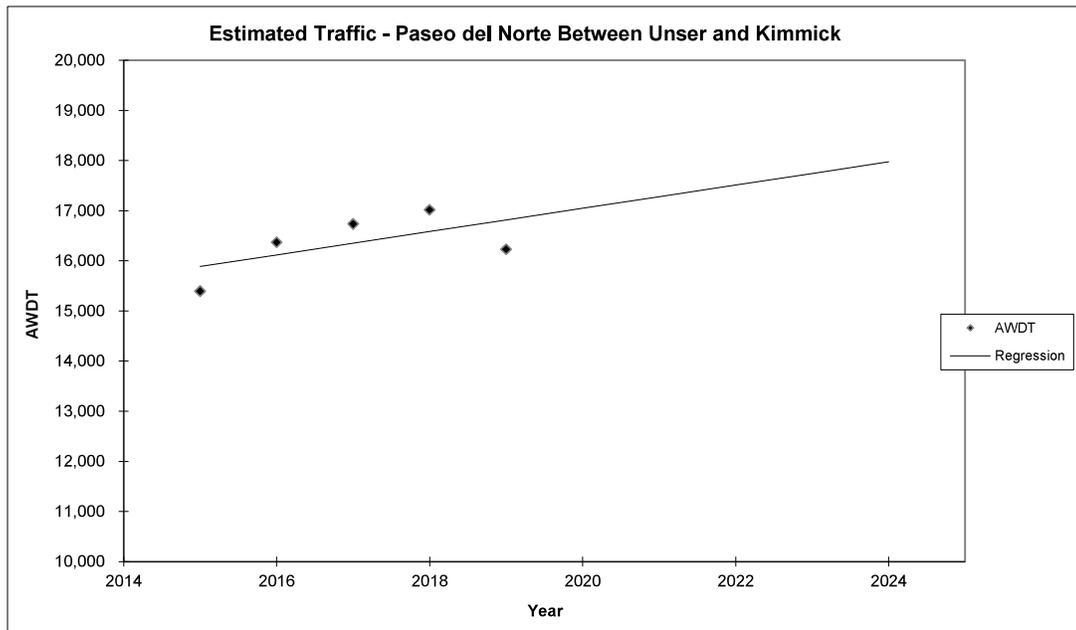
$$\text{AWDT} = 232 \times \text{Year} - 451,794$$

Coefficient Growth Rate 1.43%

Estimated Annual Growth Rate

$$\frac{(5,485 - 3,700) / 3,700 \times 100\%}{5} = 10.73\%$$

$$10.73\% / 5 = 2.15\%$$



## La Cuentista Subdivision Growth Rate Determination

AWDT on Paseo del Norte  
(East of Kimmick)

Year	AWDT
2015	16,584
2016	16,866
2017	16,049
2018	17,665
2019	18,189

$$\text{Linear Growth Rate} = \frac{18,189 - 16,584}{3} \div 18,189 \times 100 = 0.029413382$$

<i>Regression Output</i>	
R Square	0.55
Standard Error	6.63E+02
Observations	5
Intercept	-791,545
Std Err of Intercept	422,966
Coefficient	401
Std Err of Coefficient	2.10E+02

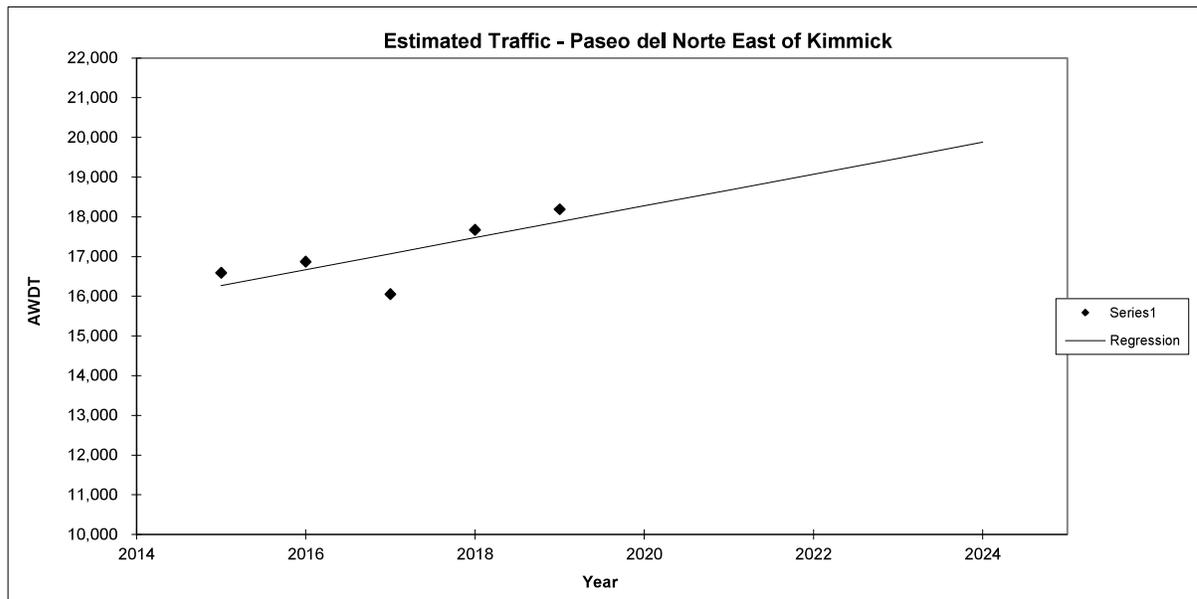
Projected AWDT

2015	16,269
2016	16,670
2017	17,071
2018	17,472
2019	17,872
2020	18,273
2021	18,674
2022	19,075
2023	19,476
2024	19,877

Regression Equation  
AWDT = 401 x Year - 791,545

Coefficient Growth Rate 2.20%

Estimated Annual Growth Rate  
 $\frac{19,877 - 18,189}{18,189} \times 100\% = 9.28\%$   
 $\frac{9.28\%}{5} = 1.86\%$





LA CUENTISTA  
EXISTING & PROJECTED TURNING MOVEMENTS

**INTERSECTION: PASEO & KIMMICK (w/out Cliffs)**

AM Peak Hour	Eastbound PASEO			Westbound PASEO			Northbound KIMMICK			Southbound KIMMICK		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		1,080	1	14	322		4		51			
Background Growth		189		3	56		1		9			
Approved Development (w/out Cliffs)		16			7							
<b>No Build (2024)</b>		1,285	1	17	385		4		61			
Entering			1	19								
Exiting							4		59			
<b>Build (2024)</b>		1,285	2	36	385		8		119			

PHF 0.94      2      0.94      2      0.94      2      0.94      2

HV %      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%

PM Peak Hour	Eastbound PASEO			Westbound PASEO			Northbound KIMMICK			Southbound KIMMICK		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		408	4	55	1,050		2		33			
Background Growth		71	1	10	184				6			
Approved Development (w/out Cliffs)		12			17							
<b>No Build (2024)</b>		491	4	65	1,251		2		39			
Entering			5	66								
Exiting							3		39			
<b>Build (2024)</b>		491	9	131	1,251		5		78			

PHF 0.94      2      0.94      2      0.94      2      0.94      2

HV %      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%

growth rates	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Trip Distribution % Enter	0.0%	0.0%	3.0%	44.0%	0.0%	0.0%	0.0%	0.0%	44.0%	0.0%	0.0%	0.0%
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	44.0%	0.0%	0.0%	0.0%

LA CUENTISTA  
EXISTING & PROJECTED TURNING MOVEMENTS

**INTERSECTION: PASEO & KIMMICK (w/Cliffs)**

AM Peak Hour

	Eastbound PASEO			Westbound PASEO			Northbound KIMMICK			Southbound KIMMICK		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		1,080	1	14	323		4		51			
Background Growth		189		3	57		1		9			
Approved Development		16		181	7		26		88			
<b>No Build (2024)</b>		1,285	1	198	387		30		149			
Entering			1	19								
Exiting							4		59			
<b>Build (2024)</b>		1,285	2	217	387		34		207			

PHF 0.94      2      0.94      2      0.94      2      0.94      2

HV %      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%

PM Peak Hour

	Eastbound PASEO			Westbound PASEO			Northbound KIMMICK			Southbound KIMMICK		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		409	4	55	1,050		2		33			
Background Growth		71	1	10	184				6			
Approved Development		12		211	17		131		322			
<b>No Build (2024)</b>		492	4	276	1,251		133		361			
Entering			5	66								
Exiting							3		39			
<b>Build (2024)</b>		492	9	342	1,251		136		400			

PHF 0.94      2      0.94      2      0.94      2      0.94      2

HV %      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%

growth rates	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Trip Distribution % Enter			3.0%	44.0%								
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.0%	0.0%	44.0%	0.0%	0.0%	0.0%

LA CUENTISTA  
EXISTING & PROJECTED TURNING MOVEMENTS

**INTERSECTION: UNSER & ROSA PARKS**

AM Peak Hour

	Eastbound ROSA PARKS			Westbound ROSA PARKS			Northbound UNSER			Southbound UNSER		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)				32		10		488	32	10		733
Background Growth				6		2		85	6	2		128
Approved Development								1				
<b>No Build (2024)</b>				37		12		574	37	12		861
Entering												
Exiting				54		17				6		
<b>Build (2024)</b>				91		30		574	55	18		861

PHF 0.94 2 0.94 2 0.94 2 0.94 2 0.94 2

HV % 2 2 2 2 2 2

PM Peak Hour

	Eastbound ROSA PARKS			Westbound ROSA PARKS			Northbound UNSER			Southbound UNSER		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2019)				17		6		670	17	6		466
Background Growth				3		1		117	3	1		82
Approved Development								1				
<b>No Build (2024)</b>				20		7		788	20	7		548
Entering												
Exiting				36		12			60	20		
<b>Build (2024)</b>				56		18		788	80	26		548

PHF 0.94 2 0.94 2 0.94 2 0.94 2 0.94 2

HV % 2 2 2 2 2 2

growth rates	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Trip Distribution % Enter												40.0%
Trip Distribution % Exit	0.0%	0.0%	0.0%	40.0%	0.0%	13.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

LA CUENTISTA  
EXISTING & PROJECTED TURNING MOVEMENTS

**INTERSECTION: AZUCENA & ROSA PARKS**

AM Peak Hour

	Eastbound ROSA PARKS			Westbound ROSA PARKS			Northbound AZUCENA			Southbound AZUCENA		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		9	2	2	11		6		5			
Background Growth		2			2		1		1			
Approved Development												
<b>No Build (2024)</b>		11	2	2	13		7		6			
Entering	8	16				7						
Exiting				48						21		23
<b>Build (2024)</b>	<b>8</b>	<b>26</b>	<b>2</b>	<b>2</b>	<b>61</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>21</b>	<b>21</b>	<b>23</b>

PHF 0.94      2      0.94      2      0.94      2      0.94      2  
 HV %      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%

PM Peak Hour

	Eastbound ROSA PARKS			Westbound ROSA PARKS			Northbound AZUCENA			Southbound AZUCENA		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		4	5	4	7		3		3			
Background Growth		1	1	1	1		1		1			
Approved Development												
<b>No Build (2024)</b>		5	6	5	8		4		4			
Entering	26	53			32	23				14		16
Exiting				5	39	23	4	4	4	14	14	16
<b>Build (2024)</b>	<b>26</b>	<b>58</b>	<b>6</b>	<b>5</b>	<b>39</b>	<b>23</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>14</b>	<b>14</b>	<b>16</b>

PHF 0.94      2      0.94      2      0.94      2      0.94      2  
 HV %      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%      3.5%

growth rates	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Trip Distribution % Enter	17.5%	35.5%			15.5%			0.0%	0.0%	15.5%	0.0%	17.5%
Trip Distribution % Exit	0.0%	0.0%	0.0%	0.0%	35.5%	0.0%	0.0%	0.0%	0.0%	15.5%	0.0%	17.5%

LA CUENTISTA  
EXISTING & PROJECTED TURNING MOVEMENTS

**INTERSECTION: REDROOT & ROSA PARKS**

AM Peak Hour

	Eastbound ROSA PARKS			Westbound ROSA PARKS			Northbound REDROOT			Southbound REDROOT		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		5	4	3	2		11		11			
Background Growth		1	1	1			2		2			
Approved Development												
<b>No Build (2024)</b>		6	4	4	2		13		13			
Entering	16				7	14						
Exiting		21								42		48
<b>Build (2024)</b>	16	27	4	4	9	14	13		13	42		48

PHF 0.94 2 0.94 2 0.94 2 0.94 2 0.94 2  
HV % 0.94 2 0.94 2 0.94 2 0.94 2

PM Peak Hour

	Eastbound ROSA PARKS			Westbound ROSA PARKS			Northbound REDROOT			Southbound REDROOT		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
<b>Existing (2019)</b>		3	12	11	4		7		6			
Background Growth		1	2	2	1		1		1			
Approved Development												
<b>No Build (2024)</b>		4	14	13	5		8		7			
Entering	53				23	47				28		32
Exiting		14								28		32
<b>Build (2024)</b>	53	17	14	13	28	47	8		7	28		32

PHF 0.94 2 0.94 2 0.94 2 0.94 2 0.94 2  
HV % 0.94 2 0.94 2 0.94 2 0.94 2

growth rates	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Trip Distribution % Enter	35.5%				15.5%	31.5%			0.0%	0.0%	0.0%	35.5%
Trip Distribution % Exit	0.0%	15.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	31.5%	0.0%	35.5%

**The Cliffs on Paseo Development**  
 Projected Turning Movements Worksheet  
**Paseo del Norte / Unser Blvd.**

**INTERSECTION :** E-W Street: **Paseo del Norte** (2)  
 N-S Street: **Unser Blvd.**

Year of Existing Counts: 2017  
 Implementation Year: 2021

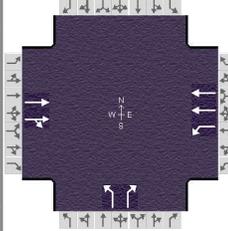
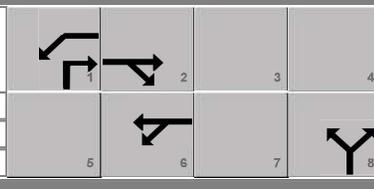
	0.50%			3.30%			8.60%			8.60%		
	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	22	612	70	23	238	73	11	479	91	212	602	5
Background Traffic Growth	0	12	1	3	31	10	4	165	31	73	207	2
Subtotal	22	624	71	26	269	83	15	644	122	285	809	7
Taos II at the Trails	1	52	11	0	18	0	4	0	0	0	0	0
La Cuentista Subd. - Phase I & II	0	0	0	0	1	1	0	0	0	0	0	0
<b>Subtotal (NO BUILD - A.M.)</b>	<b>23</b>	<b>676</b>	<b>82</b>	<b>26</b>	<b>288</b>	<b>84</b>	<b>19</b>	<b>644</b>	<b>122</b>	<b>285</b>	<b>809</b>	<b>7</b>
Percent Residential Trips Generated(Entering)	0.00%	1.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.34%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	1.44%	1.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Entering)	0.00%	25.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.42%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	25.06%	18.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.65%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.78%	0.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	24	0	0	15	11	0	0	0	18	0	0
<b>Total AM Peak Hour BUILD Volumes</b>	<b>23</b>	<b>700</b>	<b>82</b>	<b>26</b>	<b>303</b>	<b>95</b>	<b>19</b>	<b>644</b>	<b>122</b>	<b>303</b>	<b>809</b>	<b>7</b>

	0.50%			3.30%			8.60%			8.60%		
	Eastbound (Paseo del Norte)			Westbound (Paseo del Norte)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	18	389	20	99	673	119	32	520	36	140	546	14
Background Traffic Growth	0	8	0	13	89	16	11	179	12	48	188	5
Subtotal	18	397	20	112	762	135	43	699	48	188	734	19
Taos II at the Trails	1	33	7	0	57	0	13	0	0	0	0	1
La Cuentista Subd. - Phase I & II	0	0	0	0	0	0	0	0	0	0	0	0
<b>Subtotal (NO BUILD - P.M.)</b>	<b>19</b>	<b>430</b>	<b>27</b>	<b>112</b>	<b>819</b>	<b>135</b>	<b>56</b>	<b>699</b>	<b>48</b>	<b>188</b>	<b>734</b>	<b>20</b>
Percent Residential Trips Generated(Entering)	0.00%	1.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.34%	0.00%	0.00%
Percent Residential Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	1.44%	1.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Entering)	0.00%	25.06%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	18.42%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	25.06%	18.42%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Office Trips Generated(Entering)	0.00%	0.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.65%	0.00%	0.00%
Percent Office Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.78%	0.65%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	69	0	0	75	55	0	0	0	51	0	0
<b>Total PM Peak Hour BUILD Volumes</b>	<b>19</b>	<b>499</b>	<b>27</b>	<b>112</b>	<b>894</b>	<b>190</b>	<b>56</b>	<b>699</b>	<b>48</b>	<b>239</b>	<b>734</b>	<b>20</b>

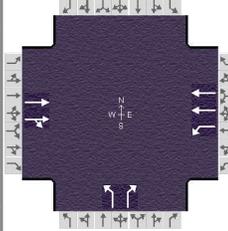
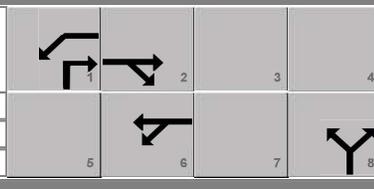
	Entering	Exiting	
Number of Residential Trips Generated	11	42	A.M. 100% Residential Development
	47	25	P.M.
Number of Commercial Trips Generated	91	56	A.M. 100% Commercial Development
	269	292	P.M.
Number of Office Trips Generated	174	40	A.M. 100% Office Development
	74	229	P.M.

**APPENDIX D**  
**2024 NO BUILD INTERSECTION CAPACITY ANALYSIS**

## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information										
Agency	BHI				Duration, h	0.250									
Analyst	MG	Analysis Date	Jun 17, 2021		Area Type	Other									
Jurisdiction	COA	Time Period			PHF	0.92									
Urban Street	La Cuentista	Analysis Year	2024		Analysis Period	1> 7:00									
Intersection	Paseo & Kimmick	File Name	NBAM Paseo and Kimmick w-out cliffs.xus												
Project Description	2024NB_w/out Cliff's_AM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h					1285	1	17	385		4		61			
Signal Information															
Cycle, s	76.1	Reference Phase	2	Green	1.9	51.5	4.7	0.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					8.3	1.0	4.0		9.0						
Phase Duration, s					57.5	7.9	65.4		10.7						
Change Period, ( Y+R <sub>c</sub> ), s					6.0	6.0	6.0		6.0						
Max Allow Headway ( MAH ), s					3.0	3.1	3.0		3.4						
Queue Clearance Time ( g <sub>s</sub> ), s					47.4	2.2	4.2		5.0						
Green Extension Time ( g <sub>e</sub> ), s					4.1	0.0	4.4		0.1						
Phase Call Probability					1.00	0.32	1.00		0.78						
Max Out Probability					0.09	0.00	0.00		0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate ( v ), veh/h					699	699	18	418		4		66			
Adjusted Saturation Flow Rate ( s ), veh/h/ln					1900	1899	1810	1809		1810		1610			
Queue Service Time ( g <sub>s</sub> ), s					45.4	14.3	0.2	2.2		0.2		3.0			
Cycle Queue Clearance Time ( g <sub>c</sub> ), s					45.4	14.3	0.2	2.2		0.2		3.0			
Green Ratio ( g/C )					0.68	0.68	0.73	0.78		0.06		0.09			
Capacity ( c ), veh/h					1286	1285	172	2826		111		140			
Volume-to-Capacity Ratio ( X )					0.544	0.544	0.107	0.148		0.039		0.475			
Back of Queue ( Q ), ft/ln ( 95 th percentile)					186.5	186.5	9	16.4		3.4		52			
Back of Queue ( Q ), veh/ln ( 95 th percentile)					7.5	7.5	0.4	0.7		0.1		2.1			
Queue Storage Ratio ( RQ ) ( 95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( d <sub>1</sub> ), s/veh					6.3	6.3	18.3	2.1		33.6		33.1			
Incremental Delay ( d <sub>2</sub> ), s/veh					0.1	0.1	0.1	0.0		0.1		0.9			
Initial Queue Delay ( d <sub>3</sub> ), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( d ), s/veh					6.4	6.4	18.4	2.1		33.7		34.0			
Level of Service (LOS)					A	A	B	A		C		C			
Approach Delay, s/veh / LOS				6.4	A	2.8	A	34.0	C	0.0					
Intersection Delay, s/veh / LOS				6.6				A							
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.85	B	0.62	A	2.31	B	2.14	B				
Bicycle LOS Score / LOS				1.64	B	0.85	A		F						

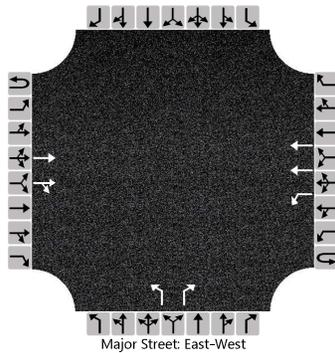
## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information										
Agency	BHI				Duration, h	0.250									
Analyst	MG	Analysis Date	Jun 16, 2021		Area Type	Other									
Jurisdiction	COA	Time Period			PHF	0.92									
Urban Street	La Cuentista	Analysis Year	2024		Analysis Period	1> 7:00									
Intersection	Paseo & Kimmick	File Name	NBPM Paseo and Kimmick w-out cliffs.xus												
Project Description	2024NB_w/out Cliff_s_PM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h					491	4	65	1251		2		39			
Signal Information															
Cycle, s	65.7	Reference Phase	2	Green	4.3	40.0	3.3	0.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					8.3	1.0	4.0		9.0						
Phase Duration, s					46.0	10.3	56.3		9.3						
Change Period, ( $Y+R_c$ ), s					6.0	6.0	6.0		6.0						
Max Allow Headway ( $MAH$ ), s					3.0	3.1	3.0		3.4						
Queue Clearance Time ( $g_s$ ), s					14.9	2.8	11.2		3.6						
Green Extension Time ( $g_e$ ), s					5.5	0.1	5.5		0.1						
Phase Call Probability					1.00	0.72	1.00		0.56						
Max Out Probability					0.00	0.00	0.00		0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate ( $v$ ), veh/h					269	269	71	1360		2		42			
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln					1900	1894	1810	1809		1810		1610			
Queue Service Time ( $g_s$ ), s					12.9	4.2	0.8	9.2		0.1		1.6			
Cycle Queue Clearance Time ( $g_c$ ), s					12.9	4.2	0.8	9.2		0.1		1.6			
Green Ratio ( $g/C$ )					0.61	0.61	0.71	0.77		0.05		0.12			
Capacity ( $c$ ), veh/h					1157	1154	593	2773		92		189			
Volume-to-Capacity Ratio ( $X$ )					0.233	0.233	0.119	0.490		0.024		0.225			
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)					57.1	57	7.6	57.8		1.4		26			
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)					2.3	2.3	0.3	2.3		0.1		1.0			
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( $d_1$ ), s/veh					5.9	5.9	4.8	2.9		29.6		26.3			
Incremental Delay ( $d_2$ ), s/veh					0.0	0.0	0.0	0.1		0.0		0.2			
Initial Queue Delay ( $d_3$ ), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( $d$ ), s/veh					5.9	5.9	4.8	2.9		29.7		26.5			
Level of Service (LOS)					A	A	A	A		C		C			
Approach Delay, s/veh / LOS				5.9	A	3.0	A	26.7	C	0.0					
Intersection Delay, s/veh / LOS				4.3			A								
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.86	B	0.62	A	2.31	B	2.13	B				
Bicycle LOS Score / LOS				0.93	A	1.67	B		F						

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024NB_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/out Cliffs, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	1	0	17	385			4		61				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

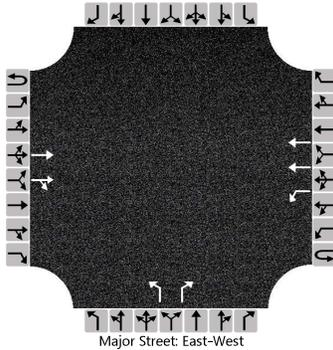
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						18				4		66				
Capacity, c (veh/h)						485				87		382				
v/c Ratio						0.04				0.05		0.17				
95% Queue Length, Q <sub>95</sub> (veh)						0.1				0.2		0.6				
Control Delay (s/veh)						12.7				48.5		16.4				
Level of Service (LOS)						B				E		C				
Approach Delay (s/veh)					0.5				18.4							
Approach LOS					C				C							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024NB_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/out Cliffs, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			491	4	0	65	1251			2		39				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						71				2		42				
Capacity, c (veh/h)						1026				131		729				
v/c Ratio						0.07				0.02		0.06				
95% Queue Length, Q <sub>95</sub> (veh)						0.2				0.1		0.2				
Control Delay (s/veh)						8.8				33.0		10.2				
Level of Service (LOS)						A				D		B				
Approach Delay (s/veh)					0.4				11.4							
Approach LOS									B							

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**NO**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650
0.18 Hours in AM	YES
0.07 Hours in PM	YES
	Minor Approach > 100
	NO
	NO

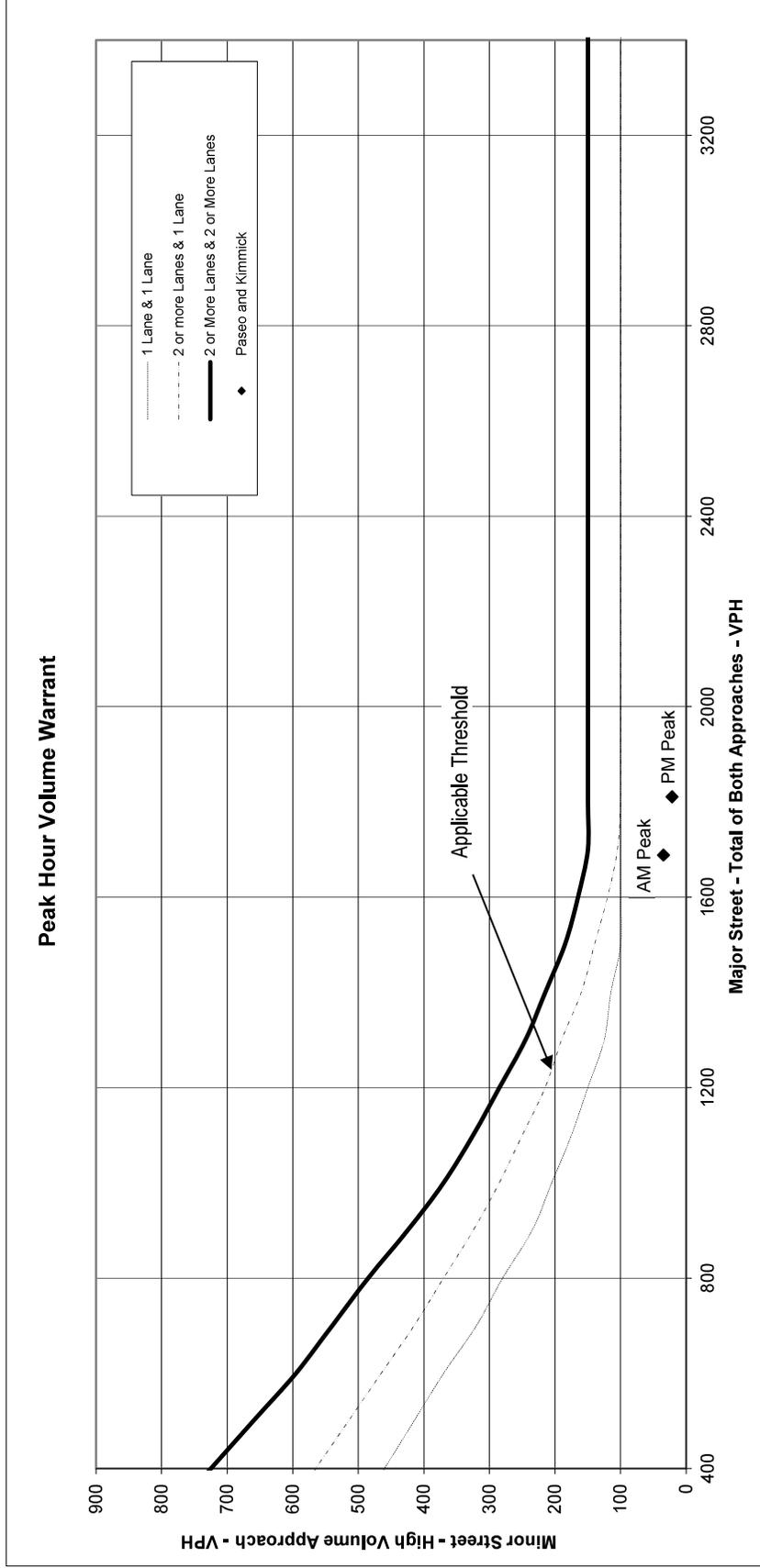
Scenario: 2024 No Build  
(w/out Cliffs, 1-stage)  
Paseo and Kimmick

Intersection: 2 Lane

Type: Major Street (Orientation): Paseo del Norte (E/W)

Minor Street (Orientation): Kimmick (N/S)

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	35	0	35	1,286	402	1,688	NO
PM Peak	22	0	22	495	1,316	1,811	NO

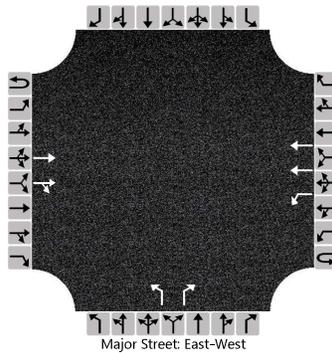


Note: 150 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 100 VPH as the threshold for a minor street approach with one lane

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024NB_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/out Cliffs, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	1	0	17	385			4		61				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

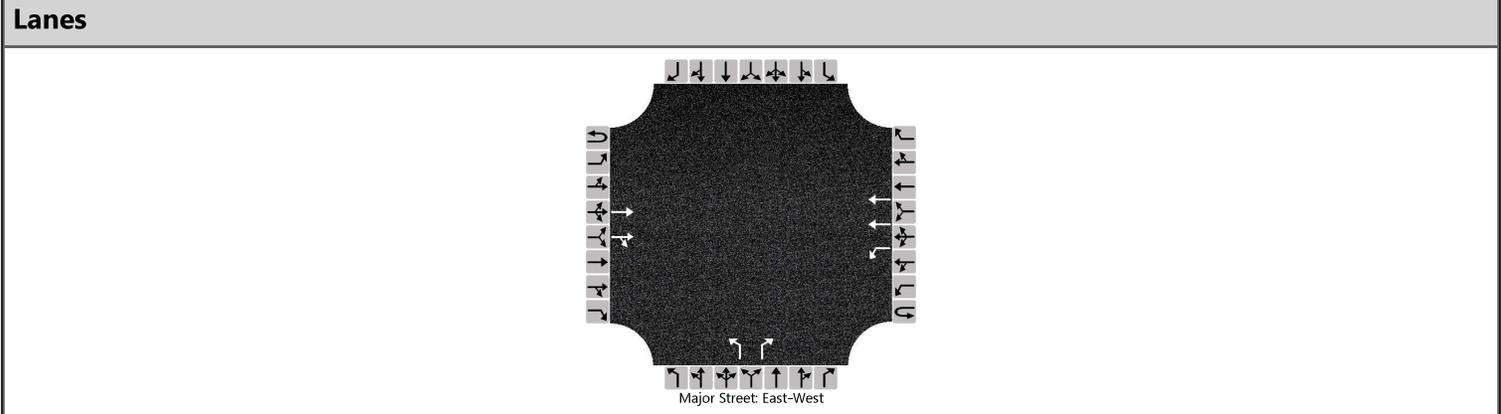
Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						18				4		66				
Capacity, c (veh/h)						485				164		382				
v/c Ratio						0.04				0.03		0.17				
95% Queue Length, Q <sub>95</sub> (veh)						0.1				0.1		0.6				
Control Delay (s/veh)						12.7				27.6		16.4				
Level of Service (LOS)						B				D		C				
Approach Delay (s/veh)						0.5					17.1					
Approach LOS											C					

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024NB_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/out Cliffs, 2-stage)						



**Vehicle Volumes and Adjustments**

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			491	4	0	65	1251			2		39				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

**Critical and Follow-up Headways**

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

**Delay, Queue Length, and Level of Service**

Flow Rate, v (veh/h)						71				2		42				
Capacity, c (veh/h)						1026				257		729				
v/c Ratio						0.07				0.01		0.06				
95% Queue Length, Q <sub>95</sub> (veh)						0.2				0.0		0.2				
Control Delay (s/veh)						8.8				19.1		10.2				
Level of Service (LOS)						A				C		B				
Approach Delay (s/veh)						0.4						10.7				
Approach LOS												B				

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**NO**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650
0.16 Hours in AM	YES
0.06 Hours in PM	YES
	Minor Approach > 100
	NO
	NO

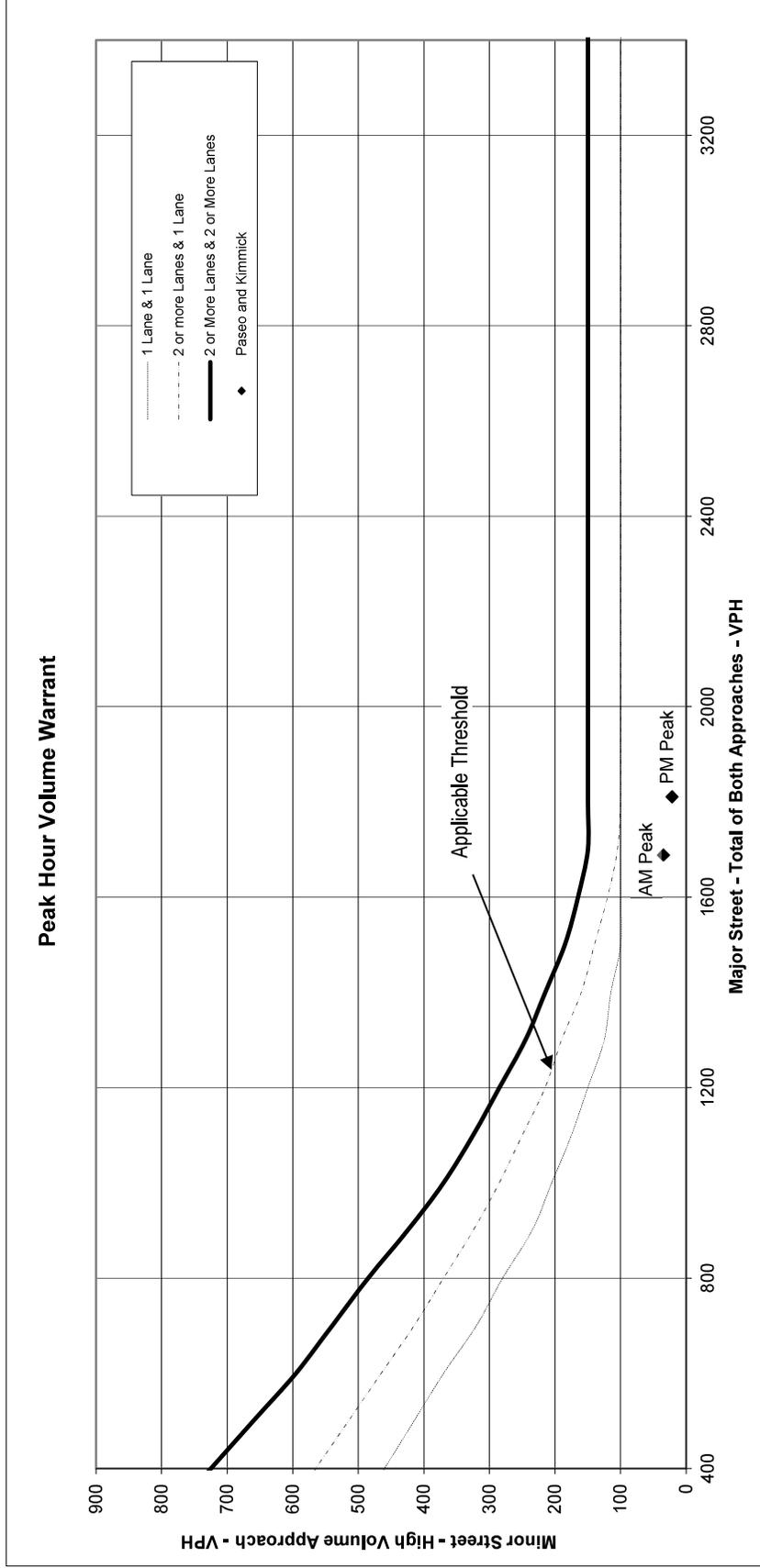
Scenario: 2024 No Build  
(w/out Cliffs, 2-stage)  
Paseo and Kimmick

Intersection: 2 Lane

Type: Paseo del Norte (E/W)

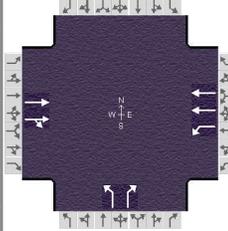
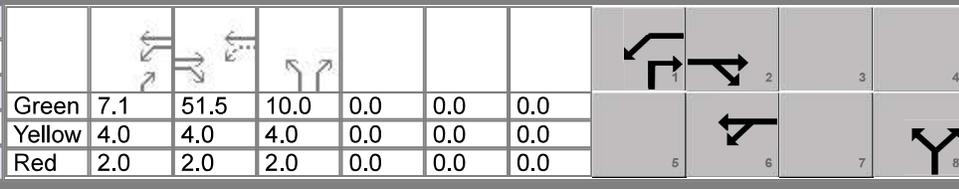
Minor Street (Orientation): Kimmick (N/S)

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	35	0	35	1,286	402	1,688	NO
PM Peak	22	0	22	495	1,316	1,811	NO

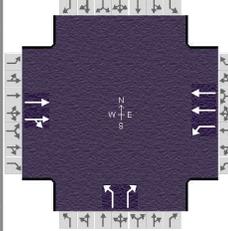
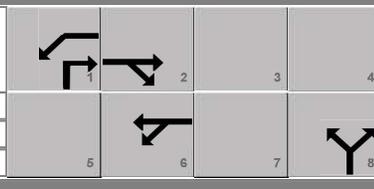


Note: 150 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 100 VPH as the threshold for a minor street approach with one lane

## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information										
Agency	BHI				Duration, h	0.250									
Analyst	MG	Analysis Date	Jun 17, 2021		Area Type	Other									
Jurisdiction	COA	Time Period			PHF	0.92									
Urban Street	La Cuentista	Analysis Year	2024		Analysis Period	1> 7:00									
Intersection	Paseo & Kimmick	File Name	NBAM Paseo and Kimmick w cliffs.xus												
Project Description	2024NB_w/Cliffs_AM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h					1285	1	198	387		30		149			
Signal Information															
Cycle, s	86.6	Reference Phase	2	Green	7.1	51.5	10.0	0.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					8.3	1.0	4.0		9.0						
Phase Duration, s					57.5	13.1	70.6		16.0						
Change Period, ( Y+R <sub>c</sub> ), s					6.0	6.0	6.0		6.0						
Max Allow Headway ( MAH ), s					3.0	3.1	3.0		3.3						
Queue Clearance Time ( g <sub>s</sub> ), s					47.4	6.7	4.9		9.8						
Green Extension Time ( g <sub>e</sub> ), s					4.1	0.4	4.5		0.4						
Phase Call Probability					1.00	0.99	1.00		0.99						
Max Out Probability					0.09	0.00	0.00		0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate ( v ), veh/h					699	699	215	421		33		162			
Adjusted Saturation Flow Rate ( s ), veh/h/ln					1900	1899	1810	1809		1810		1610			
Queue Service Time ( g <sub>s</sub> ), s					45.4	20.4	4.7	2.9		1.4		7.8			
Cycle Queue Clearance Time ( g <sub>c</sub> ), s					45.4	20.4	4.7	2.9		1.4		7.8			
Green Ratio ( g/C )					0.59	0.59	0.70	0.75		0.12		0.20			
Capacity ( c ), veh/h					1130	1130	258	2697		210		318			
Volume-to-Capacity Ratio ( X )					0.619	0.619	0.834	0.156		0.155		0.509			
Back of Queue ( Q ), ft/ln ( 95 th percentile)					297.3	297.3	122.8	32.5		27.5		133.1			
Back of Queue ( Q ), veh/ln ( 95 th percentile)					11.9	11.9	4.9	1.3		1.1		5.3			
Queue Storage Ratio ( RQ ) ( 95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( d <sub>1</sub> ), s/veh					11.3	11.3	23.7	3.2		34.5		31.0			
Incremental Delay ( d <sub>2</sub> ), s/veh					0.2	0.2	2.7	0.0		0.1		0.5			
Initial Queue Delay ( d <sub>3</sub> ), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( d ), s/veh					11.5	11.5	26.4	3.2		34.6		31.5			
Level of Service (LOS)					B	B	C	A		C		C			
Approach Delay, s/veh / LOS				11.5		B	11.0		B	32.0		C	0.0		
Intersection Delay, s/veh / LOS				13.1						B					
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.88		B	0.64		A	2.31		B	2.14		B
Bicycle LOS Score / LOS				1.64		B	1.01		A			F			

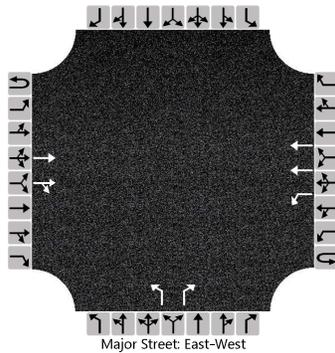
## HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	BHI			Duration, h	0.250										
Analyst	MG	Analysis Date	Jun 16, 2021	Area Type	Other										
Jurisdiction	COA	Time Period		PHF	0.92										
Urban Street	La Cuentista	Analysis Year	2024	Analysis Period	1> 7:00										
Intersection	Paseo & Kimmick	File Name	NBPM Paseo and Kimmick w cliffs.xus												
Project Description	2024NB_w/Cliffs_PM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h					492	4	276	1251		133		361			
Signal Information															
Cycle, s	89.6	Reference Phase	2	Green	10.0	40.0	21.6	0.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					8.3	1.0	4.0		9.0						
Phase Duration, s					46.0	16.0	62.0		27.6						
Change Period, ( $Y+R_c$ ), s					6.0	6.0	6.0		6.0						
Max Allow Headway ( $MAH$ ), s					3.0	3.1	3.0		3.3						
Queue Clearance Time ( $g_s$ ), s					14.9	9.5	22.3		20.7						
Green Extension Time ( $g_e$ ), s					5.5	0.5	5.5		0.9						
Phase Call Probability					1.00	1.00	1.00		1.00						
Max Out Probability					0.00	0.00	0.00		0.04						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate ( $v$ ), veh/h					270	269	300	1360		145		392			
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln					1900	1894	1810	1809		1810		1610			
Queue Service Time ( $g_s$ ), s					12.9	8.2	7.5	20.3		5.9		18.7			
Cycle Queue Clearance Time ( $g_c$ ), s					12.9	8.2	7.5	20.3		5.9		18.7			
Green Ratio ( $g/C$ )					0.45	0.45	0.58	0.62		0.24		0.35			
Capacity ( $c$ ), veh/h					848	845	548	2261		437		568			
Volume-to-Capacity Ratio ( $X$ )					0.318	0.319	0.547	0.602		0.331		0.690			
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)					152	151.6	120.3	277.9		112.6		280.8			
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)					6.1	6.1	4.8	11.1		4.5		11.2			
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( $d_1$ ), s/veh					16.0	16.0	11.3	10.1		28.0		24.8			
Incremental Delay ( $d_2$ ), s/veh					0.1	0.1	0.3	0.1		0.2		1.2			
Initial Queue Delay ( $d_3$ ), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( $d$ ), s/veh					16.1	16.1	11.7	10.2		28.2		26.0			
Level of Service (LOS)					B	B	B	B		C		C			
Approach Delay, s/veh / LOS				16.1	B	10.5	B	26.6	C	0.0					
Intersection Delay, s/veh / LOS				14.7				B							
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.90	B	0.67	A	2.32	B	2.15	B				
Bicycle LOS Score / LOS				0.93	A	1.86	B	F							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Paseo and Kimmick		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Paseo del Norte		
Analysis Year	2024			North/South Street	Kimmick		
Time Analyzed	2024NB_AM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista (w/Cliff's, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	1	0	198	387			30		149				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized									No							
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.5		6.9			
Critical Headway (sec)						4.14					6.84		6.94			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

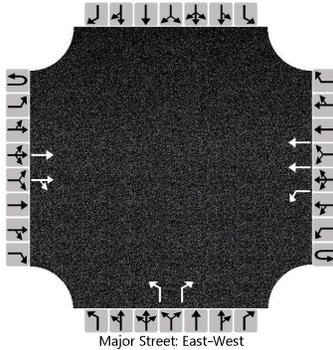
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						215					33		162			
Capacity, c (veh/h)						485					27		382			
v/c Ratio						0.44					1.19		0.42			
95% Queue Length, Q <sub>95</sub> (veh)						2.2					3.8		2.1			
Control Delay (s/veh)						18.2					450.1		21.2			
Level of Service (LOS)						C					F		C			
Approach Delay (s/veh)					6.2				93.1							
Approach LOS									F							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Paseo and Kimmick		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Paseo del Norte		
Analysis Year	2024			North/South Street	Kimmick		
Time Analyzed	2024NB_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista (w/Cliff's, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			492	4	0	276	1251			133		361				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						300				145		392				
Capacity, c (veh/h)						1025				49		728				
v/c Ratio						0.29				2.95		0.54				
95% Queue Length, Q <sub>95</sub> (veh)						1.2				15.5		3.3				
Control Delay (s/veh)						10.0				1055.5		15.6				
Level of Service (LOS)						A				F		C				
Approach Delay (s/veh)					1.8				295.5							
Approach LOS									F							

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
2.70 Hours in AM	YES	YES
25.73 Hours in PM	YES	YES

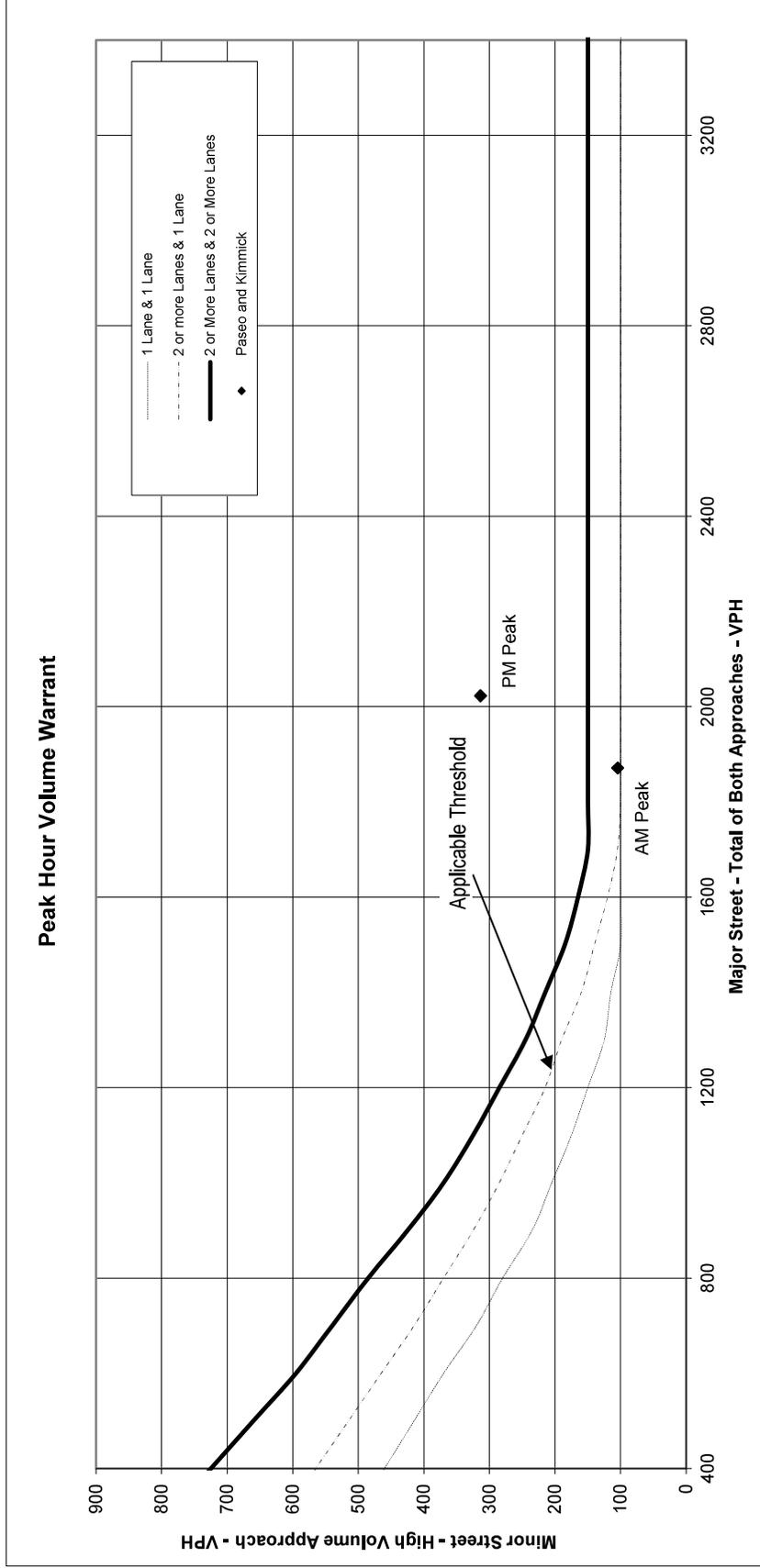
**YES**

Scenario: 2024 No Build  
(w/Cliffs, 1-stage)  
Paseo and Kimmick

Intersection: Paseo and Kimmick  
Type: 2 Lane

Major Street (Orientation): Paseo del Norte (E/W)  
Minor Street (Orientation): Kimmick (N/S)

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	105	0	105	1,286	585	1,871	YES
PM Peak	314	0	314	496	1,527	2,023	YES

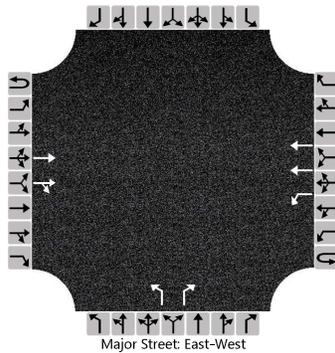


Note: 150 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 100 VPH as the threshold for a minor street approach with one lane

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024NB_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/Cliffs, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	1	0	198	387			30		149				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

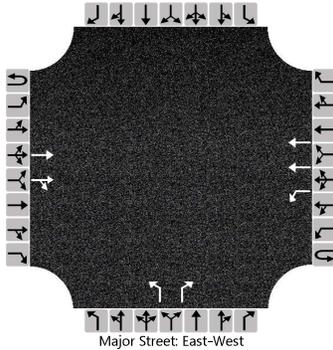
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						215				33		162				
Capacity, c (veh/h)						485				115		382				
v/c Ratio						0.44				0.28		0.42				
95% Queue Length, Q <sub>95</sub> (veh)						2.2				1.1		2.1				
Control Delay (s/veh)						18.2				48.1		21.2				
Level of Service (LOS)						C				E		C				
Approach Delay (s/veh)						6.2				25.7						
Approach LOS										D						

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024NB_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/Cliffs, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			492	4	0	276	1251			133		361				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						300				145		392				
Capacity, c (veh/h)						1025				127		728				
v/c Ratio						0.29				1.14		0.54				
95% Queue Length, Q <sub>95</sub> (veh)						1.2				8.5		3.3				
Control Delay (s/veh)						10.0				188.6		15.6				
Level of Service (LOS)						A				F		C				
Approach Delay (s/veh)						1.8				62.1						
Approach LOS										F						

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**YES**

Peak Hour Delay (Criteria 4 Hours)	Minor Approach > 100
2.70 Hours in AM	NO
25.73 Hours in PM	YES
	YES

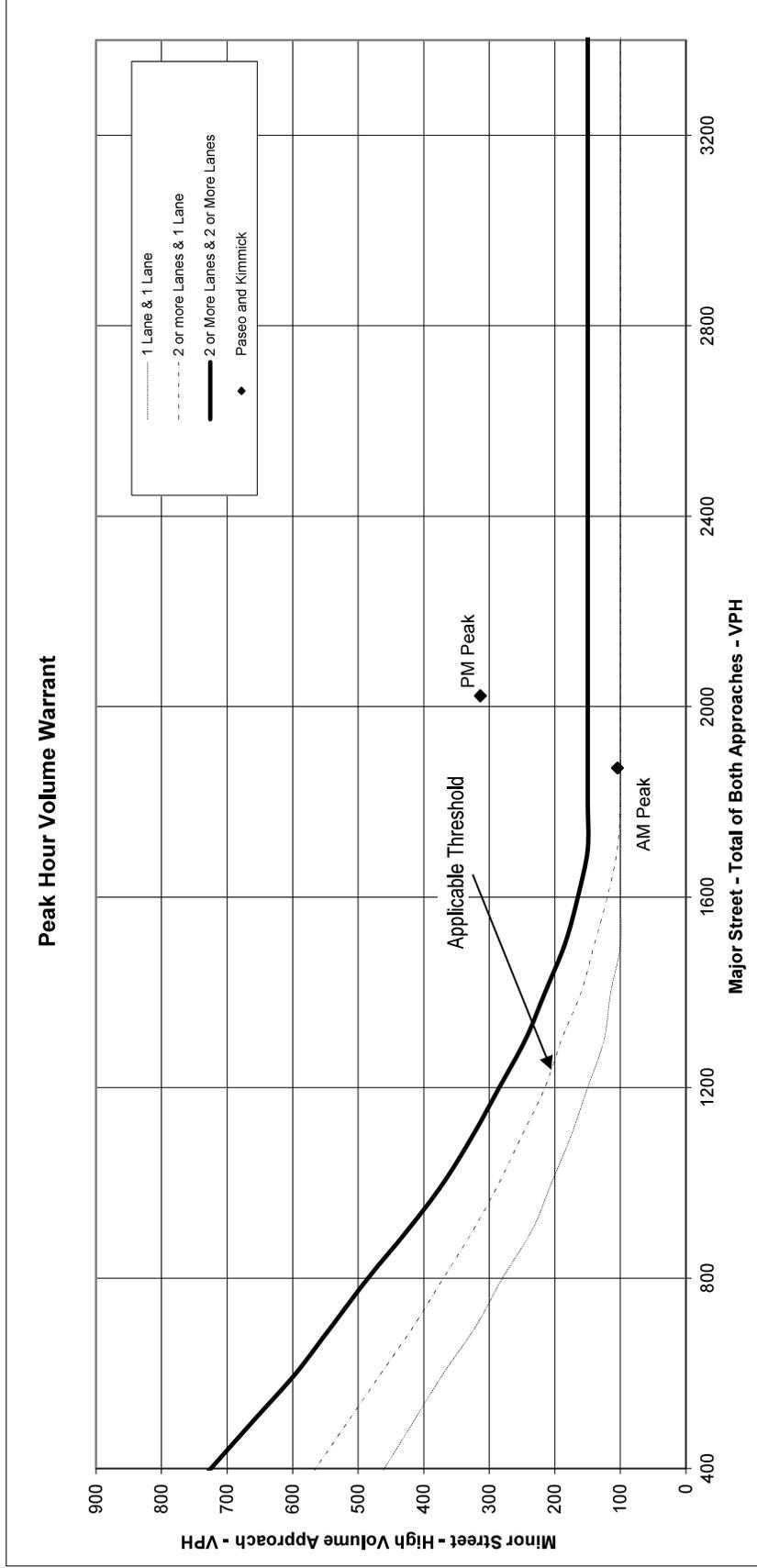
Scenario: 2024 No Build  
(w/Cliffs, 2-stage)  
Paseo and Kimmick

Intersection: 2 Lane

Type: Major Street (Orientation): Paseo del Norte (E/W)

Minor Street (Orientation): Kimmick (N/S)

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	105	0	105	1,286	585	1,871	YES
PM Peak	314	0	314	496	1,527	2,023	YES

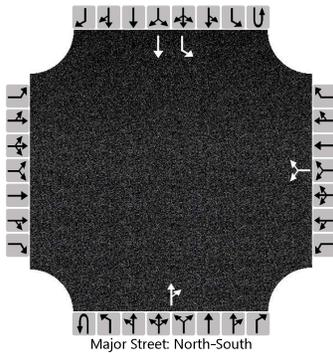


Note: 150 VPH applies as the lower threshold for minor street approach with 2 or more lanes & 100 VPH as the threshold for a minor street approach with one lane

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2024	North/South Street	Unser Blvd				
Time Analyzed	2024NB_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						37		12			574	37		12	861	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type   Storage							Undivided									

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.42		6.22							4.12	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.52		3.32							2.22	

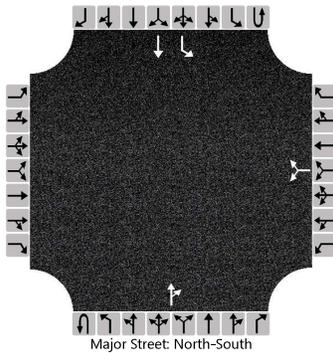
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						53									13	
Capacity, c (veh/h)						140									925	
v/c Ratio						0.38									0.01	
95% Queue Length, Q <sub>95</sub> (veh)						1.6									0.0	
Control Delay (s/veh)						45.7									8.9	
Level of Service (LOS)						E									A	
Approach Delay (s/veh)						45.7									0.1	
Approach LOS						E										

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2024	North/South Street	Unser Blvd				
Time Analyzed	2024NB_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						20		7			788	20		7	548	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type   Storage					Undivided											

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.42		6.22							4.12	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.52		3.32							2.22	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						29									8	
Capacity, c (veh/h)						163									769	
v/c Ratio						0.18									0.01	
95% Queue Length, Q <sub>95</sub> (veh)						0.6									0.0	
Control Delay (s/veh)						31.9									9.7	
Level of Service (LOS)						D									A	
Approach Delay (s/veh)						31.9									0.1	
Approach LOS						D										

# PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

## Satisfies Warrant 3A

NO

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
0.62 Hours in AM	YES	NO
0.24 Hours in PM	YES	NO

Scenario: 2024 No Build  
(1 STAGE GAP)

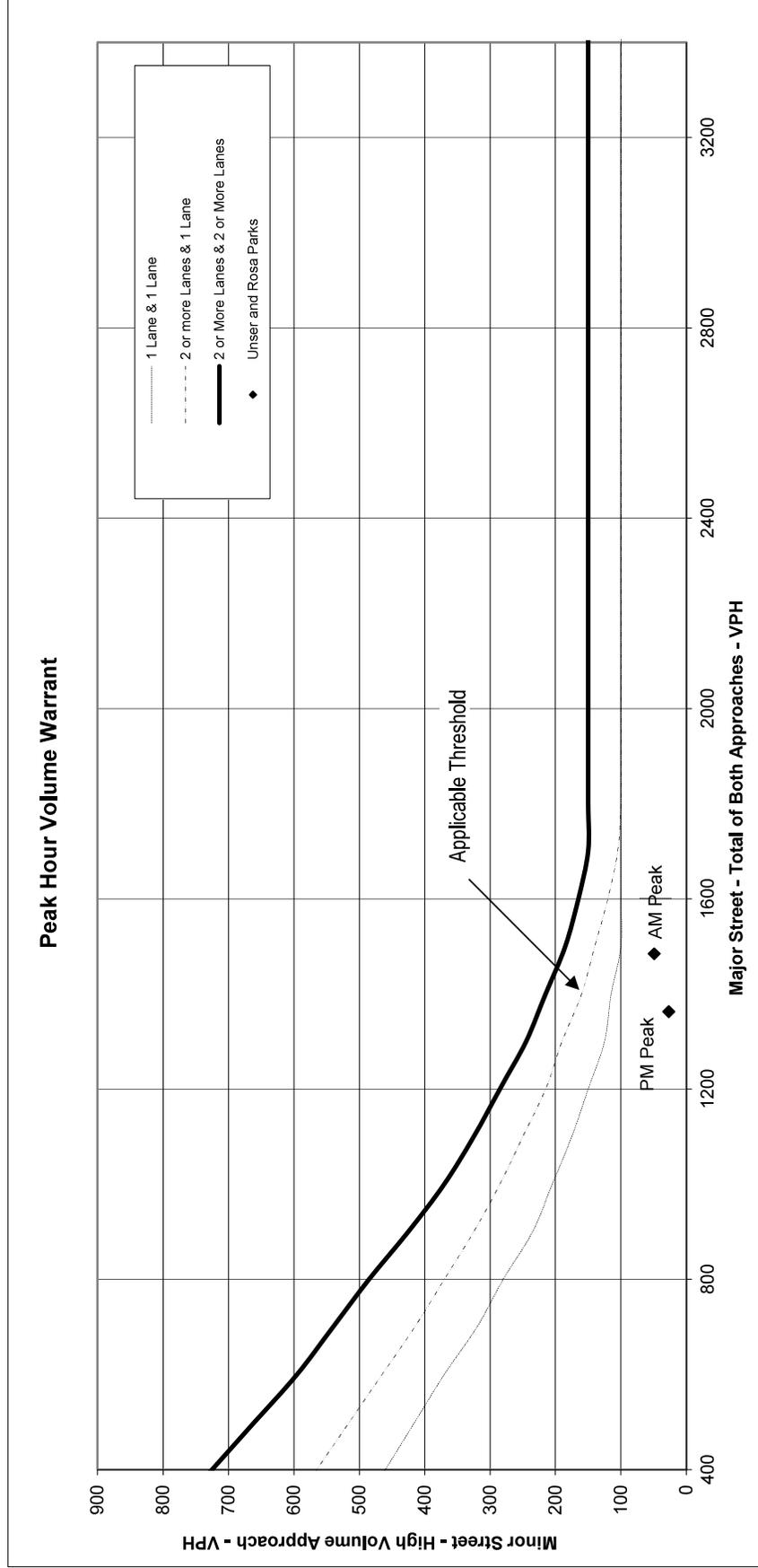
Intersection: Unser and Rosa Parks

Type: 1 Lane/2 Lane

Major Street (Orientation): Unser (N/S)

Minor Street (Orientation): Rosa Parks (E/W)

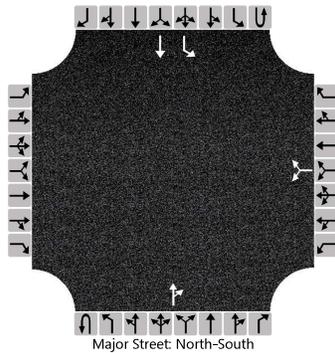
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	EB	WB	High Vol	NB	SB	NB + SB	
AM Peak	0	49	49	611	873	1,484	NO
PM Peak	0	27	27	808	555	1,363	NO



# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2024	North/South Street	Unser Blvd				
Time Analyzed	2024NB_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement																	
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6	
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0	
Configuration							LR					TR		L	T		
Volume (veh/h)						37		12			574	37		12	861		
Percent Heavy Vehicles (%)						2		2						2			
Proportion Time Blocked																	
Percent Grade (%)						0											
Right Turn Channelized																	
Median Type   Storage					Left Only								1				

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2								4.1		
Critical Headway (sec)						6.42		6.22								4.12		
Base Follow-Up Headway (sec)						3.5		3.3								2.2		
Follow-Up Headway (sec)						3.52		3.32								2.22		

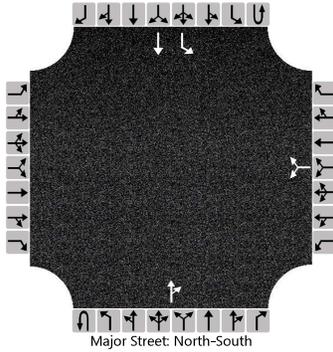
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						53										13		
Capacity, c (veh/h)						279										925		
v/c Ratio						0.19										0.01		
95% Queue Length, Q <sub>95</sub> (veh)						0.7										0.0		
Control Delay (s/veh)						20.9										8.9		
Level of Service (LOS)						C										A		
Approach Delay (s/veh)						20.9										0.1		
Approach LOS						C												

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2024	North/South Street	Unser Blvd				
Time Analyzed	2024NB_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						20		7			788	20		7	548	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type   Storage							Left Only									1

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.42		6.22							4.12	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.52		3.32							2.22	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						29									8	
Capacity, c (veh/h)						290									769	
v/c Ratio						0.10									0.01	
95% Queue Length, Q <sub>95</sub> (veh)						0.3									0.0	
Control Delay (s/veh)						18.8									9.7	
Level of Service (LOS)						C									A	
Approach Delay (s/veh)						18.8									0.1	
Approach LOS						C										

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**NO**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
0.28 Hours in AM	YES	NO
0.14 Hours in PM	YES	NO

Scenario: 2024 No Build  
(2 STAGE GAP)

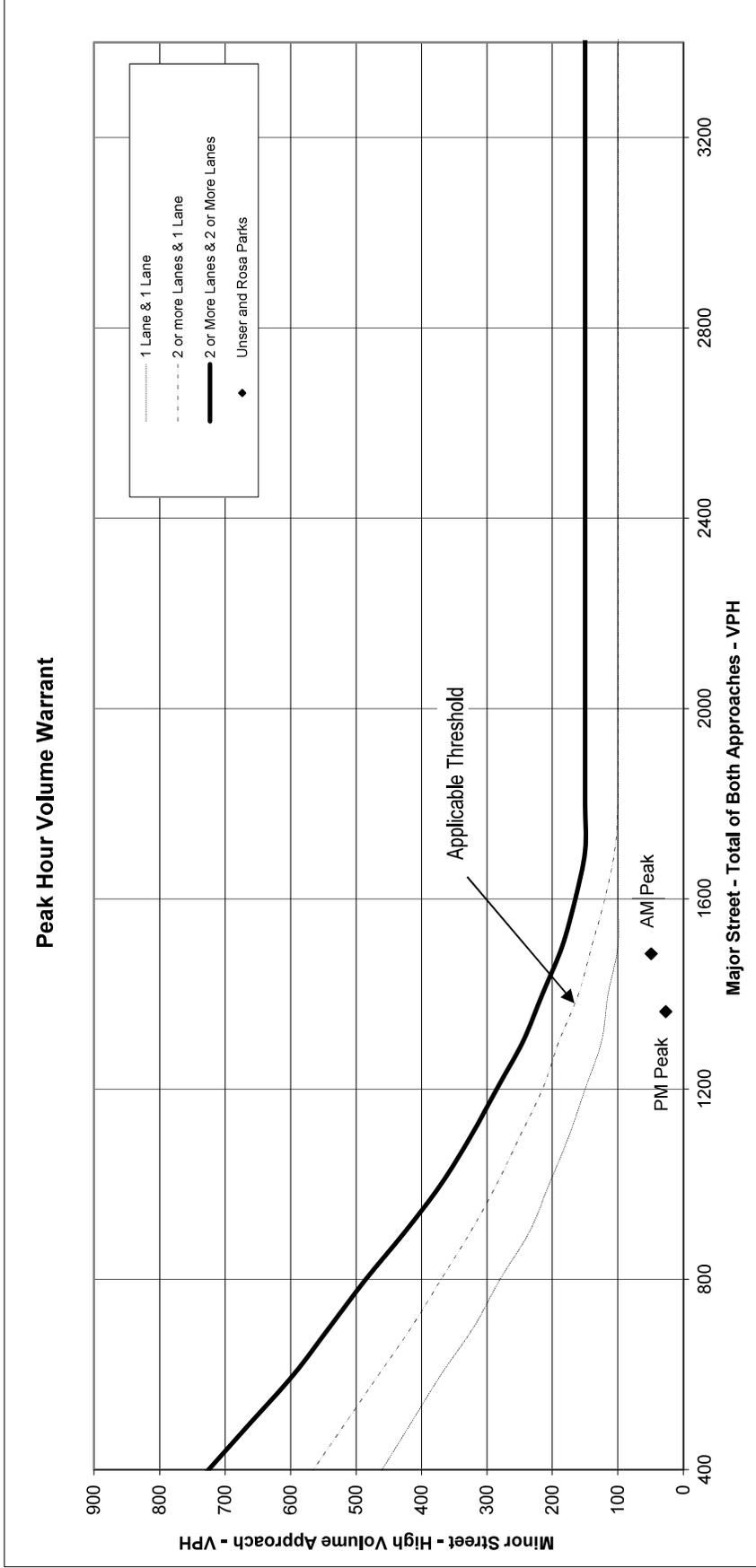
Intersection: Unser and Rosa Parks

Type: 1 Lane/2 Lane

Major Street (Orientation): Unser (N/S)

Minor Street (Orientation): Rosa Parks (E/W)

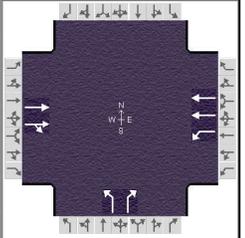
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	EB	WB	High Vol	NB	SB	NB + SB	
AM Peak	0	49	49	611	873	1,484	NO
PM Peak	0	27	27	808	555	1,363	NO



**APPENDIX E**  
**2024 BUILD INTERSECTION CAPACITY ANALYSIS**

## HCS7 Signalized Intersection Results Summary

General Information				Intersection Information			
Agency	BHI			Duration, h	0.250		
Analyst	MG	Analysis Date	Jun 11, 2021	Area Type	Other		
Jurisdiction	COA	Time Period		PHF	0.92		
Urban Street	La Cuentista	Analysis Year	2024	Analysis Period	1> 7:00		
Intersection	Paseo & Kimmick	File Name	BAM Paseo and Kimmick w-out cliffs.xus				
Project Description	2024B_w/out Cliffs_AM						



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h		1285	2	36	385		8		119			

Signal Information													
Cycle, s	81.0	Reference Phase	2										
Offset, s	0	Reference Point	End										
Uncoordinated	Yes	Simult. Gap E/W	On										
Force Mode	Fixed	Simult. Gap N/S	On										
				Green	3.5	51.6	8.0	0.0	0.0	0.0	0.0	0.0	0.0
				Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0
				Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		2	1	6		8		
Case Number		8.3	1.0	4.0		9.0		
Phase Duration, s		57.6	9.5	67.1		14.0		
Change Period, ( $Y+R_c$ ), s		6.0	6.0	6.0		6.0		
Max Allow Headway ( $MAH$ ), s		3.0	3.1	3.0		3.4		
Queue Clearance Time ( $g_s$ ), s		47.5	2.5	4.6		8.1		
Green Extension Time ( $g_e$ ), s		4.1	0.0	4.4		0.3		
Phase Call Probability		1.00	0.59	1.00		0.96		
Max Out Probability		0.09	0.00	0.00		0.00		

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement		2	12	1	6		3		18			
Adjusted Flow Rate ( $v$ ), veh/h		700	699	39	418		9		129			
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln		1900	1899	1810	1809		1810		1610			
Queue Service Time ( $g_s$ ), s		45.5	17.2	0.5	2.6		0.4		6.1			
Cycle Queue Clearance Time ( $g_c$ ), s		45.5	17.2	0.5	2.6		0.4		6.1			
Green Ratio ( $g/C$ )		0.64	0.64	0.70	0.75		0.10		0.14			
Capacity ( $c$ ), veh/h		1209	1208	197	2727		178		228			
Volume-to-Capacity Ratio ( $X$ )		0.579	0.579	0.199	0.153		0.049		0.567			
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)		239.4	239.3	20.2	26.1		6.8		104.7			
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)		9.6	9.6	0.8	1.0		0.3		4.2			
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)		0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( $d_1$ ), s/veh		8.5	8.5	19.1	2.8		33.1		32.5			
Incremental Delay ( $d_2$ ), s/veh		0.2	0.2	0.2	0.0		0.0		0.8			
Initial Queue Delay ( $d_3$ ), s/veh		0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( $d$ ), s/veh		8.7	8.7	19.2	2.8		33.2		33.3			
Level of Service (LOS)		A	A	B	A		C		C			
Approach Delay, s/veh / LOS	8.7	A		4.2	A		33.3	C		0.0		
Intersection Delay, s/veh / LOS	9.3						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.86	B	0.64	A	2.31	B	2.14	B
Bicycle LOS Score / LOS	1.64	B	0.87	A		F		

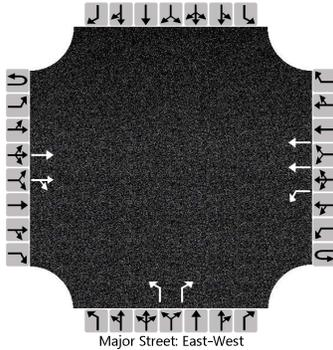
## HCS7 Signalized Intersection Results Summary

General Information				Intersection Information											
Agency	BHI			Duration, h	0.250										
Analyst	MG	Analysis Date	Jun 11, 2021	Area Type	Other										
Jurisdiction	COA	Time Period		PHF	0.92										
Urban Street	La Cuentista	Analysis Year	2024	Analysis Period	1 > 7:00										
Intersection	Paseo & Kimmick	File Name	BPM Paseo and Kimmick w-out cliffs.xus												
Project Description	2024B_w/out Cliffs_PM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h					491	9	131	1251		5		78			
Signal Information															
Cycle, s	68.5	Reference Phase	2												
Offset, s	0	Reference Point	End												
Uncoordinated	Yes	Simult. Gap E/W	On												
Force Mode	Fixed	Simult. Gap N/S	On												
Green	5.6	40.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Red	2.0	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					8.3	1.0	4.0		9.0						
Phase Duration, s					46.0	11.6	57.6		10.9						
Change Period, ( Y+R <sub>c</sub> ), s					6.0	6.0	6.0		6.0						
Max Allow Headway ( MAH ), s					3.0	3.1	3.0		3.4						
Queue Clearance Time ( g <sub>s</sub> ), s					15.1	3.8	12.2		5.2						
Green Extension Time ( g <sub>e</sub> ), s					5.5	0.2	5.5		0.2						
Phase Call Probability					1.00	0.93	1.00		0.82						
Max Out Probability					0.00	0.00	0.00		0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate ( v ), veh/h					272	271	142	1360		5		85			
Adjusted Saturation Flow Rate ( s ), veh/h/ln					1900	1888	1810	1809		1810		1610			
Queue Service Time ( g <sub>s</sub> ), s					13.1	4.8	1.8	10.2		0.2		3.2			
Cycle Queue Clearance Time ( g <sub>c</sub> ), s					13.1	4.8	1.8	10.2		0.2		3.2			
Green Ratio ( g/C )					0.58	0.58	0.69	0.75		0.07		0.15			
Capacity ( c ), veh/h					1109	1102	598	2724		130		247			
Volume-to-Capacity Ratio ( X )					0.246	0.246	0.238	0.499		0.042		0.343			
Back of Queue ( Q ), ft/ln ( 95 th percentile)					69.7	69.4	19.1	79.1		3.7		53.1			
Back of Queue ( Q ), veh/ln ( 95 th percentile)					2.8	2.8	0.8	3.2		0.1		2.1			
Queue Storage Ratio ( RQ ) ( 95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( d <sub>1</sub> ), s/veh					6.9	6.9	5.4	3.3		29.6		25.9			
Incremental Delay ( d <sub>2</sub> ), s/veh					0.0	0.0	0.1	0.1		0.0		0.3			
Initial Queue Delay ( d <sub>3</sub> ), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( d ), s/veh					7.0	7.0	5.5	3.4		29.7		26.2			
Level of Service (LOS)					A	A	A	A		C		C			
Approach Delay, s/veh / LOS				7.0	A	3.6	A	26.4	C	0.0					
Intersection Delay, s/veh / LOS				5.4				A							
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.87	B	0.63	A	2.31	B	2.14	B				
Bicycle LOS Score / LOS				0.94	A	1.73	B	F							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024B_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/out Cliff's, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	2	0	36	385			8		119				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized									No							
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.5		6.9			
Critical Headway (sec)						4.14					6.84		6.94			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

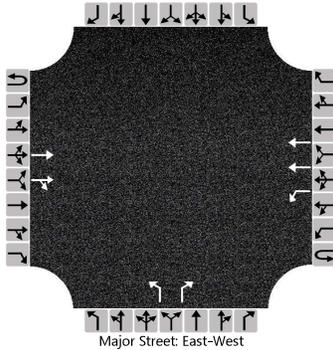
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						39					9		129			
Capacity, c (veh/h)						484					78		382			
v/c Ratio						0.08					0.11		0.34			
95% Queue Length, Q <sub>95</sub> (veh)						0.3					0.4		1.5			
Control Delay (s/veh)						13.1					56.8		19.2			
Level of Service (LOS)						B					F		C			
Approach Delay (s/veh)					1.1				21.5							
Approach LOS									C							

# HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MG	Intersection	Paseo and Kimmick
Agency/Co.	BHI	Jurisdiction	COA
Date Performed	5/5/2021	East/West Street	Paseo del Norte
Analysis Year	2024	North/South Street	Kimmick
Time Analyzed	2024B_PM PEAK	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	La Cuentista (w/out Cliff's, 1-stage)		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			491	9	0	131	1251			5		78				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						142				5		85				
Capacity, c (veh/h)						1022				97		726				
v/c Ratio						0.14				0.06		0.12				
95% Queue Length, Q <sub>95</sub> (veh)						0.5				0.2		0.4				
Control Delay (s/veh)						9.1				44.5		10.6				
Level of Service (LOS)						A				E		B				
Approach Delay (s/veh)					0.9				12.7							
Approach LOS									B							

# PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

## Satisfies Warrant 3A

NO

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
0.41 Hours in AM	YES	NO
0.16 Hours in PM	YES	NO

Scenario: 2024 Build (w/out Cliffs, 1-Stage) Paseo and Kimmick

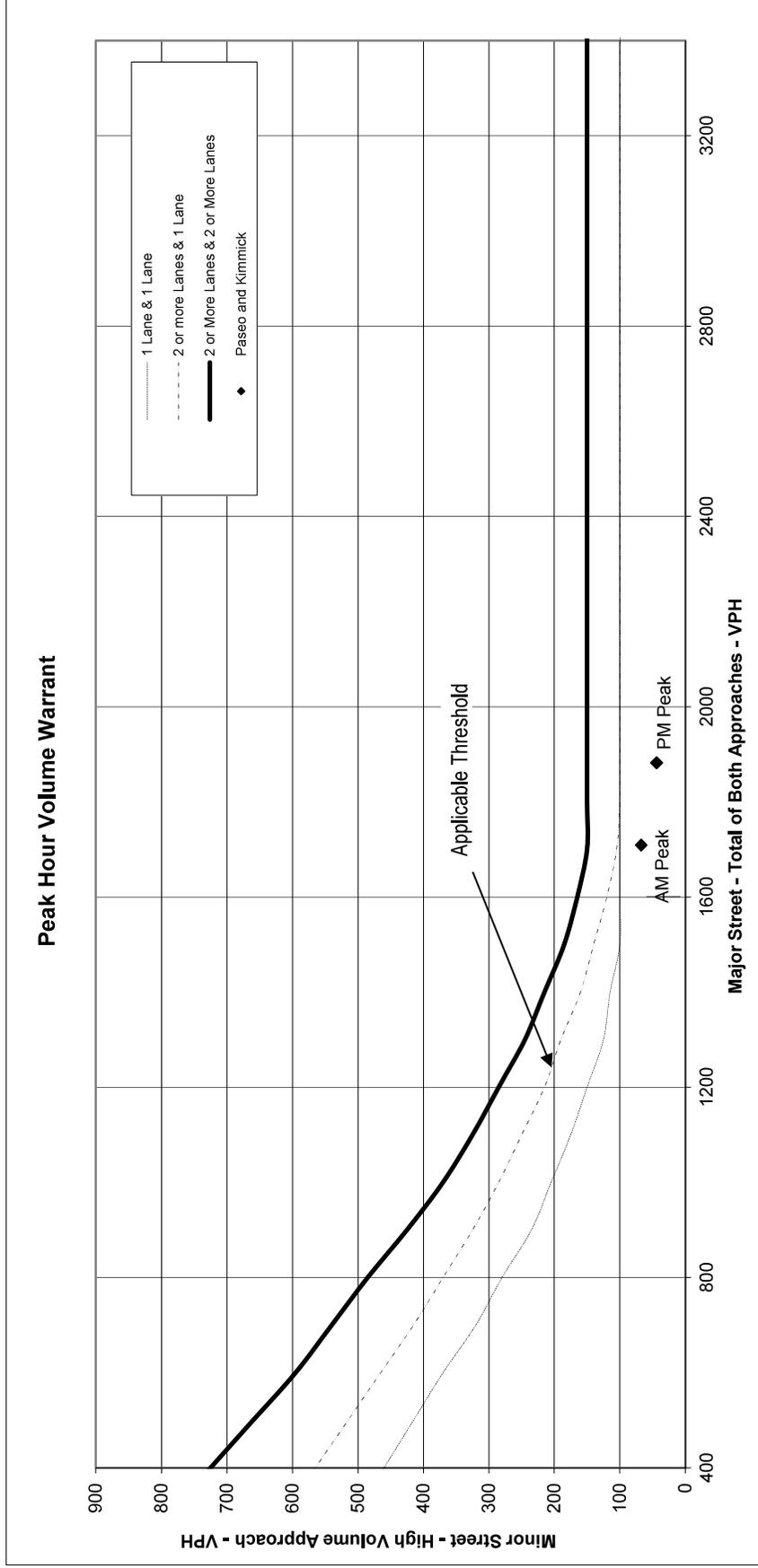
Intersection: 2 Lane

Type: Paseo del Norte (E/W)

Major Street (Orientation): Kimmick (N/S)

Minor Street (Orientation): Kimmick (N/S)

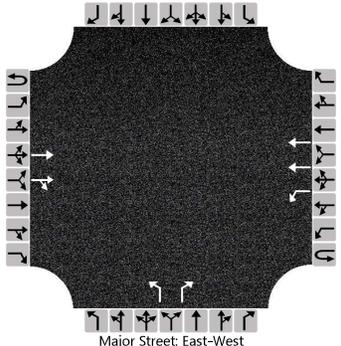
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	68	0	68	1,288	421	1,709	NO
PM Peak	44	0	44	500	1,382	1,882	NO



# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024B_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/out Cliff's, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	2	0	36	385			8		119				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized									No							
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.5		6.9			
Critical Headway (sec)						4.14					6.84		6.94			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

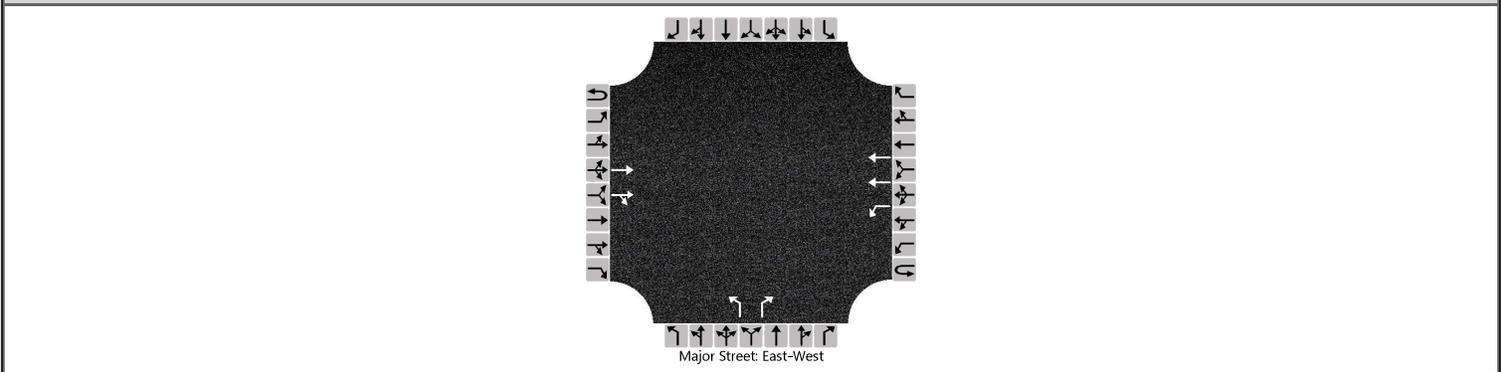
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						39					9		129			
Capacity, c (veh/h)						484					160		382			
v/c Ratio						0.08					0.05		0.34			
95% Queue Length, Q <sub>95</sub> (veh)						0.3					0.2		1.5			
Control Delay (s/veh)						13.1					28.8		19.2			
Level of Service (LOS)						B					D		C			
Approach Delay (s/veh)					1.1				19.8							
Approach LOS									C							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Paseo and Kimmick		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Paseo del Norte		
Analysis Year	2024			North/South Street	Kimmick		
Time Analyzed	2024B_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista (w/out Cliff's, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			491	9	0	131	1251			5		78				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						142				5		85				
Capacity, c (veh/h)						1022				209		726				
v/c Ratio						0.14				0.03		0.12				
95% Queue Length, Q <sub>95</sub> (veh)						0.5				0.1		0.4				
Control Delay (s/veh)						9.1				22.7		10.6				
Level of Service (LOS)						A				C		B				
Approach Delay (s/veh)						0.9				11.3						
Approach LOS										B						

# PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

## Satisfies Warrant 3A

NO

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 800	Minor Approach > 100
0.37 Hours in AM	YES	NO
0.14 Hours in PM	YES	NO

Scenario: 2024 Build (w/out Cliffs, 2-Stage) Paseo and Kimmick

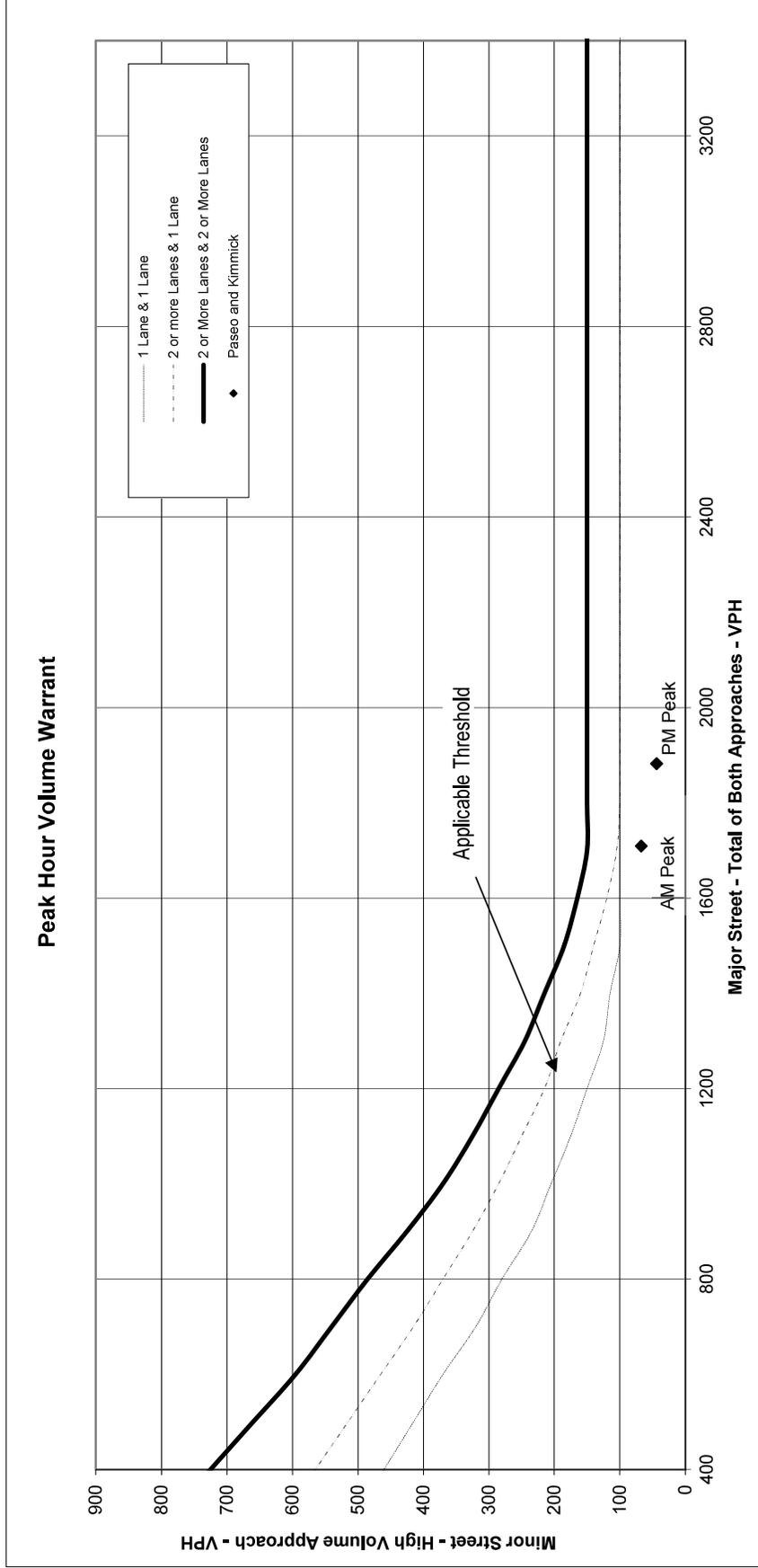
Intersection: 2 Lane

Type: Paseo del Norte (E/W)

Major Street (Orientation): Kimmick (N/S)

Minor Street (Orientation):

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	68	0	68	1,288	421	1,709	NO
PM Peak	44	0	44	500	1,382	1,882	NO



## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information										
Agency	BHI				Duration, h	0.250									
Analyst	MG	Analysis Date	Jun 11, 2021		Area Type	Other									
Jurisdiction	COA	Time Period			PHF	0.92									
Urban Street	La Cuentista	Analysis Year	2024		Analysis Period	1> 7:00									
Intersection	Paseo & Kimmick	File Name	BAM Paseo and Kimmick w-cliffs.xus												
Project Description	2024B_w/Cliff's_AM														
Demand Information				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( $v$ ), veh/h					1285	2	217	387		34		207			
Signal Information															
Cycle, s	92.1	Reference Phase	2	Green	8.8	51.6	13.8	0.0	0.0	0.0					
Offset, s	0	Reference Point	End	Yellow	4.0	4.0	4.0	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On	Red	2.0	2.0	2.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On												
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					2	1	6		8						
Case Number					8.3	1.0	4.0		9.0						
Phase Duration, s					57.6	14.8	72.4		19.8						
Change Period, ( $Y+R_c$ ), s					6.0	6.0	6.0		6.0						
Max Allow Headway ( $MAH$ ), s					3.0	3.1	3.0		3.3						
Queue Clearance Time ( $g_s$ ), s					47.5	8.4	5.4		13.3						
Green Extension Time ( $g_e$ ), s					4.1	0.4	4.5		0.5						
Phase Call Probability					1.00	1.00	1.00		1.00						
Max Out Probability					0.09	0.00	0.00		0.00						
Movement Group Results				EB			WB			NB			SB		
Approach Movement				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement					2	12	1	6		3		18			
Adjusted Flow Rate ( $v$ ), veh/h					700	699	236	421		37		225			
Adjusted Saturation Flow Rate ( $s$ ), veh/h/ln					1900	1899	1810	1809		1810		1610			
Queue Service Time ( $g_s$ ), s					45.5	23.7	6.4	3.4		1.6		11.3			
Cycle Queue Clearance Time ( $g_c$ ), s					45.5	23.7	6.4	3.4		1.6		11.3			
Green Ratio ( $g/C$ )					0.56	0.56	0.68	0.72		0.15		0.24			
Capacity ( $c$ ), veh/h					1063	1063	277	2605		271		394			
Volume-to-Capacity Ratio ( $X$ )					0.658	0.658	0.853	0.161		0.136		0.570			
Back of Queue ( $Q$ ), ft/ln ( 95 th percentile)					352.8	352.7	225.6	43.6		32		192			
Back of Queue ( $Q$ ), veh/ln ( 95 th percentile)					14.1	14.1	9.0	1.7		1.3		7.7			
Queue Storage Ratio ( $RQ$ ) ( 95 th percentile)					0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( $d_1$ ), s/veh					14.1	14.1	25.7	4.1		34.0		30.5			
Incremental Delay ( $d_2$ ), s/veh					0.4	0.4	2.9	0.0		0.1		0.5			
Initial Queue Delay ( $d_3$ ), s/veh					0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( $d$ ), s/veh					14.5	14.5	28.6	4.1		34.1		31.0			
Level of Service (LOS)					B	B	C	A		C		C			
Approach Delay, s/veh / LOS				14.5	B	12.9	B	31.5	C	0.0					
Intersection Delay, s/veh / LOS				16.0				B							
Multimodal Results				EB			WB			NB			SB		
Pedestrian LOS Score / LOS				1.89	B	0.65	A	2.32	B	2.15	B				
Bicycle LOS Score / LOS				1.64	B	1.03	A		F						

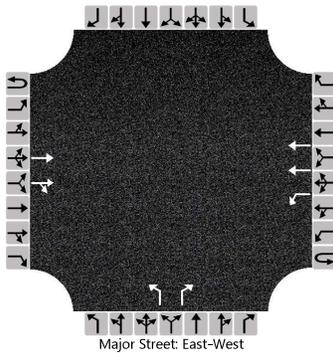
## HCS7 Signalized Intersection Results Summary

General Information					Intersection Information											
Agency	BHI				Duration, h	0.250										
Analyst	MG	Analysis Date	Jun 11, 2021		Area Type	Other										
Jurisdiction	COA	Time Period			PHF	0.92										
Urban Street	La Cuentista	Analysis Year	2024		Analysis Period	1> 7:00										
Intersection	Paseo & Kimmick	File Name	BPM Paseo and Kimmick w-cliffs.xus													
Project Description	2024B_w/Cliff's_PM															
Demand Information					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), veh/h						492	9	342	1251		136		400			
Signal Information																
Cycle, s	95.4	Reference Phase	2		Green	13.1	40.0	24.3	0.0	0.0	0.0					
Offset, s	0	Reference Point	End		Yellow	4.0	4.0	4.0	0.0	0.0	0.0					
Uncoordinated	Yes	Simult. Gap E/W	On		Red	2.0	2.0	2.0	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	On													
Timer Results					EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase						2	1	6		8						
Case Number						8.3	1.0	4.0		9.0						
Phase Duration, s						46.0	19.1	65.1		30.3						
Change Period, ( Y+R <sub>c</sub> ), s						6.0	6.0	6.0		6.0						
Max Allow Headway ( MAH ), s						3.0	3.1	3.0		3.3						
Queue Clearance Time ( g <sub>s</sub> ), s						15.1	12.4	23.9		23.5						
Green Extension Time ( g <sub>e</sub> ), s						5.5	0.7	5.5		0.9						
Phase Call Probability						1.00	1.00	1.00		1.00						
Max Out Probability						0.00	0.00	0.00		0.21						
Movement Group Results					EB			WB			NB			SB		
Approach Movement					L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement						2	12	1	6		3		18			
Adjusted Flow Rate ( v ), veh/h						273	272	372	1360		148		435			
Adjusted Saturation Flow Rate ( s ), veh/h/ln						1900	1888	1810	1809		1810		1610			
Queue Service Time ( g <sub>s</sub> ), s						13.1	9.3	10.4	21.9		6.3		21.5			
Cycle Queue Clearance Time ( g <sub>c</sub> ), s						13.1	9.3	10.4	21.9		6.3		21.5			
Green Ratio ( g/C )						0.42	0.42	0.58	0.62		0.25		0.39			
Capacity ( c ), veh/h						796	791	571	2241		461		632			
Volume-to-Capacity Ratio ( X )						0.343	0.343	0.651	0.607		0.320		0.688			
Back of Queue ( Q ), ft/ln ( 95 th percentile)						177.4	176.4	172.5	304.4		121.5		316.8			
Back of Queue ( Q ), veh/ln ( 95 th percentile)						7.1	7.1	6.9	12.2		4.9		12.7			
Queue Storage Ratio ( RQ ) ( 95 th percentile)						0.00	0.00	0.00	0.00		0.00		0.00			
Uniform Delay ( d <sub>1</sub> ), s/veh						18.8	18.8	12.8	11.1		28.9		24.1			
Incremental Delay ( d <sub>2</sub> ), s/veh						0.1	0.1	0.5	0.1		0.1		1.6			
Initial Queue Delay ( d <sub>3</sub> ), s/veh						0.0	0.0	0.0	0.0		0.0		0.0			
Control Delay ( d ), s/veh						18.9	18.9	13.3	11.2		29.0		25.8			
Level of Service (LOS)						B	B	B	B		C		C			
Approach Delay, s/veh / LOS					18.9		B	11.6		B	26.6		C	0.0		
Intersection Delay, s/veh / LOS					16.1					B						
Multimodal Results					EB			WB			NB			SB		
Pedestrian LOS Score / LOS					1.91		B	0.68		A	2.32		B	2.15		B
Bicycle LOS Score / LOS					0.94		A	1.92		B			F			

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024B_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/Cliff's, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	2	0	217	387			34		207				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.5		6.9			
Critical Headway (sec)						4.14					6.84		6.94			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

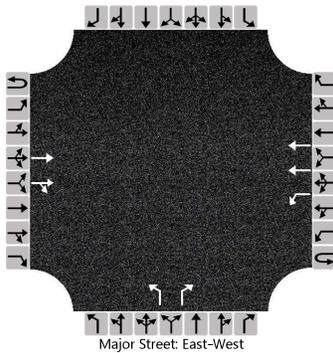
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						236					37		225			
Capacity, c (veh/h)						484					24		382			
v/c Ratio						0.49					1.57		0.59			
95% Queue Length, Q <sub>95</sub> (veh)						2.6					4.7		3.6			
Control Delay (s/veh)						19.3					636.6		27.1			
Level of Service (LOS)						C					F		D			
Approach Delay (s/veh)					6.9				113.1							
Approach LOS					F				F							

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024B_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/Cliff's, 1-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			492	9	0	342	1251			136		400				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1					7.5		6.9			
Critical Headway (sec)						4.14					6.84		6.94			
Base Follow-Up Headway (sec)						2.2					3.5		3.3			
Follow-Up Headway (sec)						2.22					3.52		3.32			

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						372					148		435			
Capacity, c (veh/h)						1021					35		725			
v/c Ratio						0.36					4.21		0.60			
95% Queue Length, Q <sub>95</sub> (veh)						1.7					17.3		4.0			
Control Delay (s/veh)						10.5					1676.7		17.1			
Level of Service (LOS)						B					F		C			
Approach Delay (s/veh)					2.3				438.2							
Approach LOS									F							

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**YES**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 800	Minor Approach > 100
7.57 Hours in AM	YES	YES
40.90 Hours in PM	YES	YES

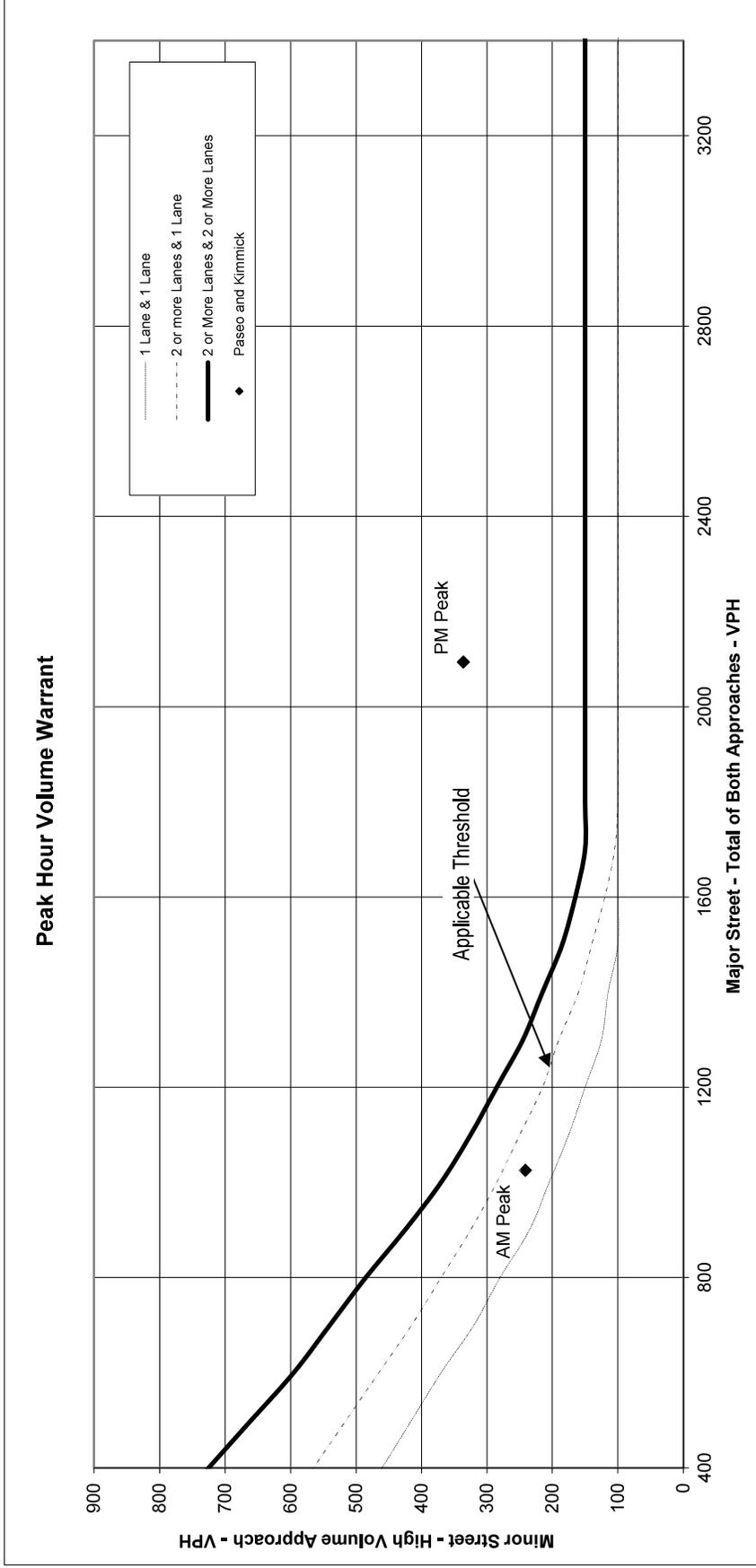
Scenario: 2024 Build  
(w/Cliffs, 1-stage)  
Paseo and Kimmick

Intersection: 2 Lane

Major Street (Orientation): Paseo del Norte (E/W)

Minor Street (Orientation): Kimmick (N/S)

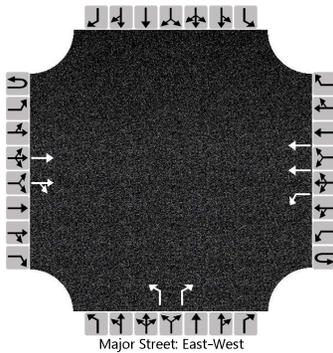
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	241	0	241	604	421	1,025	NO
PM Peak	336	0	336	501	1,593	2,094	YES



# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Paseo and Kimmick				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Paseo del Norte				
Analysis Year	2024	North/South Street	Kimmick				
Time Analyzed	2024B_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (w/Cliff's, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			1285	2	0	217	387			34		207				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

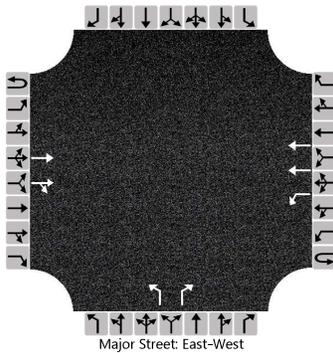
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						236				37		225				
Capacity, c (veh/h)						484				108		382				
v/c Ratio						0.49				0.34		0.59				
95% Queue Length, Q <sub>95</sub> (veh)						2.6				1.4		3.6				
Control Delay (s/veh)						19.3				54.6		27.1				
Level of Service (LOS)						C				F		D				
Approach Delay (s/veh)						6.9				30.9						
Approach LOS										D						

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Paseo and Kimmick		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Paseo del Norte		
Analysis Year	2024			North/South Street	Kimmick		
Time Analyzed	2024B_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista (w/Cliff's, 2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	2	0	0	1	2	0		1	0	1		0	0	0
Configuration			T	TR		L	T			L		R				
Volume (veh/h)			492	9	0	342	1251			136		400				
Percent Heavy Vehicles (%)					2	2				2		2				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized										No						
Median Type   Storage					Left Only								1			

## Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.5		6.9				
Critical Headway (sec)						4.14				6.84		6.94				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.22				3.52		3.32				

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						372				148		435				
Capacity, c (veh/h)						1021				98		725				
v/c Ratio						0.36				1.50		0.60				
95% Queue Length, Q <sub>95</sub> (veh)						1.7				11.2		4.0				
Control Delay (s/veh)						10.5				348.9		17.1				
Level of Service (LOS)						B				F		C				
Approach Delay (s/veh)						2.3					101.3					
Approach LOS											F					

# PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

## Satisfies Warrant 3A

NO

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
0.41 Hours in AM	YES	NO
0.16 Hours in PM	YES	NO

Scenario: 2024 Build (w/out Cliffs, 1-Stage) Paseo and Kimmick

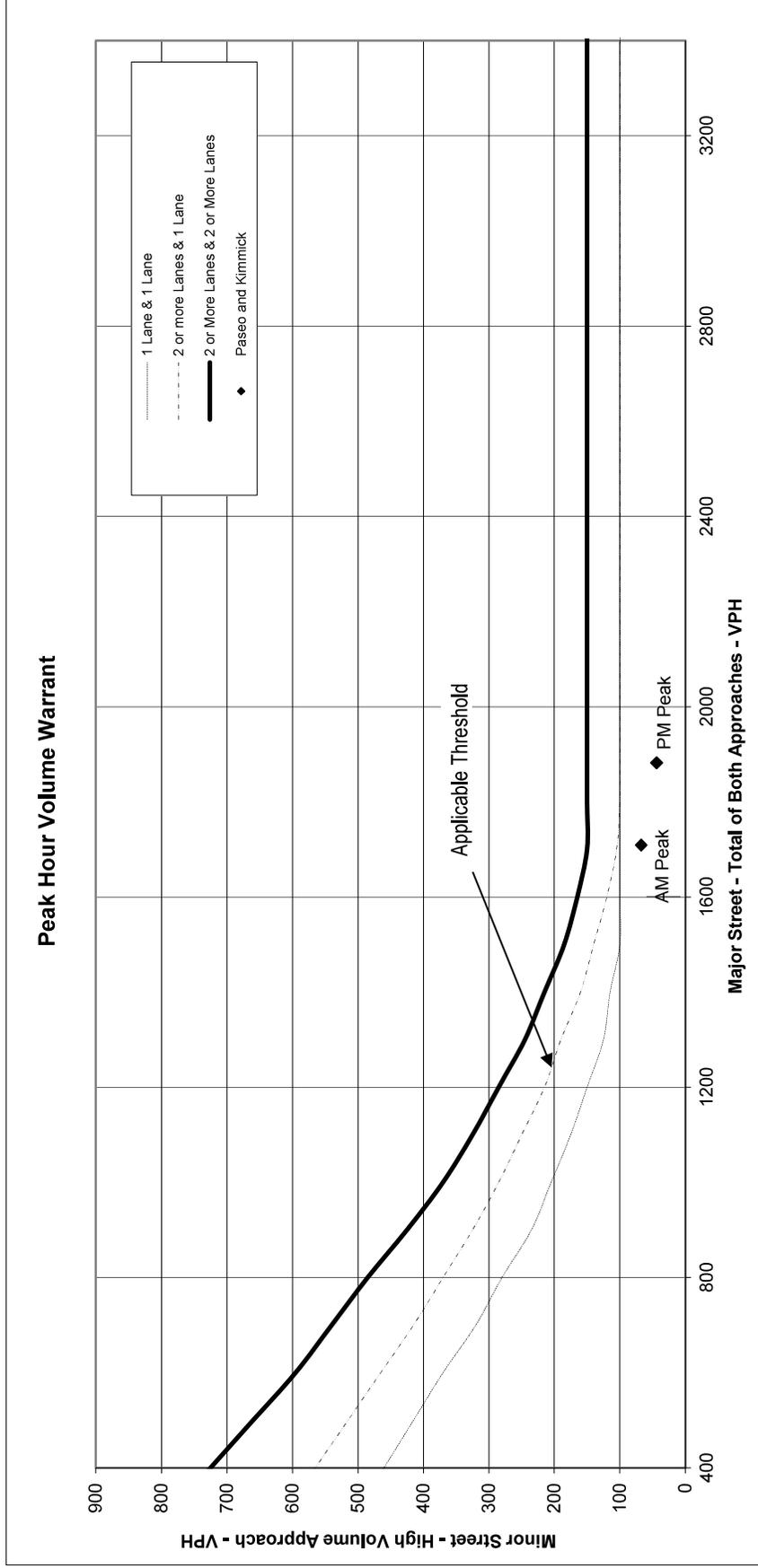
Intersection: 2 Lane

Type: Paseo del Norte (E/W)

Major Street (Orientation): Kimmick (N/S)

Minor Street (Orientation): Kimmick (N/S)

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	68	0	68	1,288	421	1,709	NO
PM Peak	44	0	44	500	1,382	1,882	NO



# PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

## Satisfies Warrant 3A

NO

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 800	Minor Approach > 100
0.37 Hours in AM	YES	NO
0.14 Hours in PM	YES	NO

Scenario: 2024 Build (w/out Cliffs, 2-Stage) Paseo and Kimmick

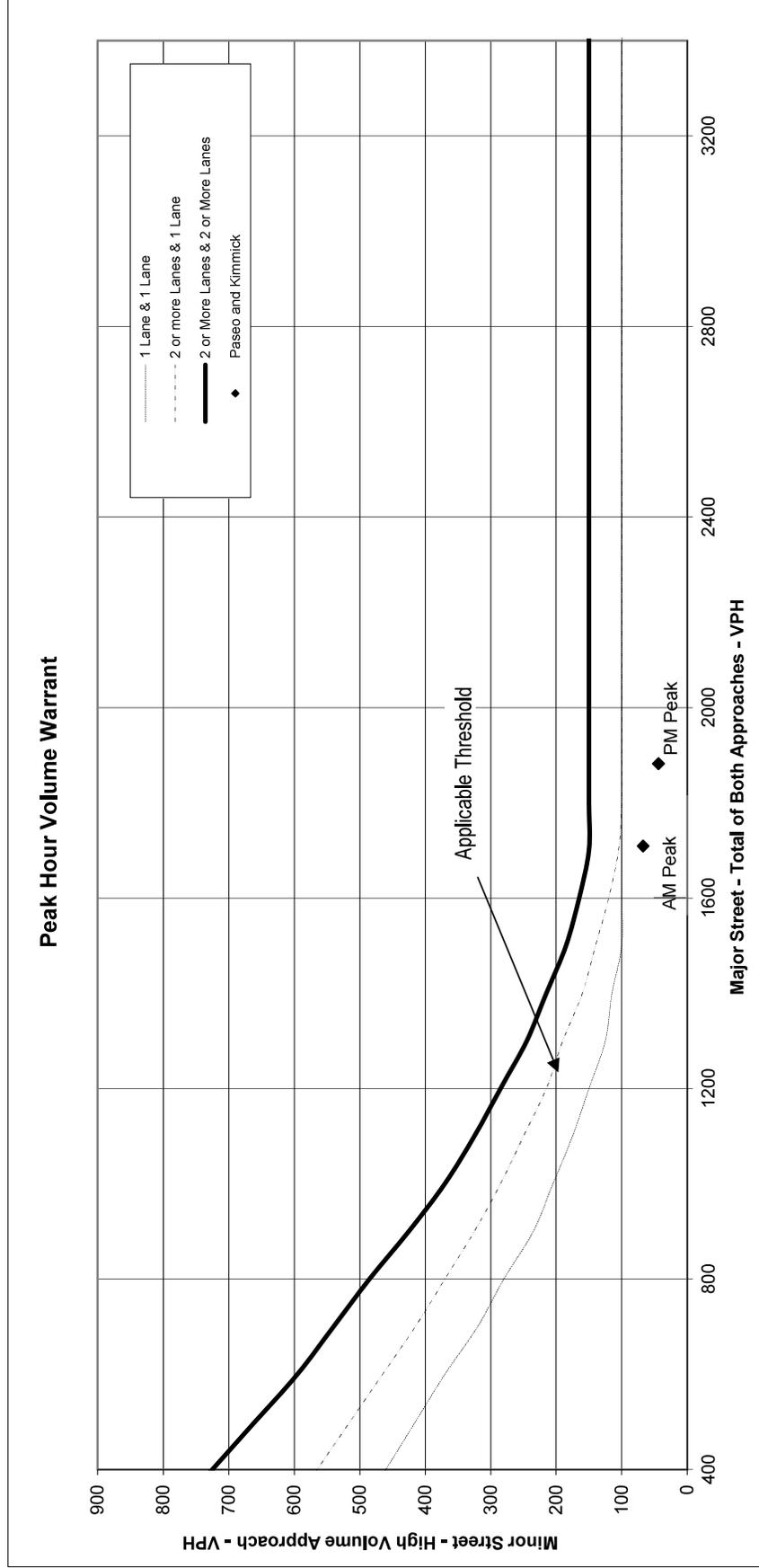
Intersection: 2 Lane

Type: Paseo del Norte (E/W)

Major Street (Orientation): Kimmick (N/S)

Minor Street (Orientation):

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	68	0	68	1,288	421	1,709	NO
PM Peak	44	0	44	500	1,382	1,882	NO



## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**YES**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 800	Minor Approach > 100
7.57 Hours in AM	YES	YES
40.90 Hours in PM	YES	YES

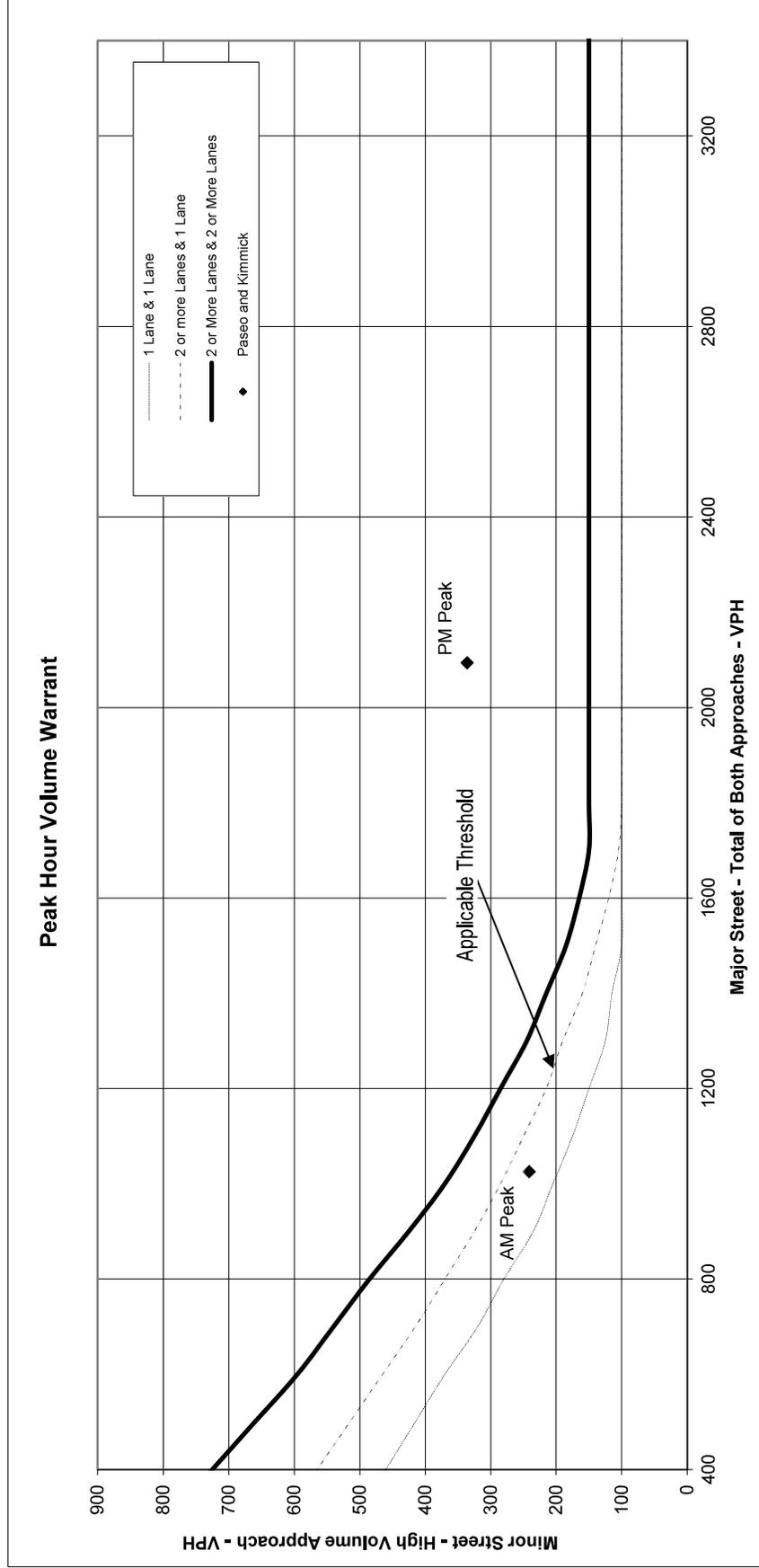
Scenario: 2024 Build  
(w/Cliffs, 1-stage)  
Paseo and Kimmick

Intersection: 2 Lane

Major Street (Orientation): Paseo del Norte (E/W)

Minor Street (Orientation): Kimmick (N/S)

Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	241	0	241	604	421	1,025	NO
PM Peak	336	0	336	501	1,593	2,094	YES



# PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

## Satisfies Warrant 3A

YES

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 800	Minor Approach > 100
2.07 Hours in AM	YES	YES
5.80 Hours in PM	YES	YES

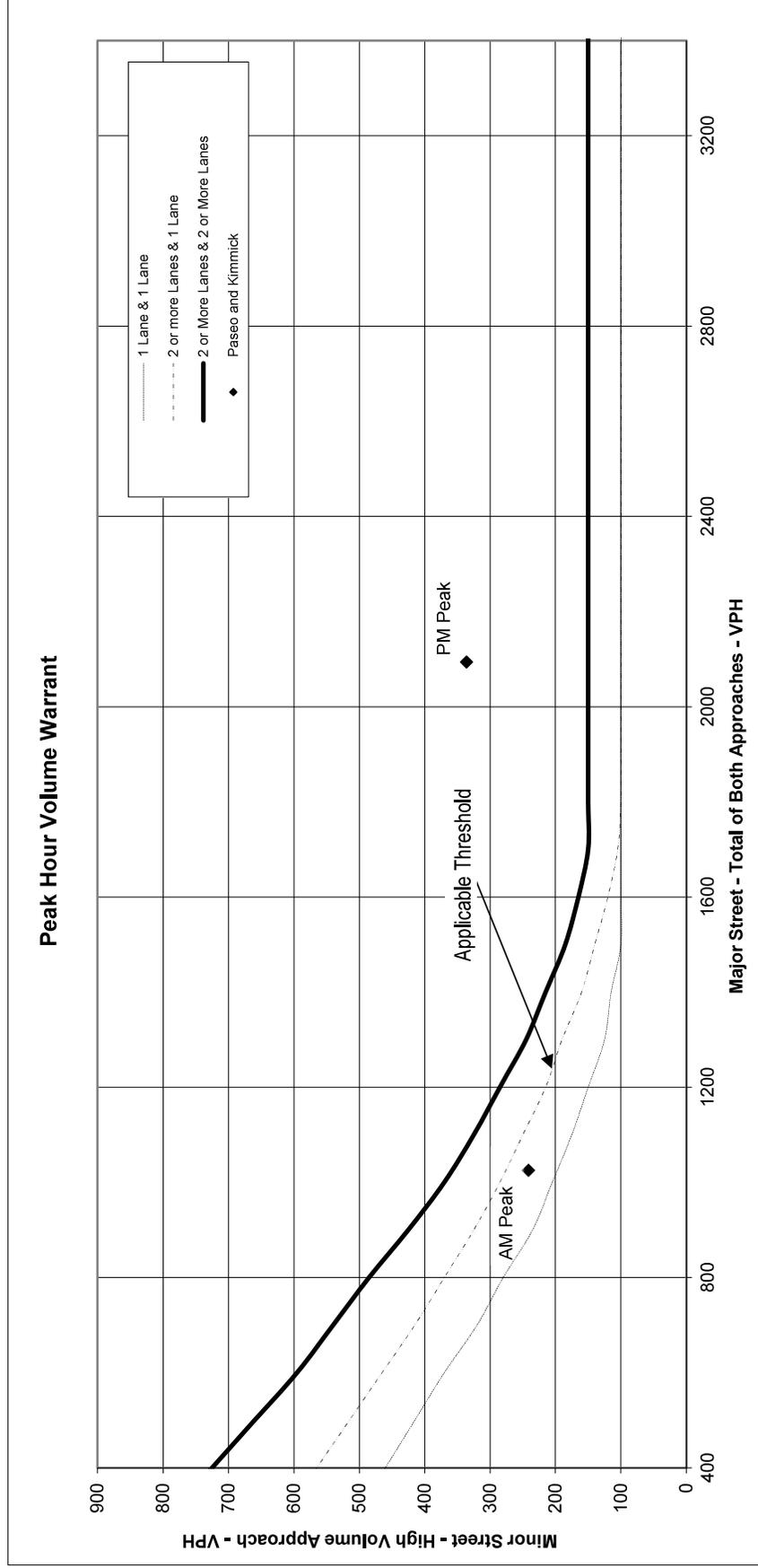
Scenario: 2024 Build  
(w/Cliffs, 1-stage)  
Paseo and Kimmick

Intersection: 2 Lane

Major Street (Orientation): Paseo del Norte (E/W)

Minor Street (Orientation): Kimmick (N/S)

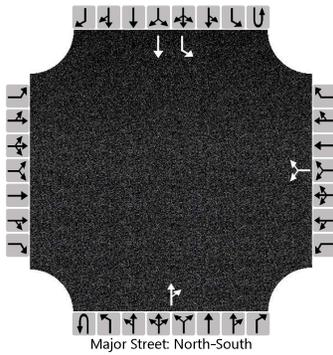
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	NB	SB	High Vol	EB	WB	EB + WB	
AM Peak	241	0	241	604	421	1,025	NO
PM Peak	336	0	336	501	1,593	2,094	YES



# HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MG	Intersection	Unser and Rosa Parks
Agency/Co.	BHI	Jurisdiction	COA
Date Performed	5/5/2021	East/West Street	Rosa Parks
Analysis Year	2024	North/South Street	Unser Blvd
Time Analyzed	2024B_AM PEAK	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	La Cuentista (1-stage)		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						91		30			574	55		18	861	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type   Storage							Undivided									

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.22						4.12		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.32						2.22		

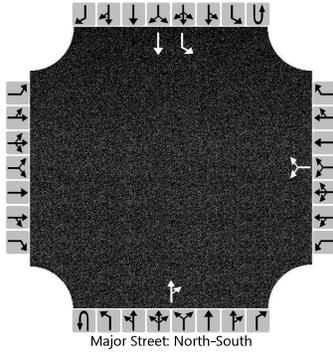
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						132								20		
Capacity, c (veh/h)						135								909		
v/c Ratio						0.97								0.02		
95% Queue Length, Q <sub>95</sub> (veh)						6.8								0.1		
Control Delay (s/veh)						133.5								9.0		
Level of Service (LOS)						F								A		
Approach Delay (s/veh)						133.5								0.2		
Approach LOS						F										

# HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	MG	Intersection	Unser and Rosa Parks
Agency/Co.	BHI	Jurisdiction	COA
Date Performed	5/5/2021	East/West Street	Rosa Parks
Analysis Year	2024	North/South Street	Unser Blvd
Time Analyzed	2024B_PM PEAK	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	La Cuentista (1-stage)		

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0		0	1	0		0	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						56		18			788	80		26	548	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)					0											
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.42		6.22							4.12	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.52		3.32							2.22	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						80									28	
Capacity, c (veh/h)						142									727	
v/c Ratio						0.57									0.04	
95% Queue Length, Q <sub>95</sub> (veh)						2.9									0.1	
Control Delay (s/veh)						59.0									10.2	
Level of Service (LOS)						F									B	
Approach Delay (s/veh)					59.0								0.5			
Approach LOS					F											

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**YES**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
4.49 Hours in AM	YES	YES
1.21 Hours in PM	NO	NO

Scenario: 2024 Build  
(1 STAGE GAP)  
Unser and Rosa Parks

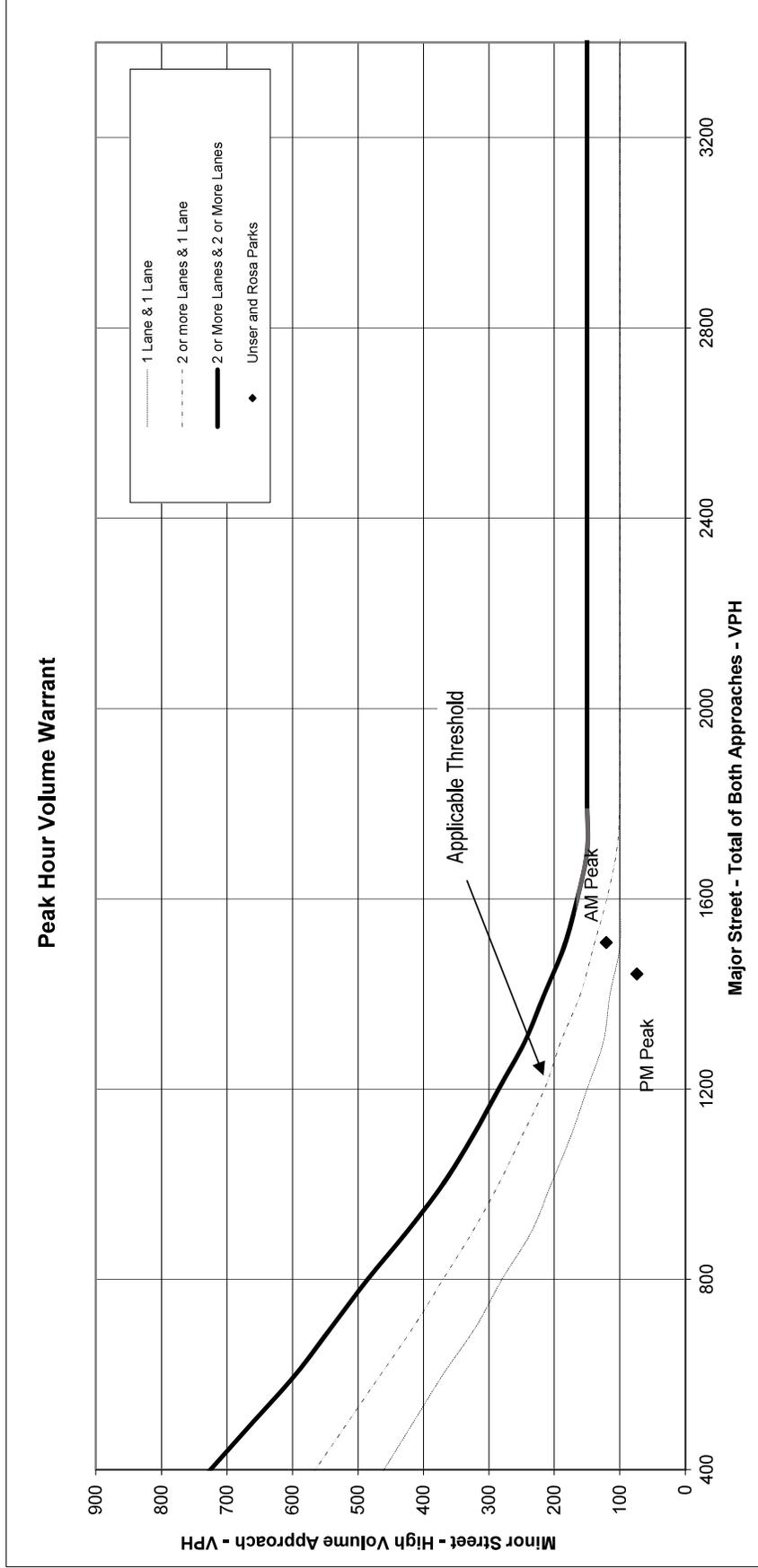
Intersection: 1 Lane/2 Lane

Type: Unser (N/S)

Major Street (Orientation): Rosa Parks (E/W)

Minor Street (Orientation):

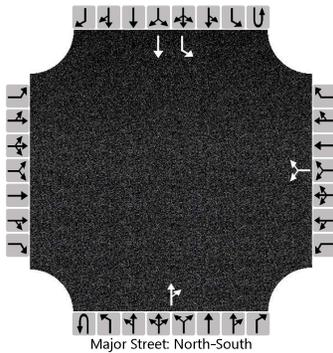
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	EB	WB	High Vol	NB	SB	NB + SB	
AM Peak	0	121	121	629	879	1,508	NO
PM Peak	0	74	74	868	574	1,442	NO



# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2024	North/South Street	Unser Blvd				
Time Analyzed	2024B_AM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						91		30			574	55		18	861	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type   Storage							Left Only					1				

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.42		6.22						4.12		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.52		3.32						2.22		

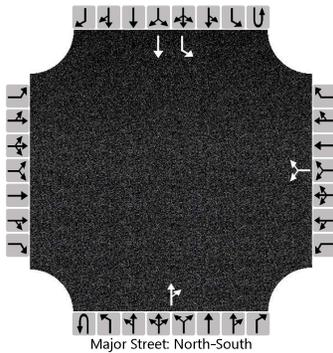
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						132								20		
Capacity, c (veh/h)						274								909		
v/c Ratio						0.48								0.02		
95% Queue Length, Q <sub>95</sub> (veh)						2.4								0.1		
Control Delay (s/veh)						29.7								9.0		
Level of Service (LOS)						D								A		
Approach Delay (s/veh)						29.7								0.2		
Approach LOS						D										

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG	Intersection	Unser and Rosa Parks				
Agency/Co.	BHI	Jurisdiction	COA				
Date Performed	5/5/2021	East/West Street	Rosa Parks				
Analysis Year	2024	North/South Street	Unser Blvd				
Time Analyzed	2024B_PM PEAK	Peak Hour Factor	0.92				
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25				
Project Description	La Cuentista (2-stage)						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement																
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	1	1	0
Configuration							LR					TR		L	T	
Volume (veh/h)						56		18			788	80		26	548	
Percent Heavy Vehicles (%)						2		2						2		
Proportion Time Blocked																
Percent Grade (%)							0									
Right Turn Channelized																
Median Type   Storage							Left Only					1				

## Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2							4.1	
Critical Headway (sec)						6.42		6.22							4.12	
Base Follow-Up Headway (sec)						3.5		3.3							2.2	
Follow-Up Headway (sec)						3.52		3.32							2.22	

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						80									28	
Capacity, c (veh/h)						271									727	
v/c Ratio						0.30									0.04	
95% Queue Length, Q <sub>95</sub> (veh)						1.2									0.1	
Control Delay (s/veh)						23.8									10.2	
Level of Service (LOS)						C									B	
Approach Delay (s/veh)						23.8									0.5	
Approach LOS						C										

## PEAK HOUR VOLUME SIGNAL WARRANT ANALYSIS

### Satisfies Warrant 3A

**NO**

Peak Hour Delay (Criteria 4 Hours)	Intersection Volume > 650	Minor Approach > 100
1.00 Hours in AM	YES	YES
0.49 Hours in PM	YES	NO

Scenario: 2024 Build (2 STAGE GAP)

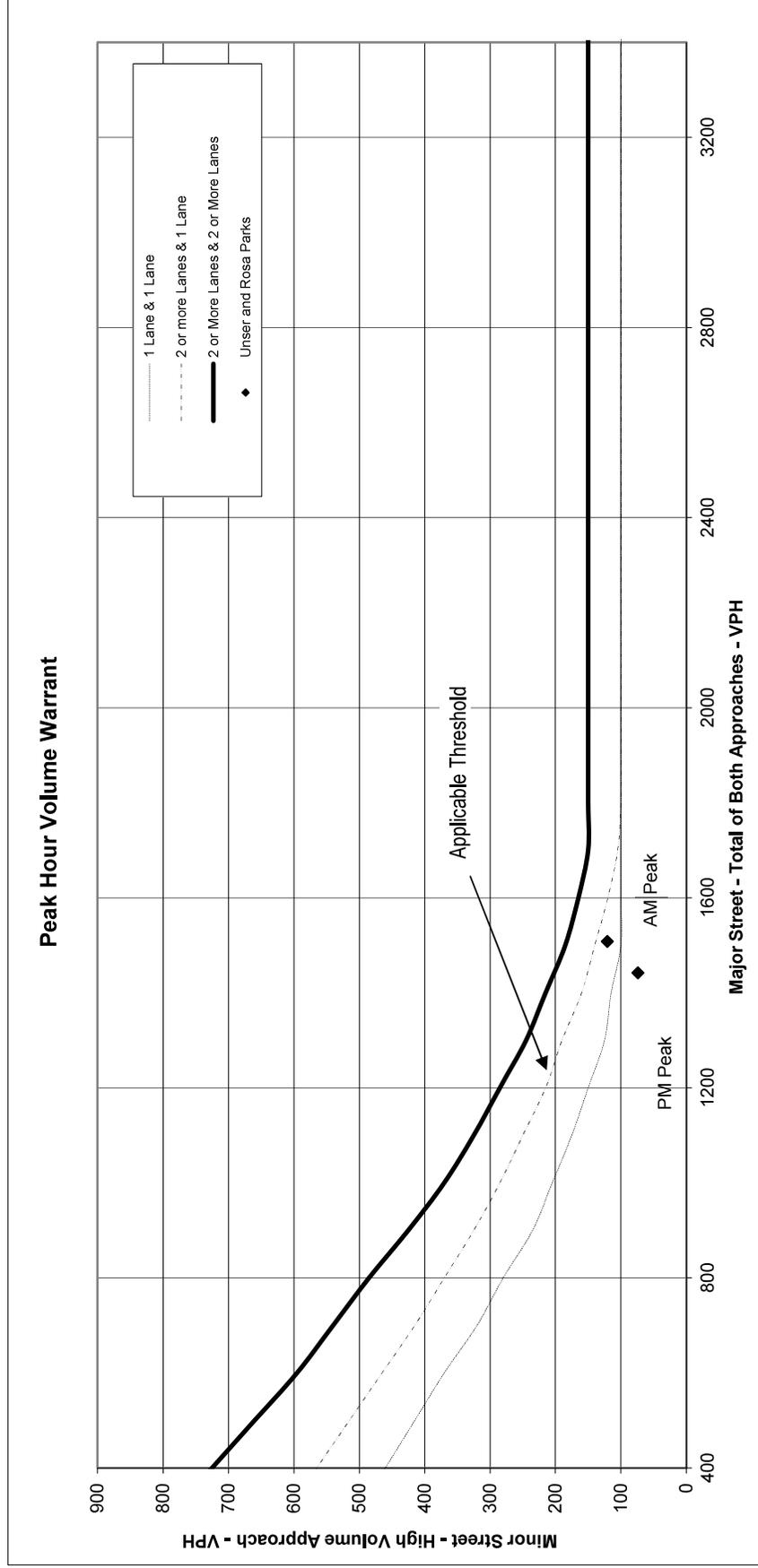
Intersection: Unser and Rosa Parks

Type: 1 Lane/2 Lane

Major Street (Orientation): Unser (N/S)

Minor Street (Orientation): Rosa Parks (E/W)

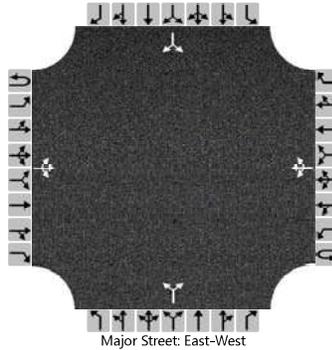
Time	Minor Street Approach Volume			Major Street Approach Volume			Satisfies Warrant 3B
	EB	WB	High Vol	NB	SB	NB + SB	
AM Peak	0	121	121	629	879	1,508	NO
PM Peak	0	74	74	868	574	1,442	NO



# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Azucena		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2024			North/South Street	Azucena		
Time Analyzed	2024B_AM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0	
Configuration			LTR				LTR				LR				LR		
Volume (veh/h)		8	26	2		2	61	7		7		6		21		23	
Percent Heavy Vehicles (%)		2				2				2		2		2		2	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type   Storage	Undivided																

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1		6.2		7.1		6.2
Critical Headway (sec)		4.12				4.12				7.12		6.22		7.12		6.22
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5		3.3
Follow-Up Headway (sec)		2.22				2.22				3.52		3.32		3.52		3.32

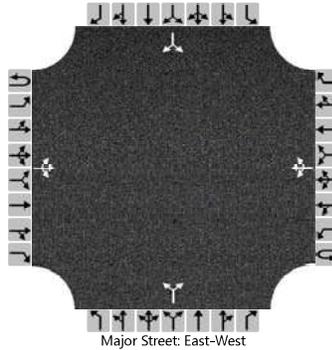
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		9				2						14				48	
Capacity, c (veh/h)		1526				1582						906				913	
v/c Ratio		0.01				0.00						0.02				0.05	
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.0						0.0				0.2	
Control Delay (s/veh)		7.4				7.3						9.0				9.2	
Level of Service (LOS)		A				A						A				A	
Approach Delay (s/veh)		1.7				0.2				9.0				9.2			
Approach LOS		A				A				A				A			

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Azucena		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2024			North/South Street	Azucena		
Time Analyzed	2024B_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0		0	1	0	
Configuration			LTR				LTR				LR				LR	
Volume (veh/h)		26	58	6		5	39	23		4		4		14		16
Percent Heavy Vehicles (%)		2				2				2		2		2		2
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1		6.2		7.1		6.2
Critical Headway (sec)		4.12				4.12				7.12		6.22		7.12		6.22
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5		3.3
Follow-Up Headway (sec)		2.22				2.22				3.52		3.32		3.52		3.32

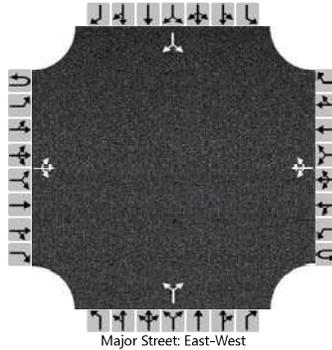
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		28				5				9				33		
Capacity, c (veh/h)		1534				1531				847				872		
v/c Ratio		0.02				0.00				0.01				0.04		
95% Queue Length, Q <sub>95</sub> (veh)		0.1				0.0				0.0				0.1		
Control Delay (s/veh)		7.4				7.4				9.3				9.3		
Level of Service (LOS)		A				A				A				A		
Approach Delay (s/veh)		2.2				0.6				9.3				9.3		
Approach LOS		A				A				A				A		

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Redroot		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2024			North/South Street	Redroot		
Time Analyzed	2024B_AM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound				
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R	
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12	
Priority																	
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	1	0	
Configuration			LTR				LTR				LR				LR		
Volume (veh/h)		16	27	4		4	9	14		13		13		42		48	
Percent Heavy Vehicles (%)		2				2				2		2		2		2	
Proportion Time Blocked																	
Percent Grade (%)										0				0			
Right Turn Channelized																	
Median Type   Storage	Undivided																

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1		6.2		7.1		6.2
Critical Headway (sec)		4.12				4.12				7.12		6.22		7.12		6.22
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5		3.3
Follow-Up Headway (sec)		2.22				2.22				3.52		3.32		3.52		3.32

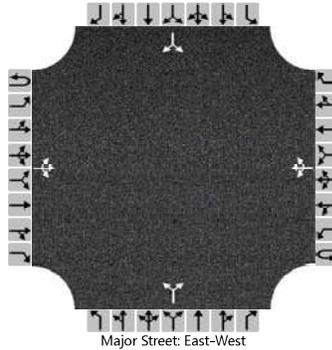
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		17				4					28					98	
Capacity, c (veh/h)		1589				1578					909					957	
v/c Ratio		0.01				0.00					0.03					0.10	
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.0					0.1					0.3	
Control Delay (s/veh)		7.3				7.3					9.1					9.2	
Level of Service (LOS)		A				A					A					A	
Approach Delay (s/veh)		2.5				1.1				9.1				9.2			
Approach LOS		A				A				A				A			

# HCS7 Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MG			Intersection	Rosa Parks and Redroot		
Agency/Co.	BHI			Jurisdiction	COA		
Date Performed	5/5/2021			East/West Street	Rosa Parks		
Analysis Year	2024			North/South Street	Redroot		
Time Analyzed	2024B_PM PEAK			Peak Hour Factor	0.92		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	La Cuentista						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Priority																
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0		0	1	0	
Configuration			LTR				LTR				LR				LR	
Volume (veh/h)		53	17	14		13	28	47		8		7		28		32
Percent Heavy Vehicles (%)		2				2				2		2		2		2
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1		6.2		7.1		6.2
Critical Headway (sec)		4.12				4.12				7.12		6.22		7.12		6.22
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3		3.5		3.3
Follow-Up Headway (sec)		2.22				2.22				3.52		3.32		3.52		3.32

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		58				14				16				65		
Capacity, c (veh/h)		1516				1578				799				833		
v/c Ratio		0.04				0.01				0.02				0.08		
95% Queue Length, Q <sub>95</sub> (veh)		0.1				0.0				0.1				0.3		
Control Delay (s/veh)		7.5				7.3				9.6				9.7		
Level of Service (LOS)		A				A				A				A		
Approach Delay (s/veh)	4.8				1.1				9.6				9.7			
Approach LOS	A				A				A				A			