#### **Appendices**

### Appendix J Traffic Impact Study, Solana Torrance, Torrance, California

### **Appendices**

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## Traffic Impact Study Solana Torrance

**Torrance, California** 

February 28, 2019



**Prepared for** 



Prepared by



#### **ATTESTATION**

This report has been prepared by, and under the direction of, the undersigned, a duly Registered Traffic Engineer and Registered Civil Engineer in the State of California. Except as noted, the undersigned attests to the technical information contained herein, and has judged to be acceptable the qualifications of any technical specialists providing engineering data for this report, upon which findings, conclusions, and recommendations are based.

Expiration: 09/30/19

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# **Solana Torrance Traffic Impact Study**

February 28, 2019

#### I. EXECUTIVE SUMMARY

This report documents a Traffic Impact Study (TIS), and subsequent revisions, completed for the proposed Solana Torrance multi-family residential project (hereinafter referred to as the Project), proposed on the southwest corner of Hawthorne Boulevard and Via Valmonte, in the City of Torrance, California. In 2016, the TIS originally documented anticipated traffic impacts with a previous plan for 300 units. The *Project* scope was then revised and the First Revision (April 2017) analyzed traffic impacts with 248 units. Per the City's request, the Second Revision was modified to respond to questions/comments from interested parties including a revised trip generation rate for the proposed *Project*. The Third Revision included an expanded study area of additional intersections beyond the original study scope per the City's request. The Fourth and Fifth Revisions included adjustments made to the queuing analyses, per City comments, and completion dates. The Sixth and Seventh Revisions incorporated revised trip generation rates based upon the latest edition of the Institute of Transportation Engineers (ITE) *Trip Generation* manual – 10<sup>th</sup> Edition. Note that the 10<sup>th</sup> edition of the ITE manual was released in October 2017, after the initial preparation of the TIS. This Eighth Revision includes additional development scenarios for levels of service analyses, and a queuing analysis at a second location within the Study area. The latest edits were made per the recommendations of the environmental consultant and City staff.

#### **Project Overview**

The *Project* site is located on 24.68 acres of land on the southwest corner of Via Valmonte and Hawthorne Boulevard in the City of Torrance, California. Existing topography ranges from open space on a significant hillside to a disturbed area that contains a former diatomaceous soil surface mine. The disturbed surface mine area is planned to be reclaimed and redeveloped with 248 multifamily residential apartments and a 7,475-square foot leasing office/community clubhouse constructed over at-grade parking garages. The remaining 18.92 acres of the total site will be preserved as open space. Access to and from the *Project* site is proposed through one driveway on Hawthorne Boulevard (right-in/right-out only). One "exit-only" driveway with raised traffic barriers is proposed for Via Valmonte (right-out only).

#### Traffic Impact Study Scope

The TIS was commissioned by the Solana Torrance proponent and developer, Reylenn Properties, LLC, Solana Beach, California, and performed by KHR

**Associates**, Newport Beach, California. The original scope of work for the study was provided by staff with the City of Torrance, Public Works and Community Development Departments. As part of the TIS, traffic counts were taken at eleven study intersections and two roadway segments in April 2016. An annual growth factor of one percent was added to estimate updated 2017 volumes. Additionally, the City of Torrance, as well as neighboring cities provided lists of projects for inclusion in the cumulative analysis portion of the TIS. In addition to the original eleven intersections studied, seven more intersections were later added in the Third Revision.

#### Revisions to TIS

Reviews of the initial submittal of the TIS, on April 20, 2017, generated comments regarding some of the methodologies used in the study. Subsequently, as noted above, several revisions of the report included additional concerns and an expanded study scope involving changes to trip generation rates, levels of service, queuing analyses, and site circulation. The following summarizes these updates.

#### Trip Generation Rates

Trip generation rates used to estimate the number of vehicle trips (in and out of the *Project* site) in the first version of the TIS were obtained from the most recent version (at that time) of the ITE *Trip Generation* manual, 9<sup>th</sup> Edition. For peak hour estimates, "Land Use Code" 223 – "Mid-Rise Apartment" was used for the *Project* because it was more specific to developments with the same number of floors. Note that Land Use Code 223 did not have a daily rate and therefore the more general "Land Use Code 220 - Apartment" was used to estimate average daily traffic. A comment was made that the study should use the more general "Apartment" rate (220) for peak hour analyses since it is a more established rate with broader survey samples. The second revision to the TIS was updated with the Land Use Code 220 trip generation rates for peak hour analyses. As indicated above, this Sixth Revision incorporated revised trip generation rates based upon the latest edition of the ITE *Trip Genera*tion manual – 10<sup>th</sup> Edition. The new land use code is 221 "Mid Rise Multifamily".

#### Palos Verdes North/Hawthorne Boulevard Intersection

For the Second Revision, the City of Torrance asked that one additional intersection be reviewed for potential impacts that may result from the proposed *Project*. The intersection of Palos Verdes North and Hawthorne Boulevard (located south of the Project site) in the City of Rolling Hills Estates, was researched for current traffic volumes and LOS designations. Data from a recent traffic study prepared for the "Peninsula Pointe Assisted Living Project, March 2016, as provided by the City, revealed that in 2016, the intersection was operating at LOS D in the A.M. peak hour with a volume/capacity ratio of .828 and LOS B in the P.M. peak hour with a volume/capacity ratio of .682. Also, total volumes for each of the peak hours was provided as follows: during the A.M. peak hour (7:30 to 8:30 A.M.), 3,845 vehicles traveled through the intersection; and during the P.M. peak hour (4:45 to 5:45 P.M.), 3,364 vehicles were counted.

Using this existing data and adding the anticipated number of *Project* related vehicles (from this study's revised trip generation and distribution assumptions) results in the following: in the A.M. peak hour, a total of 12 *Project* vehicles are anticipated to travel through this intersection. In the P.M., 15 *Project* vehicles are anticipated. Comparing these totals with the overall intersection volumes above indicate that *Project* vehicles represent roughly a half percent of the totals. Also, since the intersection operates within acceptable LOS, the very incremental increase from *Project* vehicles should not make any measurable impact on the operation of that intersection. As a follow-up in the Third Revision of this report, seven additional intersections were counted and analyzed for traffic related impacts including this intersection. A summary of the revised LOS for all eighteen intersections is provided below.

#### Updated Levels of Service Results

The TIS included several procedures and considerations to identify potential Levels of Service (LOS) impacts associated with development of the *Project*. Below is a list of the steps and updates used in the analyses.

- 1) Traffic volume counts were taken in mid-April 2016. An ambient growth factor of one percent was added to the 2016 volumes to estimate 2017 conditions and reflect <u>baseline conditions</u> at study roadway segments and intersections.
- 2) The *Project* is estimated to generate a total of 1,349 daily trip ends; and 89 A.M. and 105 P.M. peak hour trips ends, respectively.
- 3) Based on the current site plan for the *Project*, vehicular access to and from the site will be provided via one future driveway along Hawthorne Boulevard. One "exit-only" driveway with raised barriers is proposed on Via Valmonte. Both *Project* driveways will be restricted to right-turn-only movements for residents and visitors. Only emergency vehicles will be allowed to turn left onto the site at the Via Valmonte entrance over the traffic movement barriers.
- **4)** City capital improvements are slated (planned for 2018) for the intersections of Hawthorne Boulevard/Pacific Coast Highway and Vista Montana/Pacific Coast Highway that will reduce traffic congestion for each location.
- Each intersection was originally analyzed for "Levels of Service" (LOS) using four scenarios: baseline conditions existing plus one year of ambient growth 2017 volumes, two years of ambient growth, plus *Project* volumes, and plus cumulative development volumes for both the A.M. and P.M. peak hours. For this Eighth Revision, two more scenarios were analyzed including existing (baseline) conditions plus *Project* volumes (without an ambient growth factor), and cumulative development conditions without *Project* volumes.
- 6) Each signalized intersection was analyzed using two methods Intersection Capacity Utilization (ICU), and Highway Capacity Manual (HCM). Calculation

- sheets for each intersection/condition are within the Appendix section of this report. Stop controlled intersections were only analyzed with the HCM method.
- 7) Using the baseline existing 2017 volumes, the ICU LOS at each of the study intersections, during both the A.M. and P.M. peak hours of weekday commute, fall within acceptable limits (i.e., "D" or better) with the exception of:
  - a. the Crenshaw Boulevard/Pacific Coast Highway intersection during the P.M. peak hour;
  - b. the Crenshaw Boulevard/Palos Verdes Drive North intersection during the A.M. peak hour;
  - c. the Rolling Hills Road/Palos Verdes Drive North intersection during the A.M and P.M. peak hours; and
  - d. Pacific Coast Highway/Calle Mayor intersection during the A.M. and P.M. peak hours.
- 8) Adding *Project* traffic to these baseline conditions resulted in no changes to the LOS designations from the 2017 baseline levels.
- 9) The further addition of ambient growth (i.e., one percent per year for two years) traffic to the 2017 volumes resulted in incremental increases in volumes for all intersections and a decrease in ICU intersection LOS for the Crenshaw Boulevard/Palos Verdes Drive North intersection during the P.M. peak hour. Note that two intersections: Hawthorne Boulevard/Pacific Coast Highway and Vista Montana/Pacific Coast Highway, improved in LOS due to the addition of planned capital improvements by the City of Torrance.
- **10)** With the addition of *Project* traffic to the 2019 ambient conditions, no changes to the LOS designations occurred.
- 11) With the addition of cumulative development traffic to existing baseline and ambient growth (2019), the utilization of each intersection increased; however, the ICU LOS at each intersection is projected to stay within acceptable limits during both the A.M. and P.M. peak hours, again with the exception of the four intersections noted above.
- **12)** With the addition of *Project* traffic to the 2019 cumulative conditions, no changes to the LOS designations occurred.
- 13) Using the HCM methodology to determine levels of service for the studied intersections revealed similar results in the existing baseline plus *Project* conditions (i.e., to that of the ICU calculations) with the exception of the Hawthorne Boulevard/Pacific Coast Highway intersection resulting in LOS "E" in the P.M. peak hour, the Crenshaw Boulevard/Rolling Hills Road intersection resulting in LOS "E" in the A.M. peak hour, and the Hawthorne

Boulevard/Palos Verdes Drive North intersection resulting in LOS "E" in the A.M. peak hour.

- **14)** Intersection delays increased with 2019 ambient growth conditions; however, the LOS designations did not change with the addition of *Project* traffic.
- 15) Under the cumulative development conditions, many of the studied intersections showed increases in delays and further deterioration in LOS during both peak hours of traffic.
- **16)** The addition of Project traffic to cumulative conditions did not result in any decreased LOS.
- 17) The two roadway segments analyzed Via Valmonte (LOS "A") and Hawthorne Boulevard (LOS "B"), adjacent to the *Project* site both currently operate at acceptable levels, and will continue to do so with the addition of ambient growth. The only anticipated change in LOS occurs on Via Valmonte, from LOS "A" to an acceptable LOS "B" with the addition of cumulative traffic.

#### Queuing Analysis - Via Valmonte/Hawthorne Boulevard

Queuing analyses were performed for two intersections within the Study area. The first location was the eastbound approach to the Via Valmonte/Hawthorne Boulevard intersection. For this movement, an initial queuing analysis performed between the hours of 7:00 A.M. and 8:00 A.M. revealed that the hour long average of vehicles waiting within the left-turn lane during the A.M. peak hour was 2.8 vehicles (with an observed maximum of five vehicles) and the average signal cycle length was 90 seconds. A second queuing survey for this movement was conducted on Thursday, September 27, 2018, this time for two hours between 7:00 A.M. and 9:00 A.M. with the results showing the average queue of 3.62 vehicles and a maximum of nine vehicles occurring one time during the survey. By adding estimated *Project* traffic into the eastbound, left turn approach to the Via Valmonte/Hawthorne Boulevard intersection, it was estimated that there could be an average of 5.4 vehicles waiting to turn left at any given time during the peak hour, and a potential maximum of 10 vehicles.

Off-site improvements, as part of the *Project* plan, include constructing a second optional left turn lane for the eastbound approach to the intersection. The anticipated vehicle capacity of both left turn options is 250 feet (125 feet for each lane), which should accommodate at least 10 vehicles (space at 25 foot intervals). It should be noted that the additional lane is designed to be 16 feet wide for its entire length allowing right turning vehicles enough space to pass-by and avoid waiting in the left-turn queue. With the development of the proposed intersection improvements, and assuming a traffic signal cycle length of 90 seconds, there should be adequate space within the left turn pockets to accommodate existing plus *Project* related vehicles.

The City of Torrance asked for another analysis of impacts on queuing resulting from the use of a 120 second cycle, or 30 cycles per hour, if the signal timing were to be adjusted in the future. Following the same methodology above, the average queue for left turn movements would be 7.2 vehicles during the A.M. peak hour – and a potential maximum of 14 vehicles.

Under extreme "worst-case" conditions, when there may be a significant number of vehicles attempting to exit the *Project* site onto Via Valmonte at the same time, the Project plan includes more than 120 feet of "on-site" queuing space within the driveway throat that could accommodate another six to seven vehicles.

#### Queuing Analysis - Hawthorne Boulevard/Via Valmonte

For the Eighth Revision of this report, a second queuing analysis was performed for the northbound left-turn movement at the Hawthorne Boulevard/Pacific Coast Highway intersection. The following summarizes the results as explained in the Site Access, Circulation and Parking section of this report.

- 1) Based upon traffic count data, during the A.M. peak hour, 278 A.M. peak hour vehicles will be traveling through the northbound left-turn movement during 25 cycles for an average of 11 vehicles per cycle. Using a worst-case design factor of 1.75 x the average, there may be a worst-case queuing demand of 19 vehicles. With a left-turn lane capacity of approximately 21 vehicles, there should be sufficient left-turn lane capacity to accommodate A.M. peak hour demands for this movement.
- 2) During the P.M. peak hour, 311 left-turning vehicles will travel through 25 cycles for an average of 12 vehicles per cycle. Using a worst-case design factor of  $1.75 \times 1.00$  x the average, there may be a worst-case queuing demand of 21 vehicles equaling the current capacity.
- 3) The City has indicated that proposed improvements for this northbound left-turn movement include constructing an asphalt berm at the 242<sup>nd</sup> street crossing and eliminating the existing "keep clear" zone. The estimated additional queuing space is 60 feet which would accommodate space for at least another 2 vehicles.
- 4) *Project* related traffic traveling through this northbound left-turn movement is anticipated to be the heaviest during the A.M. peak hour with 10 additional vehicles. These vehicles added to the A.M. analysis above results in 288 vehicles traveling through 25 cycles for an average of 11 vehicles per cycle and a worst-case condition of 19 vehicles still below the current capacity of 21 vehicles and the future capacity of 23 vehicles.

#### Site Access, Circulation and Parking

Development of Solana Torrance will include street improvements on Via Valmonte include widening of the eastbound approach leg to Hawthorne Boulevard, adjacent to the *Project* site, to provide an additional travel lane for optional left turn, through movement, or right turns. This improvement will include a new roadway surface; new curb, gutter, sidewalk, and parkway on the south side of Via Valmonte; a new

crosswalk across Via Valmonte at Hawthorne Boulevard; and new accessible ramps on the northwest and southwest corners of the intersection.

On Hawthorne Boulevard, street improvements will include widening and traffic lane re-striping to add a right southbound turn lane between Via Valmonte and the proposed *Project* driveway; a new sidewalk contiguous to the street curb; a landscaped parkway between the sidewalk and the *Project* property line wall; and modifications to the traffic signal at the Via Valmonte/Hawthorne Boulevard intersection.

Two driveways into the *Project* are proposed - one ingress/egress driveway on Hawthorne Boulevard and one egress driveway on Via Valmonte. Within the property, internal drive aisles lead directly into multiple subterranean parking structures located under the residential buildings. Designated guest parking will also be provided. In total, the 248 multi-family dwelling units will be served with 484 parking spaces.

#### Line of Sight Analysis

The City of Torrance requested that the TIS include an analysis of the "line of sight" from exiting vehicles on the proposed driveway on Hawthorne Boulevard looking north toward oncoming southbound traffic. The proposed driveway is designed for right-in/right-out movements only, with all exiting vehicles required to stop before entering the flow of traffic on Hawthorne Boulevard. With a vehicle stopped in the exit lane at the stop limit line, drivers will first look to see if there are any pedestrians crossing the driveway, and secondly, look north along Hawthorne Boulevard to see if any vehicles are approaching the driveway.

The line of sight distance from the *Project* exit lane stop limit line is 290 feet to the center of the lane closest to the sidewalk curb (or Number 3 Lane). All traffic formed by these two lines of sight is within the cone of visibility by a driver exiting the *Project* driveway. Once the proposed street improvements along Hawthorne Boulevard are constructed (i.e., relocation of power poles; widening the street to include a southbound right turn/deceleration lane onto the *Project* driveway; modifying the traffic signal at Hawthorne Boulevard and Via Valmonte; and moving the sidewalk to be contiguous to the curb in lieu of a landscaped parkway), there should be no visual impairments to drivers exiting the *Project* site onto Hawthorne Boulevard.

#### **Recommendations**

Based on the study findings and conclusions, the proposed *Project* is not anticipated to result in any significant traffic impacts to any of the study street segments or intersections. Therefore, the following recommendations are made:

1) Construct *Project* driveways only allowing right-turn, "exit-only" movements to Via Valmonte, and right-turn, ingress/egress movements to Hawthorne Blvd.

- **2)** Complete the off-site widening and improvements to Via Valmonte as shown on the *Project* plan.
- 3) Construct the intersection improvements, including an additional left/through lane to the eastbound approach leg of the Via Valmonte/Hawthorne Boulevard; a new crosswalk on Via Valmonte leg; accessible ramps on the corners; and traffic signal improvements (e.g., modification of signal mast arms) on Via Valmonte.
- **4)** Widen and restripe the west side of Hawthorne Boulevard for a right turn deceleration lane, adjacent to the site for *Project* related traffic ingress.
- 5) Provide various traffic controls, including signage, striping, and pavement marking, to provide safe and efficient vehicular, pedestrian, and bicycle movement through and within the *Project* site.

#### II. INTRODUCTION

**Reylenn Properties, LLC (Reylenn)**, Solana Beach, originally proposed a 300-unit multi-family residential development (known as *Solana Torrance*) on a vacant site located on the southwest corner of Hawthorne Boulevard and Via Valmonte, in the *Hillside Residential Neighborhood District* of the City of Torrance, California. Subsequently, the *Project* was redesigned and now includes 248 units. As part of its environmental review process, the City determined that a traffic impact study (TIS) was necessary, and that potential impacts associated with the proposed development must be analyzed, and mitigation measures must be identified.

**Reylenn** was given permission by the City to commission **KHR Associates**, Newport Beach, California, to work with City staff and undertake the TIS. The City specified the requirements of the TIS, and identified intersection and roadway segments of concern. The City also provided a list of other development projects within the general proximity of the proposed development that should be analyzed for potential cumulative traffic impacts. Moreover, future development lists were gathered from neighboring cities in order to fully estimate future traffic increases on study intersections leading up to *Project* buildout.

Information regarding the proposed *Solana Torrance* development was provided by **Reylenn** and the project architect, Withee Malcolm Architects, Torrance, California. The results of the TIS are presented herein, and the findings, conclusions, and recommendations are solely those of **KHR Associates**, and may not be reflect the opinions of **Reylenn**, the City of Torrance, or any other interested parties.

#### **Project Description**

The *Project* site is an assemblage of terraced, existing parcels covering 24.68 acres on the southwest corner of Via Valmonte and Hawthorne Boulevard in the City of Torrance, CA. Topography ranges from natural open space on a significant hillside to a highly disturbed area that contains a former diatomaceous soil surface mine. The 5.76-acre portion of the site that encompasses the disturbed surface mine area will be reclaimed and redeveloped. The remaining 18.92 acres of the total site will be preserved as open space.

Proposed development on the 5.76-acre portion consists of 248 multifamily residential apartments and a 7,475-square foot leasing office/community clubhouse in three, four, and five-story residential structures constructed over at-grade parking garages. A free-standing, five level on-grade parking structure with a rooftop outdoor recreation area is also proposed at the rear of the planned community. The *Project's* residential unit mix will include 135 one-bedroom units and 113 two-bedroom units. A total of 484 parking spaces will be provided by a combination of surface parking and in the parking structures.

Access to and from the *Project* site is proposed through one driveway entrance on Hawthorne Boulevard (right-in/right-out only). One "exit-only" driveway is proposed for Via Valmonte (right-out only). Only emergency vehicles will be allowed to enter the driveway on Via Valmonte. Figure 1 depicts the most current conceptual site plan for the *Project*.



Figure 1 - Solana Torrance Site Plan

#### Site Location and Existing Uses

The *Project* site is located on the southwesterly corner of Hawthorne Boulevard and Via Valmonte, within the City of Torrance, California. The *Project* is within the Hillside Overlay Zone, with General Plan Land Use Designations of Low Density Residential (R-LO), and a Zoning designation of A1 – Light Agricultural. Adjacent land uses include residential uses to the north and west, residential and light commercial/office to the east and vacant/hillside land to the south. Hawthorne Boulevard, running along the east side of the *Project* site, is within the Hawthorne Boulevard Corridor Specific Plan. Figure 2 illustrates the location of the *Project* site within the City of Torrance along with the City's Residential Neighborhood Districts.

Current existing major land uses in close proximity to the *Project* site include the *Torrance Municipal Airport (also known as Zamperini Field)*, a general aviation airport owned and operated by the City of Torrance, providing regional aviation access to recreational pilots, businesses, and emergency services flights; and *Del Amo Fashion Center*, a superregional shopping center with approximately three million square feet of retail space. The *Project* site is currently undeveloped land, vacant and unutilized. Figure 3 provides a recent aerial perspective of the configuration and limits of the *Project* site.

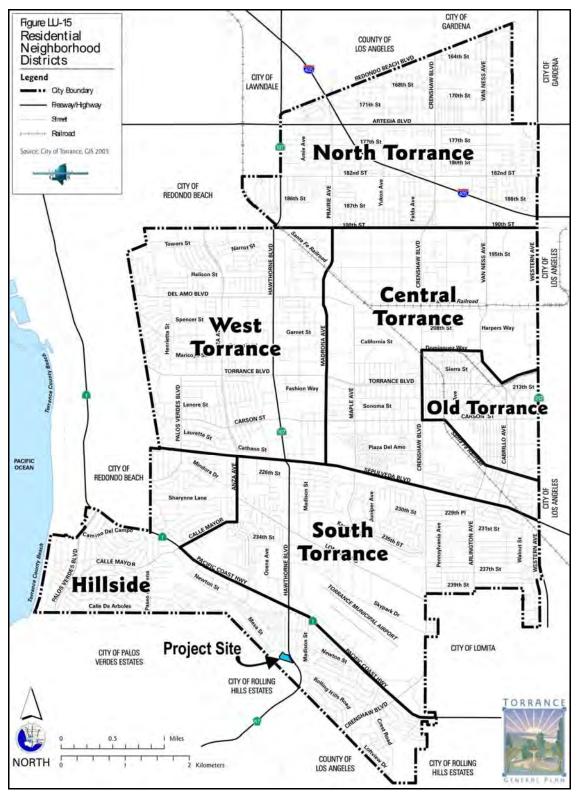


Figure 2 – Project Site Location within the City of Torrance<sup>A</sup>

 $^{\rm A}$  Land Use Element, City of Torrance General Plan, City of Torrance, April 2010.



Figure 3 – Aerial Perspective of Project Site

#### Traffic Impact Study Area

The TIS area generally consists of the development site and surrounding residential communities and commercial properties. Three major transportation corridors exist within close proximity – Hawthorne Boulevard, Crenshaw Boulevard, and Pacific Coast Highway, which all provide regional access opportunities to either the San Diego Freeway (I-405) or the Harbor Freeway (I-110). Study intersections and arterial roadway segments were identified by the Public Works Department, and are listed in Table I. Figure 4 provides an aerial view of the study roadway segments and intersections within the general study area.

#### **Description of Roadway Segments**

The existing regional network of streets and highways servicing the development site include Via Valmonte, Hawthorne Boulevard, Pacific Coast Highway, and Crenshaw Boulevard. Freeways in the Project vicinity include the San Diego (I-405) Freeway and the Harbor (I-110) freeway.

The following briefly describes each of these existing roadways, as described within the City's General Plan – Circulation and Infrastructure Element.

TABLE I - STUDY AREA ROADWAYS & INTERSECTIONS			
ID	Roadway Segments		
Α	Hawthorne Boulevard south of Via Valmonte		
В	Via Valmonte west of Hawthorne Boulevard		
No.	Intersection		
1	Hawthorne Boulevard & Pacific Coast Highway		
2	Hawthorne Boulevard & 244 <sup>th</sup> Street		
3	Hawthorne Boulevard & Newton Street		
4	Hawthorne Boulevard & Via Valmonte		
5	Hawthorne Boulevard & Rolling Hills Road		
6	Rolling Hills Road & Whiffle Tree Lane		
7	Rolling Hills Road & Fallenleaf Drive		
8	Crenshaw Boulevard & Rolling Hills Road		
9	Crenshaw Boulevard & Pacific Coast Highway		
10	Anza Avenue/Vista Montana & Pacific Coast Highway		
11	Via Valmonte & Palos Verdes Drive North		
12	Hawthorne Boulevard & Palos Verdes Drive North		
13	Crenshaw Boulevard & Palos Verdes Drive North		
14	Rolling Hills Road & Palos Verdes Drive North		
15	Newton Street & Calle Mayor		
16	Vista Montana & Newton Street		
17	Madison Street & Newton Street		
18	Pacific Coast Highway & Calle Mayor		

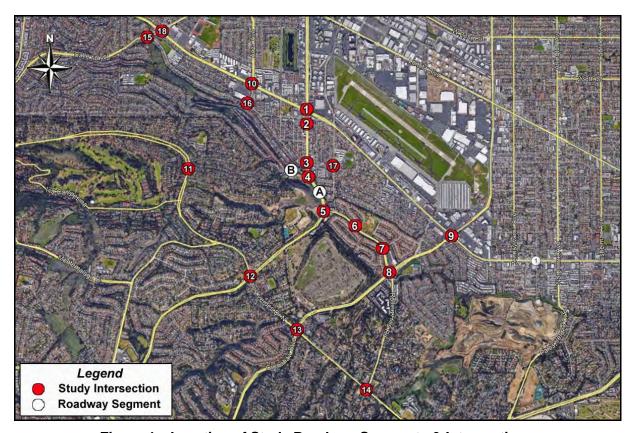


Figure 4 – Location of Study Roadway Segments & Intersections

**Hawthorne Boulevard** – Hawthorne Boulevard (SR-107) runs in a primarily north to south direction from Century Boulevard to Palos Verdes Drive, respectively. Hawthorne Boulevard is classified as a Principal Arterial, and is generally an eightlane divided roadway with a raised median. Adjacent the project site, Hawthorne Boulevard is six lanes, divided, with an existing half right of way from the centerline to the westerly right of way line of 50 feet along the entire property frontage, and a centerline to westerly face-of-curb dimension of 40 feet. From Interstate 405, Hawthorne Boulevard provides access to the Del Amo Fashion Center as well as residential areas.

**Via Valmonte** – Via Valmonte is a Collector street providing access to the residential neighborhood adjacent to the development site. Trending in an east to west direction, terminating at Hawthorne Boulevard to the east and Paseo Del Campo to the west, Via Valmonte consists of two lanes, undivided.

**Pacific Coast Highway** – Pacific Coast Highway (SR-1) is a major state highway running along most of the Pacific coastline of California. Within the City of Torrance, Pacific Coast Highway is designated a Major Arterial, tending in an east-west direction with six lanes, divided.

**San Diego (I-405) Freeway** – The San Diego (I-405) freeway runs in a northwest-southeast orientation through the City of Torrance. The I-405 freeway was constructed as a bypass of the Santa Ana freeway (I-5), and it continues to serve interstate and regional travel needs to major destinations within the western and southern parts of the greater Los Angeles area. The I-405 freeway features four to five mixed flow lanes and HOV lanes in each direction.

**Harbor (I-110) Freeway** – The Harbor (I-110) freeway runs in a north-south direction, connecting San Pedro and the Port of Los Angeles with Downtown Los Angeles and Pasadena. The I-110 freeway features at least four mixed flow lanes and HOV lanes in each direction.

#### **Description of Study Intersections**

The eighteen study intersections are briefly described below, followed by aerial views of each study intersection (see Figures 5 through 22). The current lane configurations of the approach legs to the eighteen study intersection are depicted in Figure 23.

1) Hawthorne Boulevard & Pacific Coast Highway – This intersection is signalized for eight phases of traffic movement. The northbound approach leg features three through lanes and dual left turn lanes. The southbound approach leg has three through lanes, a separate right turn lane, and dual left turn lanes. The eastbound approach leg has three through lanes and a left turn pocket. The westbound approach leg has three through lanes and a left turn pocket. High-visibility crosswalks are marked across all four legs of the intersection.

- The City of Torrance has indicated that this intersection is slated for capital improvements in 2018 to include three through lanes and dual left turn lanes in all directions. The intersection will continue to operate with eight phases.
- 2) Hawthorne Boulevard & 244<sup>th</sup> Street This intersection is signalized for two phases of traffic movement. The northbound and southbound approach legs each feature three through lanes and a left turn pocket. The eastbound and westbound approach legs each have one lane for left, through and right turns. Crosswalks are marked across all four legs of the intersection. There is a current time period restriction for no northbound right or left turns between 6 and 9 A.M., Monday through Friday at this intersection. Also, southbound U-turns are not permitted.
- 3) Hawthorne Boulevard & Newton Street The intersection of Hawthorne Boulevard and Newton Street is signalized for four phases of traffic movement. The northbound approach leg features three through lanes and a left turn pocket. The southbound approach leg has three through lanes and a left turn pocket. The eastbound approach leg has one through/right turn lane and a left turn pocket. The westbound approach leg has one through lane, a separate right turn lane, and a left turn pocket. Crosswalks are marked across all four legs of the intersection. Time period restrictions for this intersection include no northbound right turns between 6 and 9 A.M., Monday through Friday.
- 4) Hawthorne Boulevard & Via Valmonte The intersection of Hawthorne Boulevard and Via Valmonte is signalized for two phases of movement. The northbound approach leg features three through lanes, a right turn lane, a left turn pocket, and a raised median island. The southbound approach leg has three through lanes and a left turn pocket, and a raised median island. The eastbound leg has an optional through/right turn/left turn lane, along with enough shoulder for separate right turn movements. The westbound leg has optional through/left and through/right turn lanes. Crosswalks are marked across the southbound, eastbound and westbound legs. U-turns in the northbound and southbound directions are currently prohibited.
- 5) Hawthorne Boulevard & Rolling Hills Road The intersection of Hawthorn Boulevard and Rolling Hills Road is signalized for four phases of traffic movement. The northbound approach leg features two through lanes and a left turn pocket. The southbound approach leg has two through lanes and dual left turn lanes. The eastbound approach leg serves as the driveway for the Sunrise at Palos Verdes development. The westbound approach leg has an optional through/right turn lane, a separate right turn lane, and a separate left turn lane. Crosswalks are marked across the northbound, southbound and westbound approach legs. U-turns in the northbound direction are not permitted.
- **6)** Rolling Hills Road & Whiffletree Lane The intersection of Rolling Hills Road and Whiffletree Lane is signalized for two phases of traffic movement. The northbound and southbound approach legs (Whiffletree Lane) each feature one lane serving all movements. The eastbound and westbound approach legs each

have two through lanes with left turn movements yielding to opposing traffic. Crosswalks are marked across all four legs.

- 7) Rolling Hills Road & Fallenleaf Drive The intersection of Rolling Hills Road and Fallenleaf Drive is signalized for two phases of traffic movement. The eastbound and westbound approach legs (Rolling Hills Road) each feature two through lanes and a left turn pocket. The northbound and southbound legs each have a single through lane serving all movements. Crosswalks are marked across all four legs of the intersection.
- 8) Crenshaw Boulevard & Rolling Hills Road The intersection of Crenshaw Boulevard and Rolling Hills Road is signalized for eight phases of traffic movement. The eastbound and westbound approach legs (Rolling Hills Road) each feature one through lane, a separate right turn lane, and a left turn pocket. The northbound and southbound approach legs have three through lanes and a left turn pocket. Crosswalks are marked across all four legs of the intersection.
- 9) Crenshaw Boulevard & Pacific Coast Highway The intersection of Crenshaw Boulevard and Pacific Coast Highway is signalized for eight phases of traffic movement. The northbound approach leg (Crenshaw Boulevard) has three through lanes, a separate right turn lane, and a left turn pocket. The southbound approach leg has three through lanes and a left turn pocket. The eastbound approach leg (Pacific Coast Highway) has two through lanes and dual left turn lanes. The westbound approach leg features three through lanes and dual left turn lanes. High-visibility crosswalks are marked across all four legs.
- 10) Anza Avenue/Vista Montana & Pacific Coast Highway The intersection of Anza Avenue/Vista Montana and Pacific Coast Highway is signalized for six phases of traffic movement. The northbound approach leg features one left turn lane, one left/through lane, and one through/right turn lane. The southbound approach leg has one left turn lane, one left/through lane, one through lane and a separate right turn lane. The eastbound and westbound approach legs each have two through lanes and a left turn pocket. The intersection currently operates with a split phase in the north and south directions. Crosswalks are marked across the northbound, southbound, and eastbound legs of the intersection. Traffic signage indicates that southbound left turns between 4 and 7 P.M., Monday through Friday, are prohibited at the Vista Montana/Newton Street intersection.

The City of Torrance has indicated that this intersection is slated for capital improvements in 2018 to include: dual left turn lanes, one through lane and one through/right turn lane in the northbound direction; and dual left turn lanes, two through lanes and a separate right turn lane in the southbound direction. The intersection will operate with eight phases of movement.

**11) Via Valmonte & Palos Verdes Drive North** – The intersection of Via Valmonte and Palos Verdes Drive North is controlled in each direction by stop signs. The northbound approach leg features a through lane and a left turn pocket. The

southbound approach leg has one lane serving all movements. The eastbound and westbound approach legs each have one lane serving all movements. The north leg of the intersection is separated by wide parkway that includes a pedestrian path that continues northwest to Via Alameda. Crosswalks are marked across the southbound, eastbound and westbound legs of the intersection.

- 12) Hawthorne Boulevard & Palos Verdes Drive North This intersection is signalized for eight phases of traffic movement. The northbound approach leg (Hawthorne Boulevard) features two through lanes, a separate right turn lane, and a left turn pocket. The southbound approach leg (Hawthorne Boulevard) has two through lanes, a separate right turn lane, and a left turn pocket. The eastbound approach leg (Palos Verdes Drive North) has two through lanes, a separate right turn lane, and a left turn pocket. The westbound approach leg (Palos Verdes Drive North) has two through lanes, a separate right turn lane, and dual left turn lanes. Crosswalks are marked across all four legs of the intersection. Also, eastbound and westbound U-turns are not permitted.
- 13) Crenshaw Boulevard & Palos Verdes Drive North This intersection is signalized for eight phases of traffic movement. The northbound and southbound approach legs (Crenshaw Boulevard) each feature two through lanes, a separate right turn lane, and a left turn pocket. The eastbound and westbound approach legs (Palos Verdes Drive North) each have two through lanes and dual left turn lanes. Crosswalks are marked across all four legs of the intersection. Traffic signage indicates that northbound right turns on red are prohibited between 7 A.M. to 6 P.M., Monday through Friday at this intersection.
- 14) Rolling Hills Road/Portuguese Bend Road & Palos Verdes North This intersection is signalized for four phases of traffic movement. The northbound approach leg (Rolling Hills Road/Portuguese Bend Road) features a through lane, a separate right turn lane, and a left turn pocket. The southbound approach leg (Rolling Hills Road/Portuguese Bend Road) has an optional through/right turn/left turn lane and a left turn pocket. The eastbound approach leg (Palos Verdes Drive North) has one through lane, a separate right turn lane, and a left turn pocket. The westbound approach leg (Palos Verdes Drive North) has one through lane, a separate right turn lane, and a left turn pocket. Crosswalks are marked across all four legs of the intersection. Northbound U-turns are not permitted.
- 15) Newton Street & Calle Mayor This "T" intersection is controlled by a stop sign in the westbound direction only (Newton Street). The northbound approach leg has one lane serving all movements, while the southbound approach leg has a through lane and a left turn pocket. The westbound approach leg features one lane serving all movements. A yellow (school) crosswalk is marked across the northbound leg only.
- **16) Vista Montana & Newton Street** This intersection is controlled in each direction by stop signs. The northbound approach leg (Vista Montana) features one lane serving all movements. The southbound approach leg has a through

lane, a separate right turn lane, and a left turn pocket. The eastbound and westbound approach legs (Newton Street) each have one lane serving all movements. Crosswalks are marked on the northbound, southbound, and eastbound legs.

- 17) Madison Street & Newton Street This intersection is controlled in all directions by stop signs. The northbound, southbound, eastbound, and westbound approach legs each feature one lane serving all movements. There is adequate street width on all approach legs for allow two vehicles to stop side by side (i.e., one going through and one turning right). Yellow (school) crosswalks are marked on all legs of the intersection.
- 18) Pacific Coast Highway & Calle Mayor This intersection is signalized for eight phases of traffic movement. The northbound and southbound approach legs (Calle Mayor) each have a through lane, a separate right turn lane, and a left turn pocket. The westbound approach leg (Pacific Coast Highway) features two through lanes and a left turn pocket. The eastbound approach leg (Pacific Coast Highway) has two through lanes and a left turn pocket. Crosswalks are marked across all four legs of the intersection. Northbound, southbound, eastbound and westbound U-turns are not permitted. Yellow (school) crosswalks are marked on all legs of the intersection.

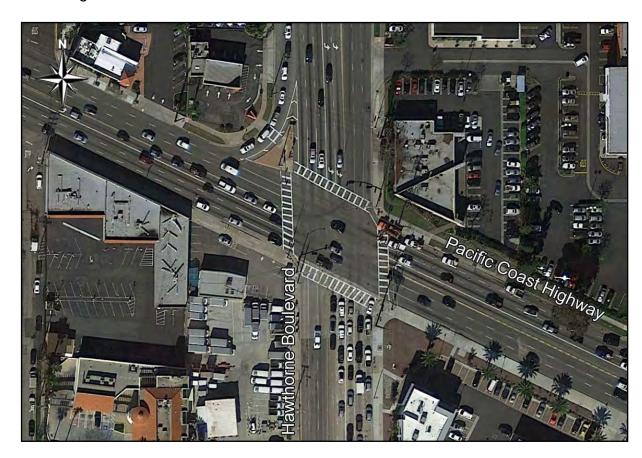


Figure 5 – Hawthorne Boulevard & Pacific Coast Highway



Figure 6 – Hawthorne Boulevard & 244<sup>th</sup> Street



Figure 7 – Hawthorne Boulevard & Newton Street



Figure 8 – Hawthorne Boulevard & Via Valmonte



Figure 9 – Hawthorne Boulevard & Rolling Hills Road



Figure 10 – Rolling Hills Road & Whiffletree Lane

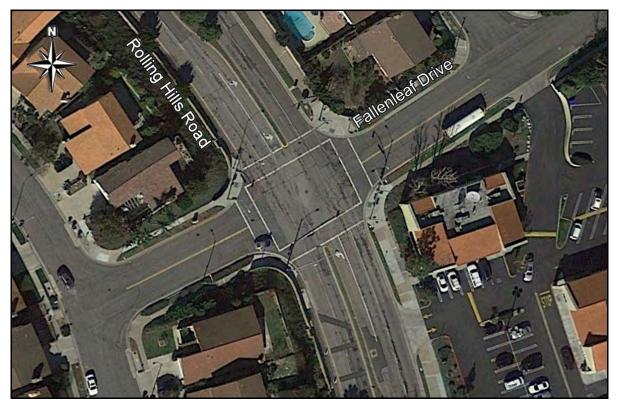


Figure 11 – Rolling Hills Road & Fallenleaf Drive



Figure 12 – Crenshaw Boulevard & Rolling Hills Road



Figure 13 – Crenshaw Boulevard & Pacific Coast Highway



Figure 14 – Anza Avenue/Vista Montana & Pacific Coast Highway

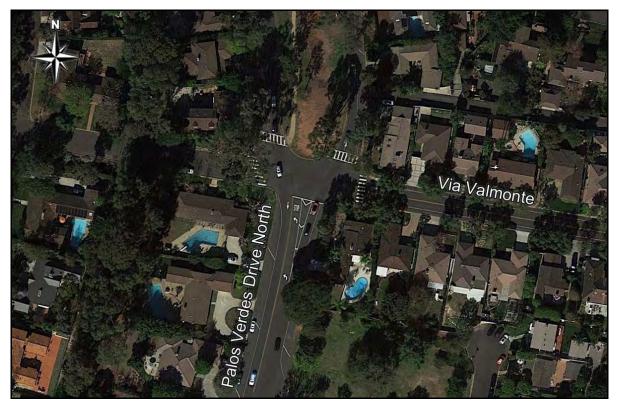


Figure 15 – Via Valmonte & Palos Verde Drive North

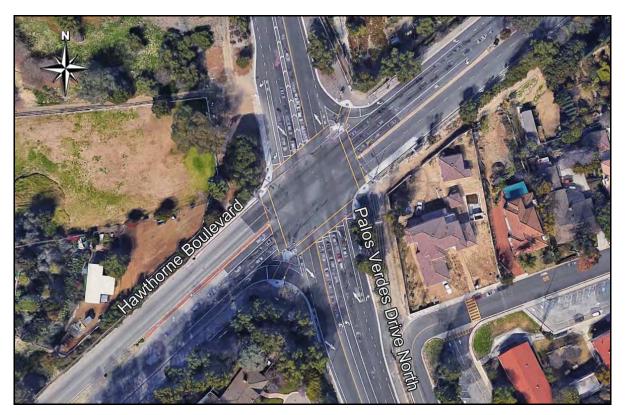


Figure 16 – Hawthorne Boulevard & Palos Verdes Drive North

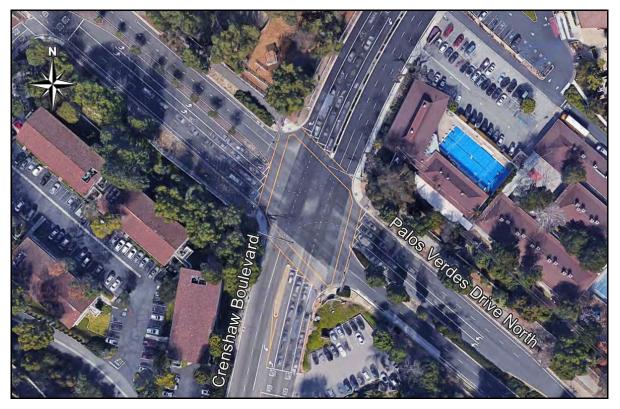


Figure 17 – Crenshaw Boulevard & Palos Verdes Drive North



Figure 18 – Rolling Hills Road/Portuguese Bend & Palos Verdes Drive North



Figure 19 – Newton Street & Calle Mayor



Figure 20 – Vista Montana & Newton Street



Figure 21 – Madison Street & Newton Street

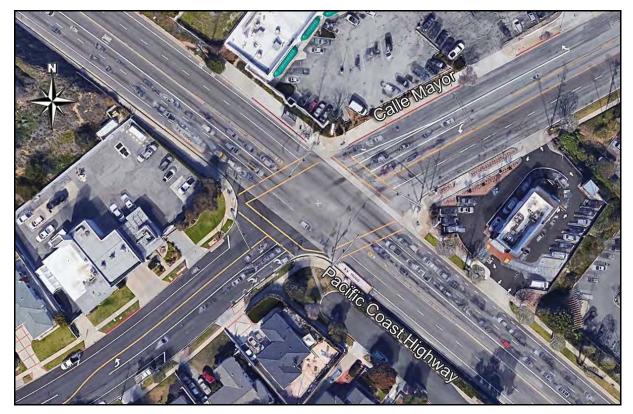


Figure 22 - Pacific Coast Highway & Calle Mayor

#### III. STUDY TERMINOLOGY

The following are definitions of some of the more frequent terminology used throughout this report.

#### A.M. and P.M. Peak Hours

The *A.M and P.M. peak hours* refer to the morning and late afternoon times of the day during which the greatest number of motor vehicles are carried on a given roadway segment or intersection. Typically, the significant peak hours of traffic on an average weekday occur during the morning commute, between 7:00 and 9:00 A.M., and during the afternoon, between 4:00 and 6:00 P.M. These hours do not necessarily correspond to the peak trip generation, which, for commercial uses, can occur mid-day and on weekends. For the subject study, A.M. and P.M. peak hour turn movement traffic counts were collected in the month of April 2016 for each study intersection on a Wednesday. An annual growth factor of one percent was then added to the 2016 counts to estimate 2017 volumes. These intersection turn movement counts were independently collected for **KHR Associates** by National Data & Surveying Services (NDS), Santa Ana, California. The summary intersection traffic count results can be found in the Appendix section of this report.

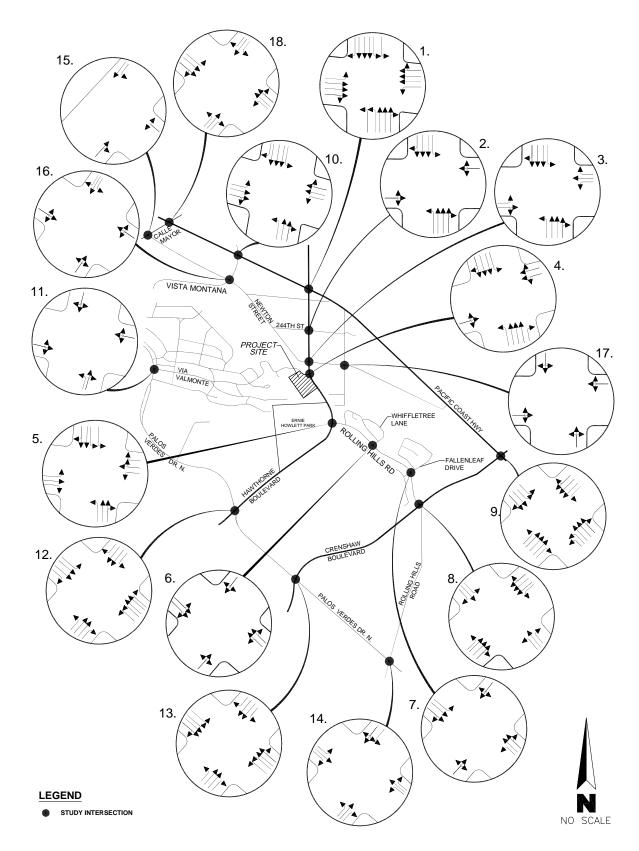


Figure 23 – Intersection Lane Configurations

#### Average Daily Traffic

The average daily traffic (ADT) volume is an estimate of the number of motor vehicles carried on a given roadway segment over a 24-hour period of time. The estimate of ADT is often based on one or more days of actual traffic counts taken by a mechanical device designed specifically for counting traffic on streets. ADT volumes are typically expressed as the total number of vehicles for both directions of travel, but may be separated by direction when such information is useful, as was done for this traffic analysis. ADT volumes do not typically change in dramatic fashion from month to month or year to year, unless the area in question is undergoing rapid growth and development or seasonal variations are significant. For the subject study, directional roadway segment traffic counts were continuously collected in the month of April 2016 over 24 consecutive hours – on a Wednesday. These daily traffic counts were also independently collected for **KHR Associates** by NDS. The summary ADT count results can be found in the Appendix section of this report.

## **Capacity**

The *capacity* of a roadway segment or intersection is the maximum rate of vehicular traffic flow under prevailing traffic, physical design, and operational conditions. Factors affecting capacity include the type and frequency of traffic controls; the operational characteristics of traffic signals (if present); lane widths; horizontal and vertical grades; horizontal and vertical clearances from obstructions; the amount of truck and/or bus traffic; the availability of on-street parking and the rate of parking turnover; restrictions on mid-property access; and the volume of turn movements at adjacent intersections and driveways. Capacity is most commonly defined for hourly periods of time, and most analyses rely on peak 15-minute count increments to establish capacity values. It is useful to define capacity as the maximum volume of traffic that an intersection may be expected to carry, under the least desirable conditions (e.g., with heavy congestion during the peak hours).

For planning purposes, roadway segments are also assigned "capacities" based on the number of travel lanes; width of the roadway; access restrictions; medians; parkway and intersection design; and land uses. 24-hour segment capacities are not indicative of the maximum number of vehicles that can be *physically* carried - rather, such capacities suggest the maximum number of vehicles that *should be allowed* under ideal conditions given the characteristics of the roadway and community preferences. These capacity values vary somewhat between jurisdictions. The City of Torrance uses a per lane capacity of 1,600 vehicles.

Hourly capacities for roadways are typically stated in vehicles per hour per lane (VPHPL). On multi-lane arterials and freeways, unimpeded capacity is 2,000 VPHPL. On two-lane roadways, with directional traffic split 50%/50%, the total capacity for both directions combined is 2,800 vehicles per hour (VPH). Lane capacities on surface streets vary from 1,500 VPH to 1,900 VPH, depending on ambient and

operational conditions, including the types of adjacent land uses, number and location of driveways, intersection signal operations, and other factors.

#### Level of Service

The *level of service* (LOS) of a roadway segment or an intersection is a qualitatively defined measure of prevailing traffic, design, and operational conditions. The LOS, denoted alphabetically from "A" to "F," best to worst, is an evaluation of the degree of congestion, roadway design constraints, delay, accident potential, and driver discomfort experienced during a given period of time - typically during the peak hour or on a daily basis. LOS "D" or better is considered to be a target for intersection operations within the City of Torrance to maintain stable traffic flow, realizing that peak hour congestion may occur at locations with unusual traffic characteristics due to regional traffic flow.<sup>B</sup>

The LOS may be quantitatively calculated by a number of methods that generally compare traffic volumes with the physical and operational capacity of a roadway section or intersection to carry traffic demands placed upon it. For roadway segments and intersections, the volume-to-capacity (V/C) ratio is indicative of LOS. Traffic volumes are measured by conducting actual counts over prescribed periods of time. Capacity figures are established by the governing jurisdiction, and often based on localized conditions. Intersection LOS can also be determined using computer software to account for various influencing factors such as lane configurations, traffic signal timing (for signalized intersections), and vehicle delays.

Table II lists the typical service volumes corresponding to the number of lanes and median type. It should be noted that the LOS for roadway segments are generally used for planning purposes only, and do not indicate true operational LOS.

TABLE II – LEVELS OF SERVICE FOR ROADWAY CLASSIFICATIONS											
Traffic Lane			Levels o	f Service							
Configuration	Α	В	С	D	Е	F					
8 (divided)	45,000	52,500	60,000	67,500	75,000	>75,000					
6 (divided)	33,900	39,400	45,000	50,600	56,300	>56,300					
4 (divided)	22,500	26,300	30,000	33,800	37,500	>37,500					
4 (undivided)	15,000	17,500	20,000	22,500	25,000	>25,000					
2 (undivided)	7,500	8,800	10,000	11,300	12,500	>12,500					

Various methods of computing intersection LOS are used, including the Intersection Capacity Utilization (ICU) and HCS+ software, based on the 2010 Highway Capacity Manual (HCM). Table III provides City of Torrance LOS definitions for signalized intersections at corresponding volume-to-capacity (V/C) ratios. Table IV provides

<sup>&</sup>lt;sup>B</sup> City of Torrance General Plan - Circulation and Infrastructure Element, Adopted April 6, 2010.

<sup>&</sup>lt;sup>C</sup> HCS+, Release 6.50, McTrans Center, University of Florida, 2010.

criteria for signalized and unsignalized intersections, based on HCM methodologies for determining LOS. These LOS are used to approximate true operating conditions, and are calculated for intersections during morning and late afternoon peak hours. It should be noted that four of the eighteen studied intersections are located along Pacific Coast Highway – State Route 1 and are therefore under the jurisdiction of the Caltrans which evaluates intersection impacts using the HCM method – included within this study.

	TABLE III - SIGNALIZED INTERSECTION LOS & V/C RATIOS										
<u>LOS</u>	V/C Ratio	<u>Definitions</u>									
Α	≤ 0.60	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.									
В	> 0.60 ≤ 0.70	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.									
С	> 0.70 ≤ 0.80	·									
D	> 0.80 ≤ 0.90	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.									
Е	> 0.90 ≤ 1.00	Poor operation. Some long-standing vehicular queues develop on critical approaches.									
F	> 1.00	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes. Potential for stop-and-go-type traffic flow.									
Source	: City of Torrance	General Plan, Circulation and Infrastructure Element, April 2010									

	Intersection Del	<u>ay (in Seconds)</u>
Level of Service	Unsignalized Intersection	Signalized Intersection
Α	≤ 10.0	≤ 10.0
В	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
С	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
Е	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

# Significant Transportation Impact

Although the methodologies for calculating LOS are well-established and fairly consistent, determining whether or not a "significant transportation impact" or intersection traffic impact occurs is not as easy to quantify. Local jurisdictions have varying interpretations of what constitutes a significant impact. Some agencies base

significant impacts on the number of seconds added to average intersection delay per vehicle or the number of additional vehicles added to a critical intersection turn movement. The City of Torrance defines a significant impact as when project traffic increases volume/capacity by .02 or more and the resulting LOS is E or worse. The neighboring City of Rolling Hills Estates considers a significant impact as a change in LOS from C to D, or D to E, or a change in volume/capacity by .02 or more within LOS C or D, or a change of .01 within LOS E or F. The City of Palos Verdes Estates considers added delay, in seconds, (e.g., 3 seconds or more within LOS D).

#### Trip Ends

Traffic generated by different types of development and land use is typically expressed in terms of *trip ends*. A trip end (or trip) is the directional movement of a single motor vehicle either to or from a development site. When a vehicle enters a development site, one trip end is generated. When a vehicle exits a development site, one trip end is generated. Therefore, each vehicle entering and exiting a development site generates two trip ends. For analysis purposes, the number of trip ends generated over a given time period is the total of all vehicles entering plus all vehicles exiting the site during that time period. Trip ends generated to a development site are designated inbound trips and trip ends generated from a development site are designated outbound trips.

#### **Trip Generation**

Trip generation refers to the number of trip ends generated by a given development or land use over a specified period of time - usually per day and during morning and late afternoon peak hours of traffic demand. Attempts to quantify the trip making propensities of given land uses and types of development have led to the formulation of trip generation rates. In simplified travel demand forecasting, trip ends are often estimated by applying these empirically-determined trip generation rates. Rates for a variety of land uses, including residential developments, may be found in technical reference documents such as the Institute of Transportation Engineers' (ITE) *Trip Generation* manual. The data found in these documents typically include average weekday and peak hour rates that correspond with the peak periods of commuter traffic. A wide assortment of land uses, including multi-family residential, commercial office, and lodging are covered. For multi-family residential development, the independent variable is typically the number of dwelling units, and trip generation is stated in terms of trip ends per dwelling unit.

#### **Trip Reduction**

The convenient and price-sensitive availability of transit service to and from a given project site can also reduce private vehicle trips. The City provides a municipally operated transit system called the "Torrance Transit" serving the South Bay region of

<sup>D</sup> Trip Generation, 10<sup>th</sup> Edition, Institute of Transportation Engineers

Los Angeles County. In addition, the proliferation of private taxi services such as Uber and Lyft are having an impact on how small groups of people routinely travel to certain destinations and venues. Due to the uncertain benefit of these services, trip reduction estimates were not used to estimate future traffic related impacts.

# Trip Distribution/Trip Assignment

In addition to trip generation, travel demand forecasting also includes trip distribution and trip assignment. Trip distribution signifies by general direction (i.e., east, west, north, and south) the percentage of all traffic generated to and from a given project site. Trip assignment identifies the particular routes used by traffic generated to and from a given project site. These steps are often combined for small projects and/or areas of analysis. Trip distribution/trip assignment is used to predict the patterns of traffic generated by a given project site, taking into consideration several factors, including: observations of existing traffic patterns; existing land use and proposed land use; surrounding land uses; volumes of traffic on streets and highways; the carrying capacity of these streets and highways; and access restrictions.

#### **Ambient Growth**

In order to effectively estimate future traffic conditions at the *Project* completion, an ambient growth factor was included in the evaluations per the recommendation of the City of Torrance. Volumes recorded in 2016 for study roadways and intersections were multiplied by one percent to estimate current 2017 conditions and another one percent per year for the next two years – the estimated date of occupancy.

#### IV. TRIP GENERATION

Trip generation for the proposed *Project* can be estimated by applying known trip generation rates for the various proposed uses. For urban settings, trip generation is calculated for an average weekday (24-hour period, and for the morning and afternoon peak hours of weekday commute (typically 7:00 to 9:00 A.M. and 4:00 to 6:00 P.M.) on streets serving a given project). For the proposed *Project* residential use, the ITE *Trip Generation* manual provides the following definitions, as updated with the 10<sup>th</sup> Edition of the ITE Trip Generation manual:

# Land Use Code 221 – Multifamily Housing (Mid-Rise)

Per ITE Land Use Code 221, Multifamily Housing (Mid-Rise) buildings are defined as buildings containing three to ten floors, located in a General Urban/Suburban setting. This general land use includes a variety of multifamily housing types with varying sizes, locations, and price ranges. Additionally, with respect to analyzing potential traffic impacts associated with residential housing, "the peak hour of the generator typically coincides with the peak hour of the adjacent street traffic."

<sup>E</sup> Trip Generation, Volume 2 of 3, 10<sup>th</sup> Edition, Institute of Transportation Engineers, 2017

TABLE V - SU	JMMARY (	OF SOLANA	TORRANCE	TRIP GEN	ERATION								
	AVERAGE DAILY TRIPS ON A WEEKDAY												
Land Use Category (Code) <sup>1</sup> Multi-Family	Size <sup>2</sup>	Trip Rate <sup>3</sup>	Inbound/ Outbound <sup>3</sup>	Inbound Trip Ends <sup>4</sup>	Outbound Trip Ends <sup>4</sup>	Total Trip Ends <sup>4</sup>							
Residential (221)	248 DU	5.44/DU	50%/50%	674	675	1,349							
WEEKDA)	( A.M. PEA	K HOUR OF	ADJACENT S	TREET TRA	\FFIC								
	_	_	Inbound/	Inbound	Outbound								
Land Use Category (Code) <sup>1</sup> Multi-Family	Size	Trip Rate <sup>3</sup>	Outbound <sup>3</sup>	Trip Ends⁴	Trip Ends <sup>4</sup>	Ends*							
Residential (221)	248 DU	0.36/DU	26%/74%	23	66	89							
WEEKDAY	P.M. PEA	K HOUR OF											
Land Use Category (Code) <sup>1</sup> Multi-Family	Size <sup>2</sup>	Trip Rate <sup>3</sup>	Inbound/ Outbound <sup>3</sup>	Inbound Trip Ends <sup>4</sup>	Outbound Trip Ends <sup>4</sup>	Total Trip <u>Ends⁴</u>							
Residential (221)	248 DU	0.44/DU	61%/39%	66	43	109							
Notes: 1 - Land Use Code Per <i>Trip Gen</i> 2 - DU = Dwelling Units 3 - Trip Generation Rate & Perce Institute of Transportation En 4 - All Trip Ends Rounded to Nea	entage of Inbo	und/Outbound Tri	·	•	0 <sup>th</sup> Ed.,								

As indicated in Table V, the proposed *Project* is estimated to generate a total of 1,349 daily trip ends, as well as 89 A.M. peak hour trip ends (23 inbound and 66 outbound) and 109 P.M. peak hour trip ends (66 inbound and 43 outbound).

#### V. TRIP DISTRIBUTION/TRIP ASSIGNMENTS

Trip distribution and trip assignments for the proposed *Project* were formulated with input from the City of Torrance Traffic and Transportation Division.

#### Trip Distribution

Based on known trip making propensities and travel routes taken by those residing, working, and traveling within the regional proximity of the proposed *Project*, trip distribution assumptions were formulated. The distribution of inbound and outbound trips generated by the proposed *Project* are depicted in Figure 24. As noted, the majority of trips (80 percent) are oriented toward the north, where most employment centers, commercial businesses, and schools are located. The remaining 20 percent were oriented to the south along Hawthorne Boulevard where access exists to Crenshaw Boulevard, Palos Verdes Drive, and Western Avenue.

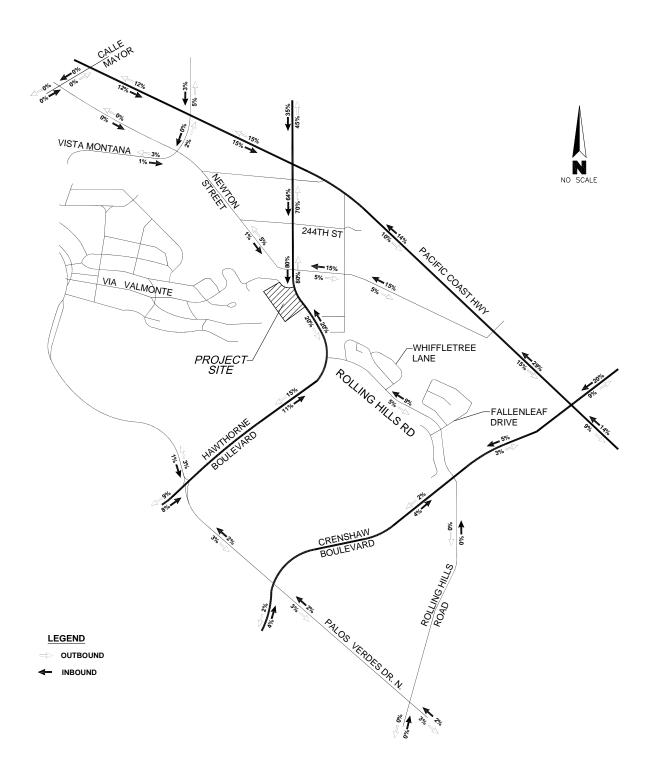


Figure 24 – Trip Distribution Assumptions

#### **Trip Assignments**

Based on the trip distribution assumptions illustrated in Figure 24, trip assignments were made. These trip assignments were based on physical and operational constraints affecting roadways and intersections; direction (i.e., inbound or outbound) and time of day (i.e., A.M. or P.M. peak hour) of travel; and traffic control devices that regulate the flow of traffic on the streets and highways network servicing the *Project* site. It should be noted that, at the northbound approach to the Via Valmonte/ Hawthorne Boulevard intersection, U-turns leading to southbound Hawthorne are not permitted. Therefore, *Project* vehicles coming from the south were sent through this intersection to ultimately make U-turns at the Hawthorne/Newton Street intersection.

Inbound and outbound trips generated by the proposed *Project* during the daily, and A.M. and P.M. peak hours of weekday commute were assigned to various roadway segments and study intersections based on trip distribution percentages in each direction from the *Project* site. These inbound and outbound trip assignments during daily, and A.M. and P.M. peak hours are depicted in Figure 25.

#### Existing Traffic – Year 2017 Conditions

Existing traffic (2016 Volumes plus 1% Annual Growth) at roadways and intersections were documented by 24-hour (i.e., ADT) and peak hour (i.e., A.M. and P.M. peak hours) turn movement counts. The results are illustrated in Figure 26.

# **Existing + Ambient Growth Conditions**

Adding ambient growth traffic (i.e., 1% per year for two years) to existing (2017) traffic at study roadway segments and intersections during the A.M. and P.M peak hours of weekday commute are illustrated in Figure 27.

## **Ambient+Project Traffic Conditions**

Adding *Project* traffic to the Ambient Growth condition at study roadway segments and intersections during the A.M. and P.M peak hours of weekday commute are illustrated in Figure 28.

# Committed and Proposed Developments

There are a number of development projects within the regional area of the *Project* site that are either in the design or advanced planning stages, or under construction that will generate varying amounts of traffic on the regional streets and highways network. Traffic generated by these development projects need to be taken into account when evaluating the proposed *Project's* fair share responsibilities for traffic improvements. Although the timing of completion of each development will vary, for this study, a worst-case scenario was used by assuming build-out and occupancy of each development in two years.

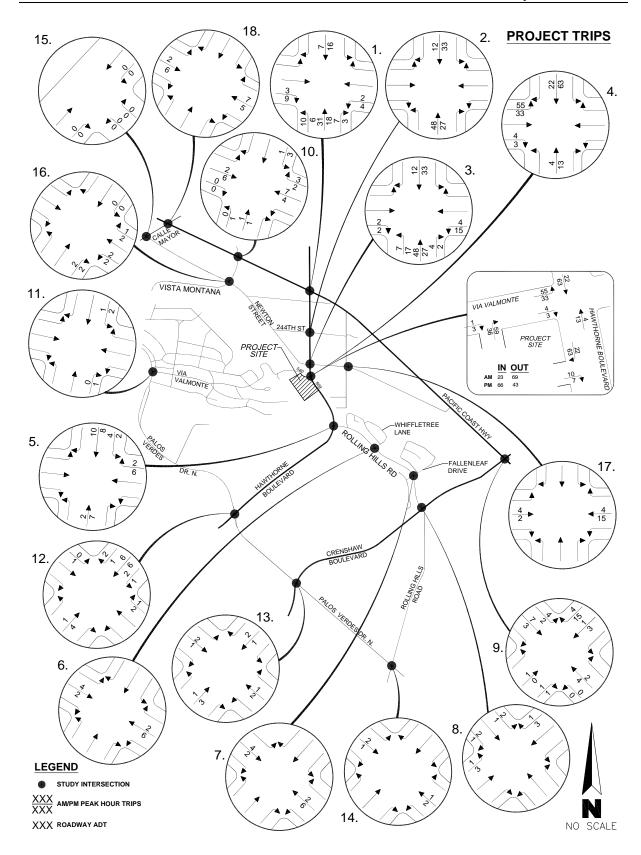


Figure 25 – ADT & Peak Hour "Project-Only" Trip Assignments

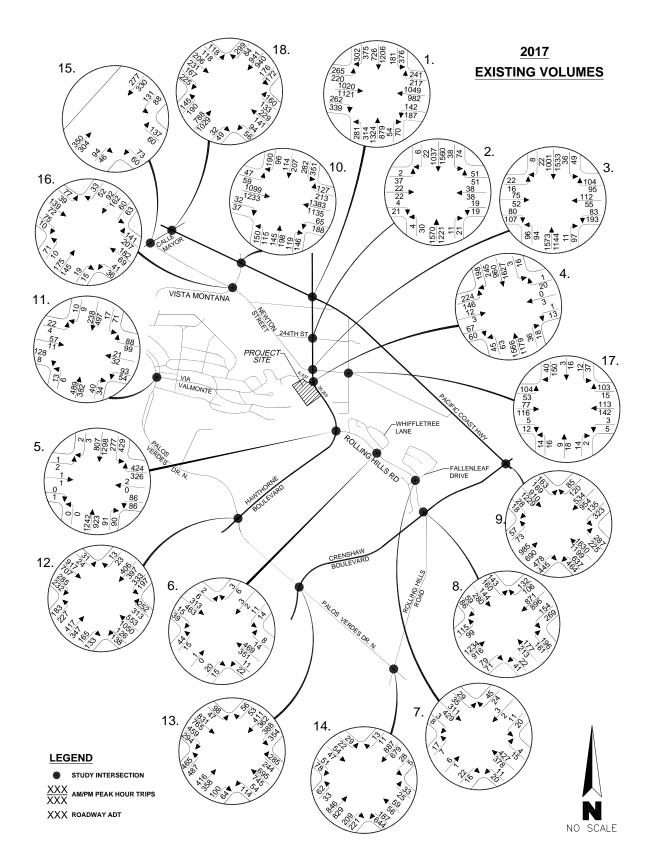


Figure 26 – 2017 Existing ADT & Peak Hour Intersection Traffic Volumes

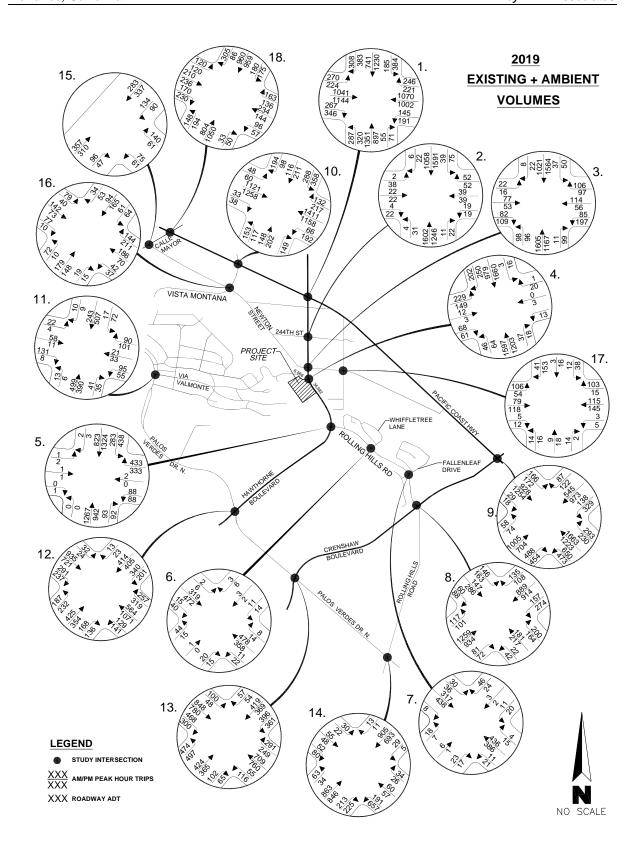


Figure 27 – Ex.+Ambient Growth ADT & Peak Hour Intersection Traffic Volumes

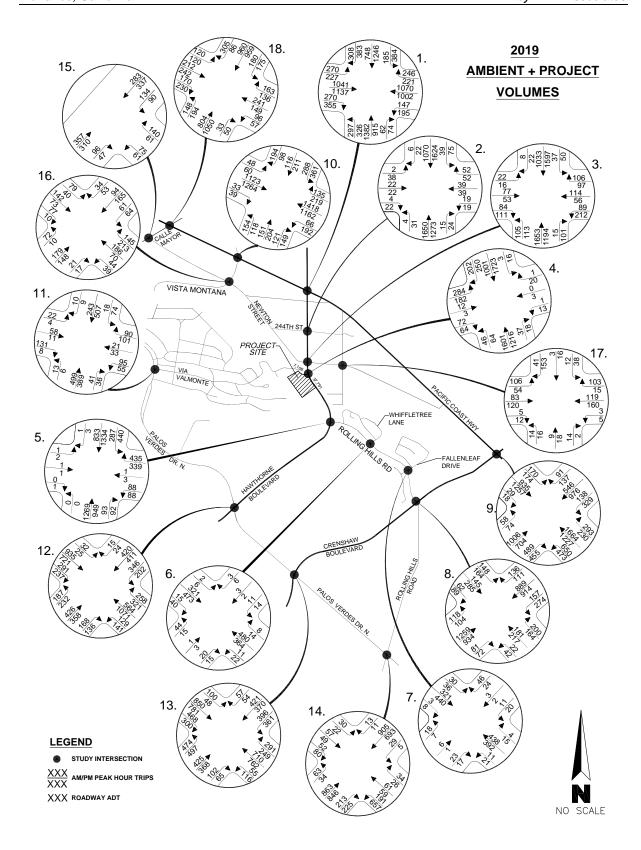


Figure 28 – Ambient + Project ADT & Peak Hour Intersection Traffic Volumes

Table VI contains a list of committed and proposed projects within the area of the *Project* site, as provided by the Cities of Torrance, Rancho Palos Verdes, Rolling Hills Estates, Redondo Beach and Lomita. Note that Palos Verdes Estates did not have any new developments on the horizon. Also listed are their respective amounts of traffic estimated to be generated upon completion. The location of each of these projects is identified in Figure 29. Additionally, since the previous version of this report, another project located directly across Via Valmonte is proposed for a mixed-use development that is anticipated to create a minor addition of traffic to the intersection of Via Valmonte and Hawthorne Boulevard. These anticipated trips have been added to Table VI and included in the analysis.

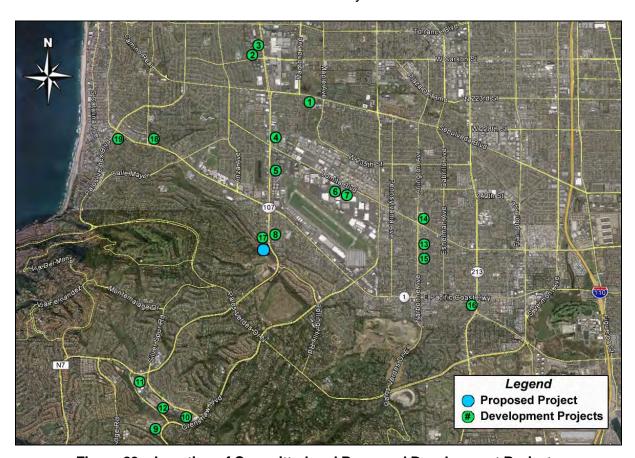


Figure 29 – Location of Committed and Proposed Development Projects

#### **Cumulative Traffic Conditions**

Adding cumulative development traffic to the existing traffic, ambient growth, and project development traffic at study roadway segments and intersections during the A.M. and P.M peak hours of weekday commute are illustrated in Figure 30.

Land Use   Size   Unit   ADT²   In   Out   Total   In	1 Peak Hou Out 15 16 183	27 40 365
Trip Generation¹         130         Beds         356         12         6         18         12           2. Del Amo Senior Village, Torrance – Independent Living/Assisted Living/Hotel         Trip Generation¹         360         DU         1,253         13         16         29         24           3. 21515 Hawthorne Boulevard, Torrance – Commercial (Health Club & Gym/Restaurant)         Trip Generation³         45,000/12,000         SF         4,238         70         56         126         182	16	40
2. Del Amo Senior Village, Torrance – Independent Living/Assisted Living/Hotel  Trip Generation <sup>1</sup> 360 DU 1,253 13 16 29 24  3. 21515 Hawthorne Boulevard, Torrance – Commercial (Health Club & Gym/Restaurant)  Trip Generation <sup>3</sup> 45,000/12,000 SF 4,238 70 56 126 182	16	40
Trip Generation¹         360         DU         1,253         13         16         29         24           3. 21515 Hawthorne Boulevard, Torrance – Commercial (Health Club & Gym/Restaurant)           Trip Generation³         45,000/12,000         SF         4,238         70         56         126         182		
3. 21515 Hawthorne Boulevard, Torrance – Commercial (Health Club & Gym/Restaurant)  Trip Generation <sup>3</sup> 45,000/12,000 SF 4,238 70 56 126 182		
Trip Generation <sup>3</sup> 45,000/12,000 SF 4,238 70 56 126 182	183	365
	183	365
4. 23104 Hawthorne Boulevard, Torrance – Child Day Care		
Trip Generation 1 10,023 SF 800 68 60 128 62	70	132
5. 23550 Hawthorne Boulevard, Torrance – Restaurant/Bank		
Trip Generation <sup>1</sup> 1,500/2000 SF 1,387 61 48 109 62	61	123
6. 24000 Garnier Street, Torrance – Medical Office		
Trip Generation <sup>1</sup> 36,866 SF 1,332 72 19 91 37	100	137
7. 2640 Lomita Boulevard, Torrance – Commercial (Costco w/ Car Wash/Gas) Replacing Prev. Costco + Medical Of	f.	
New Costco <sup>3</sup> 161,500 SF 7,808 147 108 255 368	405	773
Previous Costco <sup>3</sup> 148,000 SF -6,964 -135 -98 -233 -339	-373	-712
Medical Office <sup>3</sup> 75,000 SF 2,852 142 37 179 63	162	225
8. 24444 Hawthorne Boulevard, Torrance – Office/Residential		
Trip Generation <sup>1</sup> 2,700/8 SF/DU 51 5 5 10 5	6	11
9. 5601 Crestridge Road, Rancho Palos Verdes (Crestridge Senior Condominium Project) – Condominiums		
Trip Generation <sup>3</sup> 60 DU 480 4 29 33 28	16	44
10. 927 Deep Valley Drive, Rolling Hills Estates – Condominiums/Commercial (Replace Medical, Office, Retail Use)	ı	
Trip Generation <sup>3</sup> 75/2,000 DU/SF -42 -41 27 -14 17	-34	-17
11. Peninsula Center, Rolling Hills Estates – Commercial		
Trip Generation <sup>3</sup> 16,000 SF 2,296 110 86 196 123	96	219
12. 627 Deep Valley Drive, Rolling Hills Estates – Condominiums/Commercial		
Trip Generation <sup>3</sup> 58/5,810 DU/SF 636 -2 15 13 30	21	51
13. 250 <sup>th</sup> & Narbonne, Lomita – Condominiums/Commercial/Industrial		
Trip Generation <sup>3</sup> 20/2,035/4,281 DU/SF 202 6 9 15 12	9	21
14. 24516 Narbonne Avenue, Lomita – Townhomes/Retail		
Trip Generation <sup>3</sup> 22/3,700 DU/SF 128 2 8 10 7	4	11
15. 25114 Narbonne Avenue, Lomita – Townhomes/Retail		
Trip Generation <sup>3</sup> 11/3,500 DU/SF 219 4 6 10 8	7	15
16. 1730-1734 Pacific Coast Highway, Lomita – Commercial/Retail		
Trip Generation <sup>3</sup> 850/180 SF/SF 204 24 24 48 5	4	9
17. Mixed-Use Development, Torrance – Mixed-Use		
Trip Generation <sup>3</sup> 13/4,500 DU/SF 85 9 6 15 6	10	16
18. Seabreeze, Redondo Beach – Mixed-Use		
Trip Generation <sup>3</sup> 52/10,108 DU/SF 406 -6 11 5 -13	-23	-36
19. Legado, Redondo Beach – Mixed-Use		
Trip Generation <sup>3</sup> DU/SF 1,347 38 61 99 71	51	122
Total Trip Generation 19,074 603 539 1,142 770	806	1,576

Notes:

DU: Dwelling Unit; SF: Square Feet; RM: Room

<sup>1</sup> Trip Gen. Rate & Percent of In/Out Trips Per *Trip Generation Manual*, 9<sup>th</sup> Ed., Institute of Transportation Engineers.

<sup>2</sup> All Trip Ends Rounded to Nearest Whole Unit.

<sup>3</sup> Data from Available Traffic Studies.

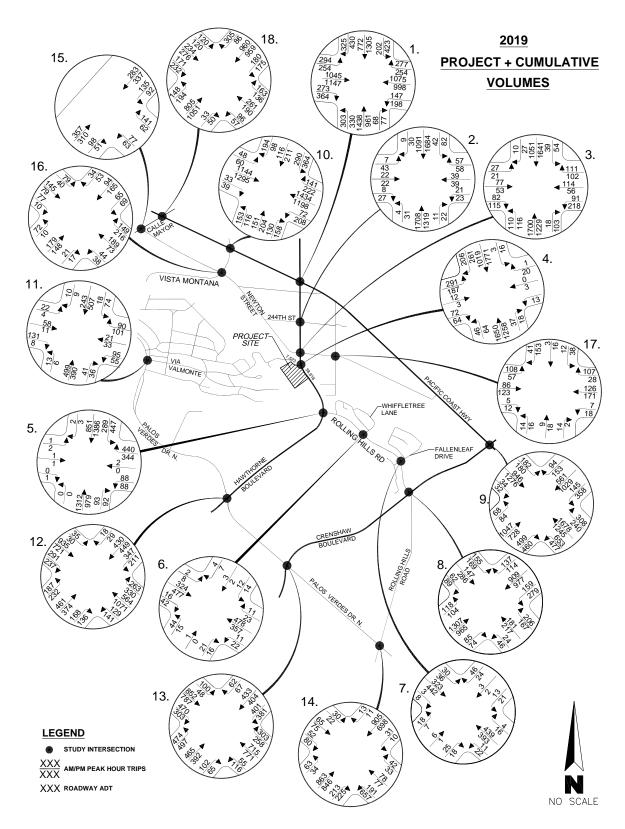


Figure 30 - Cumulative ADT & Peak Hour Intersection Traffic Volumes

#### VI. EXISTING & FUTURE LEVELS OF SERVICE

Future traffic conditions resulting from additional development may be predicted by performing a travel demand forecast. Such forecasts vary in magnitude and complexity, but at minimum include defining the streets and highways network of interest; estimating the amount of traffic generated by a given development or geographic area; determining the area-wide distribution of this traffic; and assigning it to specific portions of the streets and highways network. In order to determine the magnitude and impact of additional traffic generated onto streets surrounding the project site, a travel demand forecast of future traffic conditions was undertaken for the proposed *Project*. Using the 2017 traffic volumes and employing trip generation, distribution and assignment of future traffic, as described in Section V, existing and future roadway and intersection levels of service can be determined.

Both the ICU and the HCM methodologies were employed to determine intersection levels of service for signalized intersections. For stop-controlled intersections, only the HCM method was used due to several factors that contribute to LOS for these types of movements. For Project and Cumulative estimates, Capital Improvements, as described in Section II, slated for the Pacific Coast Highway/Hawthorne Boulevard and Pacific Coast Highway/Vista Montana intersections were included in the analyses. Also, the Hawthorne Boulevard/Via Valmonte intersection analysis includes additional capacity provided by the additional left turn lane proposed as part of the *Project*. Roadway segments were evaluated based on typical level of service volumes for each roadway designation.

# Existing, Ambient Growth, Project, and Cumulative Roadway LOS

Based on a comparison between the ADT count in Appendix A of this report (plus the one percent annual growth) and the City's Circulation Element designations for roadway classifications, the LOS for study roadways for the 2017 conditions, and existing plus ambient growth (i.e., one percent per year for two years) volumes were determined. Then, the *Project* traffic and the cumulative development related traffic were added to estimate future LOS conditions.

Cumulative impacts refer to the combined effects of traffic generated by individual projects within a defined area of concern. The City's list of committed and proposed projects along with neighboring City projects will generate varying amounts of additional traffic (see Table VII). While the traffic impacts associated with each project may not be individually significant, cumulatively, the traffic impacts can be significant, or have the potential of compounding or increasing the effects of traffic impacts of the proposed *Project*. As noted in Table VII, all roadway segments currently operate at acceptable levels of service, and should continue to operate at acceptable levels of service. The only change in roadway segment LOS occurs on Via Valmonte adjacent to the *Project* site – from "A" to "B" with the addition of cumulative traffic.

# TABLE VII –ROADWAY SEGMENT V/C RATIOS & LEVELS OF SERVICE

	2017 Exist	ing <sup>1</sup>	2017 Existin		Ambient+ Project <sup>3</sup>		<u>Cumulat</u>	ive 4
Roadway Segment	Volume	LOS	Volume	LOS	Volume	LOS	Volume	LOS
Hawthorne Blvd. South of Via Valmonte⁵	36,253	В	36,982	В	37,791	В	38,616	В
Via Valmonte West of Hawthorne Blvd.	<sup>6</sup> 6,437	Α	6,566	Α	7,106	Α	7,523	В

<sup>&</sup>lt;sup>1</sup> Counts Taken by NDS, April 2016 (Plus 1% Annual Growth

#### Existing (2017) & Existing + Project Intersection LOS - ICU Method

Existing intersection LOS, as calculated using the ICU method, are summarized in Table VIII for the signalized intersections studied. Turn movement counts for existing traffic were taken in April 2016 (plus the one percent annual growth), and in November 2017 for the added intersections establishing the 2017 baseline conditions. Anticipated *Project* traffic (as well as the proposed intersection improvements at Via Valmonte/Hawthorne Boulevard) was then added to the intersections to determine *Project* related impacts on baseline conditions. As shown, with the addition of *Project* traffic, no changes in LOS occurred between the two scenarios. The ICU calculation forms may be found in the Appendix section of this report. Table VIII shows that most of intersections operate within acceptable levels of LOS "D" or better under both scenarios with the exception of the following:

- Crenshaw Blvd/Pacific Coast Hwy intersection LOS "E" P.M.
- Crenshaw Blvd/Palos Verdes Dr. N. intersection LOS "E" A.M & P.M.
- Rolling Hills Rd/Palos Verdes Dr. N. intersection LOS "F" A.M & P.M.
- Calle Mayor/Pacific Coast Hwy intersection LOS "E" A.M. / LOS "F" P.M.

#### Existing + Ambient & Existing + Ambient + Project Intersection LOS - ICU Method

Future "Existing + Ambient (2019)" conditions as calculated using the ICU method, are summarized in Table IX for the signalized intersections studied. This time period includes two more years of ambient growth. Also, these estimates included the capital improvements slated for the Pacific Coast Highway/ Hawthorne Boulevard and Pacific Coast Highway/Vista Montana intersections. *Project* traffic was then added and the listed values for the Hawthorne Boulevard/Via Valmonte intersection under the + *Project* scenario include additional capacity provided by the additional left turn lane proposed as part of the *Project*. As shown in Table IX, the LOS designations remain the same between the two scenarios.

<sup>&</sup>lt;sup>2</sup> Annual Growth Rate of 1 Percent Per Year for 2 Years Applied

<sup>&</sup>lt;sup>3</sup> Project Related Trips Added Per Trip Distribution (65% North, 35% South)

<sup>&</sup>lt;sup>4</sup> Cumulative Developments – Addl. Volumes Based Upon Diff. Trip Distribution Percentages for Each Region

<sup>&</sup>lt;sup>5</sup> Classified as Six Lane Divided Roadway with a LOS B Capacity of 39,400

<sup>&</sup>lt;sup>6</sup> Classified as Two Lane Undivided Roadway with a LOS A Capacity of 7,500

# TABLE VIII – EXISTING (2017) & EXISTING+PROJECT SIGNALIZED INTERSECTIONS - ICU METHOD LOS

		<u> 2017 E</u>	XISTING <sup>1</sup>		<u>E</u> )	EXISTING + PROJECT <sup>2</sup>				
	A.M. Pea	ık Hour	P.M. Pea	ık Hour	A.M. Pea	ık Hour	P.M. Pea	ak Hour		
<u>Intersection</u>	<u>ICU</u>	LOS	<u>ICU</u>	<u>LOS</u>	<u>ICU</u>	<u>LOS</u>	<u>ICU</u>	<u>LOS</u>		
Hawthorne Blvd/Pacific Coast Hwy	0.878	D	0.870	D	0.886	D	0.878	D		
Hawthorne Blvd/244 <sup>th</sup> Street	0.504	Α	0.521	Α	0.514	Α	0.528	Α		
Hawthorne Blvd/Newton Street	0.627	В	0.773	С	0.640	В	0.794	С		
Hawthorne Blvd/Via Valmonte	0.576	Α	0.633	В	0.521 <sup>3</sup>	Α	$0.609^3$	В		
Hawthorne Blvd/Rolling Hills Road	0.658	В	0.606	В	0.660	В	0.609	В		
Whiffletree Lane/Rolling Hills Road	0.393	Α	0.399	Α	0.394	Α	0.402	Α		
Fallenleaf Drive/Rolling Hills Road	0.318	Α	0.288	Α	0.318	Α	0.290	Α		
Crenshaw Blvd/Rolling Hills Road	0.780	С	0.840	D	0.782	С	0.846	D		
Crenshaw Blvd/Pacific Coast Hwy.	0.882	D	0.980	E	0.897	D	0.986	Е		
Vista Montana/Pacific Coast Hwy.	0.779	С	0.843	D	0.783	С	0.847	D		
Hawthorne Blvd/Palos Verdes Dr. N	0.764	С	0.709	С	0.766	С	0.712	С		
Crenshaw Blvd/Palos Verdes Dr. N	0.939	Е	0.884	D	0.940	Е	0.885	D		
Rolling Hills Rd/Palos Verdes Dr. N	1.398	F	1.401	F	1.399	F	1.402	F		
Pacific Coast Hwy/Calle Mayor	0.974	E	1.028	F	0.976	E	1.030	F		

 <sup>&</sup>lt;sup>1</sup> Intersection Counts Taken by NDS, April 2016 (Plus 1% Annual Growth), and November 2017 for Added Locations
 <sup>2</sup> Project Related Trips Per Trip Distribution and Turn Movement Restrictions and Opportunities
 <sup>3</sup> Includes Project Related Improvements

# TABLE IX - EXISTING + AMBIENT (2019) & EX. + AMBIENT + PROJECT SIGNALIZED INTERSECTIONS - ICU METHOD LOS

OIOITAL	-1220 11	· · Livo		0 .00	MEIIIOD	LUU			
	EXIS	TING+AI	<u>MBIENT</u> (	2019) <sup>1</sup>	EX	EX.+AMBIENT+PROJECT <sup>2</sup>			
	A.M. Pea	k Hour	P.M. Pea	k Hour	A.M. Pea	ak Hour	P.M. Pea	ak Hour	
<u>Intersection</u>	<u>ICU</u>	LOS	<u>ICU</u>	<u>LOS</u>	<u>ICU</u>	<u>LOS</u>	<u>ICU</u>	LOS	
Hawthorne Blvd/Pacific Coast Hwy	0.809	С	0.700	С	0.817	D	0.761	С	
Hawthorne Blvd/244 <sup>th</sup> Street	0.512	Α	0.529	Α	0.522	Α	0.536	Α	
Hawthorne Blvd/Newton Street	0.638	В	0.786	С	0.652	В	0.807	D	
Hawthorne Blvd/Via Valmonte	0.586	Α	0.643	В	$0.529^4$	Α	$0.619^4$	В	
Hawthorne Blvd/Rolling Hills Road	0.670	В	0.617	В	0.672	В	0.620	В	
Whiffletree Lane/Rolling Hills Road	0.397	Α	0.404	Α	0.399	Α	0.407	Α	
Fallenleaf Drive/Rolling Hills Road	0.323	Α	0.292	Α	0.324	Α	0.294	Α	
Crenshaw Blvd/Rolling Hills Road	0.795	С	0.854	D	0.796	С	0.854	D	
Crenshaw Blvd/Pacific Coast Hwy.	0.897	D	0.998	Е	0.899	D	0.998	Е	
Vista Montana/Pacific Coast Hwy 3	0.794	С	0.858	С	0.798	С	0.862	С	
Hawthorne Blvd/Palos Verdes Dr. N	0.778	С	0.721	С	0.779	С	0.724	С	
Crenshaw Blvd/Palos Verdes Dr. N	0.956	E	0.900	E	0.957	E	0.900	E	
Rolling Hills Rd/Palos Verdes Dr. N	1.424	F	1.429	F	1.427	F	1.429	F	
Pacific Coast Hwy/Calle Mayor	0.992	E	1.047	F	0.994	E	1.048	F	

<sup>&</sup>lt;sup>1</sup> Includes Annual Growth Rate of 1 Percent per Year for 2 More Years

Project Related Trips Per Trip Distribution and Turn Movement Restrictions and Opportunities
 Includes Planned Capital Improvements

<sup>&</sup>lt;sup>4</sup> Includes *Project* Related Improvements

# <u>Existing + Ambient + Cumulative & Existing + Ambient + Cumulative + Project</u> <u>Intersection LOS – ICU Method</u>

Future "Existing+Ambient+Cumulative" and "Existing+Ambient+Cumulative+*Project*" LOS, as calculated using the ICU method, are summarized in Table X for the signalized intersections studied. These estimates also included the capital improvements slated for the Pacific Coast Highway/Hawthorne Boulevard and Pacific Coast Highway/Vista Montana intersections. Under the + *Project* scenario, the values for the Hawthorne Boulevard/Via Valmonte intersection include additional capacity provided by the additional left turn lane proposed as part of the *Project*.

As shown in Table X, the addition of Cumulative development results in decreased volume/capacity ratios, and in some locations and time periods, the LOS designations decrease with the added traffic from surrounding development. With the addition of *Project* traffic, the LOS designations do not change worsen any further.

#### TABLE X – EXISTING + AMBIENT + CUMULATIVE & EXISTING + AMBIENT + CUMULATIVE + PROJECT SIGNALIZED INTERSECTIONS - ICU METHOD LOS

	<u>EX.</u> -	-AMB.+C	CUMULAT	IVE 1	EX.+	MB+CUI	S+CUMU.+PROJECT 2		
	A.M. Pea	k Hour	P.M. Pea	k Hour	A.M. Pea	ak Hour	P.M. Pea	ak Hour	
Intersection	<u>ICU</u>	LOS	<u>ICU</u>	LOS	<u>ICU</u>	LOS	<u>ICU</u>	LOS	
Hawthorne Blvd/Pacific Coast Hwy <sup>3</sup>	0.772	С	0.769	С	0.779	С	0.776	С	
Hawthorne Blvd/244 <sup>th</sup> Street	0.530	Α	0.549	Α	0.540	Α	0.556	Α	
Hawthorne Blvd/Newton Street	0.647	В	0.809	D	0.660	В	0.830	D	
Hawthorne Blvd/Via Valmonte	0.522	Α	0.609	В	$0.540^4$	Α	$0.633^{4}$	В	
Hawthorne Blvd/Rolling Hills Road	0.684	В	0.628	В	0.686	В	0.631	В	
Whiffletree Lane/Rolling Hills Road	0.399	Α	0.407	Α	0.401	Α	0.410	Α	
Fallenleaf Drive/Rolling Hills Road	0.326	Α	0.294	Α	0.327	Α	0.296	Α	
Crenshaw Blvd/Rolling Hills Road	0.811	D	0.867	D	0.813	D	0.868	D	
Crenshaw Blvd/Pacific Coast Hwy.	0.913	Е	1.032	F	0.919	Е	1.033	F	
Vista Montana/Pacific Coast Hwy3	0.772	С	0.727	С	0.776	С	0.780	С	
Hawthorne Blvd/Palos Verdes Dr. N	0.792	С	0.736	С	0.793	С	0.739	С	
Crenshaw Blvd/Palos Verdes Dr. N	0.961	Е	0.913	Е	0.962	Е	0.914	Е	
Rolling Hills Rd/Palos Verdes Dr. N	1.429	F	1.451	F	1.431	F	1.451	F	
Pacific Coast Hwy/Calle Mayor	.998	F	1.059	F	1.000	F	1.061	F	

<sup>&</sup>lt;sup>1</sup> Project Related Trips Per Trip Distribution and Turn Movement Restrictions and Opportunities

#### Intersection LOS - HCM Method

"Existing" and "Existing+Project" Growth LOS, as calculated using the HCM method, are summarized in Table XI for all eighteen intersections studied. The

<sup>&</sup>lt;sup>2</sup> Cumulative Developments – Volumes Based Upon Various Trip Distribution Percentages for Each Region

<sup>&</sup>lt;sup>3</sup> Includes Planned Capital Improvements

<sup>&</sup>lt;sup>4</sup> Includes *Project* Related Improvements

"Existing+Ambient" and and "Existing+Ambient+Project" scenarios are shown in Table XII. The "Cumulative" condition without the *Project*, and with the *Project* are shown in Table XIII. The HCM calculation forms may be found in the Appendix section of this report.

# TABLE XI – 2017 EXISTING & EXISTING+PROJECT TRAFFIC ALL INTERSECTIONS - HCM METHOD LOS

		2017 E	XISTING	1	EX	EXISTING+PROJECT <sup>2</sup>				
	A.M. Pea	k Hour	P.M. Pea	k Hour	A.M. Pea	k Hour P.M. Pea		ak Hour		
Intersection	Delay <sup>3</sup>	LOS	Delay <sup>3</sup>	LOS	<u>Delay<sup>3</sup></u>	LOS	<u>Delay<sup>3</sup></u>	LOS		
Hawthorne Blvd/Pacific Coast Hwy.		D	67.2	Е	52.5	D	70.5	E		
Hawthorne Blvd/244 <sup>th</sup> Street	21.8	С	21.9	С	26.3	С	24.8	С		
Hawthorne Blvd/Newton Street	10.9	В	12.6	В	11.1	В	13.3	В		
Hawthorne Blvd/Via Valmonte	11.6	В	15.0	В	14.3	В	18.7	В		
Hawthorne Blvd/Rolling Hills Road	17.5	В	13.7	В	17.7	В	13.7	В		
Whiffletree Lane/Rolling Hills Road	5.4	Α	4.2	Α	5.4	Α	4.2	Α		
Fallenleaf Drive/Rolling Hills Road	6.3	Α	4.9	Α	6.3	Α	4.9	Α		
Crenshaw Blvd/Rolling Hills Road	67.3	Е	46.2	D	68.5	Е	46.5	D		
Crenshaw Blvd/Pacific Coast Hwy.	48.5	D	59.7	Е	49.4	D	60.8	Е		
Vista Montana/Pacific Coast Hwy.	72.3	Е	44.8	D	76.9	Е	45.6	D		
Palos Verdes Drive/Via Valmonte	29.7	D	26.7	D	29.8	D	26.8	D		
Hawthorne Blvd/Palos Verdes Dr. N	l. 55.3	Е	31.2	С	56.1	Е	31.6	С		
Crenshaw Blvd/Palos Verdes Dr. N	. 103.5	F	104.1	F	104.3	F	104.7	F		
Rolling Hills Rd/Palos Verdes Dr. N.	. 292.0	F	257.2	F	294.0	F	260.2	F		
Newton Street/Calle Mayor	14.0	В	11.8	В	14.0	В	11.8	В		
Vista Montana/Newton Street	15.0	С	11.1	В	15.1	С	11.1	В		
Madison Street/Newton Street	8.7	Α	9.2	Α	8.7	Α	9.2	Α		
Pacific Coast Hwy/Calle Mayor	112.1	F	179.9	F	113.4	F	181.5	F		

<sup>&</sup>lt;sup>1</sup> Intersection Counts Taken by NDS, April 2016 (Plus 1% Annual Growth

As shown in the Table XI, many of the intersections operate within acceptable levels of LOS "D" or better under both scenarios with the exception of the following:

- Hawthorne Blvd/Pacific Coast Hwy LOS "E" in the P.M. conditions
- Crenshaw Blvd/Rolling Hills Road. LOS "E" in the A.M. conditions
- Crenshaw Blvd/Pacific Coast Hwy LOS "E" in the P.M. conditions
- Vista Montana/Pacific Coast Hwy LOS "E" in A.M. conditions
- Hawthorne Blvd/Palos Verdes Dr. N. LOS "E" in the A.M. conditions
- Crenshaw Blvd/Palos Verdes Dr. N. LOS "F" in all conditions
- Rolling Hills Rd/Palos Verdes Dr. N. LOS "F" in all conditions
- Calle Mayor/Pacific Coast Hwy LOS "F" in all conditions

Also, as shown, the intersection LOS do not decrease with *Project* traffic.

<sup>&</sup>lt;sup>2</sup> Annual Growth Rate of 1 Percent per Year for 2 Years

<sup>&</sup>lt;sup>3</sup> Worst Case Direction Average Intersection Delay Per Vehicle (In Seconds)

<sup>&</sup>lt;sup>4</sup> Includes Planned Capital Improvements to that Intersection

# TABLE XII – EXISTING+AMBIENT & EX+AMB+PROJECT TRAFFIC ALL INTERSECTIONS - HCM METHOD LOS

EXISTING+AMBIENT 1					EX+AMB+PROJECT <sup>2</sup>				
	A.M. Pea	k Hour	P.M. Pea	k Hour	A.M. Peak Hou	P.M. Peak Hour			
Intersection	<u>Delay<sup>3</sup></u>	<u>LOS</u>	<u>Delay<sup>3</sup></u>	LOS	Delay <sup>3</sup> LOS	Delay <sup>3</sup> LOS			
Hawthorne Blvd/Pacific Coast Hwy.4	47.5	D	64.4	Ε	49.8 D	71.4 E			
Hawthorne Blvd/244 <sup>th</sup> Street	24.1	С	24.1	С	29.8 C	27.4 C			
Hawthorne Blvd/Newton Street	11.0	В	12.9	В	11.4 B	13.7 B			
Hawthorne Blvd/Via Valmonte	11.9	В	10.7	В	14.5 B	12.0 B			
Hawthorne Blvd/Rolling Hills Road	18.5	В	13.6	В	18.7 B	13.6 B			
Whiffletree Lane/Rolling Hills Road	5.5	Α	4.2	Α	5.4 A	4.3 A			
Fallenleaf Drive/Rolling Hills Road	6.4	Α	4.9	Α	6.4 A	4.9 A			
Crenshaw Blvd/Rolling Hills Road	72.4	Ε	47.4	D	73.7 E	47.8 D			
Crenshaw Blvd/Pacific Coast Hwy.	50.9	D	63.9	Е	52.1 D	65.1 E			
Vista Montana/Pacific Coast Hwy.4	49.1 <sup>4</sup>	D	37.1 <sup>4</sup>	D	51.1 <sup>4</sup> D	37.6 <sup>4</sup> D			
Palos Verdes Drive/Via Valmonte	34.4	D	29.7	D	34.4 D	30.2 D			
Hawthorne Blvd/Palos Verdes Dr. N.	56.8	Е	31.8	С	58.7 E	32.2 C			
Crenshaw Blvd/Palos Verdes Dr. N.	107.1	F	107.7	F	108 F	108.3 F			
Rolling Hills Rd/Palos Verdes Dr. N.	303.3	F	269.3	F	305.4 F	272.4 F			
Newton Street/Calle Mayor	14.5	В	12.1	В	14.5 B	12.1 B			
Vista Montana/Newton Street	15.6	С	11.3	В	15.8 C	11.3 B			
Madison Street/Newton Street	8.7	Α	9.3	Α	8.7 A	9.4 A			
Pacific Coast Hwy/Calle Mayor	119.6	F	190.1	F	120.9 F	191.7 F			

<sup>&</sup>lt;sup>1</sup> Intersection Counts Taken by NDS, April 2016 (Plus 1% Annual Growth

As shown in the Table XII, with the addition of two years of ambient growth, many of the intersections experience increased delays, however, the LOS designations do not decrease from those shown in Table XI. In fact, two of the intersections that are planned for Capital Improvements improved in delay and/or LOS designations.

As shown in the Table XIII, there are further incremental increases in intersection delays with cumulative traffic. Also, many of the intersections show a decreased LOS. The addition of *Project* traffic to the cumulative conditions does not result in decreased LOS.

<sup>&</sup>lt;sup>2</sup> Annual Growth Rate of 1 Percent per Year for 2 Years

<sup>&</sup>lt;sup>3</sup> Worst Case Direction Average Intersection Delay Per Vehicle (In Seconds)

<sup>&</sup>lt;sup>4</sup> Includes Planned Capital Improvements to that Intersection

# TABLE XIII – CUMULATIVE W/O PROJECT & W/ PROJECT TRAFFIC ALL INTERSECTIONS - HCM METHOD LOS

	CUMU	LATIVE	w/o PRC	JECT <sup>2</sup>	CUMULATIVE w/ Project 1				
	A.M. Pea	k Hour	P.M. Pea	k Hour	A.M. Pea	k Hour	P.M. Pea	k Hour	
<u>Intersection</u>	Delay <sup>3</sup>	LOS	Delay <sup>3</sup>	LOS	<u>Delay<sup>3</sup></u>	<u>LOS</u>	<u>Delay<sup>3</sup></u>	<u>LOS</u>	
Hawthorne Blvd/Pacific Coast Hwy.	55.2	Е	81.3	F	56.2 <sup>4</sup>	Е	84.44	F	
Hawthorne Blvd/244 <sup>th</sup> Street	37.0	D	30.7	С	36.0	D	34.3	С	
Hawthorne Blvd/Newton Street	11.3	В	13.5	В	11.6	В	14.4	В	
Hawthorne Blvd/Via Valmonte	14.5	В	12.0	В	14.7	В	12.3	В	
Hawthorne Blvd/Rolling Hills Road	20.0	С	13.5	В	20.2	С	13.5	В	
Whiffletree Lane/Rolling Hills Road	5.5	Α	4.3	Α	5.5	Α	4.3	Α	
Fallenleaf Drive/Rolling Hills Road	6.5	Α	5.0	Α	6.5	Α	5.0	Α	
Crenshaw Blvd/Rolling Hills Road	82.8	F	50.9	D	82.9	F	51.0	D	
Crenshaw Blvd/Pacific Coast Hwy.	54.4	D	69.5	Е	54.8	D	69.9	Е	
Vista Montana/Pacific Coast Hwy.	52.2	D	37.9	D	53.2 <sup>4</sup>	D	$38.0^{4}$	D	
Palos Verdes Drive/Via Valmonte	34.3	D	29.7	D	34.4	D	30.2	D	
Hawthorne Blvd/Palos Verdes Dr. N.	. 58.6	Е	33.6	С	59.1	Е	33.9	С	
Crenshaw Blvd/Palos Verdes Dr. N.	107.0	F	112.6	F	107.0	F	112.5	F	
Rolling Hills Rd/Palos Verdes Dr. N.	302.0	F	278.1	F	301.7	F	278.3	F	
Newton Street/Calle Mayor	14.6	В	12.1	В	14.6	В	12.1	В	
Vista Montana/Newton Street	16.0	С	11.4	В	16.2	С	11.5	В	
Madison Street/Newton Street	8.8	Α	9.0	Α	8.8	Α	9.6	Α	
Pacific Coast Hwv/Calle Mayor	120.3	F	189.0	F	120.1	F	188.6	F	

<sup>&</sup>lt;sup>1</sup> Project Related Trips Per Trip Distribution and Turn Movement Restrictions and Opportunities

# VII. SITE ACCESS, CIRCULATION, & PARKING

Proposed site access, internal circulation, and parking for the proposed *Project* were analyzed by reviewing the *Project* site plan, the proposed off-site improvements, and other constraints and opportunities for access to the site. It is important to note that turn movement restrictions placed upon the proposed *Project* restrict resident and visitor vehicle ingress and egress to right turns only on Hawthorne Boulevard, and "exit-only" right turns on Via Valmonte. With these restrictions, internal circulation and off-site improvements for site access were designed accordingly.

# Street and Traffic Improvements

Vehicular access to and from the *Project* site is proposed via one main driveway on Hawthorne Boulevard. A second exit-only driveway is proposed on Via Valmonte. The turn movements at these two locations will be restricted to right turns only, with the exception of emergency vehicle access at the Via Valmonte driveway. Raised traffic movement barriers at the Via Valmonte driveway will allow only emergency vehicles to access the property from this direction.

<sup>&</sup>lt;sup>2</sup> Cumulative Developments – Volumes Based Upon Various Trip Distribution Percentages for Each Region (Cumulative Condition includes Traffic Volumes from Existing + Ambient + Project + Other Known Developments)

<sup>&</sup>lt;sup>3</sup> Average Intersection Delay for All Movements. Note: Overall Average Delay May Decrease Slightly with Added Traffic if the Added Volumes are within the Least Impacted Movements (per Conversation w/ McTrans Center, University of Florida – Authors of the HCM Software)

<sup>&</sup>lt;sup>4</sup> Includes Planned Capital Improvements to that Intersection

On Via Valmonte, street improvements include widening of the eastbound approach leg to Hawthorne Boulevard, adjacent to the *Project* site, to provide an additional travel lane for optional left turn, through movement, or right turns. This additional lane is designed to be 16 feet wide for its entire length allowing right turning vehicles enough space to pass-by and avoid waiting in the left-turn queue. This improvement will include a new roadway surface; new curb, gutter, sidewalk, and parkway on the south side of Via Valmonte; a new crosswalk across Via Valmonte at Hawthorne Boulevard; and new accessible ramps on the northwest and southwest corners of the intersection.

On Hawthorne Boulevard, street improvements include widening and traffic lane restriping to add a right southbound turn lane between Via Valmonte and the proposed *Project* driveway; a new sidewalk contiguous to the street curb; a landscaped parkway between the sidewalk and the *Project* property line wall; and modifications to the traffic signal at the Via Valmonte/Hawthorne Boulevard intersection.

Figure 31 illustrates the proposed street and traffic improvements along Via Valmonte and Hawthorne Boulevard, and at the intersection of Via Valmonte/Hawthorne Boulevard.

Currently, the Via Valmonte/Hawthorne Boulevard intersection operates in two phases – the northbound and southbound movements as one phase and the eastbound and westbound movements as another phase with left turn movements yielding to oncoming traffic in all directions. In the current operation, both the eastbound and westbound left turning vehicles must wait for opposing through vehicles to clear before proceeding, causing delays.

The proposed improvements to the intersection include "splitting" the eastbound and westbound movements (designating the eastbound movement as the lead) and adding a left turn arrow to the eastbound approach on Via Valmonte. This will allow all eastbound vehicles (far greater in volume than the westbound) to clear first, followed by the westbound movement from the shopping center driveway. It should be noted that, since many cycles will not include any westbound traffic, this movement will be skipped in the cycle increasing the time available for other movements. Additionally, the east-west crosswalk across Hawthorne Boulevard will be moved from the north leg to the south leg to lessen delays caused by conflicts between pedestrians and motor vehicles.

# Site Access & Internal Circulation

A review of the site plan for the proposed *Project* reveals a simple, yet efficient, circulation system with convenient access to and from the *Project* via two driveways one ingress/egress driveway on Hawthorne Boulevard and one egress driveway on Via Valmonte.

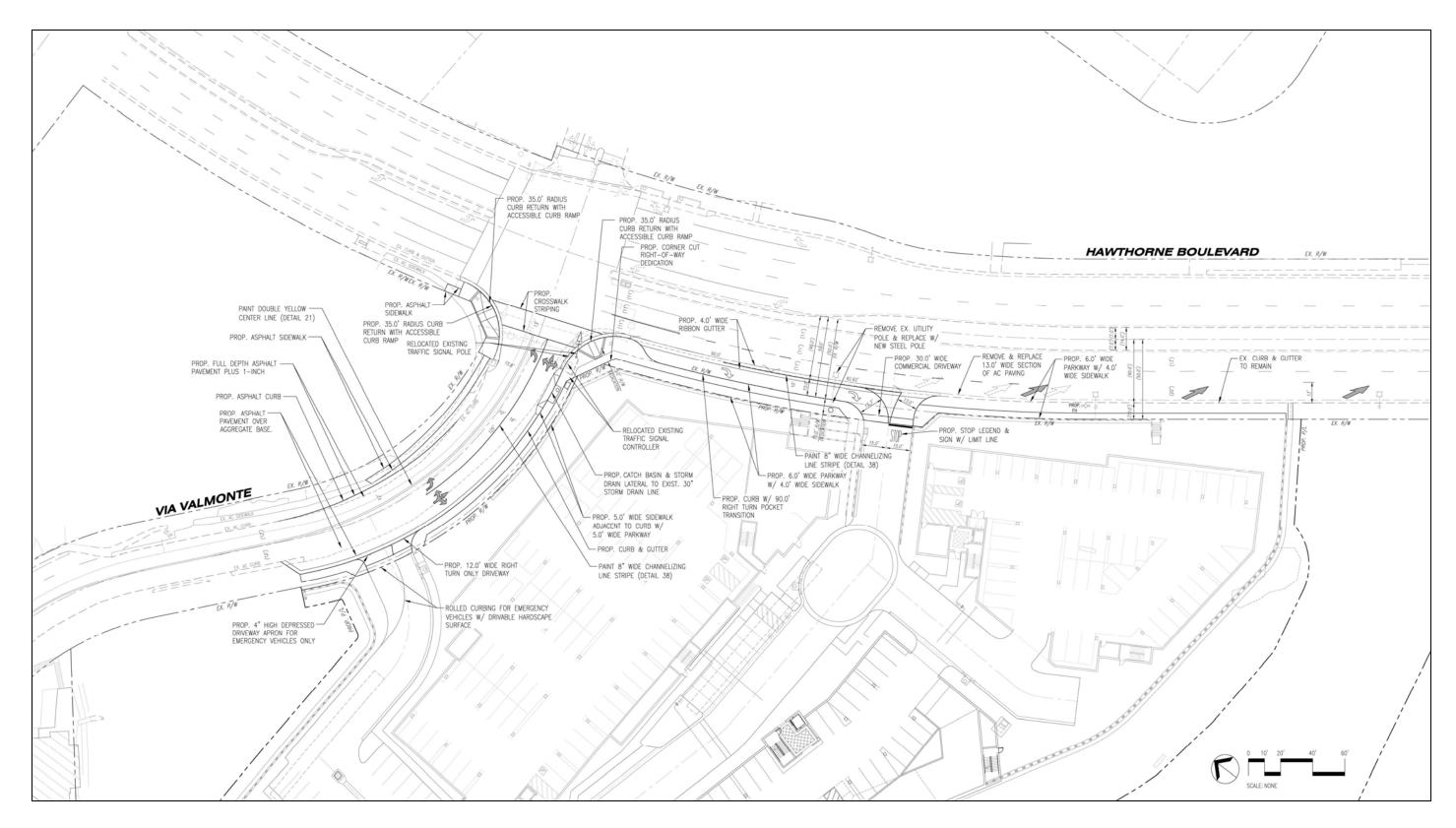


Figure 31 – Via Valmonte & Hawthorne Boulevard Improvements

Within the property, internal drive aisles lead directly into a subterranean parking structure. Within the parking structure, parking spaces and drive aisles are appropriately sized to accommodate resident and guest parking. Appropriately-sized fire lanes and maintenance roads are also provided on site. There are no gates or speed bumps to impede traffic entering the *Project* site. Gates that control entry into the parking garage are located over 150 feet from the Hawthorne Boulevard driveway entrance. Therefore, there should be no queuing of entering vehicles that back up onto Hawthorne Boulevard.

#### Line of Sight Analysis

The City of Torrance requested that the TIS include an analysis of the "line of sight" from exiting vehicles on the proposed driveway on Hawthorne Boulevard looking north toward oncoming southbound traffic. The proposed driveway is designed for right-in/right-out movements only, with all exiting vehicles required to stop before entering the flow of traffic on Hawthorne Boulevard. With a vehicle stopped in the exit lane at the stop limit line, drivers will first look to see if there are any pedestrians crossing the driveway, and secondly, look north along Hawthorne Boulevard to see if any vehicles are approaching the driveway.

According to the Caltrans Highway Design Manual<sup>F</sup>, the line of sight for corner sight distance is to be determined from a 3 and ½-foot height at the driver's location on the minor road (*Project* driveway) to a 4 and ¼-foot object height in the center of the approaching lane of the major road (Hawthorne Boulevard). As illustrated in Figure 32, assuming a design speed of 45 miles per hour (the posted speed limit) on Hawthorne Boulevard, the line of sight distance from the *Project* exit lane stop limit line (looking north toward southbound traffic on Hawthorne Boulevard) is 495 feet to the center of the lane closest to the center median (known as the Number 1 Lane).

The line of sight distance from the *Project* exit lane stop limit line is 290 feet to the center of the lane closest to the sidewalk curb (or Number 3 Lane). All traffic formed by these two lines of sight is within the cone of visibility by a driver exiting the *Project* driveway. Once the proposed street improvements along Hawthorne Boulevard are constructed (i.e., undergrounding power poles; widening the street to include a southbound right turn/deceleration lane onto the *Project* driveway; modifying the traffic signal at Hawthorne Boulevard and Via Valmonte; and moving the sidewalk to be contiguous to the curb in lieu of a landscaped parkway), there should be no visual impairments to any driver exiting the *Project* site on Hawthorne Boulevard. The closest object to creating visual impairment is the new power pole that will be installed near the *Project* driveway. However, as noted in Figure 32, the line of sight is approximately 3 foot clear of the power pole.

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<sup>&</sup>lt;sup>F</sup> Caltrans Highway Design Manual, 6<sup>th</sup> Ed., November 2017

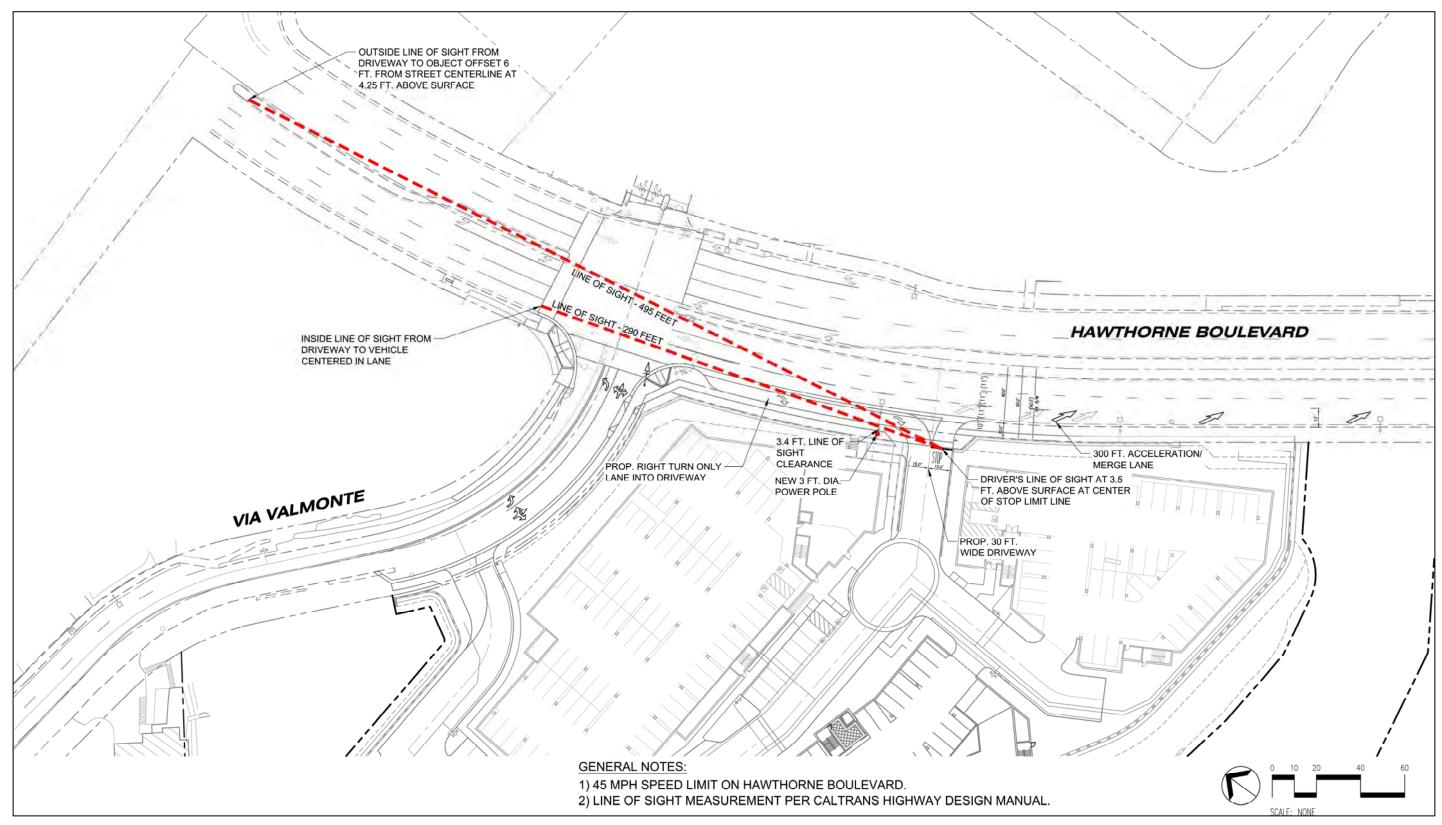


Figure 32 – Line of Sight

# <u>Parking</u>

All vehicle parking for the proposed *Project* will be provided on-site. There will be feature multiple subterranean parking structures located under the residential buildings. Vehicular access to the parking structure will be controlled by signage. Designated guest parking will also be provided. In total, the 248 multi-family dwelling units will be served with 484 parking spaces. This includes one parking space for each one bedroom unit and two spaces for each two bedroom unit with an additional 50 spaces for guest parking.

#### **Intersection Queuing Analysis**

The City of Torrance requested, as part of the TIS, that a queuing analysis be performed for the eastbound approach to the Via Valmonte/Hawthorne Boulevard intersection. The queuing analysis was intended to show the number of vehicles that typically wait (i.e., stopped at the traffic signal waiting for a green light) for the left turn movement onto northbound Hawthorne Boulevard during the A.M. peak hour. Between 7:00 A.M. and 8:00 A.M, on May 24, 2016 a field survey was taken to identify the number of vehicles stopped in the left turn lane at each traffic signal cycle. During that hour, a total of 112 vehicles were stopped in the left queueing lane at the eastbound approach and there were a total of 40 traffic signal cycles – 90 seconds each. This results in an hour-long average of 2.8 vehicles turning left per cycle. Broken down into 15 minute time intervals, the surveyed average vehicle queue is shown in Table XIV.

As shown in the table, the largest average queue of 3.2 vehicles occurred between 7:30 and 7:45 A.M. Note that the largest number observed at any given time during any cycle was five, which occurred twice during the hour long observation. It is important to emphasize that vehicles not having to stop and wait for the green light were not included in the survey and, that right turning vehicles did not wait within the left turn queue as there was enough space to pass-by.

TABLE XIV – QUEUING SURVEY1	
Time Period	Average Queue
7:00 – 7:15 A.M.	2.25
7:15 - 7:30 A.M.	2.90
7:30 – 7:45 A.M.	3.20
7:45 – 8:00 A.M.	2.10
<sup>1</sup> Queuing Survey Taken May 24, 2016	

As a follow-up, a second, two hour queuing survey was conducted on Thursday, September 27, 2018. The purpose of the second survey was to not only verify the findings from the previous survey, but to extend the survey period to include the 8:00

A.M. to 9:00 A.M. hour. Since the traffic volume counts taken in 2016 showed a significant increase in intersection traffic from the 7:00 to 8:00 A.M hour to the 8:00 A.M. to 9:00 A.M. hour, it was necessary to update the queuing analysis to reflect the higher volume time period. The results of the follow-up second survey are summarized in Table XV.

TABLE XV – SECOND QUEUING SURVEY1		
Time Period	Average Queue	
7:00 – 7:15 A.M.	2.31	
7:15 - 7:30 A.M.	3.17	
7:30 – 7:45 A.M.	3.08	
7:45 – 8:00 A.M.	3.00	
8:00 – 8:15 A.M.	2.83	
8:15 – 8:30 A.M.	3.36	
8:30 - 8:45 A.M.	3.50	
8:45 – 9:00 A.M.	3.62	

As shown in the Table XV, the average queues between the two surveys are similar during the 7:00 to 8:00 A.M. hour. Also shown are higher averages occurring in the 8:00 to 9:00 A.M. hour with the largest average queue of 3.62 vehicles between 8:45 and 9:00 A.M. The largest number observed at any given time during any cycle was nine, which occurred once during the 8:45 to 9:00 A.M. time period. The highest hourly number of left turning vehicles occurred in the 8:00 to 9:00 hour with a total of 198 vehicles. Of these, 36 did not have to stop in the queue (i.e., they approached and went through the intersection during a green light. That left 162 vehicles that had to wait in the left turn lane during a red light sometime during that hour.

In order to estimate the impact of additional *Project* related trips to the left turn queue, the trip generation/distribution during the A.M. peak hour, as shown in Figure 25, was added to the surveyed vehicles. A total of 55 A.M. peak hour, left turning *Project* vehicles leaving the site from the Via Valmonte driveway, which divided by 40 traffic signal cycles, equals an average of 1.4 vehicles per cycle. The 55 Project vehicles added to the surveyed 162 vehicles brought the future hourly total to an estimated 217 vehicles turning left during the A.M. hour with *Project* buildout. Divided by 40 traffic signal cycles, the average queue for left turn movements is 5.4 vehicles during the A.M. peak hour.

To estimate a worst case scenario, the average Project vehicles per cycle (i.e., 1.4) added to the  $95^{th}$  percentile of the maximum observed queue (i.e., nine x .95 = 8.6) brought the total worst-case queue to 10 vehicles.

As described above, the *Project* plan includes constructing a second optional left turn lane for the eastbound approach to the intersection. The anticipated vehicle capacity of both left turn options is 250 feet (125 feet for each lane), which should accommodate at least 10 vehicles (spaced at 25 foot intervals). With the development of the proposed intersection improvements, there should be adequate space within the left turn pockets to accommodate existing plus *Project* related vehicles during the highest use time periods.

The City of Torrance asked that the potential impacts on queuing on Via Valmonte be addressed using a 120 second cycle (or 30 cycles per hour), if the signal timing were to be adjusted in the future from the 90 second cycle (or 40 cycles per hour). Following the same methodology (i.e., 217 vehicles divided by 30 cycles), the average queue for left turn movements would be 7.2 vehicles during the A.M. peak hour. This anticipated average queue of left turning vehicles, with a longer traffic signal cycle length, should still be accommodated during the A.M. peak hour with the construction of *Project* related off-site improvements.

To estimate the potential worst-case (i.e., maximum) queue under the 120 second cycle scenario, the potential worst-case queue during the 90 second cycle (i.e., 95<sup>th</sup> percentile of 10 vehicles) was multiplied by the number of 90 second cycles per hour (40 cycles) divided by the number of 120 second cycles per hour (30 cycles).

10 vehicles x 40 cycles/30 cycles =  $10 \times 1.33 = 13.33$  or 14 vehicles (rounded up).

Thus, the estimated worst-case maximum queue under a 120 second signal cycle is 14 vehicles, or 4 more than the current 10 vehicles under a 90 second cycle.

Under extreme "worst-case" conditions, when there may be a significant number of vehicles attempting to exit the *Project* site onto Via Valmonte at the same time, the Project plan includes more than 120 feet of "on-site" queuing space within the driveway throat that could accommodate another six to seven vehicles.

# Intersection Queuing Analysis – Hawthorne Blvd./Pacific Coast Highway

For the Eighth Revision, a second queuing analysis was performed for the northbound left-turn movement at the Hawthorne Boulevard/Pacific Coast Highway intersection. Data used in the analysis was provided by the City of Torrance.

Currently, there are two northbound left-turn lanes at the Hawthorne Blvd./Pacific Coast Highway intersection. The length of each of these lanes is approximately 213 feet long up to the nearest intersection of Hawthorne Blvd. and 242<sup>nd</sup> street. After existing "keep clear" zones at 242<sup>nd</sup> street, queuing for the northbound left-turn lanes continues further south in one of the lanes for another 105 feet. Therefore, the total queuing distance for both lanes is approximately 531 feet. The total vehicle capacity of both left turn lanes is approximately 21 vehicles (assuming vehicle spacing at 25 feet per vehicle).

Using volume counts collected for this study in April 2016, the total number of vehicles traveling through the northbound left-turn movement was 278 in the A.M. and 311 in the P.M. peak hour.

During the A.M. peak hour, the traffic signal timing at this intersection operates at a range of 135 to 145 seconds per cycle – per data provided by the City. Using the higher value - representing longer delays (i.e., 145 seconds), there may be an average of 25 cycles in the A.M. peak hour. Therefore, 278 A.M. peak hour vehicles will be traveling through the northbound left-turn movement during 25 cycles for an average of 11 vehicles per cycle. Further, applying a design factor of 1.75 x the average, per recommendations within the "Highway Design Manual", the worst-case queuing may reach 19 vehicles. As noted above, with a left-turn lane capacity of approximately 21 vehicles, there should be sufficient left-turn lane capacity to accommodate worst-case A.M. peak hour demands for this movement.

Applying the same methodology as above for the P.M. peak hour, 311 left-turning vehicles will travel through 25 cycles for an average of 12 vehicles per cycle. With the design factor of 1.75, the worst-case queuing may reach 21 vehicles – equaling the 21 vehicle capacity.

The City has indicated that proposed improvements for this northbound left-turn movement include constructing an asphalt berm at the 242<sup>nd</sup> street crossing and eliminating the existing "keep clear" zone. The estimated additional queuing space is 60 feet which would accommodate space for at least another 2 vehicles.

Project related traffic traveling through this northbound left-turn movement is anticipated to be the heaviest during the A.M. peak hour with 10 additional vehicles. These vehicles added to the A.M. analysis above results in 288 vehicles traveling through 25 cycles for an average of 11 vehicles per cycle and a worst-case condition of 19 vehicles – still below the current capacity of 21 vehicles and the future capacity of 23 vehicles.

# **VIII. STUDY FINDINGS, CONCLUSIONS, & RECOMMENDATIONS**

The proposed *Solana Torrance* project will replace a closed surface mine operation with 248 new multi-family residences, utilizing only 5.71 acres of previously disturbed land within a 24.68-acre property. The remaining 18.97 acres of land will be preserved as natural open space.

The potential traffic impacts associated with the proposed *Project* were documented and analyzed in this Traffic Impact Study by focusing on two key roadway segments and eighteen key intersections, as identified by the City of Torrance. The City also required that cumulative traffic impacts associated with the build-out of other projects in the vicinity of the site be analyzed. The study findings and recommendations are presented as follows:

#### **Study Findings**

Based on the analyses presented herein, the following findings were made:

- 1) New traffic counts were taken in mid-April 2016. An annual growth factor of one percent was added to the 2016 volumes to estimate 2017 conditions and reflect baseline conditions at study roadway segments and intersections.
- 2) The *Project* is estimated to generate a total of 1,349 average weekday trip ends; and 89 A.M. and 109 P.M. peak hour trips ends, respectively.
- 3) The potential for "internal capture" of vehicle trips will be present, however, the percentage of such trip reduction is uncertain.
- 4) While the *Project* will generate some degree of regular transit use, thus potentially reducing private vehicle trips, the percentage of such trip reduction is uncertain.
- 5) Based on the current site plan for the *Project*, vehicular access to and from the site will be provided via one future driveway along Hawthorne Boulevard. One "exit-only" driveway with raised traffic movement barriers is proposed on Via Valmonte.
- 6) Both *Project* driveways will be restricted to right-turn-only movements for residents and visitors. Only emergency vehicles will be allowed to turn left into the site at the Via Valmonte entrance through the raised traffic movement barriers.
- 7) Capital Improvements are slated (planned for 2018) for the intersections of Hawthorne Boulevard/Pacific Coast Highway and Vista Montana/Pacific Coast Highway that will reduce traffic congestion for each location.
- 8) Each intersection was analyzed for "Levels of Service" (LOS) using four scenarios: existing plus one year of ambient growth 2017 volumes, two years of ambient growth volumes, plus *Project* volumes, and plus cumulative development volumes for both the A.M. and P.M. peak hours.
- 9) Each signalized intersection was analyzed using two methods Intersection Capacity Utilization (ICU), and Highway Capacity Manual (HCM). Calculation sheets for each intersection/condition are within the Appendix section of this report. Stop controlled intersections were only analyzed with the HCM method.
- 10) Using the Existing 2017 conditions the ICU LOS at each of the study intersections, during both the A.M. and P.M. peak hours of weekday commute, fall within acceptable limits (i.e., "D" or better) with the exception of:
  - a. the Crenshaw Boulevard/Pacific Coast Highway intersection during the P.M. peak hour;

- b. the Crenshaw Boulevard/Palos Verdes Drive North intersection during the A.M. peak hour;
- c. the Rolling Hills Road/Palos Verdes Drive North intersection during the A.M and P.M. peak hours; and
- d. the Pacific Coast Highway/Calle Mayor intersection during the A.M. and P.M. peak hours.
- **11)** The addition of *Project* traffic did not result in any changes in LOS from existing conditions.
- 12) The further addition of ambient growth (i.e., one percent per year for two years) traffic to the 2017 volumes resulted in incremental increases in volumes for all intersections and a decrease in ICU intersection LOS for the Crenshaw Boulevard/Palos Verdes Drive North intersection during the P.M. peak hour.
- 13) With the addition of cumulative development traffic, the utilization of each intersection increased, however, the ICU LOS at each intersection is projected to stay within acceptable limits during both the A.M. and P.M. peak hours, again with the exception of the four intersections noted above.
- 14) Using the HCM methodology to determine levels of service for the studied intersections revealed similar results in the existing and ambient conditions (i.e., to that of the ICU calculations) with the exception of the Hawthorne Boulevard/Pacific Coast Highway intersection resulting in LOS "E" in the P.M. peak hour, the Crenshaw Boulevard/Rolling Hills Road intersection resulting in LOS "E" in the A.M. peak hour, and the Hawthorne Boulevard/Palos Verdes Drive North intersection resulting in LOS "E" in the A.M. peak hour.
- 15) Intersection delays increased with each scenario, however, the LOS designations did not change from the 2017 existing levels with the addition of *Project* traffic.
- 16) Under the cumulative development conditions, many of the studied intersections showed increases in delays and further deterioration in LOS during both peak hours of traffic. However, the addition of *Project* traffic did not decrease the LOS any further.
- 17) The two roadway segments analyzed Via Valmonte (LOS "A") and Hawthorne Boulevard (LOS "B"), adjacent to the *Project* site both currently operate at acceptable levels, and will continue to do so with the addition of ambient growth. The only anticipated change in LOS occurs on Via Valmonte, from LOS "A" to an acceptable LOS "B" with the addition of cumulative traffic.
- 18) In the queueing analysis, with the development of the proposed intersection improvements, and assuming a traffic signal cycle length of 90 seconds, there should be adequate space within the left turn lanes to accommodate existing

plus *Project* related vehicles. Using a 120 second cycle, or 30 cycles per hour, if the signal timing were to be adjusted in the future, the average queue for left turn movements would be 7.2 vehicles during the A.M. peak hour – under the anticipated capacity of 10 vehicles. For extreme conditions when more vehicles may try to exit the Project site at the same time onto Via Valmonte, there is planned to be more than 120 feet of on-site queuing space accommodating another six to eight vehicles.

- 19) Existing queuing capacity for the northbound left-turn movement at the Hawthorn Blvd./Pacific Coast Highway intersection is approximately 21 vehicles and is expected to expand to 23 vehicles with proposed improvements. This queuing capacity is anticipated to accommodate existing and future demands with Project development.
- The line of sight distance from the *Project* exit lane stop limit line is 290 feet to the center of the lane closest to the sidewalk curb (or Number 3 Lane). All traffic formed by these two lines of sight is within the cone of visibility by a driver exiting the *Project* driveway. Once the proposed street improvements along Hawthorne Boulevard are constructed (i.e., relocation of power poles; widening the street to include a southbound right turn/deceleration lane onto the *Project* driveway; modifying the traffic signal at Hawthorne Boulevard and Via Valmonte; and moving the sidewalk to be contiguous to the curb in lieu of a landscaped parkway), there should be no visual impairments to drivers exiting the *Project* site onto Hawthorne Boulevard.

# Recommendations

Based on the study findings and conclusions, the proposed *Project* is not anticipated to result in any significant traffic impacts to any of the study street segments or intersections. Therefore, the following recommendations are made:

- 1) Construct *Project* driveways only allowing right-turn, "exit-only" movements to Via Valmonte, and right-turn, ingress/egress movements to Hawthorne Blvd.
- 2) Complete the off-site widening and improvements to Via Valmonte as shown on the *Project* plan.
- 3) Construct the intersection improvements, including an additional left/through lane to the eastbound approach leg of the Via Valmonte/Hawthorne Boulevard; a new crosswalk on the Via Valmonte leg; accessible ramps on the corners; and traffic signal improvements (e.g., modification of signal mast arms) on Via Valmonte.
- **4)** Widen and restripe the west side of Hawthorne Boulevard for a right turn deceleration lane, adjacent to the site for *Project* related traffic ingress.
- 5) Provide various traffic controls, including signage, striping, and pavement

marking, to provide safe and efficient vehicular, pedestrian, and bicycle movement through and within the *Project* site.

# IX. REFERENCES

- 1. City of Torrance General Plan, Circulation and Infrastructure Element, April 2010.
- 2. Institute of Transportation Engineers' (ITE) *Trip Generation* manual, 10<sup>TH</sup> Ed., 2017.
- 3. City of Torrance "Citywide Traffic Analysis," June 2008.
- 4. Caltrans Guide for the Preparation of Traffic Impact Studies, December 2002.
- 5. Transportation Research Board, Highway Capacity Manual, HCM2010, 2010.
- 6. Caltrans Highway Design Manual, 6th Ed., November 2017.

# **APPENDIX SECTION**

Appendix A – Existing Roadway ADT and A.M./P.M. Peak Hour Intersection Counts

#### Prepared by NDS/ATD

#### **VOLUME**

# Hawthorne Blvd S/O Via Valmonte

Day: Wednesday Date: 4/13/2016

City: Torrance
Project #: CA16\_5230\_002

	DAIL	Y TOTALS	NB 18,002	SB		B W			Tota
AM Perio	od NB	CD.		17,892		0			35,89
00:00	12	SB 24	EB WB	TOTA		The second second	SB	EB	WB TOTA
00:15	12	29		36	12:00	274	263		537
00:30	7	14		41 21	12:15	312	246		558
00:45	14 45			29 17	12:30	288	264		552
01:00	13	9		22	27 12:45 13:00	296 1170			559 22
01:15	6	13		19	13:15	282	257		539
01:30	7	11		18	13:30	299 262	298		597
01:45 02:00	5 31	14 47		19 7		264 1107	267		529
02:15	6 9	8		14	14:00	263	296 1118 318		560 22
02:30	6	8		17	14:15	266	341		581
02:45	8 29	8 3 27		14	14:30	275	305		607
03:00	9	8		11 56	14:45	302 1106			580
03:15	6	10		17	15:00	347	375		635 240
03:30	12	3		16	15:15	369	380		722 749
03:45	14 41	9 30		15 23 71	15:30	345	349		694
04:00	16	10		23 71		306 1367			642 280
04:15	18	12		30	16:00	332	374		706
04:30	28	13		41	16:15 16:30	311	362		673
04:45	35 97	17 52		52 149		277	374		651
05:00	49	20		69	17:00	324 1244 319	360 1470		684 2714
05:15 05:30	67	22		89	17:15	359	399		718
05:45	85 93 294	31		116	17:30	296	433 411		792
06:00	93 294	30 103		123 397		308 1282	409 1652		707
06:15	132	45		165	18:00	263	383		717 2934
06:30	157	73 110		205	18:15	238	378		646
06:45	202 611	123 351		267	18:30	229	326		616
07:00	285	143		325 962	18:45	244 974	345 1432		555
07:15	320	171		428	19:00	235	345		589 2406
07:30	369	294		491	19:15	226	297		580 523
07:45	427 1401	290 898		663	19:30	191	256		447
08:00	391	259		717 2299 650		164 816	244 1142		408 1958
08:15	416	244		660	20:00	128	213		341
08:30	408	219		627	20:15 20:30	115	226		341
08:45	392 1607	288 1010		680 2617	20:45	120	214		334
09:00	323	201		524	21:00	102 465 91	213 866		315 1331
09:15 09:30	328	198		526	21:15		186		277
09:30	325	194		519	21:30		217 158		300
10:00	301 1277	191 784		492 2061	21:45	22 (5.7)	131 692		246
10:15	325 290	186		511	22:00		124		203 1026
10:30	311	199 227		489	22:15	7.72	109		173
10:45	315 1241	229 841		538	22:30		82		152
11:00	297	210		544 2082	22:45	41 196	72 387		145
11:15	261	229		507	23:00	45	67		113 583
11:30	307	257		490	23:15		47		112 65
11:45	298 1163	267 963		564 565 2126	23:30		32		56
OTALS	7837	5188			23:45		26 172		43 276
SPLIT %	60.2%	39.8%		13025	TOTALS	10165	12704		22869
		55.070		36.3%	SPLIT %	44.4%	55.6%		63.7%
	DAILY TO	OTALS	NB	SB	EB	WB			Total
			18,002	17,892	0	0			35,894
Peak Hour Pk Volume	07:45	07:30		07:30	PM Peak Hour	15:00	17:00		33,034
Hr Factor	1642	1087		2690	PM Pk Volume	1367			17:00
	0.961	0.924		0.938	Pk Hr Factor	0.926	1652		2934
9 Volume	3008	1908		4916	4 - 6 Volume	2526	0.954		0.926
Peak Hour	07:45	07:30		07:30	4 - 6 Peak Hour	16:45	3122		5648
Pk Volume	1642	1087		1745/361	4 - 6 Pk Volume		17:00		17:00
Hr Factor	0.961	0.924		0.938	Pk Hr Factor	1298	1652		2934
						0.904	0.954		

#### Prepared by NDS/ATD

#### VOLUME

#### Via Valmonte W/O Hawthorne Blvd

Day: Wednesday Date: 4/13/2016

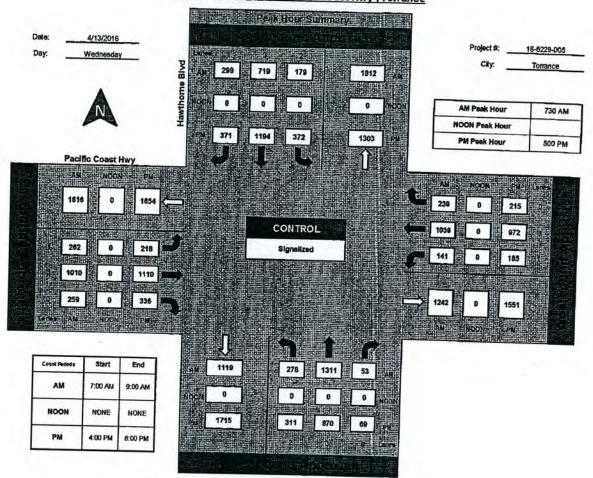
City: Torrance
Project #: CA16\_5230\_001

	DAILY TOTALS			NE		SB		EB	WB						1	Total
	DAILT TOTALS			0		0		3,097	3,270	<u> </u>					6	5,373
AM Period	NB SB	EE	3	W	3	T	OTAL	PM Period	NB	SB	EE	6	W	В	Т	OTAL
00:00		1		3		4		12:00			54		64		118	
00:15		5		4		9		12:15			49		51		100	
00:30 00:45		1	-	3		4		12:30			53		55		108	
01:00		1	7	0	11	1	18	12:45			52	208	58	228	110	436
01:15		1		0		1		13:00			34		46		80	
01:30		1		1		1 2		13:15 13:30			49		54		103	
01:45		0	3	2	3	2	6	13:45			56 57	100	60	220	116	
02:00		1		1		2	- 0	14:00			45	196	60 49	220	94	416
02:15		1		1		2		14:15			48		45		93	
02:30		1		1		2		14:30			46		48		94	
02:45		1	4	1	4	2	8	14:45			43	182	67	209	110	391
03:00		2		1		3		15:00			70		52	200	122	331
03:15		2		0		2		15:15			58		45		103	
03:30		1		1		2		15:30			68		65		133	
03:45		0	5	3	5	3	10	15:45			61	257	49	211	110	468
04:00		2		2		4		16:00			67		68		135	
04:15 04:30		2		1		3		16:15			59		73		132	
04:45		4	12	1	7	5	20	16:30			61		78		139	
05:00		5 11	13	3	7	8	20	16:45			48	235	76	295	124	530
05:15		10		2		14		17:00 17:15			60		85		145	
05:30		18		1		19		17:30			52		73		125	
05:45		18	57	2	8	20	65	17:45			47 33	102	67	205	114	407
06:00		13	5,	2		15	05	18:00			51	192	70	305	113	497
06:15		14		8		22		18:15			58		73		121	
06:30		20		16		36		18:30			44		47		91	
06:45		42	89	28	54	70	143	18:45			41	194	60	250	101	444
07:00		55		34		89		19:00			36		69		105	
07:15		58		47		105		19:15			23		39		62	
07:30		60		56		116		19:30			25		46		71	
07:45		62	235	69	206	131	441	19:45			19	103	51	205	70	308
08:00		66		50		116		20:00			23		28		51	
08:15 08:30		68		53		121		20:15			17		55		72	
08:45		73 75	202	55	222	128	F04	20:30			8		29		37	200
09:00		73	282	64 47	222	139	504	20:45 21:00			12	60	25	137	37	197
09:15		49		31		80		21:15			11		32		43	
09:30		61		31		92		21:30			15 14		37		52	
09:45		65	248	37	146	102	394	21:45			8	48	18 18	105	32	152
10:00		50		39	2.10	89	331	22:00			9	40	28	105	26 37	153
10:15		40		46		86		22:15			11		7		18	
10:30		52		45		97		22:30			4		10		14	
10:45		55	197	53	183	108	380	22:45			12	36	14	59	26	95
11:00		57		39		96		23:00			4		8		12	33
11:15		64		42		106		23:15			4		13		17	
11:30		47		47		94	144	23:30			5		7		12	
11:45		64	232	45	173	109	405	23:45			1	14	2	30	3	44
TOTALS			1372		1022		2394	TOTALS				1725		2254		3979
SPLIT %			57.3%		42.7%		37.6%	SPLIT %				43.4%		56.6%		62.4%
	DAILY TOTALS			NB		SB		EB	WB						То	tal
	DAILT TOTALS			0		0		3,097	3,276						6,3	
AM Peak Hour			08:15		07:30		08:15	PM Peak Hour				15:00		16:15		16:15
AM Pk Volume			289		228		508	PM Pk Volume				257		312		540
Pk Hr Factor			0.963		0.826		0.914	Pk Hr Factor				0.918		0.918		0.931
7 - 9 Volume			517		428		945	4 - 6 Volume				427		600		1027
7 - 9 Peak Hour			08:00		07:30		08:00	4 - 6 Peak Hour				16:00		16:15		16:15
7 - 9 Pk Volume			282		228		504	4 - 6 Pk Volume				235		312		540
Pk Hr Factor			0.940		0.826		0.906	Pk Hr Factor				0.877		0.918		A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
												0.077		0.518		0.931

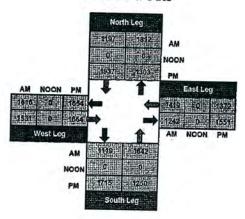
Prepared by:
NDS

National Data & Surveying Services

# Hawthome Blyd and Pacific Coast Hwy , Torrance



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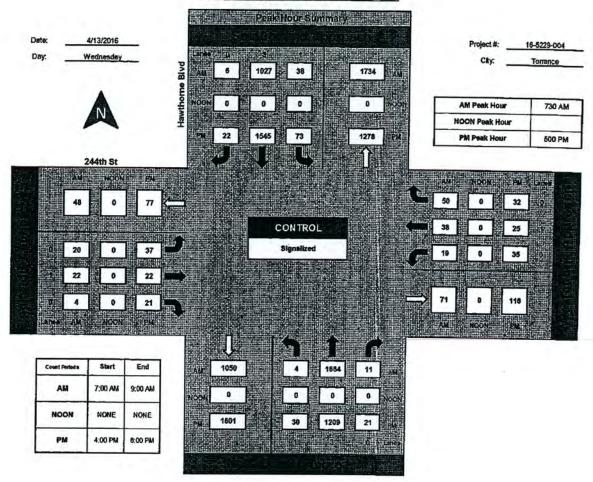




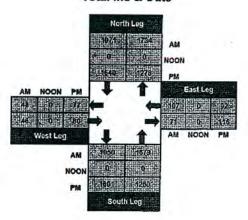


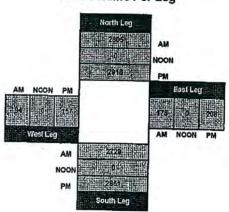
National Data & Surveying Services

#### Hawthome Blvd and 244th St. Torrance



#### **Total Ins & Outs**

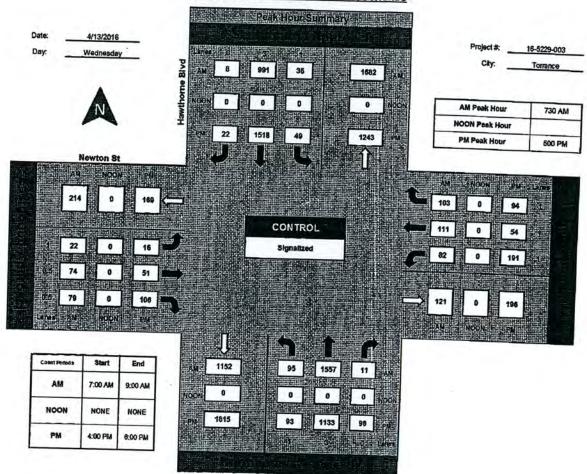




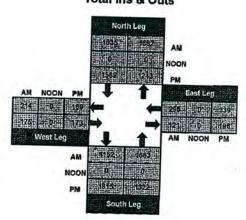
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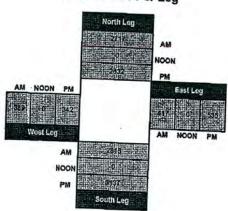
National Data & Surveying Services

# Hawthome Blvd and Newton St. Torrance



#### Total Ins & Outs

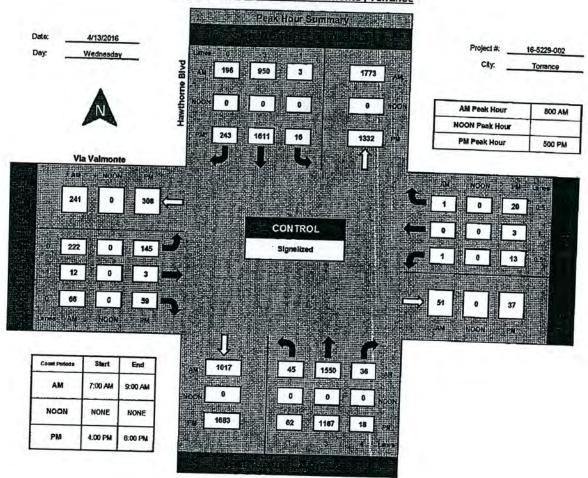




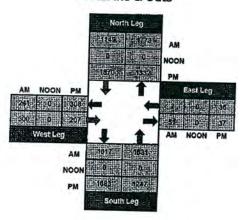
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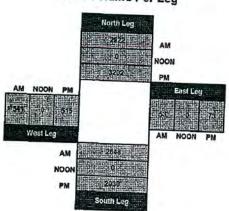
National Data & Surveying Services

# Hawthome Blvd and Via Valmonte, Torrance



#### Total Ins & Outs

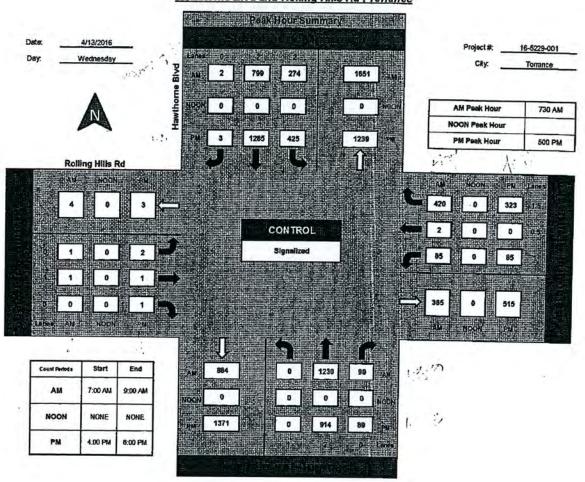




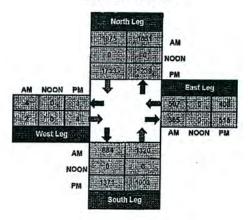


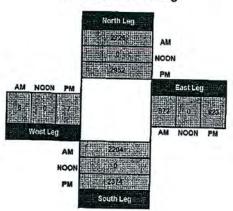
Prepared by:
National Data & Surveying Services

#### Hawthorne Blvd and Rolling Hills Rd , Torrance



#### Total Ins & Outs

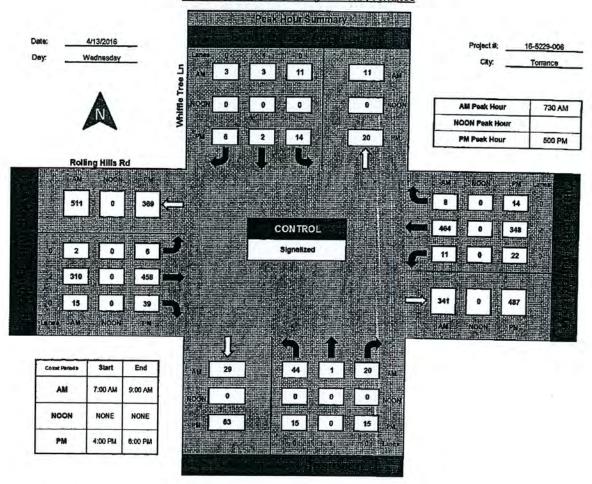




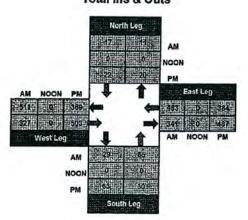


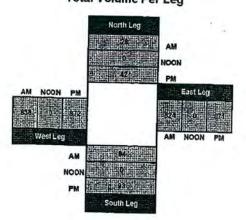
National Data & Surveying Services

#### Whiffle Tree Ln and Rolling Hills Rd . Torrance



#### Total Ins & Outs



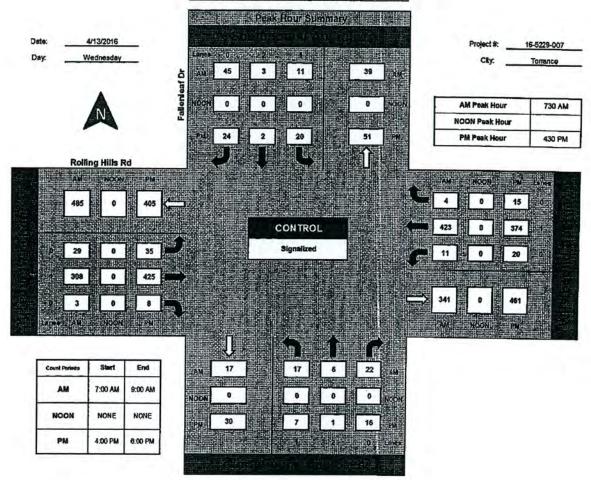




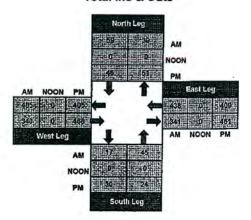


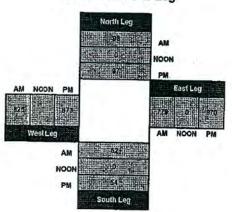
National Data & Surveying Services

#### Fallenleaf Dr and Rolling Hills Rd . Torrance



#### Total Ins & Outs

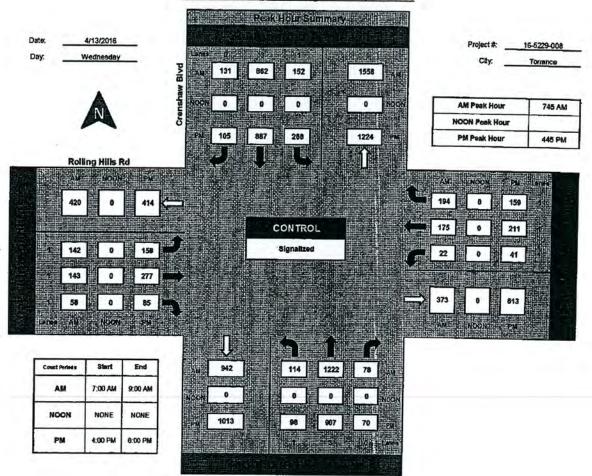




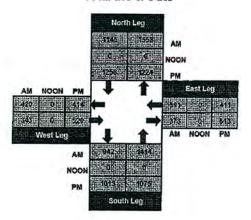


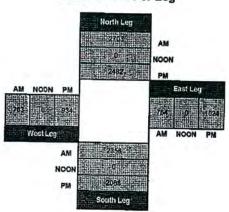
National Data & Surveying Services

#### Crenshaw Blvd and Rolling Hills Rd , Torrance



#### **Total Ins & Outs**



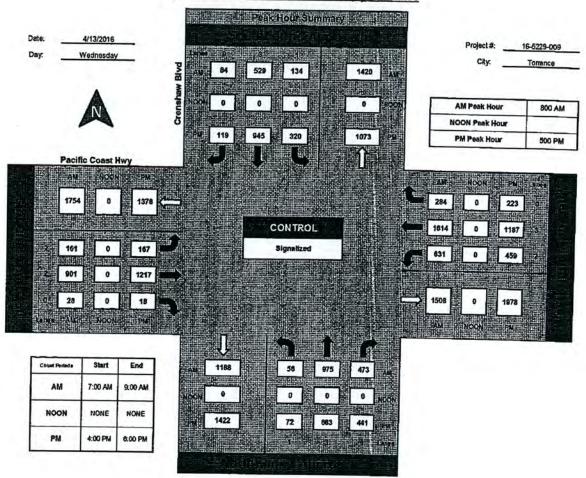




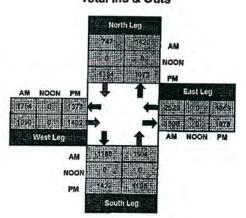
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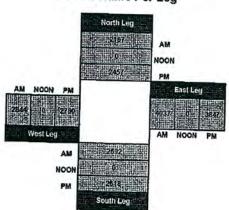
National Data & Surveying Services

#### Crenshaw Blyd and Pacific Coast Hwy , Torrance





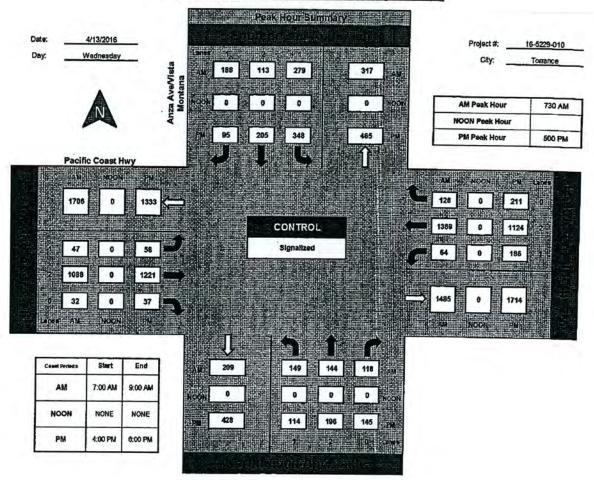




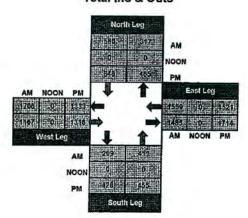


National Data & Surveying Services

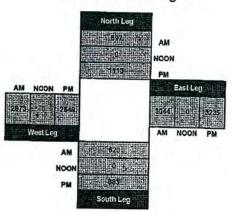
#### Anza Ave/Vista Montana and Pacific Coast Hwy . Torrance







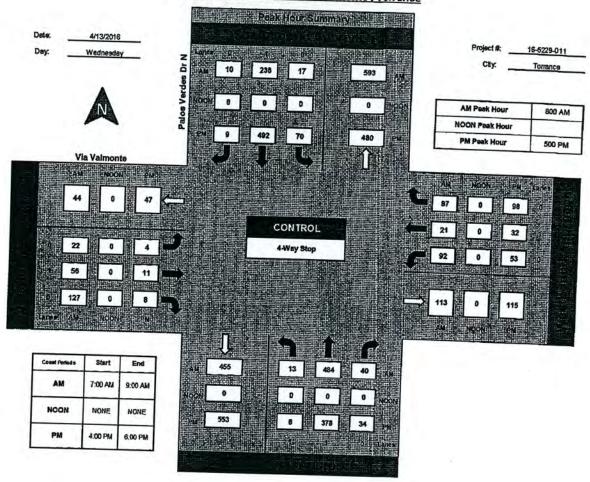
Total Volume Per Leg



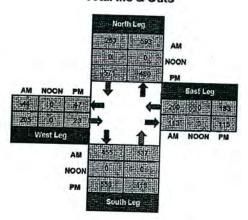
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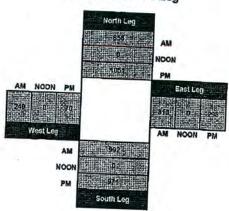
National Data & Surveying Services

# Palos Verdes Dr N and Via Valmonte , Torrance

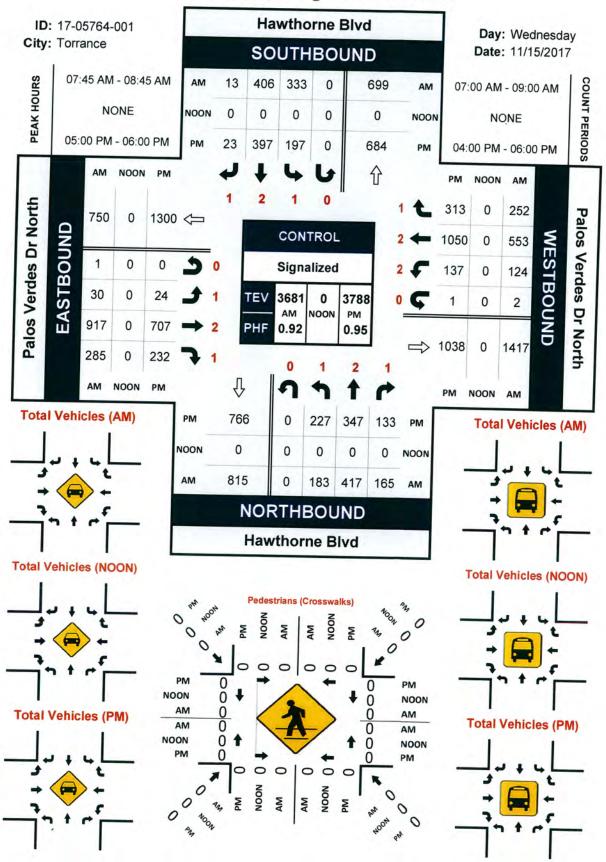


#### Total Ins & Outs

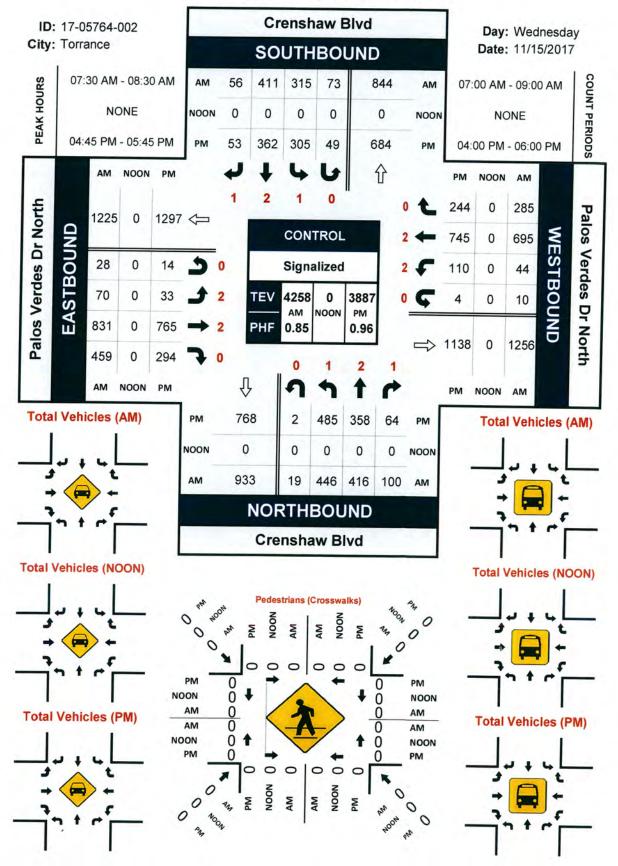




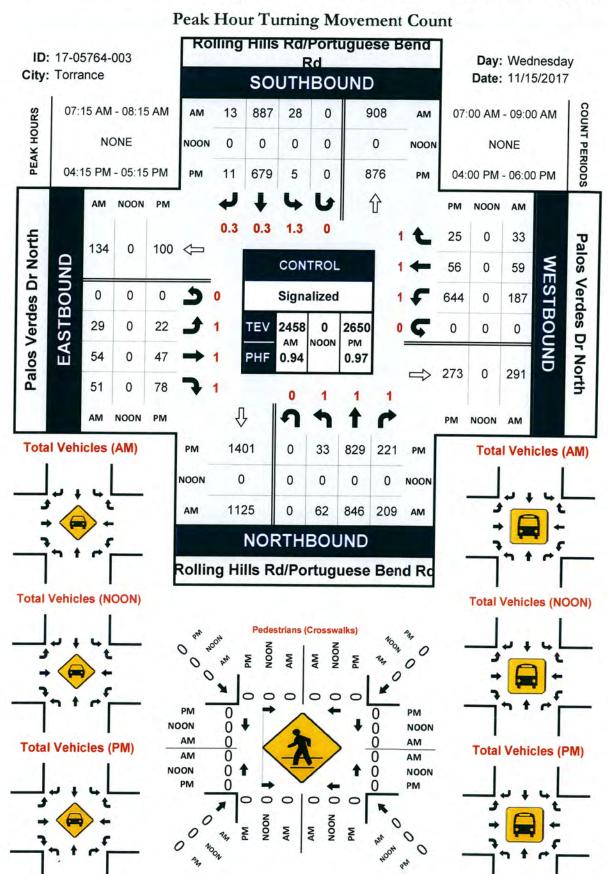
# Hawthorne Blvd & Palos Verdes Dr North



# Crenshaw Blvd & Palos Verdes Dr North

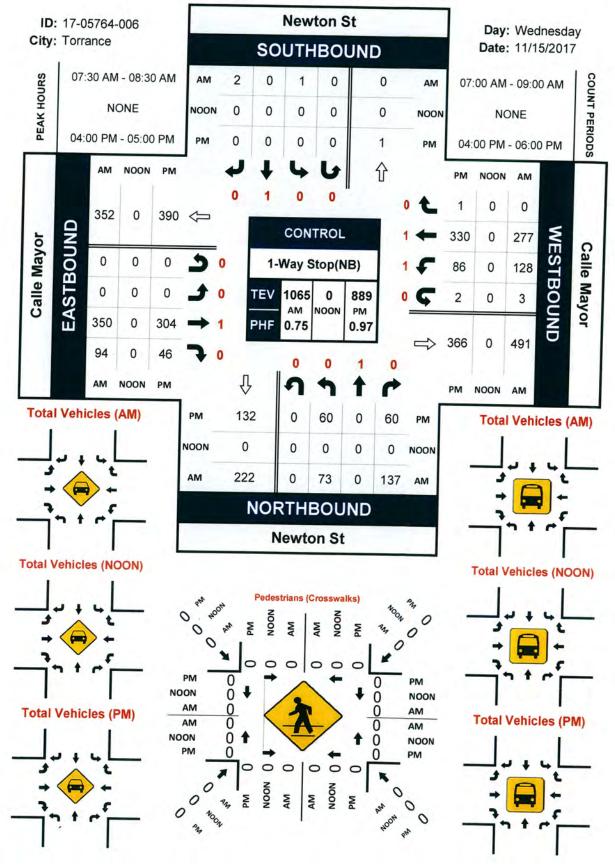


# Rolling Hills Rd/Portuguese Bend Rd & Palos Verdes Dr North

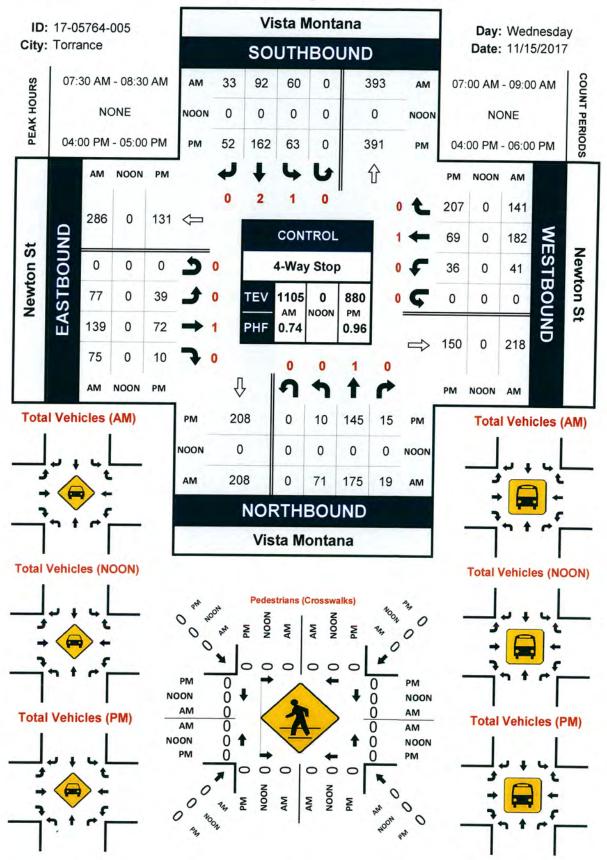


# Newton St & Calle Mayor

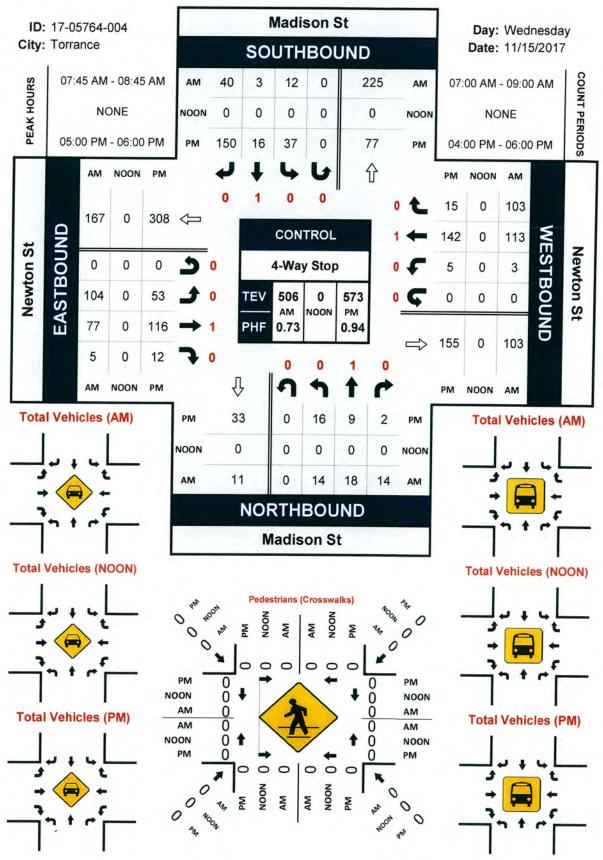




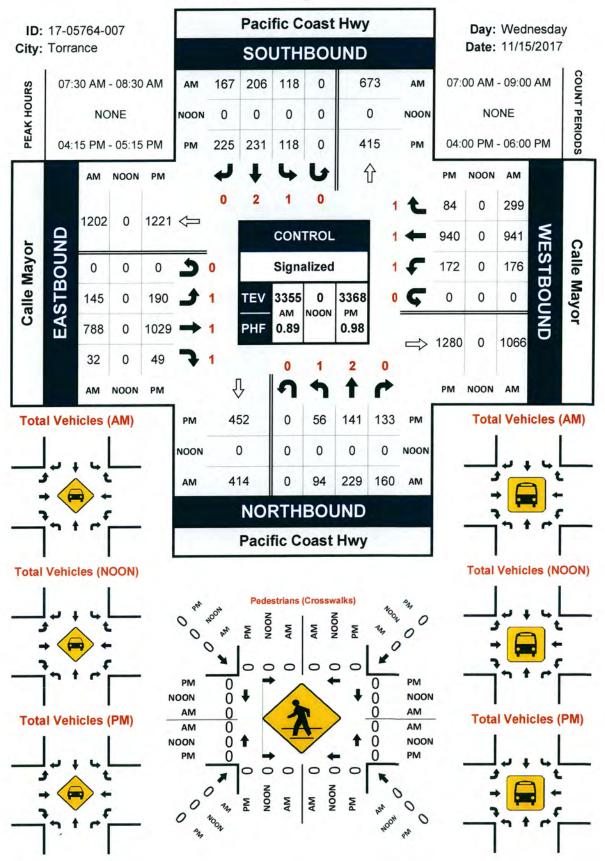
# Vista Montana & Newton St



# Madison St & Newton St



# Pacific Coast Hwy & Calle Mayor



Appendix B - ICU Worksheets

**Existing & Existing Plus Project** 



Conditions: Location:

Existing (2017) Plus Project

City of Torrance, California

North-South Street:

Hawthorne Boulevard

**East-West Street:** 

Pacific Coast Highway

Annual Growth Rate: 1.00%

Count Date:

Wed. April 13, 2016

**Horizon Date:** 

2019

Peak Hour:

Data Source:

7:30 - 8:30 AM

Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

			Volume/Ca	pacity Ratio				
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn	2	3200	281	291	0.088	0.091	
Northbound	Through	3	4800	1378	1416	0.287 *	0.295	
	Right Turn**	0	0	0	0			
	Left Turn	2	3200	181	181	0.057 *	0.057	
Southbound	Through	3	4800	726	733	0.151	0.153	
	Right Turn	1	1600	302	302	0.189	0.189	
	Left Turn	1	1600	265	265	0.166 *	0.166	
Eastbound	Through	3	4800	1282	1285	0.267	0.268	
	Right Turn**	0	0	0	0			
	Left Turn	1	1600	142	144	0.089	0.090	
Westbound	Through	3	4800	1290	1290	0.269 *	0.269	
	Right Turn**	0	0	0	0	-		
		ICU Plus	Lost Time Fa	actor of .10		0.878		
		Existing	2017 Level of	f Service		D		
	ICU Plus Lost Time Factor of .10 Plus Project Level of Service							

<sup>\*</sup> Denotes Critical Movement

Study Intersection No.

<sup>\*\*</sup> Right Turn Volumes Added to Through Movements

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

No.

Location:

City of Torrance, California

**Horizon Date:** 2017

North-South Street: East-West Street:

Hawthorne Boulevard Pacific Coast Highway Peak Hour:

5:00 - 6:00 PM

Annual Growth Rate: 1.00%

Data Source: Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

		1 1		Peak Hou	ır Volume	Volume/Ca	pacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn	2	3200	314	320	0.098 *	0.100	-
Northbound	Through	3	4800	949	970	0.198	0.202	
	Right Turn**	0	0	0	0	-		
	Left Turn	2	3200	376	376	0.118	0.118	
Southbound	Through	3	4800	1206	1222	0.251 *	0.255	
	Right Turn	1	1600	375	384	0.234	0.240	
	Left Turn	1	1600	220	220	0.138	0.138	
Eastbound	Through	3	4800	1460	1460	0.304 *	0.304	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	187	191	0.117 *	0.119	
Westbound	Through	3	4800	1199	1199	0.250	0.250	
	Right Turn**	0	0	0	0	-		
		ICU Plus	Lost Time Fa	actor of .10		0.870		
		Existing	2017 Level of	f Service		D		
		ICU Plus	Lost Time Fa	actor of .10			0.878	
		Plus Proj	ect Level of	Service			D	
	Denotes Critical M Right Turn Volume		Through Mov	ements		- parameter in the control of the co	Study Intersection	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

No.

Location:

City of Torrance, California

\*\*\* Left Turn Volumes Added to Through Movements

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

7:30 - 8:30 AM

East-West Street:

244th Street

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

e lent I urn gh urn** urn	lumber of Lanes 1 3 0	Capacity (Veh/Hr) On Green 1600 4800 0	Existing (2017) 4 1581	Existing +Project 4 1629	Existing (2017) 0.003 0.329 *	Existing +Project
gh urn** urn gh	3	4800 0				
urn** urn	0	0	1581	1629	0.329 *	
urn gh					0.023	0.339
gh	1				-	
		1600	38	38	0.024 *	0.024
Track!	3	4800	1043	1055	0.217	0.220
ırn**	0	0				
'n***	0	0			3	-
gh	1	1600	24	24	0.015 *	0.015
urn	0.5	800	4	4	0.005	0.005
m***	0	0			-	( <del>+</del> )
gh	1	1600	57	57	0.036 *	0.036
urn	0.5	800	51	51	0.064	0.064
IC	CU Plus	Lost Time F	actor of .10		0.504	
E	xisting	2017 Level o	f Service		A	
IC	CU Plus	Lost Time F	actor of .10			0.514
Р	lus Pro	ject Level of	Service			Α
	IC P	ICU Plus Plus Pro	Existing 2017 Level of ICU Plus Lost Time F Plus Project Level of Itical Movement	ICU Plus Lost Time Factor of .10 Existing 2017 Level of Service  ICU Plus Lost Time Factor of .10 Plus Project Level of Service  itical Movement Volumes Added to Through Movements	Existing 2017 Level of Service  ICU Plus Lost Time Factor of .10  Plus Project Level of Service  itical Movement	Existing 2017 Level of Service A  ICU Plus Lost Time Factor of .10  Plus Project Level of Service

Conditions:

Existing (2017) Plus Project

Wed. April 13, 2016

Location:

City of Torrance, California

2019 Horizon Date:

North-South Street: Hawthorne Boulevard

\*\*\* Left Turn Volumes Added to Through Movements

C. B.

**East-West Street:** 

244th Street

Peak Hour:

5:00 - 6:00 PM

No.

Annual Growth Rate: 1.00%

Data Source: Input By:

Count Date:

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

64		· · · · · · · · · · · · · · · · · · ·	apacity Ratio	1
ty lr) Existing en (2017)	Existing +Project	Existing (2017)	Existing +Project	_
30	30	0.019	* 0.019	
1242	1269	0.259	0.264	
		-		
74	74	0.046	0.046	
1582	1615	0.330	0.336	
		10-1	-	
59	59	0.037	0.037	
21	21	0.026	0.026	
		1.5	1-	
57	57	0.036	0.036	
51	51	0.064	0.064	
ne Factor of .10		0.521		
vel of Service		Α		
me Factor of .10			0.528	
el of Service			А	
		el of Service	el of Service	el of Service A Study

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

7:30 - 8:30 AM

East-West Street:

**Newton Street** 

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		1/2		Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	96	103	0.060 *	0.064
Northbound	Through	3	4800	1584	1636	0.330	0.341
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	36	36	0.023	0.023
Southbound	Through	2	3200	1009	1021	0.315 *	0.319
	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	22	22	0.014	0.014
Eastbound	Through	0.5	800	75	75	0.094	0.094
	Right Turn	0.5	800	80	82	0.100 *	0.103
	Left Turn	1	1600	83	87	0.052 *	0.054
Westbound	Through	1	1600	112	112	0.070	0.070
	Right Turn	1	1600	104	104	0.065	0.065
		ICU Plus	Lost Time Fa	actor of .10		0.627	
		Existing	2017 Level of	Service		В	
		ICU Plus	Lost Time Fa	actor of .10			0.640
		Plus Proj	ect Level of	Service			В

<sup>\*</sup> Denotes Critical Movement

Study Intersection No.

3

<sup>\*\*</sup> Right Turn Volumes Added to Through Movements

Conditions:

Existing (2017) Plus Project

Wed. April 13, 2016

Location:

City of Torrance, California

2019 Horizon Date:

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

**Newton Street** 

Data Source:

Count Date:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio		
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project		
	Left Turn	1	1600	94	111	0.059	0.069		
Northbound	Through	2	3200	1241	1270	0.388	0.397		
	Right Turn**	0	0	0	0	-			
	Left Turn	1	1600	49	49	0.031	0.031		
Southbound	Through	3	4800	1555	1588	0.324	0.331		
	Right Turn**	0	0	0	0	100			
	Left Turn	1	1600	16	16	0.010	0.010		
Eastbound	Through	0.5	800	52	52	0.065	0.065		
	Right Turn	0.5	800	107	109	0.134	0.136		
	Left Turn	1	1600	193	208	0.121	0.130		
Westbound	Through	1	1600	55	55	0.034	0.034		
	Right Turn	1	1600	95	95	0.059	0.059		
-		ICU Plus	Lost Time F	actor of .10		0.773			
		Existing	2017 Level o	f Service		С			
			Lost Time F				0.794		
		Plus Pro	ject Level of	Service			С		
	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements								
							3		

Conditions:

Existing (2017)

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

8:00 - 9:00 AM

**East-West Street:** 

Via Valmonte

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hour Volume	Volume/Capacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing (2017)
	Left Turn	1	1600	45	0.028
Northbound	Through	3	4800	1566	0.326 *
	Right Turn	1	1600	36	0.023
	Left Turn	1	1600	3	0.002 *
Southbound	Through	3	4800	1158	0.241
	Right Turn**	0	0	0	
	Left Turn***	0	0	0	
Eastbound	Through	1	1600	236	0.148 *
	Right Turn	0.5	800	67	0.084
	Left Turn***	0	0	0	
Westbound	Through	1	1600	1	0.001 *
	Right Turn	1	1600	1	0.001
		ICU Plus	Lost Time Fa	actor of .10	0.576
		Existing	2017 Level of	f Service	A (////////////////////////////////////
		ICU Plus	Lost Time Fa	actor of .10	
		Plus Proj	ect Level of	Service	

<sup>\*</sup> Denotes Critical Movement

Study Intersection No.

4

<sup>\*\*</sup> Right Turn Volumes Added to Through Movements

<sup>\*\*\*</sup> Left Turn Volumes Added to Through Movements

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

8:00 - 9:00 AM

East-West Street:

Via Valmonte

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hour Volume	Volume/Cap	acity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Project		Existing +Project
	Left Turn	1	1600	45	1	0.028
Northbound	Through	3	4800	1570	*	0.327
	Right Turn	1	1600	36		0.023
	Left Turn	1	1600	3	*	0.002
Southbound	Through	3	4800	1180		0.246
	Right Turn**	0	0	0		
	Left Turn***	0	0	0	1 =	4
Eastbound	Through	2	3200	291	*	0.091
	Right Turn	0.5	800	71		0.089
	Left Turn***	0	0	0		
Westbound	Through	1	1600	1	*	0.001
	Right Turn	1	1600	1		0.001
		ICU Plus	Lost Time Fac	tor of .10		

Existing 2017 Level of Service

ICU Plus Lost Time Factor of .10

Plus Project Level of Service

0.521

A

Study Intersection No.

4

<sup>\*</sup> Denotes Critical Movement

<sup>\*\*</sup> Right Turn Volumes Added to Through Movements

<sup>\*\*\*</sup> Left Turn Volumes Added to Through Movements

Conditions:

Existing (2017)

Count Date:

Wed. April 13, 2016

Study

Intersection

No.

4

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

**East-West Street:** 

Via Valmonte

Data Source:

Annual Growth Rate: 1.00%

\* Denotes Critical Movement

\*\* Right Turn Volumes Added to Through Movements

\*\*\* Left Turn Volumes Added to Through Movements

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			( )	Peak Hour Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing (2017)	
	Left Turn	1	1600	63	0.039 *	
Northbound	Through	3	4800	1179	0.246	
	Right Turn	1	1600	18	0.011	
	Left Turn	1	1600	16	0.010	
Southbound	Through	3	4800	1872	0.390 *	
	Right Turn**	0	0			
	Left Turn***	0	0	0		
Eastbound	Through	1	1600	149	0.093 *	
	Right Turn	0.5	800	60	0.075	
	Left Turn***	0	0	0	-	
Westbound	Through	1	1600	16	0.010 *	
	Right Turn	1	1600	20	0.013	
		ICU Plus	Lost Time Fa	actor of .10	0.633	
		Existing	2017 Level of	f Service	В	
			Lost Time Fa			

Conditions:

Existing (2017) Plus Project

Wed. April 13, 2016

Location:

City of Torrance, California

North-South Street:

Hawthorne Boulevard

**Horizon Date:** 2019 Peak Hour:

Study

Intersection

No. 4

**East-West Street:** 

Data Source:

Count Date:

5:00 - 6:00 PM

Annual Growth Rate: 1.00%

Via Valmonte

\* Denotes Critical Movement

\*\* Right Turn Volumes Added to Through Movements \*\*\* Left Turn Volumes Added to Through Movements

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			7	Peak Hour Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Project		Existing +Project
	Left Turn	1	1600	63		0.039
Northbound	Through	3	4800	1192		0.248
	Right Turn	1	1600	18		0.011
	Left Turn	1	1600	16		0.010
Southbound	Through	3	4800	1935		0.403
	Right Turn**	0	0			
	Left Turn***	0	0	0		-
Eastbound	Through	2	3200	182		0.057
4	Right Turn	0.5	800	63		0.079
	Left Turn***	0	0	0		(*)
Westbound	Through	1	1600	16		0.010
	Right Turn	1	1600	20		0.013
			Lost Time Fac			
		100	Lost Time Fac			0.609 B

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

5

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

7:30 - 8:30 AM

East-West Street:

Rolling Hills Road

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Direction of Travel				Peak Hou	Peak Hour Volume		apacity Ratio	
	Lane Number of Movement Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project		
	Left Turn	1	1600	0	0	0.000	0.000	
Northbound	Through	2	3200	1333	1335	0.417 *	0.417	
	Right Turn**	0	0			-		
	Left Turn	2	3200	277	281	0.087 *	0.088	
Southbound	Through	2	3200	809	819	0.253	0.256	
	Right Turn**	0	0	0	0			
	Left Turn***	0	0	0	0		-	
Eastbound	Through	1	1600	2	2	0.001 *	0.001	
	Right Turn	0.5	800	0	0	0.000	0.000	
	Left Turn	1	1600	86	86	0.054 *	0.054	
Westbound	Through	0.5	800	2	2	0.003	0.003	
	Right Turn	1.5	2400	424	426	0.177	0.178	
ICU Plus Lost Time Factor of .10 0.658								
Existing 2017 Level of Service B								
ICU Plus Lost Time Factor of .10 Plus Project Level of Service							0.660	
							В	
** F	Denotes Critical M Right Turn Volume eft Turn Volumes	es Added to					Study Intersection No.	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Study

Intersection

No. 5

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

**East-West Street:** 

Rolling Hills Road

Data Source: Input By:

C. B.

Annual Growth Rate: 1.00%

\* Denotes Critical Movement

\*\* Right Turn Volumes Added to Through Movements

\*\*\* Left Turn Volumes Added to Through Movements

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

	Capacity (Veh/Hr) On Green	Peak Hour Volume		Volume/Ca	pacity Ratio		
Lane Number of Movement Lanes		Existing (2017)	Existing +Project	Existing (2017)	Existing +Project		
urn 1	1600	0	0	0.000	0.000		
gh 2	3200	1013	1020	0.317 *	0.319		
ırn** 0	0	0	0	-			
ırn 2	3200	429	431	0.134 *	0.135		
gh 2	3200	1301	1332	0.407	0.416		
ırn** 0	0	0	0	-			
n*** 0	0	0	0		-		
gh 1	1600	3	3	0.002 *	0.002		
urn 0.5	800	1	1	0.001	0.001		
ırn 1	1600	86	86	0.054 *	0.054		
gh 0.5	800	0	0	0.000	0.000		
urn 1.5	2400	326	332	0.136	0.138		
ICU Plus Lost Time Factor of .10 0.606							
Existing 2017 Level of Service							
ICU Plus Lost Time Factor of .10							
Plus Project Level of Service							
ICU Plus Lost Time Factor of .10							

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Whiffletree Lane

Peak Hour:

7:30 - 8:30 AM

**East-West Street:** 

Rolling Hills Road

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Direction of Travel				Peak Hou	ur Volume	Volume/Ca	apacity Ratio	
	Lane of	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn***	0	0	0	0		-	
Northbound	Through	1	1600	45	45	0.028	0.028	
	Right Turn	0.5	800	20	20	0.025	0.025	
	Left Turn***	0	0	0	0			
Southbound	Through	1	1600	14	14	0.009	0.009	
	Right Turn	0.5	800	3	3	0.004	0.004	
	Left Turn***	0	0	0	0		1-	
Eastbound	Through	2	3200	330	334	0.103	0.104	,
	Right Turn**	0	0	0	0			
	Left Turn***	0	0	0	0	3-0	-	
Westbound	Through	2	3200	488	490	0.153 *	0.153	*
	Right Turn**	0	0	0	0	1 (2		
ICU Plus Lost Time Factor of .10 0.393								
Existing 2017 Level of Service A								
ICU Plus Lost Time Factor of .10 Plus Project Level of Service							0.394	
							А	
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection	on

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

6

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Whiffletree Lane

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Rolling Hills Road

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Number of Lanes  *** 0  1 1  7 0.5  *** 0  1 1  7 0.5  *** 0  1 2  1 2  1 2	Capacity (Veh/Hr) On Green  0 1600 800  0 1600 800  0 3200	Existing (2017)  0 15 15 0 16 6 0 508	0 15 15 0 16 6	Existing (2017)  - 0.009 * 0.019  - 0.010 * 0.008	- 0.009 0.019 0.010 0.008	_	
1 0.5  *** 0 1 0.5  *** 0 1 0.5  *** 0 1 2	1600 800 0 1600 800	15 15 0 16 6	15 15 0 16 6	0.019 - 0.010 *	0.019		
7n 0.5  1 1 0.5  1 0 1 2	800 0 1600 800	15 0 16 6	15 0 16 6	0.019 - 0.010 *	0.019		
0 1 1 cn 0.5 c** 0 1 2	0 1600 800	0 16 6	0 16 6	0.010 *	0.010		
1 0.5 *** 0 1 2	1600 800 0	16 6 0	16 6 0		191393		
n 0.5	800	6	6		191393		
*** 0 n 2	0	0	0	0.008	0.008		
2	7.7			-	-		
	3200	508	472				
**			510	0.159 *	0.159		
1 0	0	0	0				
*** 0	0	0	0				
2	3200	387	393	0.121 *	0.123		
n** 0	0	0	0	0+0			
ICU Plus Lost Time Factor of .10 0.399							
Existing 2017 Level of Service A  ICU Plus Lost Time Factor of .10  Plus Project Level of Service							

Conditions:

Existing (2017) Plus Project

Wed. April 13, 2016

Location:

City of Torrance, California

North-South Street:

Fallenleaf Drive

2019

**East-West Street:** 

Peak Hour: 7:30 - 8:30 AM

Rolling Hills Road

Data Source:

Count Date:

Horizon Date:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Direction of Travel				Peak Hour Volume		Volume/Ca	pacity Ratio	
	Lane of	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn***	0	0	0	0	-	-	
Northbound	Through	1	1600	45	45	0.028	0.028	
	Right Turn**	0	0	0	0	-		
	Left Turn***	0	0	0	0			
Southbound	Through	1	1600	59	59	0.037	0.037	1
	Right Turn**	0	0	0	0			
	Left Turn	1	1600	29	29	0.018	0.018	11.19
Eastbound	Through	2	3200	314	318	0.098	0.099	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	11	11	0.007	0.007	
Westbound	Through	2	3200	431	433	0.135	0.135	,
	Right Turn**	0	0	0	0			
ICU Plus Lost Time Factor of .10 0.318								
Existing 2017 Level of Service A								
ICU Plus Lost Time Factor of .10							0.318	
Plus Project Level of Service							А	
** F	Denotes Critical M Right Turn Volume Left Turn Volumes	s Added to					Study Intersecti No.	on
							7	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Fallenleaf Drive

Peak Hour:

4:30 - 5:30 PM

**East-West Street:** 

Rolling Hills Road

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

		1		Peak Hou	ur Volume	Volume/Ca	Capacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn***	0	0	0	0	1	-	
Northbound	Through	1	1600	24	24	0.015	0.015	
	Right Turn**	0	0	0	0	2		
	Left Turn***	0	0	0	0			
Southbound	Through	1	1600	46	46	0.029 *	0.029	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	35	35	0.022 *	0.022	
Eastbound	Through	2	3200	437	439	0.137	0.137	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	20	20	0.013	0.013	
Westbound	Through	2	3200	393	399	0.123 *	0.125	
	Right Turn**	0	0	0	0	-		
		ICU Plus	Lost Time Fa	actor of .10		0.288		
		Existing	2017 Level of	Service		A		
		ICU Plus	Lost Time Fa	actor of .10			0.290	
		Plus Proj	ect Level of	Service			Α	
** F	Penotes Critical M Right Turn Volume eft Turn Volumes	s Added to					Study Intersection No.	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

8

Location:

City of Torrance, California

Horizon Date:

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

7:45 - 8:45 AM

East-West Street:

Rolling Hills Road

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			7	Peak Hour Volume		Volume/Ca	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn	1	1600	115	116	0.072	0.073	
Northbound	Through	3	4800	1313	1313	0.274 *	0.274	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	154	154	0.096 *	0.096	
Southbound	Through	3	4800	1003	1004	0.209	0.209	
	Right Turn**	0	0			-		
	Left Turn	1	1600	143	145	0.089 *	0.091	
Eastbound	Through	1	1600	144	144	0.090	0.090	
	Right Turn	1	1600	59	61	0.037	0.038	
	Left Turn	1	1600	22	22	0.014	0.014	
Westbound	Through	0.5	800	177	177	0.221 *	0.221	
	Right Turn	1.5	2400	196	196	0.082	0.082	
		ICU Plus	Lost Time Fa	ctor of .10		0.780		
		Existing	2017 Level of	Service		С		
		ICU Plus	Lost Time Fa	actor of .10			0.782	
		Plus Proj	ect Level of	Service			С	
** F	Denotes Critical M Right Turn Volume eft Turn Volumes	s Added to					Study Intersection No.	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Intersection

No. **8** 

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

4:45 - 5:45 PM

East-West Street:

Rolling Hills Road

Data Source: Input By:

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

\*\* Right Turn Volumes Added to Through Movements\*\*\* Left Turn Volumes Added to Through Movements

		77-7	79 - 1	Peak Hou	ır Volume	Volume/Ca	olume/Capacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
	Left Turn	1	1600	99	102	0.062	0.064	
Northbound	Through	3	4800	987	987	0.206 *	0.206	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	269	269	0.168 *	0.168	
Southbound	Through	3	4800	1002	1005	0.209	0.209	
	Right Turn**	0	0	0	0			
	Left Turn	1	1600	160	161	0.100 *	0.101	
Eastbound	Through	1	1600	280	280	0.175	0.175	
	Right Turn	1	1600	86	87	0.054	0.054	
	Left Turn	1	1600	41	42	0.026	0.026	
Westbound	Through	0.5	800	213	217	0.266 *	0.271 *	
	Right Turn	1.5	2400	161	164	0.067	0.068	
		ICU Plus	Lost Time Fa	actor of .10		0.840		
		Existing	2017 Level of	f Service		D		
		ICU Plus	Lost Time Fa	actor of .10			0.846	
		Plus Pro	ect Level of	Service			D	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Intersection

No. 9

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

8:00 - 9:00 AM

East-West Street:

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

\*\* Right Turn Volumes Added to Through Movements \*\*\* Left Turn Volumes Added to Through Movements

			Peak Hour Volume		v oranio, o	pacity Ratio	
Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
Left Turn	1	1600	57	57	0.036	0.036	
Through	3	4800	985	986	0.205	* 0.205	
Right Turn	1	1600	478	479	0.299	0.299	
Left Turn	1	1600	135	135	0.084	* 0.084	
Through	3	4800	619	624	0.129	0.130	
Right Turn**	0	0			1		
Left Turn	2	3200	163	167	0.051	0.052	
Through	2	3200	938	945	0.293	0.295	
Right Turn**	0	0	0	0			
Left Turn	2	3200	637	641	0.199	0.200	
Through	3	4800	1917	1924	0.399	0.401	
Right Turn**	0	0	0	0	-		
	ICU Plus	Lost Time Fa	actor of .10		0.882		
	Existing	2017 Level of	f Service		D		
	ICU Plus	Lost Time Fa	actor of .10			0.897	
	Plus Proj	ect Level of	Service			D	
	Movement  Left Turn Through Right Turn  Left Turn Through Right Turn**  Left Turn Through Right Turn**  Left Turn Through Right Turn**	Lane Movement  Left Turn 1 Through 3 Right Turn 1 Left Turn 1 Through 3 Right Turn 2 Through 2 Right Turn** 0 Left Turn 2 Through 3 Right Turn** 0 Left Turn 2 Through 1 CU Plus Existing  ICU Plus	Lane         of Lanes         (Veh/Hr) On Green           Left Turn         1         1600           Through         3         4800           Right Turn         1         1600           Left Turn         1         1600           Through         3         4800           Right Turn**         0         0           Left Turn         2         3200           Through         2         3200           Right Turn**         0         0           Left Turn         2         3200           Through         3         4800           Right Turn**         0         0           ICU Plus Lost Time Fater           Existing 2017 Level of         1	Lane         of Lanes         (Veh/Hr) On Green         Existing (2017)           Left Turn         1         1600         57           Through         3         4800         985           Right Turn         1         1600         478           Left Turn         1         1600         135           Through         3         4800         619           Right Turn**         0         0         163           Through         2         3200         938           Right Turn**         0         0         0           Left Turn         2         3200         637           Through         3         4800         1917	Lane Movement         of Lanes         (Veh/Hr) On Green         Existing (2017)         +Project           Left Turn         1         1600         57         57           Through         3         4800         985         986           Right Turn         1         1600         478         479           Left Turn         1         1600         135         135           Through         3         4800         619         624           Right Turn**         0         0         163         167           Through         2         3200         938         945           Right Turn**         0         0         0         0           Left Turn         2         3200         637         641           Through         3         4800         1917         1924           Right Turn**         0         0         0         0           ICU Plus Lost Time Factor of .10           Existing 2017 Level of Service	Lane Movement         of Lanes         (Veh/Hr) On Green         Existing (2017)         +Project         Existing (2017)           Left Turn         1         1600         57         57         0.036           Through         3         4800         985         986         0.205           Right Turn         1         1600         478         479         0.299           Left Turn         1         1600         135         135         0.084           Through         3         4800         619         624         0.129           Right Turn***         0         0         -         -           Left Turn         2         3200         163         167         0.051           Through         2         3200         938         945         0.293           Right Turn***         0         0         0         -           Left Turn         2         3200         637         641         0.199           Through         3         4800         1917         1924         0.399           Right Turn***         0         0         0         -           ICU Plus Lost Time Factor of .10         0.882	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	73	73	0.046	0.046
Northbound	Through	3	4800	690	690	0.144 *	0.144
	Right Turn	1	1600	445	446	0.278	0.279
	Left Turn	1	1600	323	323	0.202 *	0.205
Southbound	Through	3	4800	1074	1092	0.224	0.228
	Right Turn**	0	0	0	0	-	
	Left Turn	2	3200	169	171	0.053	0.053
Eastbound	Through	2	3200	1247	1250	0.390 *	0.391
	Right Turn**	0	0	0	0	-	
	Left Turn	2	3200	464	464	0.145	0.147
Westbound	Through	3	4800	1424	1428	0.297	0.298
	Right Turn**	0	0	0	0		
-		ICU Plus	Lost Time F	actor of .10		0.980	
		Existing	2017 Level o	of Service		E	
		ICU Plus	Lost Time F	actor of .10			0.986
		Plus Pro	ject Level of	Service			E
**	Denotes Critical M Right Turn Volume Left Turn Volumes	es Added to					Study Intersection No.

Conditions:

Existing (2017) Plus Project

Wed. April 13, 2016

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Vista Montana

Peak Hour: Data Source:

Count Date:

7:30 - 8:30 AM

Intersection

No. 10

East-West Street:

Pacific Coast Highway Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

\*\* Right Turn Volumes Added to Through Movements

		Peak Hou	Peak Hour Volume		pacity Ratio	
Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project	
1.5	2400	150	150	0.063	0.063	
1.5	2400	145	146	0.060 *	0.061	
0.5	800	119	119	0.149	0.149	
1.5	2400	282	283	0.118 *	0.118	
1.5	2400	114	114	0.048	0.048	
1	1600	190	190	0.119	0.119	
1	1600	47	47	0.029 *	0.029	
2	3200	1131	1133	0.353	0.354	
0	0	0	0			
1	1600	65	65	0.041	0.041	
2	3200	1510	1520	0.472 *	0.475	
0	0	0	0	4		
ICU Plus	Lost Time F	actor of .10		0.779		
Existing	2017 Level o	f Service		С		
					0.783 C	
	CU Plus	CU Plus Lost Time F Plus Project Level of	CU Plus Lost Time Factor of .10 Plus Project Level of Service ement	CU Plus Lost Time Factor of .10 Plus Project Level of Service	CU Plus Lost Time Factor of .10 Plus Project Level of Service	

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

Horizon Date:

2019

North-South Street:

Vista Montana

Peak Hour:

5:00 - 6:00 PM

**East-West Street:** 

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		17-11	1	Peak Hou	ır Volume	Volume/0	Capa	city Ratio	r.
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)		Existing +Projec	_
	Left Turn	1.5	2400	115	116	0.048		0.048	
Northbound	Through	1.5	2400	198	199	0.083	*	0.083	
	Right Turn	0.5	800	146	146	0.183		0.183	
	Left Turn	1.5	2400	351	354	0.146	*	0.148	,
Southbound	Through	1.5	2400	207	207	0.086		0.086	
	Right Turn	1	1600	96	96	0.060		0.060	
	Left Turn	1	1600	59	59	0.037		0.037	
Eastbound	Through	2	3200	1270	1276	0.397	*	0.399	*
	Right Turn**	0	0	0	0	-			
	Left Turn	1	1600	188	188	0.118	*	0.118	*
Westbound	Through	2	3200	1348	1354	0.421		0.423	
	Right Turn**	0	0	0	0	- 2			
		1000000	Lost Time Fa			0.843 D			
			Lost Time Fa					0.847 D	

<sup>\*</sup> Denotes Critical Movement

Study Intersection No.

10

<sup>\*\*</sup> Right Turn Volumes Added to Through Movements

Conditions:

Existing (2017) Plus Project

Wed. November 15, 2017

Location:

City of Torrance, California

2019

North-South Street:

Hawthorne Boulevard

**Horizon Date:** 

East-West Street:

Palos Verdes Drive North

7:45 - 8:45 AM

Annual Growth Rate: 1.00%

Data Source: Input By:

Count Date:

Peak Hour:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	183	183	0.114	0.114
Northbound	Through	2	3200	417	418	0.130	0.131
	Right Turn	1	1600	165	165	0.103	0.103
	Left Turn	1	1600	333	335	0.208	0.209
Southbound	Through	2	3200	406	412	0.127	0.129
	Right Turn	1	1600	13	15	0.008	0.009
	Left Turn**	1	1600	31	31	0.019	0.019
Eastbound	Through	2	3200	917	917	0.287	0.287
	Right Turn	1	1600	285	285	0.178	0.178
	Left Turn**	2	3200	126	126	0.039 *	0.039
Westbound	Through	2	3200	553	553	0.173	0.173
	Right Turn	1	1600	252	253	0.158	0.158
		ICU Plus	Lost Time F	actor of .10		0.764	
		Existing	2017 Level o	f Service		С	
ICU Plus Lost Time Factor of .10 Plus Project Level of Service							
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements							

Conditions:

Existing (2017) Plus Project

Wed. November 15, 2017

Location:

City of Torrance, California

2019

C. B.

North-South Street:

Hawthorne Boulevard

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

**Horizon Date:** 

**East-West Street:** 

Palos Verdes Drive North

Peak Hour: 5:00 - 6:00 PM

Annual Growth Rate: 1.00%

Data Source:

Input By:

Count Date:

		1		Peak Hou	Peak Hour Volume		pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	227	227	0.142	0.142
Northbound	Through	2	3200	347	351	0.108	0.110
	Right Turn	1	1600	133	133	0.083	0.083
	Left Turn	1	1600	197	198	0.123	0.124
Southbound	Through	2	3200	397	403	0.124 *	0.126
	Right Turn	1	1600	23	24	0.014	0.015
	Left Turn**	1	1600	24	25	0.015 *	0.016
Eastbound	Through	2	3200	707	707	0.221	0.221
	Right Turn	1	1600	232	232	0.145	0.145
	Left Turn**	2	3200	138	138	0.043	0.043
Westbound	Through	2	3200	1050	1050	0.328 *	0.328
	Right Turn	1	1600	313	315	0.196	0.197
			Lost Time Fa			0.709	
		Existing	2017 Level of	f Service		С	
			Lost Time Fa				0.712 C
	enotes Critical M -Turn Volumes A		t Turn Movem	nents			Study Intersection No.

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. November 15, 2017

13

Location:

City of Torrance, California

2019

North-South Street:

Crenshaw Boulevard

**Horizon Date:** Peak Hour:

7:45 - 8:45 AM

East-West Street:

Palos Verdes Drive North

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			Peak Hou	ır Volume	Volume/Ca	pacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn**	1	1600	465	465	0.291 *	0.291
Northbound	Through	2	3200	416	417	0.130	0.130
	Right Turn	1	1600	100	100	0.063	0.063
	Left Turn**	1	1600	388	388	0.243	0.243
Southbound	Through	2	3200	411	413	0.128 *	0.129
	Right Turn	1	1600	56	56	0.035	0.035
	Left Turn**	2	3200	98	98	0.031	0.031
Eastbound	Through	2	3200	1290	1292	0.403 *	0.404
	Right Turn***	0	0	0	0		- 2
	Left Turn**	2	3200	54	54	0.017 *	0.017
Westbound	Through	2	3200	980	981	0.306	0.307
	Right Turn***	0	0	0	0	-71	0.4
•		ICU Plus	Lost Time F	actor of .10		0.939	
		Existing	2017 Level o	of Service		E	
		ICU Plus	Lost Time F	actor of .10			0.940
		Plus Pro	ject Level of	Service			E
**	Denotes Critical M U-Turn Volumes A Right Turn Volume	dded to Le					Study Intersection No.

Count Date:

Peak Hour:

Input By:

Data Source:

Horizon Date:

Wed. November 15, 2017

2019

C. B.

5:00 - 6:00 PM

Conditions: Existing (2017) Plus Project

kisting (2017) Plus Project

Location: City of Torrance, California

North-South Street: Crenshaw Boulevard
East-West Street: Palos Verdes Drive Nor

East-West Street: Palos Verdes Drive North
Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

		100		Peak Hou	ır Volume	Volume/Ca	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn**	1	1600	487	487	0.304	* 0.304
Northbound	Through	2	3200	358	361	0.112	0.113
	Right Turn	1	1600	64	64	0.040	0.040
	Left Turn**	1	1600	354	354	0.221	0.221
Southbound	Through	2	3200	362	363	0.113	0.113
	Right Turn	1	1600	53	54	0.033	0.034
	Left Turn**	2	3200	47	47	0.015	0.015
Eastbound	Through	2	3200	1059	1060	0.331	0.331
	Right Turn***	0	0		0		
	Left Turn**	2	3200	114	114	0.036	0.036
Westbound	Through	2	3200	989	991	0.309	0.310
	Right Turn***	0	0	0	0	-	T.
		ICU Plus	Lost Time Fa	actor of .10		0.884	
		Existing	2017 Level o	f Service		D	
		ICU Plus	Lost Time Fa	actor of .10			0.885
		Plus Pro	ject Level of	Service			D
** (	Denotes Critical M J-Turn Volumes A Right Turn Volume	dded to Lef					Study Intersection No.
							13

Conditions:

Existing (2017) Plus Project

Wed. November 15, 2017

No. 14

Location:

City of Torrance, California

2019

North-South Street:

Rolling Hills Road/Portuguese Road

East-West Street:

Palos Verdes Drive North

Peak Hour: Data Source:

**Horizon Date:** 

Count Date:

7:15 - 8:15 AM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	62	62	0.039 *	0.039
Northbound	Through	1	1600	846	846	0.529	0.529
	Right Turn	1	1600	209	209	0.131	0.131
	Left Turn	1	1600	28	28	0.018	0.018
Southbound	Through	0.5	800	887	887	1.109 *	1.109
	Right Turn	0.5	800	13	13	0.016	0.016
	Left Turn	1	1600	29	29	0.018	0.018
Eastbound	Through	1	1600	54	56	0.034 *	0.035
	Right Turn	1	1600	51	51	0.032	
	Left Turn	1	1600	187	187	0.117 *	0.117
Westbound	Through	1	1600	59	60	0.037	0.038
	Right Turn	1	1600	33	33	0.021	
		ICU Plus	Lost Time F	actor of .10		1.398	
		Existing	2017 Level o	f Service		F	
			Lost Time F				1.399
		Plus Pro	ject Level of	Service			F

Conditions:

Existing (2017) Plus Project

Count Date:

Wed. November 15, 2017

Location:

City of Torrance, California

Horizon Date:

2019

North-South Street:

Rolling Hills Road/Portuguese Road

Peak Hour:

4:15 - 5:15 PM

East-West Street:

Palos Verdes Drive North

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Vol <mark>u</mark> me	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	33	33	0.021 *	0.021
Northbound	Through	1	1600	829	829	0.518	0.518
	Right Turn	1	1600	221	221	0.138	
	Left Turn	1	1600	5	5	0.003	0.003
Southbound	Through	0.5	800	679	679	0.849 *	0.849
	Right Turn	0.5	800	11	11	0.014	0.014
	Left Turn	1	1600	22	22	0.014	0.014
Eastbound	Through	1	1600	47	48	0.029 *	0.030
	Right Turn	1	1600	78	78	0.049	
	Left Turn	1	1600	644	644	0.403 *	0.403
Westbound	Through	1	1600	56	58	0.035	0.036
	Right Turn	1	1600	25	25	0.016	
		ICU Plus	Lost Time Fa	actor of .10		1.401	
		Existing	2017 Level o	f Service		F	
		ICU Plus	Lost Time Fa	actor of .10			1.402
		Plus Proj	ect Level of	Service			F
	enotes Critical M J-Turn Volumes A		t Turn Movem	nents			Study Intersection

Conditions:

Existing (2017) Plus Project

Wed. November 15, 2017

Location:

City of Torrance, California

2019

North-South Street:

Pacific Coast Highway

**Horizon Date:** 

East-West Street:

Peak Hour: 7:30 - 8:30 AM

Annual Growth Rate: 1.00%

Calle Mayor

Data Source:

Count Date:

Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	145	145	0.091 *	0.091
Northbound	Through	1	1600	788	788	0.493	0.493
	Right Turn	1	1600	32	32	0.020	0.020
	Left Turn	1	1600	176	176	0.110	0.110
Southbound	Through	1	1600	941	941	0.588 *	0.588
77.17.9	Right Turn	1	1600	299	299	0.187	0.187
	Left Turn	1	1600	118	118	0.074 *	0.074
Eastbound	Through	2	3200	373	375	0.117	0.117
	Right Turn***	0	0	0	0		-
	Left Turn	1	1600	94	94	0.059	0.059
Westbound	Through	2	3200	389	396	0.122 *	0.124
	Right Turn***	0	0	0	0	1.2	1.4
		ICU Plus	Lost Time F	actor of .10		0.974	
		Existing	2017 Level o	of Service		E	
		ICU Plus	Lost Time F	actor of .10			0.976
		Plus Pro	ject Level of	Service			E
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Existing (2017) Plus Project

Count Date: Wed. November 15, 2017

Location:

City of Torrance, California

2019

North-South Street:

Pacific Coast Highway

East-West Street:

Peak Hour: 4:15 - 5:15 PM

Calle Mayor

Data Source:

Input By:

**Horizon Date:** 

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing (2017)	Existing +Project	Existing (2017)	Existing +Project
	Left Turn	1	1600	190	190	0.119	0.119
Northbound	Through	1	1600	1029	1029	0.643 *	0.643
	Right Turn	1	1600	49	49	0.031	0.031
	Left Turn	1	1600	172	172	0.108 *	0.108
Southbound	Through	1	1600	940	940	0.588	0.588
	Right Turn	1	1600	84	84	0.053	0.053
	Left Turn	1	1600	118	118	0.074	0.074
Eastbound	Through	2	3200	456	462	0.143 *	0.144
	Right Turn***	0	0	0	0	-	-
	Left Turn	1	1600	56	56	0.035 *	0.035
Westbound	Through	2	3200	274	279	0.086	0.087
	Right Turn***	0	0	0	0	-	- 1
		ICU Plus	Lost Time F	actor of .10	•	1.028	
		Existing	2017 Level o	f Service		F	
		ICU Plus	Lost Time F	actor of .10			1.030
		Plus Pro	ject Level of	Service			F
** (	Denotes Critical M J-Turn Volumes A Right Turn Volume	dded to Let					Study Intersection No.

Appendix C – ICU Worksheets

Ambient & Ambient Plus Project

Conditions:

Ambient (2019), Ambient+Proj

Location:

City of Torrance, California

North-South Street: Hawthorne Boulevard

East-West Street: Annual Growth Rate: 1.00%

Pacific Coast Highway

Count Date:

Wed. April 13, 2016

**Horizon Date:** 2019

Peak Hour:

7:30 - 8:30 AM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		15		Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	2	3200	287	297	0.090	0.093
Northbound	Through	3	4800	1406	1444	0.293 *	0.301
	Right Turn**	1	1600	0	0	0.000	
	Left Turn	2	3200	185	185	0.058 *	0.058
Southbound	Through	3	4800	74	81	0.015	0.017
	Right Turn	1	1600	308	308	0.193	0.193
	Left Turn	2	3200	270	270	0.084 *	0.084
Eastbound	Through	3	4800	1308	1311	0.273	0.273
	Right Turn**	1	1600	0	0	0.000	
	Left Turn	2	3200	145	147	0.045	0.046
Westbound	Through	3	4800	1316	1316	0.274 *	0.274
	Right Turn**	1	1600	0	0	0.000	
		ICU Plus	Lost Time Fa	actor of .10		0.809	
		Level of	Service			D	
		ICU Plus	Lost Time Fa	actor of .10			0.817
		Level of	Service				D
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Ambient (2019), Ambient+Proj

Count Date:

Wed. April 13, 2016

No.

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street: Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Pacific Coast Highway

Data Source: Input By:

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

Taranta Carl				Peak Hou	ır Volume	Volume/0	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	2	3200	320	326	0.100	* 0.102
Northbound	Through	3	4800	968	989	0.202	0.206
	Right Turn**	1	1600	0	0	0.000	0.000
	Left Turn	2	3200	384	384	0.120	0.120
Southbound	Through	3	4800	1230	1246	0.256	* 0.260
	Right Turn	1	1600	383	383	0.239	0.239
	Left Turn	2	3200	224	224	0.070	0.070
Eastbound	Through	3	4800	1144	1144	0.238	* 0.238
	Right Turn**	1	1600	346	355	0.216	0.222
	Left Turn	2	3200	191	195	0.060	* 0.061
Westbound	Through	3	4800	1002	1002	0.209	0.209
	Right Turn**	1	1600	221	221	0.138	0.138
		ICU Plus	Lost Time Fa	ctor of .10		0.700	
		Level of S	ervice			С	
		ICU Plus I	ost Time Fa	ctor of .10	55 54 54 54 54 54 54 54 54 54		0.761
		Level of S	ervice				С

Conditions:

Ambient (2019), Ambient+Proj

Count Date: Horizon Date: Wed. April 13, 2016

Location:

City of Torrance, California

2019

North-South Street:

Hawthorne Boulevard

East-West Street:

244th Street

Peak Hour: Data Source: 7:30 - 8:30 AM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

1000				Peak Hou	ır Volume	Volume/C	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	4	4	0.003	0.003	
Northbound	Through	3	4800	1613	1661	0.336	* 0.346	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	39	39	0.024	* 0.024	
Southbound	Through	3	4800	1064	1076	0.222	0.224	
	Right Turn**	0	0	0	0	-		
	Left Turn***	0	0	0	0	-	-	
Eastbound	Through	1	1600	24	24	0.015	* 0.015	
	Right Turn	0.5	800	4	4	0.005	0.005	
	Left Turn***	0	0	0	0	-	1.	
Westbound	Through	1	1600	58	58	0.036	* 0.036	
	Right Turn	0.5	800	52	52	0.065	0.065	
		ICU Plus	Lost Time Fa	actor of .10		0.512		
		Level of S	Service			Α		
		ICU Plus	Lost Time Fa	actor of .10			0.522	
		Level of S	Service				Α	
** R	Penotes Critical Mo tight Turn Volume eft Turn Volumes	s Added to					Study Intersectio No.	

Conditions:

Ambient (2019), Ambient+Proj

City of Torrance, California Location:

North-South Street: Hawthorne Boulevard

East-West Street: 244th Street

Annual Growth Rate: 1.00%

Count Date: Wed. April 13, 2016

Horizon Date: 2019

Peak Hour:

Data Source:

Input By:

C. B.

5:00 - 6:00 PM

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Existing +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1	1600	31	31	0.019 *	0.019
Northbound	Through	3	4800	1268	1295	0.264	0.270
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	75	75	0.047	0.047
Southbound	Through	3	4800	1613	1646	0.336 *	0.343
	Right Turn**	0	0	0	0	-	
	Left Turn***	0	0	0	0	1.9	
Eastbound	Through	1	1600	60	60	0.038 *	0.038
	Right Turn	0.5	800	22	22	0.028	0.028
	Left Turn***	0	0	0	0	-	1 10
Westbound	Through	1	1600	58	58	0.036 *	0.036
	Right Turn	0.5	800	52	52	0.065	0.065
		ICU Plus	Lost Time F	actor of .10		0.529	
		Level of	Service			Α	
		ICU Plus	Lost Time F	actor of .10			0.536
		Level of	Service				Α
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Ambient (2019), Ambient+Proj

Location: City of Torrance, California

North-South Street:

Hawthorne Boulevard Newton Street

East-West Street: Annual Growth Rate: 1.00%

Count Date:

Wed. April 13, 2016

Horizon Date: Peak Hour:

2019 7:30 - 8:30 AM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		10. 1911		Peak Hou	Peak Hour Volume		apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1	1600	98	105	0.061	* 0.066
Northbound	Through	3	4800	1616	1668	0.337	0.348
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	37	37	0.023	0.023
Southbound	Through	2	3200	1029	1041	0.322	* 0.325
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	22	22	0.014	0.014
Eastbound	Through	0.5	800	77	77	0.096	0.096
	Right Turn	0.5	800	82	84	0.103	* 0.105
	Left Turn	1	1600	85	89	0.053	* 0.056
Westbound	Through	1	1600	114	114	0.071	0.071
	Right Turn	1	1600	106	106	0.066	0.066
		ICU Plus	Lost Time Fa	ctor of .10		0.638	
		Level of S	Service			В	
		ICU Plus	Lost Time Fa	ctor of .10			0.652
		Level of S	ervice				В
	enotes Critical Mo ight Turn Volumes		Through Move	ements			Study Intersection No.

Conditions:

Ambient (2019), Ambient+Proj

Wed. April 13, 2016

Location:

City of Torrance, California

North-South Street:

Horizon Date: 2019

East-West Street:

Hawthorne Boulevard

Peak Hour: 5:00 - 6:00 PM

Annual Growth Rate: 1.00%

**Newton Street** 

Data Source:

Count Date:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1	1600	96	113	0.060	0.071
Northbound	Through	2	3200	1266	1295	0.396	* 0.405
	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	50	50	0.031	0.031
Southbound	Through	3	4800	1586	1619	0.330	0.337
	Right Turn**	0	0	0	0	2	- 1
	Left Turn	1	1600	16	16	0.010	0.010
Eastbound	Through	0.5	800	53	53	0.066	0.066
	Right Turn	0.5	800	109	111	0.136 *	0.139
	Left Turn	1	1600	197	212	0.123 *	0.133
Westbound	Through	1	1600	56	56	0.035	0.035
	Right Turn	1	1600	97	97	0.061	0.061
		ICU Plus	Lost Time Fa	octor of .10		0.786	
		Level of S	Service			С	
		ICU Plus	Lost Time Fa	ictor of .10			0.807
		Level of S	ervice				D
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Ambient (2019),

Count Date:

Wed. April 13, 2016

No. 4

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

\*\*\* Left Turn Volumes Added to Through Movements

Peak Hour:

8:00 - 9:00 AM

**East-West Street:** 

Via Valmonte

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

Acres de la Constitución de la C				Peak Hour Volu	me Volume/C	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Existing +Ambient (2019)	
	Left Turn	1	1600	46	0.029	
Northbound	Through	3	4800	1597	0.333	*
	Right Turn	1	1600	37	0.023	
	Left Turn	1	1600	3	0.002	*
Southbound	Through	3	4800	1181	0.246	
	Right Turn**	0	0	0		
	Left Turn***	0	0	0		
Eastbound	Through	1	1600	241	0.151	
	Right Turn	0.5	800	68	0.085	
	Left Turn***	0	0	0		
Westbound	Through	1	1600	1	0.001 *	
	Right Turn	1	1600	1	0.001	
		ICU Plus Level of S	Lost Time Fa	actor of .10	0.586 A	
		ICU Plus Level of S	Lost Time Fa	actor of .10		
	enotes Critical Mo		Through Mov	omente		Study Intersection

Conditions:

Ambient+Proj

Count Date: **Horizon Date:** 

Wed. April 13, 2016

Location:

City of Torrance, California

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

East-West Street:

Via Valmonte

Data Source:

8:00 - 9:00 AM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

Ambient Traffic Increase Factor per City of Torrance = 1 % Per Year

				Peak Hour Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Ambient +Project (2019)		Ambient +Project (2019)
	Left Turn	1	1600	46		0.029
Northbound	Through	3	4800	1601		0.334
	Right Turn	1	1600	37		0.023
	Left Turn	1	1600	3		0.002
Southbound	Through	3	4800	1203		0.251
	Right Turn**	0	0	0		
	Left Turn***	0	0	0		-
Eastbound	Through	2	3200	296		0.093
	Right Turn	0.5	800	72		0.090
	Left Turn***	0	0	0		
Westbound	Through	1	1600	1		0.001
	Right Turn	1	1600	1		0.001
		ICU Plus	Lost Time Fac	tor of .10		
		ICU Plus	Lost Time Fac	tor of .10		0.529

Level of Service

Study Intersection No.

4

<sup>\*</sup> Denotes Critical Movement

<sup>\*\*</sup> Right Turn Volumes Added to Through Movements

<sup>\*\*\*</sup> Left Turn Volumes Added to Through Movements

Conditions:

Ambient (2019),

Location:

City of Torrance, California

North-South Street: **East-West Street:** 

Hawthorne Boulevard

Via Valmonte

Annual Growth Rate: 1.00%

Count Date:

Wed. April 13, 2016

Horizon Date: 2019

Peak Hour:

5:00 - 6:00 PM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

Ambient Traffic Increase Factor per City of Torrance = 1 % Per Year

			Peak Hour Volu	me volume/Ca	apacity Ratio
Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Existing +Ambient (2019)	
Left Turn	1	1600	64	0.040	*
Through	3	4800	1203	0.251	
Right Turn	1	1600	18	0.011	
Left Turn	1	1600	16	0.010	
Through	3	4800	1910	0.398	
Right Turn**	0	0	0		
Left Turn***	0	0	0	1	
Through	1	1600	152	0.095 *	
Right Turn	0.5	800	61	0.076	
Left Turn***	0	0	0		
Through	1	1600	16	0.010 *	
Right Turn	1	1600	20	0.013	
			actor of .10	0.643	
	ICU Plus	Lost Time Fa	actor of .10	В	
	Movement  Left Turn Through Right Turn  Left Turn Through Right Turn**  Left Turn***  Left Turn***  Through  Right Turn  Left Turn***  Through	Lane Movement  Left Turn  Through 3 Right Turn  Left Turn  Through 3 Right Turn  Ceft Turn  Through 1  Left Turn***  Characteristics  Characteristics  Left Turn***  Through 1  Right Turn  Couplus  Level of Sections  ICU Plus  ICU Plus  ICU Plus  ICU Plus	Lane         of Lanes         (Veh/Hr) On Green           Left Turn         1         1600           Through         3         4800           Right Turn         1         1600           Left Turn         1         1600           Through         3         4800           Right Turn**         0         0           Left Turn***         0         0           Through         1         1600           Right Turn         0.5         800           Left Turn***         0         0           Through         1         1600           Right Turn         1         1600           Right Turn         1         1600    ICU Plus Lost Time Fallevel of Service	Lane Movement         of Lanes         (Veh/Hr) On Green         +Ambient (2019)           Left Turn         1         1600         64           Through         3         4800         1203           Right Turn         1         1600         18           Left Turn         1         1600         16           Through         3         4800         1910           Right Turn**         0         0         0           Left Turn***         0         0         0           Through         1         1600         152           Right Turn         0.5         800         61           Left Turn***         0         0         0           Through         1         1600         16           Right Turn         1         1600         20    ICU Plus Lost Time Factor of .10  Level of Service	Lane Movement         of Lanes         (Veh/Hr) On Green         +Ambient (2019)         +Ambient (2019)           Left Turn         1         1600         64         0.040           Through         3         4800         1203         0.251           Right Turn         1         1600         18         0.011           Left Turn         1         1600         16         0.010           Through         3         4800         1910         0.398           Right Turn***         0         0         0         -           Through         1         1600         152         0.095         *           Right Turn         0.5         800         61         0.076         -           Left Turn****         0         0         0         -         -         -           Through         1         1600         16         0.010         *         -           Through         1         1600         20         0.013         *           ICU Plus Lost Time Factor of .10         0.643         Evel of Service         B

\* Denotes Critical Movement

\*\* Right Turn Volumes Added to Through Movements

\*\*\* Left Turn Volumes Added to Through Movements

Study Intersection No.

4

Conditions:

Ambient+Proj

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

Horizon Date: 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Via Valmonte

Data Source:

Annual Growth Rate: 1.00%

Input By:

C.B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hour Volume	Volume/Ca	pacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Ambient +Project (2019)		Ambient +Project (2019)	
	Left Turn	1	1600	64		0.040	
Northbound	Through	3	4800	1216		0.253	
	Right Turn	1	1600	18		0.011	
	Left Turn	1	1600	16		0.010	
Southbound	Through	3	4800	1973		0.411	
	Right Turn**	0	0	0			
	Left Turn***	0	0	0			
Eastbound	Through	2	3200	185		0.058	
	Right Turn	0.5	800	64		0.080	
	Left Turn***	0	0	0		-	
Westbound	Through	1	1600	16		0.010	
	Right Turn	1	1600	20		0.013	
		ICU Plus	Lost Time Fac Service	ctor of .10			
	ICU Plus Lost Time Factor of .10  Level of Service						
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							on

Conditions: Location:

Ambient (2019), Ambient+Proj

City of Torrance, California

North-South Street: Hawthorne Boulevard

East-West Street:

Rolling Hills Road

Annual Growth Rate: 1.00%

Count Date:

Wed. April 13, 2016 2019

Horizon Date:

Peak Hour: 7:30 - 8:30 AM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		10000		Peak Hou	r Volume	Volume/0	Capa	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)		Ambien +Project (2019)	
	Left Turn	1	1600	0	0	0.000		0.000	
Northbound	Through	2	3200	1360	1362	0.425	*	0.426	
	Right Turn**	0	0	0	0	-			
	Left Turn	2	3200	283	287	0.088	*	0.090	
Southbound	Through	2	3200	825	835	0.258		0.261	
	Right Turn**	0	0	0	0	-			
	Left Turn***	0	0	0	0	5	T		
Eastbound	Through	1	1600	2	2	0.001	*	0.001	
	Right Turn	0.5	800	0	0	0.000		0.000	
	Left Turn	1	1600	88	88	0.055	*	0.055	
Westbound	Through	0.5	800	2	2	0.003		0.003	
	Right Turn	1.5	2400	433	435	0.180		0.181	
		ICU Plus	Lost Time Fa	actor of .10		0.670			
		Level of S	Service			В			
		ICU Plus	Lost Time Fa	actor of .10				0.672	
		Level of S	Service					В	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements								or

Conditions:

Ambient (2019), Ambient+Proj

Count Date: **Horizon Date:**  Wed. April 13, 2016

Location:

City of Torrance, California

2019

5:00 - 6:00 PM

North-South Street: East-West Street:

Hawthorne Boulevard Rolling Hills Road

Peak Hour: Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

7.0			1	Peak Hou	r Volume	Volume/C	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	0	0	0.000	0.000	
Northbound	Through	2	3200	1034	1041	0.323	* 0.325	
	Right Turn**	0	0	0	0	-		
	Left Turn	2	3200	438	440	0.137	* 0.138	
Southbound	Through	2	3200	1327	1335	0.415	0.417	
	Right Turn**	0	0	0	0			
	Left Turn***	0	0	0	0	-		
Eastbound	Through	1	1600	3	3	0.002	* 0.002	
	Right Turn	0.5	800	1	1	0.001	0.001	
	Left Turn	1	1600	88	88	0.055	* 0.055	
Westbound	Through	0.5	800	0	0	0.000	0.000	
	Right Turn	1.5	2400	333	339	0.139	0.141	
		ICU Plus	Lost Time Fa	actor of .10		0.617		
		Level of S	Service			В		
		ICU Plus	Lost Time Fa	actor of .10			0.620	
		Level of S	ervice				В	
** R	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions: Ambient (2019), Ambient+Proj

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

Horizon Date: 2019

7:30 - 8:30 AM

North-South Street:

Whiffletree Lane

Peak Hour: Data Source:

East-West Street:

Rolling Hills Road

Input By:

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn***	0	0	0	0			
Northbound	Through	1	1600	45	45	0.028	0.028	
	Right Turn	0.5	800	20	20	0.025	0.025	
	Left Turn***	0	0	0	0	-		
Southbound	Through	1	1600	14	14	0.009 *	0.009	
	Right Turn	0.5	800	3	3	0.004	0.004	
	Left Turn***	0	0	0	0	-		
Eastbound	Through	2	3200	336	340	0.105 *	0.106	
	Right Turn**	0	0	0	0			
	Left Turn***	0	0	0	0	-	14	
Westbound	Through	2	3200	497	499	0.155 *	0.156	
	Right Turn**	0	0	0	0			
		ICU Plus	Lost Time F	actor of .10		0.397		
		Level of S	Service			Α		
		ICU Plus	Lost Time F	actor of .10			0.399	
		Level of S	Service				Α	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions: Location: Ambient (2019), Ambient+Proj

City of Torrance, California

North-South Street: Whiffletree Lane

East-West Street: Rolling Hills Road

Annual Growth Rate: 1.00%

Count Date: Wed. April 13, 2016

Horizon Date: 2019

**Peak Hour:** 5:00 - 6:00 PM

Data Source:

Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn***	0	0	0	0	-	-	
Northbound	Through	1	1600	15	15	0.009	* 0.009	
	Right Turn	0.5	800	15	15	0.019	0.019	
	Left Turn***	0	0	0	0	-		
Southbound	Through	1	1600	16	16	0.010	0.010	
	Right Turn	0.5	800	6	6	0.008	0.008	
	Left Turn***	0	0	0	0	-	-	
Eastbound	Through	2	3200	518	520	0.162	0.163	
	Right Turn**	0	0	0	0			
	Left Turn***	0	0	0	0	-	-	
Westbound	Through	2	3200	394	400	0.123 *	0.125	
	Right Turn**	0	0	0	0			
		ICU Plus	Lost Time Fa	actor of .10		0.404		
		Level of S	Service			Α		
		ICU Plus	Lost Time Fa	actor of .10			0.407	
		Level of S	Service				Α	
** F	Denotes Critical Mo Right Turn Volume eft Turn Volumes	s Added to					Study Intersection No.	

Wed. April 13, 2016

2019

Conditions: Ambient (2019), Ambient+Proj

Count Date: Horizon Date:

City of Torrance, California Location:

North-South Street: Fallenleaf Drive Peak Hour: 7:30 - 8:30 AM

East-West Street: Rolling Hills Road

Data Source: C. B. Annual Growth Rate: 1.00% Input By:

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn***	0	0	0	0		
Northbound	Through	1	1600	47	47	0.029	* 0.029
	Right Turn**	0	0	0	0	-	
	Left Turn***	0	0	0	0		
Southbound	Through	1	1600	60	60	0.038	0.038
	Right Turn**	0	0	0	0		
- 1	Left Turn	1	1600	30	30	0.019	0.019
Eastbound	Through	2	3200	320	324	0.100	0.101
_ 1 1 11	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	11	11	0.007	0.007
Westbound	Through	2	3200	440	442	0.138	0.138
	Right Turn**	0	0	0	0	*	
		ICU Plus	Lost Time F	actor of .10		0.323	
		Level of	Service			Α	
		ICU Plus	Lost Time F	actor of .10			0.324
		Level of	Service				Α
* C ** F *** L		Study Intersection No.					

Count Date:

Peak Hour:

Data Source: Input By:

**Horizon Date:** 

Wed. April 13, 2016

4:30 - 5:30 PM

2019

C. B.

Conditions: Ambient (2019), Ambient+Proj

Location: City of Torrance, California

North-South Street: Fallenleaf Drive

East-West Street: Rolling Hills Road
Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/C	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn***	0	0	0	0			
Northbound	Through	1	1600	25	25	0.016	* 0.016	
	Right Turn**	0	0	0	0	1.3		
	Left Turn***	0	0	0	0	7-1		
Southbound	Through	1	1600	46	46	0.029	* 0.029	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	36	36	0.023	* 0.023	
Eastbound	Through	2	3200	446	448	0.139	0.140	
	Right Turn**	0	0	0	0			
	Left Turn	1	1600	21	21	0.013	0.013	
Westbound	Through	2	3200	401	407	0.125	* 0.127	
	Right Turn**	0	0	0	0			
		ICU Plus	Lost Time F	actor of .10		0.292		
		Level of	Service			Α		
		ICU Plus	Lost Time Fa	actor of .10			0.294	
		Level of	Service				Α	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions: Ambient (2019), Ambient+Proj

City of Torrance, California

**Horizon Date:** 

Wed. April 13, 2016

Location: North-South Street:

Crenshaw Boulevard

2019 Peak Hour:

7:45 - 8:45 AM

East-West Street:

Rolling Hills Road

Data Source: Input By:

Count Date:

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/C	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambie +Proje (2019	ct
	Left Turn	1	1600	117	118	0.073	0.074	
Northbound	Through	3	4800	1340	1340	0.279	* 0.279	
	Right Turn**	0	0	0	0			
	Left Turn	1	1600	157	157	0.098	* 0.098	
Southbound	Through	3	4800	1024	1025	0.213	0.214	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	146	148	0.091	* 0.093	
Eastbound	Through	1	1600	147	147	0.092	0.092	
	Right Turn	1	1600	60	62	0.038	0.039	
	Left Turn	1	1600	22	22	0.014	0.014	
Westbound	Through	0.5	800	181	181	0.226	* 0.226	
	Right Turn	1.5	2400	200	200	0.083	0.083	
		ICU Plus	Lost Time Fa	actor of .10		0.795		
		Level of	Service			С		
		ICU Plus	Lost Time Fa	actor of .10			0.796	
		Level of	Service				С	
** F	Denotes Critical M Right Turn Volume Left Turn Volumes	s Added to					Study Intersec No.	

Conditions:

Location:

Ambient (2019), Ambient+Proj

City of Torrance, California

Crenshaw Boulevard

North-South Street: East-West Street:

Rolling Hills Road

Annual Growth Rate: 1.00%

Count Date:

Wed. April 13, 2016

Horizon Date: 2019

Peak Hour: 4:45 - 5:45 PM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	101	104	0.063	0.065	
Northbound	Through	3	4800	1006	1006	0.210 *	0.210	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	274	274	0.171 *	0.171	
Southbound	Through	3	4800	1022	1025	0.213	0.214	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	163	164	0.102 *	0.103	
Eastbound	Through	1	1600	286	286	0.179	0.179	
	Right Turn	1	1600	88	89	0.055	0.056	
	Left Turn	1	1600	42	42	0.026	0.026	
Westbound	Through	0.5	800	217	217	0.271 *	0.271	
	Right Turn	1.5	2400	164	164	0.068	0.068	
		ICU Plus	Lost Time F	actor of .10		0.854		
		Level of	Service			D		
		ICU Plus	Lost Time F	actor of .10			0.855	_
		Level of	Service				D	_
** F	Denotes Critical M Right Turn Volume Left Turn Volumes	s Added to					Study Intersection No.	on

Conditions:

Ambient (2019), Ambient+Proj

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

Horizon Date:

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

8:00 - 9:00 AM

**East-West Street:** 

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	ır Volume	Volume/Ca	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	58	58	0.036	0.036	
Northbound	Through	3	4800	1005	1005	0.209	* 0.209	
	Right Turn	1	1600	488	489	0.305	0.306	
	Left Turn	1	1600	138	138	0.086	0.086	
Southbound	Through	3	4800	632	637	0.132	0.133	
	Right Turn**	0	0	0	0	2.0		
	Left Turn	2	3200	166	170	0.052	0.053	
Eastbound	Through	2	3200	957	964	0.299	0.300	
	Right Turn**	0	0	0	0			
	Left Turn	2	3200	650	650	0.203	0.203	
Westbound	Through	3	4800	1956	1958	0.408	0.408	
	Right Turn**	0	0	0	0			
		ICU Plus	Lost Time Fa	actor of .10		0.897		
		Level of	Service			D		
		ICU Plus	Lost Time Fa	actor of .10			0.899	
		Level of	Service				D	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							
			2 12				9	

Conditions:

Ambient (2019), Ambient+Proj

Location:

City of Torrance, California

North-South Street:

Crenshaw Boulevard

**East-West Street:** 

Pacific Coast Highway

Annual Growth Rate: 1.00%

Count Date:

Wed. April 13, 2016

Horizon Date:

2019

Peak Hour:

5:00 - 6:00 PM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

1		100		Peak Hou	ır Volume	Volume/Ca	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	74	74	0.046	0.046	
Northbound	Through	3	4800	704	704	0.147	0.147	
	Right Turn	1	1600	454	455	0.284	0.284	
	Left Turn	1	1600	329	329	0.206	0.206	
Southbound	Through	3	4800	1095	1113	0.228	0.232	
	Right Turn**	0	0	0	0	-		
	Left Turn	2	3200	172	174	0.054	0.054	
Eastbound	Through	2	3200	1272	1275	0.398 *	0.398	
	Right Turn**	0	0	0	0	-		
	Left Turn	2	3200	473	473	0.148 *	0.147	
Westbound	Through	3	4800	1453	1457	0.303	0.304	
	Right Turn**	0	0	0	0	4	1 200	
		ICU Plus	Lost Time Fa	actor of .10		0.998		
		Level of S	Service			E		
		ICU Plus	Lost Time Fa	actor of .10			0.998	
		Level of S	Service				E	
** R	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							
							9	

Conditions:

Ambient (2019), Ambient+Proj

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

Horizon Date: 2

2019

North-South Street:

Vista Montana

Peak Hour:

7:30 - 8:30 AM

East-West Street:

Pacific Coast Highway

Data Source: Input By:

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

			Peak Hour Volume			Volume/Capacity Ratio		
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1.5	2400	153	153	0.064	0.064	
Northbound	Through	1.5	2400	148	149	0.062	0.062	
	Right Turn	0.5	800	121	121	0.151	0.151	
	Left Turn	1.5	2400	288	289	0.120	0.120	
Southbound	Through	1.5	2400	116	116	0.048	0.048	
	Right Turn	1	1600	1974	1974	1.234	1.234	
	Left Turn	1	1600	48	48	0.030	0.030	
Eastbound	Through	2	3200	1154	1156	0.361	0.361	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	66	66	0.041	0.041	
Westbound	Through	2	3200	1543	1553	0.482	0.485	
	Right Turn**	0	0	0	0			
		ICU Plus	Lost Time F	actor of .10		0.794		
		Level of	Service			С		
		ICU Plus	Lost Time F	actor of .10			0.798	
Level of Service							С	
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements								

Conditions:

Ambient (2019), Ambient+Proj

Count Date:

Wed. April 13, 2016

Location:

City of Torrance, California

Horizon Date: 2019

North-South Street:

Vista Montana

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Pacific Coast Highway

Data Source: Input By:

Annual Growth Rate: 1.00%

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Capacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1.5	2400	117	118	0.049	0.049
Northbound	Through	1.5	2400	202	203	0.084	0.085
	Right Turn	0.5	800	149	149	0.186	0.186
	Left Turn	1.5	2400	358	361	0.149	0.150
Southbound	Through	1.5	2400	211	211	0.088	0.088
	Right Turn	1	1600	98	98	0.061	0.061
	Left Turn	1	1600	60	60	0.038	0.038
Eastbound	Through	2	3200	1296	1302	0.405 *	0.407
	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	192	192	0.120 *	0.120
Westbound	Through	2	3200	1375	1381	0.430	0.432
	Right Turn**	0	0	0	0		
		ICU Plus	Lost Time F	actor of .10		0.858	
		Level of	Service			D	
		ICU Plus	Lost Time F	actor of .10			0.862
		D					
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements							

Conditions: Ambient (2019), Ambient+Proj

City of Torrance, California

North-South Street: Hawthorne Boulevard

Palos Verdes Drive North East-West Street:

Annual Growth Rate: 1.00%

Location:

Count Date:

Wed. November 15, 2017

Horizon Date:

2019

7:45 - 8:45 AM

Peak Hour: Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

T				Peak Hou	r Volume	Volume/Ca	pacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	187	187	0.117	0.117	
Northbound	Through	2	3200	425	426	0.133 *	0.133	
	Right Turn	1	1600	168	168	0.105	0.105	
	Left Turn	1	1600	340	342	0.213 *	0.214	
Southbound	Through	2	3200	414	420	0.129	0.131	
	Right Turn	1	1600	13	15	0.008	0.009	
	Left Turn**	1	1600	32	32	0.020	0.020	
Eastbound	Through	2	3200	935	935	0.292 *	0.292	
	Right Turn	1	1600	291	291	0.182	0.182	
	Left Turn**	2	3200	129	129	0.040 *	0.040	
Westbound	Through	2	3200	564	564	0.176	0.176	
	Right Turn	1	1600	257	258	0.161	0.161	
		ICU Plus	Lost Time F	actor of .10		0.778		
		Level of	Service			С		
		ICU Plus	Lost Time F	actor of .10			0.779	
		Level of	Service				С	
	* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements							

Conditions: Ambient (2019), Ambient+Proj

Location: City of Torrance, California

North-South Street: Hawthorne Boulevard

East-West Street: Palos Verdes Drive North

Annual Growth Rate: 1.00%

Count Date: Wed. November 15, 2017

Horizon Date: 2019

**Peak Hour:** 5:00 - 6:00 PM

Data Source:

Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

-7				Peak Hou	r Volume	Volume/C	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1	1600	232	232	0.145	* 0.145
Northbound	Through	2	3200	354	358	0.111	0.112
	Right Turn	1	1600	136	136	0.085	0.085
	Left Turn	1	1600	201	202	0.126	0.126
Southbound	Through	2	3200	405	411	0.127	* 0.128
	Right Turn	1	1600	23	24	0.014	0.015
	Left Turn**	1	1600	24	25	0.015	0.016
Eastbound	Through	2	3200	721	721	0.225	0.225
	Right Turn	1	1600	237	237	0.148	0.148
	Left Turn**	2	3200	141	141	0.044	0.044
Westbound	Through	2	3200	1071	1071	0.335	0.335
	Right Turn	1	1600	319	321	0.199	0.201
		ICU Plus	Lost Time Fa	actor of .10		0.721	
		Level of S	Service		_	С	ine.
		ICU Plus	Lost Time Fa	actor of .10			0.724
		Level of S	Service				С
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements							Study Intersection No.

Conditions: Ambient (2019), Ambient+Proj Count Date: **Horizon Date:**  Wed. November 15, 2017

Location:

City of Torrance, California

2019

North-South Street:

Crenshaw Boulevard

East-West Street:

Palos Verdes Drive North

Peak Hour: Data Source: 7:45 - 8:45 AM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		-	Peak Hour Volume			Volume/Capacity Rati	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn**	1	1600	474	474	0.296	0.296
Northbound	Through	2	3200	424	425	0.133	0.133
	Right Turn	1	1600	102	102	0.064	0.064
	Left Turn**	1	1600	396	396	0.248	0.248
Southbound	Through	2	3200	419	421	0.131	0.132
	Right Turn	1	1600	57	57	0.036	0.036
	Left Turn**	2	3200	100	100	0.031	0.031
Eastbound	Through	2	3200	1316	1318	0.411 *	0.412
	Right Turn***	0	0	0	0	-	-
	Left Turn**	2	3200	55	55	0.017 *	0.017
Westbound	Through	2	3200	1000	1001	0.313	0.313
	Right Turn***	0	0	0	0	-1	-4
		ICU Plus	Lost Time F	actor of .10		0.956	
		Level of	Service			Е	
		ICU Plus	Lost Time F	actor of .10			0.957
Level of Service							E
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements							Study Intersectio No.

Conditions: Ambient (2019), Ambient+Proj

City of Torrance, California

North-South Street: Crenshaw Boulevard

East-West Street: Palos Verdes Drive North

Annual Growth Rate: 1.00%

Location:

Count Date: Wed. November 15, 2017

Horizon Date: 2019

Peak Hour: 5:00 - 6:00 PM

Data Source:

Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn**	1	1600	497	497	0.311 *	0.311
Northbound	Through	2	3200	365	368	0.114	0.115
	Right Turn	1	1600	65	65	0.041	0.041
	Left Turn**	1	1600	361	361	0.226	0.226
Southbound	Through	2	3200	369	370	0.115 *	0.116
	Right Turn	1	1600	54	54	0.034	0.034
	Left Turn**	2	3200	48	48	0.015	0.015
Eastbound	Through	2	3200	1080	1081	0.338 *	0.338
	Right Turn***	0	0	0	0		-
	Left Turn**	2	3200	116	116	0.036 *	0.036
Westbound	Through	2	3200	1009	1011	0.315	0.316
	Right Turn***	0	0	0	0	-	-
		ICU Plus	Lost Time F Service	actor of .10		0.900 E	
		0.900 E					
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements							

Wed. November 15, 2017

2019

C. B.

7:15 - 8:15 AM

Peak Hour:

Input By:

Data Source:

Conditions: Ambient (2019), Ambient+Proj

Count Date: **Horizon Date:** 

City of Torrance, California Location: North-South Street: Rolling Hills Road/Portuguese Road

East-West Street:

Palos Verdes Drive North Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

	1,500		Peak Hou	r Volume	Volume/Capacity Rat			
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	63	63	0.039	* 0.039	
Northbound	Through	1	1600	863	863	0.539	0.539	
	Right Turn	1	1600	213	213	0.133	0.133	
	Left Turn	1	1600	29	29	0.018	0.018	
Southbound	Through	0.5	800	905	905	1.131	* 1.131	
	Right Turn	0.5	800	13	13	0.016	0.016	
	Left Turn	1	1600	30	30	0.019	0.019	
Eastbound	Through	1	1600	55	59	0.034	0.037	
	Right Turn	1	1600	52	52	0.033		
	Left Turn	1	1600	191	191	0.119	0.119	
Westbound	Through	1	1600	60	61	0.038	0.038	
	Right Turn	1	1600	34	34	0.021		
		ICU Plus	Lost Time F	actor of .10		1.424		
		Level of	Service			F		
		ICU Plus	Lost Time F	actor of .10			1.427	
		Level of S	Service				F	
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements								

Conditions: Ambient (2019), Ambient+Proj

Count Date:

Wed. November 15, 2017

Location:

City of Torrance, California

Horizon Date: 2019

2019

North-South Street:

Rolling Hills Road/Portuguese Road

Peak Hour: Data Source: 4:15 - 5:15 PM

East-West Street: Palos \
Annual Growth Rate: 1.00%

Palos Verdes Drive North

Input By:

C. B.

Tour of a reference of the second

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	ır Volume	Volume/Capacity Rat	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1	1600	35	35	0.022	* 0.022
Northbound	Through	1	1600	863	863	0.539	0.539
	Right Turn	1	1600	230	230	0.144	
	Left Turn	1	1600	5	5	0.003	0.003
Southbound	Through	0.5	800	693	693	0.866	0.866
	Right Turn	0.5	800	11	11	0.014	0.014
	Left Turn	1	1600	22	22	0.014	0.014
Eastbound	Through	1	1600	48	49	0.030	0.031
	Right Turn	1	1600	80	80	0.050	
	Left Turn	1	1600	657	→ 657	0.411	0.411
Westbound	Through	1	1600	57	59	0.036	0.037
	Right Turn	1	1600	26	26	0.016	
		ICU Plus	Lost Time F	actor of .10		1.429	
		Level of	Service			F	
		ICU Plus	Lost Time F	actor of .10			1.429
		Level of	Service				F
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements							Study Intersection No. 14

Conditions:

Ambient (2019), Ambient+Proj

Location:

City of Torrance, California

North-South Street: Pacific Coast Highway

East-West Street: Calle Mayor

Annual Growth Rate: 1.00%

Count Date: **Horizon Date:**  Wed. November 15, 2017

2019

Peak Hour:

7:30 - 8:30 AM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	ır Volume	Volume/Capacity Ra		
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)	
	Left Turn	1	1600	148	148	0.093	0.093	
Northbound	Through	1.	1600	804	804	0.503	0.503	
	Right Turn	1	1600	33	33	0.021	0.021	
	Left Turn	1	1600	180	180	0.113	0.113	
Southbound	Through	1	1600	960	960	0.600 *	0.600	
	Right Turn	1	1600	305	305	0.191	0.191	
	Left Turn	1	1600	120	120	0.075 *	0.075	
Eastbound	Through	2	3200	380	382	0.119	0.119	
	Right Turn***	0	0	0	0		-	
	Left Turn	1	1600	96	96	0.060	0.060	
Westbound	Through	2	3200	397	404	0.124 *	0.126	
	Right Turn***	0	0	0	0	-		
		ICU Plus	Lost Time Fa	actor of .10		0.992		
		Level of	Service			E		
		ICU Plus	Lost Time Fa	actor of .10			0.994	
		Level of	Service				Е	
** (	* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements							

Ambient (2019), Ambient+Proj Conditions:

Count Date:

Wed. November 15, 2017

Location:

City of Torrance, California

2019 **Horizon Date:** 

North-South Street:

Pacific Coast Highway

Peak Hour:

4:15 - 5:15 PM

East-West Street:

Calle Mayor

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

				Peak Hou	r Volume	Volume/Ca	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Existing +Ambient (2019)	Ambient +Project (2019)	Existing +Ambient (2019)	Ambient +Project (2019)
	Left Turn	1	1600	194	194	0.121	0.121
Northbound	Through	1	1600	1050	1050	0.656	* 0.656
	Right Turn	1	1600	50	50	0.031	0.031
	Left Turn	1	1600	175	175	0.109	0.109
Southbound	Through	1	1600	959	959	0.599	0.599
	Right Turn	1	1600	86	86	0.054	0.054
	Left Turn	1	1600	120	120	0.075	0.075
Eastbound	Through	2	3200	465	471	0.145	0.147
1	Right Turn***	0	0	0	0		-
	Left Turn	1	1600	57	57	0.036	0.036
Westbound	Through	2	3200	280	285	0.088	0.089
	Right Turn***	0	0	0	0	-	-
		ICU Plus	Lost Time F	actor of .10		1.047	
		Level of	Service			F	
		ICU Plus	Lost Time F	actor of .10			1.048
		Level of	Service				F
**	* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements						

Appendix D – ICU Worksheets

Cumulative & Cumulative Plus Project

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

7:30 - 8:30 AM

East-West Street:

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

1 6.11% c		Peak Hour Volume			Volume/Capacity Ratio		
Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
Left Turn	2	3200	293	303	0.092	0.095	
Through	3	4800	1407	1438	0.293 *	0.300	
Right Turn	1	1600	61	68	0.038	0.043	
Left Turn	2	3200	202	202	0.063 *	0.063	
Through	3	4800	765	772	0.159	0.161	
Right Turn	1	1600	325	325	0.203	0.203	
Left Turn	2	3200	294	294	0.092 *	0.092	
Through	3	4800	1045	1045	0.218	0.218	
Right Turn	1	1600	270	273	0.169	0.171	
Left Turn	2	3200	145	147	0.045	0.046	
Through	3	4800	1075	1075	0.224 *	0.224	
Right Turn	1	1600	277	277	0.173	0.173	
	ICU Plus	Lost Time F	actor of .10		0.772		
	Level of	Service			С		
	ICU Plus	Lost Time F	actor of .10			0.779	
Level of Service							
Denotes Critical M	ovement					Study Intersection No.	
	Movement  Left Turn Through Right Turn  Left Turn Through Right Turn	Movement Lanes  Left Turn 2 Through 3 Right Turn 1  Left Turn 1  ICU Plus Level of 3	Movement         Lanes         On Green           Left Turn         2         3200           Through         3         4800           Right Turn         1         1600           Left Turn         2         3200           Through         3         4800           Right Turn         1         1600           Left Turn         2         3200           Through         3         4800           Right Turn         1         1600           Left Turn         2         3200           Through         3         4800           Right Turn         1         1600           ICU Plus Lost Time F           Level of Service           ICU Plus Lost Time F           Level of Service	Movement         Lanes         On Green         w/o Project           Left Turn         2         3200         293           Through         3         4800         1407           Right Turn         1         1600         61           Left Turn         2         3200         202           Through         3         4800         765           Right Turn         1         1600         325           Left Turn         2         3200         294           Through         3         4800         1045           Right Turn         1         1600         270           Left Turn         2         3200         145           Through         3         4800         1075           Right Turn         1         1600         277           ICU Plus Lost Time Factor of .10           Level of Service	Movement         Lanes         On Green         w/o Project         w/ Project           Left Turn         2         3200         293         303           Through         3         4800         1407         1438           Right Turn         1         1600         61         68           Left Turn         2         3200         202         202           Through         3         4800         765         772           Right Turn         1         1600         325         325           Left Turn         2         3200         294         294           Through         3         4800         1045         1045           Right Turn         1         1600         270         273           Left Turn         2         3200         145         147           Through         3         4800         1075         1075           Right Turn         1         1600         277         277           ICU Plus Lost Time Factor of .10           Level of Service	Movement         Lanes         On Green         w/o Project         w/ Project         w/o Project           Left Turn         2         3200         293         303         0.092           Through         3         4800         1407         1438         0.293           Right Turn         1         1600         61         68         0.038           Left Turn         2         3200         202         202         0.063         **           Through         3         4800         765         772         0.159         **           Right Turn         1         1600         325         325         0.203         **           Left Turn         2         3200         294         294         0.092         **           Through         3         4800         1045         1045         0.218         **           Right Turn         1         1600         270         273         0.169         **           Left Turn         2         3200         145         147         0.045         **           Through         3         4800         1075         1075         0.224         **           Right Turn </td	

Count Date:

Conditions: Cumulative w/ and w/o Project

Location: City of Torrance, California **Horizon Date:** 2019

North-South Street: Hawthorne Boulevard Peak Hour:

5:00 - 6:00 PM East-West Street: Pacific Coast Highway Data Source:

Annual Growth Rate: 1.00% Input By: C.B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

draw i			200	Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	2	3200	324	330	0.101	0.103
Northbound	Through	3	4800	943	961	0.196	0.200
	Right Turn	1	1600	74	77	0.046	0.048
	Left Turn	2	3200	423	423	0.132	0.132
Southbound	Through	3	4800	1289	1305	0.269	0.272
	Right Turn	1	1600	430	430	0.269	0.269
	Left Turn	2	3200	254	254	0.079	0.079
Eastbound	Through	3	4800	1147	1147	0.239	0.239
	Right Turn	1	1600	355	364	0.222	0.228
	Left Turn	2	3200	194	198	0.061 *	0.062
Westbound	Through	3	4800	998	998	0.208	0.208
	Right Turn	1	1600	254	254	0.159	0.159
		ICU Plus	Lost Time F	actor of .10		0.769	
		Level of S	Service			С	
		ICU Plus	Lost Time F	actor of .10			0.776
		Level of S	Service				С
* Denotes Critical Movement							

Conditions: Cumulative w/ and w/o Project

Count Date: Horizon Date:

Location:

City of Torrance, California

2019

North-South Street:

Hawthorne Boulevard

East-West Street:

Peak Hour:

7:30 - 8:30 AM

No. 2

244th Street

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

No. Proceedings				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Oirection of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	4	4	0.003	0.003
Northbound	Through	3	4800	1671	1719	0.348 *	0.358
	Right Turn**	0	0	0	0	+	
	Left Turn	1	1600	42	42	0.026 *	0.026
Southbound	Through	3	4800	1088	1100	0.227	0.229
	Right Turn**	0	0	0	0		
	Left Turn***	0	0	0	0	-	-
Eastbound	Through	1	1600	29	29	0.018 *	0.018
	Right Turn	0.5	800	8	8	0.010	0.010
	Left Turn***	0	0	0	0	·	*
Westbound	Through	1	1600	60	60	0.038 *	0.038
	Right Turn	0.5	800	57	57	0.071	0.071
		ICU Plus	Lost Time F	actor of .10		0.530	
		Level of	Service			Α	
		ICU Plus	Lost Time F	actor of .10			0.540
		Level of	Service				A
	Denotes Critical M Right Turn Volume		Through Mov	vements.			Study Intersection

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

244th Street

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

		10.5		Peak Hou	ır Volume	Volume/Ca	pacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn	1	1600	31	31	0.019 *	0.019	
Northbound	Through	3	4800	1314	1341	0.274	0.279	
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	82	82	0.051	0.051	
Southbound	Through	3	4800	1681	1714	0.350 *	0.357	
	Right Turn**	0	0	0	0	-		
	Left Turn***	0	0	0	0	4	-	
Eastbound	Through	1	1600	65	65	0.041 *	0.041	
	Right Turn	0.5	800	27	27	0.034	0.034	
	Left Turn***	0	0	0	0		1-1-	
Westbound	Through	1	1600	62	62	0.039 *	0.039	
	Right Turn	0.5	800	52	58	0.065	0.073	
		ICU Plus	Lost Time F	actor of .10		0.549		
		Level of	Service			Α		
		ICU Plus	Lost Time F	actor of .10			0.556	
		Level of	Service				Α	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

Horizon Date:

2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

7:30 - 8:30 AM

East-West Street:

**Newton Street** 

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

T				Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	103	110	0.064 *	0.069
Northbound	Through	3	4800	1666	1718	0.347	0.358
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	39	39	0.024	0.024
Southbound	Through	2	3200	1049	1061	0.328 *	0.332
	Right Turn**	0	0	0	0	2	
	Left Turn	1	1600	27	27	0.017	0.017
Eastbound	Through	0.5	800	77	77	0.096	0.096
	Right Turn	0.5	800	80	82	0.100 *	0.103
	Left Turn	1	1600	87	91	0.054 *	0.057
Westbound	Through	1	1600	114	114	0.071	0.071
	Right Turn	1	1600	111	111	0.069	0.069
		ICU Plus	Lost Time F	actor of .10		0.647	
		Level of	Service			В	
		ICU Plus	Lost Time F	actor of .10			0.660
		Level of	Service				В
	Denotes Critical M Right Turn Volume		Through Mov	vements			Study Intersection No.

Conditions: Cumulative w/ and w/o Project Count Date:

Location: City of Torrance, California Horizon Date: 2019

North-South Street: Hawthorne Boulevard Peak Hour: 5:00 - 6:00 PM

East-West Street: Newton Street Data Source:

Annual Growth Rate: 1.00% Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

J.S. J.			No. of the	Peak Hou	ır Volume	Volume/C	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	99	116	0.062	0.073
Northbound	Through	2	3200	1303	1332	0.407	* 0.416
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	54	54	0.034	* 0.034
Southbound	Through	3	4800	1635	1668	0.341	0.348
	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	21	21	0.013	0.013
Eastbound	Through	0.5	800	53	53	0.066	0.066
	Right Turn	0.5	800	113	115	0.141	0.144
	Left Turn	1	1600	203	218	0.127	0.136
Westbound	Through	1	1600	56	56	0.035	0.035
	Right Turn	1	1600	102	102	0.064	0.064
		ICU Plus	Lost Time F	actor of .10		0.809	
		Level of	Service			D	
		ICU Plus	Lost Time F	actor of .10			0.830
		Level of	Service				D
	Denotes Critical Ma Right Turn Volume		Through Mov	vements			Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Hawthorne Boulevard

East-West Street:

Peak Hour:

8:00 - 9:00 AM

Annual Growth Rate: 1.00%

Via Valmonte

Data Source: Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/C	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
-	Left Turn	1	1600	46	46	0.029	0.029
Northbound	Through	3	4800	1646	1650	0.343	* 0.344
	Right Turn	1	1600	37	37	0.023	0.023
	Left Turn	1	1600	3	3	0.002	* 0.002
Southbound	Through	3	4800	1203	1225	0.251	0.255
	Right Turn**	0	0	0	0		
	Left Turn***	0	0	0	0		-
Eastbound	Through	2	3200	248	303	0.078	* 0.095
	Right Turn	0.5	800	68	72	0.085	0.090
	Left Turn***	0	0	0	0		
Westbound	Through	1	1600	0	0	0.000	* 0.000
	Right Turn	1	1600	1	1	0.001	0.001
		ICU Plus	Lost Time F	actor of .10		0.522	
		Level of	Service			Α	
		ICU Plus	Lost Time F	actor of .10			0.540
		Level of	Service				Α
** F	Denotes Critical M Right Turn Volume Left Turn Volumes	s Added to					Study Intersection No.

Conditions: Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Via Valmonte

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Lane	Number				Volume/Capacity Ratio		
Lane	of Lanes	of (Veh/Hr)	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
Left Turn	1	1600	64	64	0.040	* 0.040	
Through	3	4800	1245	1258	0.259	0.262	
Right Turn	1	1600	18	18	0.011	0.011	
Left Turn	1	1600	16	16	0.010	0.010	
Through	3	4800	1969	2032	0.410	0.423	
Right Turn**	0	0	0	0			
Left Turn***	0	0	0	0	-	-	
Through	2	3200	157	190	0.049	0.059	
Right Turn	0.5	800	61	64	0.076	0.080	
Left Turn***	0	0	0	0	9	1 57	
Through	1	1600	16	16	0.010	0.010	
Right Turn	1	1600	20	20	0.013	0.013	
	ICU Plus	Lost Time F	actor of .10		0.609		
	Level of	Service			В		
	ICU Plus	Lost Time F	actor of .10			0.633	
	Level of	Service				В	
ight Turn Volume	s Added to					Study Intersection No.	
	Through Right Turn  Left Turn  Through Right Turn**  Left Turn***  Through Right Turn  Left Turn***  Through Right Turn	Through 3  Right Turn 1  Left Turn 1  Through 3  Right Turn** 0  Left Turn*** 0  Through 2  Right Turn 0.5  Left Turn*** 1  Through 1  Right Turn 1  ICU Plus  Level of 5  enotes Critical Movement ight Turn Volumes Added to	Through 3 4800  Right Turn 1 1600  Left Turn 1 1600  Through 3 4800  Right Turn** 0 0  Left Turn*** 0 0  Through 2 3200  Right Turn 0.5 800  Left Turn*** 0 0  Through 1 1600  Right Turn 1 1600  Right Turn 1 1600  ICU Plus Lost Time F  Level of Service  enotes Critical Movement ight Turn Volumes Added to Through Movement ight Tur	Through 3 4800 1245  Right Turn 1 1600 18  Left Turn 1 1600 16  Through 3 4800 1969  Right Turn** 0 0 0  Left Turn*** 0 0 0  Through 2 3200 157  Right Turn 0.5 800 61  Left Turn*** 0 0 0  Through 1 1600 16  Right Turn 1 1600 20  ICU Plus Lost Time Factor of .10  Level of Service	Through 3 4800 1245 1258  Right Turn 1 1600 18 18  Left Turn 1 1600 16 16  Through 3 4800 1969 2032  Right Turn** 0 0 0 0  Left Turn*** 0 0 0 0  Left Turn*** 0 0 0 0  Through 2 3200 157 190  Right Turn 0.5 800 61 64  Left Turn*** 0 0 0 0  Through 1 1600 16 16  Right Turn 1 1600 20 20  ICU Plus Lost Time Factor of .10  Level of Service  ICU Plus Lost Time Factor of .10  Level of Service	Through         3         4800         1245         1258         0.259           Right Turn         1         1600         18         18         0.011           Left Turn         1         1600         16         16         0.010           Through         3         4800         1969         2032         0.410           Right Turn***         0         0         0         0         -           Left Turn****         0         0         0         -         -           Through         2         3200         157         190         0.049         -           Right Turn         0.5         800         61         64         0.076         -           Left Turn****         0         0         0         0         -         -           Through         1         1600         16         16         0.010         -           Through         1         1600         20         20         0.013           ICU Plus Lost Time Factor of .10         0.609         B           Level of Service         B    CU Plus Lost Time Factor of .10  Level of Service  Enotes Critical Movement ight Turn Volumes Added to Through Mo	

Conditions: Cumulative w/ and w/o Project Count Date:

Location: City of Torrance, California Horizon Date: 2019

North-South Street: Hawthorne Boulevard Peak Hour: 7:30 - 8:30 AM

East-West Street: Rolling Hills Road Data Source:

Annual Growth Rate: 1.00% Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	(Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	0	0	0.000	0.000
Northbound	Through	2	3200	1403	1405	0.438	0.439
	Right Turn**	0	0	0	0	-	
	Left Turn	2	3200	285	289	0.089	0.090
Southbound	Through	2	3200	843	853	0.263	0.267
	Right Turn**	0	0	0	0		
	Left Turn***	0	0	0	0		(-)
Eastbound	Through	1	1600	2	2	0.001 *	0.001
	Right Turn	0.5	800	0	0	0.000	0.000
	Left Turn	1	1600	88	88	0.055 *	0.055
Westbound	Through	0.5	800	2	2	0.003	0.003
	Right Turn	1.5	2400	438	440	0.183	0.183
		ICU Plus	Lost Time F	actor of .10		0.684	
		Level of	Service			В	
		ICU Plus	Lost Time F	actor of .10			0.686
		Level of	Service				В
** F	Denotes Critical M Right Turn Volume eft Turn Volumes	s Added to					Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

East-West Street:

Rolling Hills Road

5:00 - 6:00 PM

Annual Growth Rate: 1.00%

Data Source: Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	0	0	0.000	0.000
Northbound	Through	2	3200	1064	1071	0.333 *	0.335
	Right Turn**	0	0	0	0	- 13	
	Left Turn	2	3200	445	447	0.139 *	0.140
Southbound	Through	2	3200	1381	1389	0.432	0.434
	Right Turn**	0	0	0	0		
	Left Turn***	0	0	0	0		1
Eastbound	Through	1	1600	3	3	0.002 *	0.002
	Right Turn	0.5	800	1	1	0.001	0.001
	Left Turn	1	1600	88	88	0.055 *	0.055
Westbound	Through	0.5	800	0	0	0.000	0.000
	Right Turn	1.5	2400	338	344	0.141	0.143
		ICU Plus	Lost Time F	actor of .10		0.628	
		Level of	Service			В	
		ICU Plus	Lost Time F Service	actor of .10			0.631 B
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

2019 **Horizon Date:** 

North-South Street:

Whiffletree Lane

East-West Street:

Rolling Hills Road

Peak Hour: Data Source: 7:30 - 8:30 AM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn***	0	0	0	0		6.
Northbound	Through	1	1600	45	45	0.028	0.028
	Right Turn	0.5	800	21	21	0.026	0.026
	Left Turn***	0	0	0	0		
Southbound	Through	1	1600	15	15	0.009	0.009
	Right Turn	0.5	800	4	4	0.005	0.005
	Left Turn***	0	0	0	0	-	-
Eastbound	Through	2	3200	338	342	0.106	0.107
	Right Turn**	0	0	0	0	-	
	Left Turn***	0	0	0	0	-	
Westbound	Through	2	3200	498	500	0.156	0.156
	Right Turn**	0	0	0	0		
		ICU Plus	Lost Time F	actor of .10		0.399	
		Level of	Service			Α	
		ICU Plus	Lost Time F	actor of .10			0.401
		Level of	Service				Α
* [ ** F *** [		Study Intersection No.					

Conditions: Cumulative w/ and w/o Project Count Date:

Location: City of Torrance, California Horizon Date: 2019

North-South Street: Whiffletree Lane Peak Hour: 5:00 - 6:00 PM

East-West Street: Rolling Hills Road Data Source:

Annual Growth Rate: 1.00% Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	r Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn***	0	0	0	0	-	
Northbound	Through	1	1600	15	15	0.009 *	0.009
	Right Turn	0.5	800	16	16	0.020	0.020
	Left Turn***	0	0	0	0		
Southbound	Through	1	1600	16	16	0.010 *	0.010
	Right Turn	0.5	800	7	7	0.009	0.009
	Left Turn***	0	0	0	0	*	-
Eastbound	Through	2	3200	525	527	0.164 *	0.165
	Right Turn**	0	0	0	0	127	
	Left Turn***	0	0	0	0	100	-
Westbound	Through	2	3200	396	402	0.124 *	0.126
	Right Turn**	0	0	0	0		
		ICU Plus	Lost Time F	actor of .10		0.407	
		Level of	Service			Α	
		ICU Plus	Lost Time F	actor of .10			0.410
		Level of	Service				Α
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

7:30 - 8:30 AM

North-South Street: East-West Street:

Fallenleaf Drive

Peak Hour:

Data Source:

Annual Growth Rate: 1.00%

Rolling Hills Road

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			E714 - V.	Peak Hou	ır Volume	Volume/Capacity		atio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	June	ılative oject
	Left Turn***	0	0	0	0		-	-
Northbound	Through	1	1600	49	49	0.031	* 0.03	31
	Right Turn**	0	0	0	0	-		
	Left Turn***	0	0	0	0			
Southbound	Through	1	1600	62	62	0.039	* 0.03	39
	Right Turn**	0	0	0	0			
	Left Turn	1	1600	30	30	0.019	* 0.01	9
Eastbound	Through	2	3200	322	326	0.101	0.10	2
	Right Turn**	0	0	0	0	-		
	Left Turn	1	1600	11	11	0.007	0.00	7
Westbound	Through	2	3200	441	443	0.138	* 0.13	8
	Right Turn**	0	0	0	0	- 4		
		ICU Plus	Lost Time F	actor of .10		0.326		
		Level of	Service			Α		
		ICU Plus	Lost Time F	actor of .10			0.32	7
		Level of S	Service				A	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions:

Cumulative w/ and w/o Project

Location:

City of Torrance, California

Fallenleaf Drive

North-South Street: East-West Street:

Rolling Hills Road

Annual Growth Rate: 1.00%

Count Date:

**Horizon Date:** 2019

Peak Hour:

4:30 - 5:30 PM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

1 10		-		Peak Hou	r Volume	Volume/C	apacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn***	0	0	0	0	-	-	
Northbound	Through	1	1600	26	26	0.016	* 0.016	
	Right Turn**	0	0	0	0	-		
	Left Turn***	0	0	0	0	,		
Southbound	Through	1	1600	47	47	0.029	* 0.029	
	Right Turn**	0	0	0	0	-	7 7 7 7	
	Left Turn	1	1600	36	36	0.023	* 0.023	
Eastbound	Through	2	3200	448	450	0.140	0.141	
	Right Turn**	0	0	0	0	- 8		
	Left Turn	1	1600	22	22	0.014	0.014	
Westbound	Through	2	3200	403	409	0.126	* 0.128	
	Right Turn**	0	0	0	0	1.0		
		ICU Plus	Lost Time F	actor of .10		0.294		
		Level of	Service			Α		
		ICU Plus	Lost Time F	actor of .10			0.296	
		Level of	Service				Α	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions: Cumulative w/ and w/o Project Count Date:

Location: City of Torrance, California Horizon Date: 2019

North-South Street: Crenshaw Boulevard Peak Hour: 7:45 - 8:45 AM

East-West Street: Rolling Hills Road Data Source:

Annual Growth Rate: 1.00% Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			56.0	Peak Hou	ır Volume	Volume/C	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	117	118	0.073	0.074
Northbound	Through	3	4800	1392	1392	0.290	* 0.290
	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	159	159	0.099	* 0.099
Southbound	Through	3	4800	1045	1046	0.218	0.218
	Right Turn**	0	0	0	0		
	Left Turn	1	1600	153	155	0.096	* 0.097
Eastbound	Through	1	1600	147	147	0.092	0.092
	Right Turn	1	1600	60	62	0.038	0.039
	Left Turn	1	1600	24	24	0.015	0.015
Westbound	Through	0.5	800	181	181	0.226	* 0.226
	Right Turn	1.5	2400	206	206	0.086	0.086
		ICU Plus	Lost Time F	actor of .10		0.811	
		Level of S	Service			D	
		ICU Plus	Lost Time F	actor of .10			0.813
Level of Service							D
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Location:

City of Torrance, California

North-South Street:

Crenshaw Boulevard

East-West Street:

Rolling Hills Road

Annual Growth Rate: 1.00%

Count Date:

Horizon Date:

Peak Hour:

4:45 - 5:45 PM

8

Data Source:

Input By:

C. B.

2019

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			77.7.7	Peak Hou	ır Volume	Volume/C	apacity Ratio	
Direction of Travel	Lane of	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project		
	Left Turn	1	1600	101	104	0.063	0.065	
Northbound	Through	3	4800	1039	1039	0.216	* 0.216	
Righ	Right Turn**	0	0	0	0	1		
	Left Turn	1	1600	279	279	0.174	* 0.174	
Southbound	Through	3	4800	1088	1091	0.227	0.227	
	Right Turn**	0	0	0	0	-		
Eastbound	Left Turn	1	1600	168	169	0.105	* 0.106	
	Through	1	1600	286	286	0.179	0.179	
	Right Turn	1	1600	88	89	0.055	0.056	
	Left Turn	1	1600	46	46	0.029	0.029	
Westbound	Through	0.5	800	217	217	0.271	* 0.271	
	Right Turn	1.5	2400	167	167	0.070	0.070	
		ICU Plus	Lost Time F	actor of .10		0.867		
		Level of	Service	1.3.1.5		D		
		ICU Plus	Lost Time F	actor of .10			0.868	
Level of Service							D	
** F	* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Crenshaw Boulevard

East-West Street:

Peak Hour:

Pacific Coast Highway

Data Source:

8:00 - 9:00 AM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Number  Of  Movement Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn	1	1600	68	68	0.043	0.043
Northbound	Through	3	4800	1046	1047	0.218 *	0.218
	Right Turn	1	1600	498	499	0.311	0.312
	Left Turn	1	1600	145	145	0.091 *	0.091
	Through	3	4800	650	655	0.135	0.136
	Right Turn**	0	0	0	0		
	Left Turn	2	3200	178	182	0.056	0.057
Eastbound	Through	2	3200	973	980	0.300 *	0.306
	Right Turn**	0	0	0	0	4	
	Left Turn	2	3200	653	653	0.204 *	0.204
Westbound	Through	3	4800	1984	1986	0.413	0.414
	Right Turn**	0	0	0	0		
		ICU Plus	Lost Time F	actor of .10		0.913 E	
		-70,000	Lost Time F	actor of 10			0.919
		Level of		actor or . To			E.
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Location:

City of Torrance, California

Count Date: **Horizon Date:** 

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Section 1				Peak Hou	ır Volume	Volume/Ca	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	84	84	0.053	0.053
Northbound	Through	3	4800	728	728	0.152	0.152
	Right Turn	1	1600	459	460	0.287	0.288
Southbound	Left Turn	1	1600	358	358	0.224	0.224
	Through	3	4800	1164	1182	0.243	0.246
	Right Turn**	0	0	0	0		
Eastbound	Left Turn	2	3200	178	180	0.056	0.056
	Through	2	3200	1305	1308	0.408	0.409
	Right Turn**	0	0	0	0	-	
	Left Turn	2	3200	477	477	0.149	0.149
Westbound	Through	3	4800	1481	1485	0.309	0.309
	Right Turn**	0	0	0	0	-	
		ICU Plus	Lost Time F	actor of .10		1.032	
		Level of S	Service			F	
		ICU Plus	Lost Time F	actor of .10			1.033
Level of Service							F
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements  *** Left Turn Volumes Added to Through Movements							Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

Horizon Date: 2019

North-South Street:

Vista Montana

Peak Hour:

7:30 - 8:30 AM

East-West Street:

Pacific Coast Highway

Data Source:

Annual Growth Rate: 1.00%

C. B. Input By:

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Capacity Ratio	
Direction of Travel	Lane of Movement Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn	2	3200	153	153	0.048	0.048
Northbound	Through	1.5	2400	150	151	0.063 *	0.063
	Right Turn	0.5	800	130	130	0.163	0.163
Southbound	Left Turn	2	3200	289	290	0.090 *	0.091
	Through	2	3200	116	116	0.036	0.036
	Right Turn	1	1600	194	194	0.121	0.121
	Left Turn	1	1600	48	48	0.030 *	0.030
Eastbound	Through	2	3200	1175	1177	0.367	0.368
	Right Turn**	0	0	0	0	-	
	Left Turn	1	1600	72	72	0.045	0.045
Westbound	Through	2	3200	1565	1575	0.489 *	0.492
	Right Turn**	0	0	0	0		
		ICU Plus	Lost Time F	actor of .10		0.772	
		Level of	Service			С	
		ICU Plus	Lost Time F	actor of .10			0.776
Level of Service							С
	Denotes Critical M Right Turn Volume		Through Mo	vements			Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

Horizon Date: 2019

North-South Street:

Vista Montana

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Pacific Coast Highway

Data Source: Input By:

C. B.

Annual Growth Rate: 1.00%

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Capacity Ratio		
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn	2	3200	115	116	0.036	0.036	
Northbound	Through	1.5	2400	203	204	0.085	* 0.085	
	Right Turn	0.5	800	158	158	0.198	0.198	
	Left Turn	2	3200	361	364	0.113	0.114	
Southbound	Through	2	3200	211	211	0.066	0.066	
	Right Turn	1	1600	98	98	0.061	0.061	
Eastbound	Left Turn	1	1600	60	60	0.038	0.038	
	Through	2	3200	1328	1334	0.415	0.417	
	Right Turn**	0	0	0	0	2		
	Left Turn	1	1600	208	208	0.130	0.130	
Westbound	Through	2	3200	1414	1420	0.442 *	0.444	
	Right Turn**	0	0	0	0	2		
		ICU Plus	Lost Time F	actor of .10		0.777		
		Level of	Service			С		
		ICU Plus	Lost Time F	actor of .10			0.780	
Level of Service							С	
* Denotes Critical Movement  ** Right Turn Volumes Added to Through Movements							Study Intersection No.	

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

East-West Street:

7:45 - 8:45 AM

Annual Growth Rate: 1.00%

Palos Verdes Drive North

Data Source: Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	187	187	0.117	0.117
Northbound	Through	2	3200	460	461	0.144	0.144
	Right Turn	1	1600	168	168	0.105	0.105
Southbound	Left Turn	1	1600	345	347	0.216 *	0.217
	Through	2	3200	424	430	0.133	0.134
	Right Turn	1	1600	16	18	0.010	0.011
Eastbound	Left Turn**	1	1600	35	35	0.022	0.022
	Through	2	3200	935	935	0.292 *	0.292
	Right Turn	1	1600	291	291	0.182	0.182
	Left Turn**	2	3200	129	129	0.040 *	0.040
Westbound	Through	2	3200	564	564	0.176	0.176
	Right Turn	1	1600	262	263	0.164	0.164
		ICU Plus	Lost Time F	actor of .10		0.792	
		Level of	Service			С	
		ICU Plus	Lost Time F	actor of .10			0.793
		Level of	Service				С
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements							Study Intersection No.

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Palos Verdes Drive North

Data Source:

Annual Growth Rate: 1.00%

Input By:

C.B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

			Control of	Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane of	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn	1	1600	232	232	0.145 *	0.145
Northbound	Through	2	3200	370	374	0.116	0.117
	Right Turn	1	1600	136	136	0.085	0.085
Southbound	Left Turn	1	1600	210	211	0.131	0.132
	Through	2	3200	443	449	0.138 *	0.140
	Right Turn	1	1600	28	29	0.018	0.018
	Left Turn**	1	1600	29	30	0.018 *	0.019
Eastbound	Through	2	3200	721	721	0.225	0.225
	Right Turn	1	1600	237	237	0.148	0.148
	Left Turn**	2	3200	141	141	0.044	0.044
Westbound	Through	2	3200	1071	1071	0.335 *	0.335
	Right Turn	1	1600	328	330	0.205	0.206
		ICU Plus	Lost Time F	actor of .10		0.736	
h .		Level of	Service			С	
		ICU Plus	Lost Time F	actor of .10			0.739
Level of Service							С
	enotes Critical M -Turn Volumes A		t Turn Moven	nents			Study Intersection No. 12

Conditions: Location:

Cumulative w/ and w/o Project

City of Torrance, California

**Horizon Date:** 

2019

North-South Street:

Crenshaw Boulevard

Peak Hour:

7:45 - 8:45 AM

East-West Street:

Palos Verdes Drive North

Data Source:

Count Date:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Capacity Ratio		
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn**	1	1600	474	474	0.296 *	0.296	
Northbound	Through	2	3200	464	465	0.145	0.145	
	Right Turn	1	1600	102	102	0.064	0.064	
	Left Turn**	1	1600	401	401	0.251	0.251	
Southbound	Through	2	3200	431	433	0.135 *	0.135	
	Right Turn	1	1600	62	62	0.039	0.039	
	Left Turn**	2	3200	100	100	0.031	0.031	
Eastbound	Through	2	3200	1320	1322	0.413 *	0.413	
	Right Turn***	0	0	0	0	-	-	
	Left Turn**	2	3200	55	55	0.017 *	0.017	
Westbound	Through	2	3200	1017	1018	0.318	0.318	
	Right Turn***	0	0	0	0	(4)	-	
		ICU Plus	Lost Time F	actor of .10		0.961		
		Level of	Service		_	E		
		ICU Plus	Lost Time F	actor of .10			0.962	
Level of Service							E	
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements							Study Intersection No.	

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

Horizon Date: 2019

North-South Street:

Hawthorne Boulevard

Peak Hour:

5:00 - 6:00 PM

East-West Street:

Palos Verdes Drive North

Data Source:

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane of	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project	
	Left Turn**	1	1600	497	497	0.311	0.311
Northbound	Through	2	3200	389	392	0.122	0.123
	Right Turn	1	1600	65	65	0.041	0.041
	Left Turn**	1	1600	381	381	0.238	0.238
Southbound	Through	2	3200	403	404	0.126 *	0.126
	Right Turn	1	1600	67	67	0.042	0.042
Eastbound	Left Turn**	2	3200	48	48	0.015	0.015
	Through	2	3200	1089	1090	0.340 *	0.341
	Right Turn***	0	0	0	0	5	-
	Left Turn**	2	3200	116	116	0.036 *	0.036
Westbound	Through	2	3200	1027	1029	0.321	0.322
	Right Turn***	0	0	0	0	· • •	-
		ICU Plus	Lost Time F	actor of .10		0.913	
		Level of	Service			E	
		ICU Plus	Lost Time F	actor of .10			0.914
Level of Service							E
* Denotes Critical Movement  ** U-Turn Volumes Added to Left Turn Movements  *** Right Turn Volumes Added to Through Movements							Study Intersection No.

Conditions: Cumulative w/ and w/o Project Count Date:

Location: City of Torrance, California Horizon Date: 2019

North-South Street: Rolling Hills Road/Portuguese Road Peak Hour: 7:15 - 8:15 AM

East-West Street: Palos Verdes Drive North Data Source:

Annual Growth Rate: 1.00% Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

				Peak Hou	ır Volume	Volume/Capacity Ratio	
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/Project
	Left Turn	1	1600	63	63	0.039	0.039
Northbound	Through	1	1600	863	863	0.539	0.539
	Right Turn	1	1600	213	213	0.133	0.133
	Left Turn	1	1600	31	31	0.019	0.019
Southbound	Through	0.5	800	905	905	1.131 *	1.131
	Right Turn	0.5	800	13	13	0.016	0.016
	Left Turn	1	1600	30	30	0.019	0.019
Eastbound	Through	1	1600	63	65	0.039 *	0.041
	Right Turn	1	1600	52	52	0.033	
	Left Turn	1	1600	191	191	0.119 *	0.119
Westbound	Through	1	1600	77	78	0.048	0.049
	Right Turn	1	1600	42	42	0.026	
		ICU Plus	Lost Time F	actor of .10		1.429	
		Level of	Service			F	
		ICU Plus	Lost Time F	actor of .10			1.431
Level of Service							F
	enotes Critical M I-Turn Volumes A		t Turn Mover	nents			Study Intersection No.

### KHR ASSOCIATES INTERSECTION CAPACITY UTILIZATION ANALYSIS

Conditions:

Cumulative w/ and w/o Project

Count Date:

Location:

City of Torrance, California

**Horizon Date:** 2019

North-South Street:

Rolling Hills Road/Portuguese Road

East-West Street:

Palos Verdes Drive North

Peak Hour: Data Source: 4:15 - 5:15 PM

Annual Growth Rate: 1.00%

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

5201-030		I de la constant	San Lee	Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	34	34	0.021 *	0.021
Northbound	Through	1	1600	846	846	0.529	0.529
	Right Turn	1	1600	225	225	0.141	
	Left Turn	1	1600	10	10	0.006	0.006
Southbound	Through	0.5	800	698	698	0.873 *	0.873
	Right Turn	0.5	800	11	11	0.014	0.014
	Left Turn	1	1600	22	22	0.014	0.014
Eastbound	Through	1	1600	74	75	0.046 *	0.047
	Right Turn	1	1600	80	80	0.050	
	Left Turn	1	1600	657	657	0.411 *	0.411
Westbound	Through	1	1600	75	77	0.047	0.048
	Right Turn	1	1600	33	33	0.021	
		ICU Plus	Lost Time F	actor of .10		1.451	
		Level of	Service			F	
		ICU Plus	Lost Time F	actor of .10			1.451
		Level of	Service				F
	enotes Critical M -Turn Volumes A		t Turn Moven	nents			Study Intersection No.

## KHR ASSOCIATES INTERSECTION CAPACITY UTILIZATION ANALYSIS

Conditions: Location:

Cumulative w/ and w/o Project

City of Torrance, California

North-South Street: Pacific Coast Highway

East-West Street:

Calle Mayor

Annual Growth Rate: 1.00%

Count Date:

Horizon Date: 2019

Peak Hour:

7:30 - 8:30 AM

Data Source:

Input By:

C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

		1 7		Peak Hou	ır Volume	Volume/Ca	pacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	148	148	0.093 *	0.093
Northbound	Through	1	1600	805	805	0.503	0.503
	Right Turn	1	1600	33	33	0.021	0.021
	Left Turn	1	1600	180	180	0.113	0.113
Southbound	Through	1	1600	960	960	0.600 *	0.600
	Right Turn	1	1600	305	305	0.191	0.191
	Left Turn	1	1600	120	120	0.075 *	0.075
Eastbound	Through	2	3200	403	405	0.126	0.127
	Right Turn***	0	0	0	0	-	2
	Left Turn	1	1600	96	96	0.060	0.060
Westbound	Through	2	3200	417	424	0.130 *	0.133
	Right Turn***	0	0	0	0	- 1-	
		ICU Plus	Lost Time F	actor of .10		0.998	
		Level of	Service			E	
		ICU Plus	Lost Time F	actor of .10			1.000
		Level of	Service				F
**	Denotes Critical M U-Turn Volumes A Right Turn Volume	dded to Let					Study Intersection No.

# KHR ASSOCIATES INTERSECTION CAPACITY UTILIZATION ANALYSIS

Count Date:

Conditions: Cumulative w/ and w/o Project

Location: City of Torrance, California Horizon Date: 2019

North-South Street: Pacific Coast Highway Peak Hour: 4:15 - 5:15 PM

East-West Street: Calle Mayor Data Source:

Annual Growth Rate: 1.00% Input By: C. B.

Comments: Capacity Volume of Vehicles Per Hour Per Lane = 1600

Capacity Volume of Vehicles Per Hour For Dual Left-Turn Lanes = 3200

21000				Peak Hou	ır Volume	Volume/C	apacity Ratio
Direction of Travel	Lane Movement	Number of Lanes	Capacity (Veh/Hr) On Green	Cumulative w/o Project	Cumulative w/ Project	Cumulative w/o Project	Cumulative w/ Project
	Left Turn	1	1600	194	194	0.121	0.121
Northbound	Through	1	1600	1051	1051	0.657	* 0.657
	Right Turn	1	1600	50	50	0.031	0.031
	Left Turn	1	1600	175	175	0.109	* 0.109
Southbound	Through	1	1600	959	959	0.599	0.599
	Right Turn	1	1600	86	86	0.054	0.054
	Left Turn	1	1600	120	120	0.075	0.075
Eastbound	Through	2	3200	502	508	0.157	* 0.159
	Right Turn***	0	0	0	0		-
	Left Turn	1	1600	57	57	0.036	* 0.036
Westbound	Through	2	3200	321	326	0.100	0.102
	Right Turn***	0	0	0	0		-
		ICU Plus	Lost Time F	actor of .10		1.059 F	
		ICU Plus	Lost Time F	actor of .10			1.061
		Level of S	Service				F
** (	Denotes Critical Mo J-Turn Volumes A Right Turn Volume	dded to Left					Study Intersection No.

2017 Existing Conditions Highway Capacity Method

Company	4!		1				A. Cenas	dian.	lada	-411			leile -	기계시하	ninini
General Inform	nation	lines						_	Interse	-		-	- 1	7 4 7 4	
Agency		KHR Associates		1				_	Duration		0.25		-		
Analyst					_	e 8/1/2	016		Area Ty	ре	Othe		_ <u>_</u>		
Jurisdiction		Torrance California		-	Period	-		_	PHF		0.95	-	_======================================	₩∳E	
Urban Street		Pacific Coast Highw	_	_	sis Yea				Analysis		1> 7	:30			
Intersection		Hawthorne Bouleva	ard	File N	ame	1-PC	H-Hawt	horne E	Exist AM	.xus				<u> ጎጎተ</u> 1	1
Project Descrip	tion			-		_			100000					শ্ৰ শ্ৰ	757
Demand Inform	nation				EB			WE	3		NE			SB	
Approach Move	_			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v				265	1020	_	_	_	_	_	_		181	_	_
Domaina ( v ), v			200	200	1020					201	102		101	120	30
Signal Informa	tion								9	J	1	1	1-1	1200	
Cycle, s	120.0	Reference Phase	2	1	7 8	$\exists$	<b>⇒</b>	7	77	12	12	_	<b>→</b>	1	4
Offset, s	0	Reference Point	End	Green	121	0.1	46.0	8.7	3.6	29.	5	- 5/4	<b>Y</b> 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	0.0	4.0		7	4		4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	Б	7	
		100	210												
Timer Results				EB	-	EBT	WB	L	WBT	NB	L	NBT	SB	_	SBT
Assigned Phase	9			5		2	1		6	3		8	7		4
Case Number				2.0	_	4.0	2.0	_	4.0	2.0	_	4.0	2.0	)	3.0
Phase Duration	ge Period, ( Y+R c), s				_	54.1	16.		50.0	16.3	_	37.1	12.		33.5
	ge Period, ( <i>Y+R c</i> ), s Allow Headway ( <i>MAH</i> ), s					4.0	4.0	_	4.0	4.0	_	4.0	4.0	)	4.0
Max Allow Head	Allow Headway ( <i>MAH</i> ), s					0.0	3.0		0.0	3.0		3.0	3.0	)	3.0
Queue Clearand	ce Time	(gs), s		18.2	2		12.	1		12.1	1	32.6	8.5		24.8
Green Extension	n Time	( g e ), s		0.0		0.0	0.1		0.0	0.3		0.6	0.2		3.0
Phase Call Prob	ability			1.00	)		0.99	9		1.00		1.00	1.00	0	1.00
Max Out Probat	oility			1.00	)		0.2	7		0.4		1.00	0.00	)	0.81
1					50			WD			NID			000	
Movement Gro	-	uits		-	EB	-		WB	T 0		NB			SB	T =
Approach Move	_			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Mover	_	S		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		COLUMN TWO IS NOT THE OWNER, THE PARTY OF TH		279	933	417	149	936	422	296	974	477	191	764	318
	_	ow Rate (s), veh/h/li	1	1753	1841	1643	1753	1841	1659	1730	1870	1831	1730	1698	1581
Queue Service				16.2	23.7	23.7	10.1	25.2	25.2	10.1	30.6	30.6	6.5	16.0	22.8
Cycle Queue Cl		e iime ( <i>g c</i> ), s		16.2	23.7	23.7	10.1	25.2	25.2	10.1	30.6	30.6	6.5	16.0	22.8
Green Ratio ( g/				0.13	0.42	0.42	0.10	0.38	0.38	0.10	0.28	0.28	0.07	0.25	0.25
Capacity ( c ), v	-	4'- ( V)		236	1537	686	176	1411	636	355	1033	505	251	1253	389
Volume-to-Capa				1.180	0.607	0.607	0.848	0.663	-	0.832	0.943	0.943	0.760	0.610	0.818
		In (50 th percentile) eh/In (50 th percentil	۵)	374.6 14.5	265.2 10.3	239.9 9.6	130.4 5.1	287.8 11.2	264.7	117.9 4.6	401.5 15.8	422.4	71.7	165.9	250.7
		RQ) (50 th percenti		1.25	0.88	0.83	0.43	0.96	0.91	0.59	2.01	16.9 2.15	0.24	6.5 0.55	9.9
Jniform Delay (	_		,	51.9	27.3	27.3	53.1	30.6	30.6	52.8	42.5	42.5	54.6	40.1	42.7
ncremental Del	-			115.7	1.8	4.0	15.2	2.5	5.4	7.8	15.8	25.9	1.8	0.6	11.9
nitial Queue De	_			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	_			167.6	29.0	31.2	68.2	33.1	36.0	60.6	58.3	68.5	56.4	40.8	54.6
evel of Service	-	"11		F	C	C	E	C	D	E	E	E	E	40.8 D	D D
Approach Delay		/LOS		53.3		D	37.4		D	61.5		E	46.6	_	D
ntersection Delay				00.0			).3			01.0			40.0		U
	.,vc			2000				4	-1-1		81.79	No. of the			
Multimodal Res	sults				EB			WB			NB			SB	

		HCS	7 Sig	nalize	d Int	ersec	tion F	Resu	Its Su	mmar	у			er co	W 200
General Inform	ation		200			Sept.		1.20	Intersec	tion Inf	ormati	on		기계시하	
	lation	KHR Associates						_	Duration		0.25	011		1111	ĻĻ
Agency		KHK ASSOCIATES	_	Analys	sic Date	8/1/20	116		Area Typ	-	Othe	r	- 4		
Analyst		Torrance California		Time F		0/1/20	310		PHF	<i></i>	0.90	1		W E	
Jurisdiction				-		2016		_	Analysis	Pariod	1> 7:	30			Z
Urban Street	_	Pacific Coast Highv	-	_	sis Year		Llloud		Exist PM		11-1.	.30	- 3		
Intersection		Hawthorne Bouleva	ard	File Na	ame	1-PCI	n-nawti	nome i	EXIST PIVI	.xus			_	<u>ोो ो 1</u>	7 2 6
Project Descrip	tion		100	Time to	100		168		YES		RIES	11880			
Demand Inform	nation				EB			WI	В		NB			SB	
Approach Move	ment			L	T	R	L	Т	R	L	T	R	L	T	R
Demand (v), v				220	1121	339	187	98	2 217	314	879	70	376	1206	375
	100			CHE IN			37.14				1	CIR		1.23	
Signal Informa	tion				2	7			5 211	2	1			K	1
Cycle, s	120.0	Reference Phase	2		K	7€	₹	15			12	_	V		-+
Offset, s	0	Reference Point	End	Green	15.8	0.2	46.0	14.	0 2.0	26.0	)		5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	_	0.0	4.0	4.0	0.0	4.0		/		1	t
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	î	8
The Alexander				EBI			14/5		MOT	ND		NDT	0.0	Name of	ODT
Timer Results	rdinated No Simult. Gap E/W Mode Fixed Simult. Gap N/S  Results ed Phase Jumber Duration, s e Period, (Y+Rc), s ow Headway (MAH), s Clearance Time (gs), s Extension Time (ge), s Call Probability				-	EBT	WB	L	WBT	NBI	-	NBT	SB	_	SBT
Assigned Phase	9			5	_	2	1	-	6	3	-	8	7	-	4
Case Number				2.0		4.0	2.0	_	4.0	2.0	-	4.0	2.0	_	3.0
Phase Duration						50.2	19.8	_	50.0	18.0	_	30.0	20.0	_	32.0
	ge Period, (Y+Rc), s				-	4.0	4.0	_	4.0	4.0	-	4.0	4.0	_	4.0
	llow Headway ( <i>MAH</i> ), s				-	0.0	3.0	_	0.0	3.0	_	3.0	3.0	_	3.0
Queue Clearan	llow Headway ( $MAH$ ), s e Clearance Time ( $g_s$ ), s			18.0	_		15.8	_		13.8	_	24.0	16.2		30.0
Green Extensio	n Time	(g <sub>e</sub> ), s		0.0		0.0	0.0	_	0.0	0.2	_	1.6	0.0	_	0.0
Phase Call Prob	ability			1.00	_		1.00			1.00	_	1.00	1.00	_	1.00
Max Out Probal	oility			1.00			1.00	0		1.00		1.00	1.00	)	1.00
Management Con-	Dec	· · · · · · · · · · · · · · · · · · ·			EB			WB			NB			SB	
	Section 5 to 1	suits		-	T	R	L	T	R	L	T	R	L	T	R
Approach Move	_			L	_		1	6	16	3	8	18	7	4	14
Assigned Move		\		5	2	12 496	208	917	415	349	712	343	418	1340	417
Adjusted Flow F	-	NAME OF TAXABLE PARTY.	-	244	1127	1643	1781	1841	_	1743	1885	1811	1743	1712	1581
	-	ow Rate (s), veh/h/l	П	1781	1870	31.9	13.8	24.6	-	11.8	21.9	22.0	14.2	28.0	28.0
Queue Service	-			16.0	31.8	31.9	13.8	24.6	-	11.8	21.9	22.0	14.2	28.0	28.0
Cycle Queue C	-	e Time (gc), s		16.0	31.8	-	_	-	_	_	-	-	0.13	0.23	-
Green Ratio (g	-			0.13	0.39	0.39	0.13	0.38	0.38 638	0.12 407	0.22 817	392	465	1198	0.23
Capacity (c), v	and the same of the same of	r- (M)		238	1441	633	0.888	0.650	_	0.858	0.871	0.874	0.899	1.118	_
Volume-to-Capa	_			1.029	0.782			279.7	_	143.8	277.4	288.7	183.2	470.1	494.7
	_	/In ( 50 th percentile)	_	286.9	367.9	_	200.5	-	-	-	_	-		-	-
	_	eh/ln (50 th percenti	-	11.3	14.5	13.7	7.9	10.8	-	5.7 0.72	11.0	11.5	7.3	18.7 1.57	19.5 1.65
	-	RQ) (50 th percent	tile)	0.96	1.23	1.16		_	-		-	-	_		-
Uniform Delay (				52.0	32.4	32.5	51.3	30.4	_	52.0	45.4	45.4	51.2	46.0	46.0
Incremental De	-			66.0	4.3	9.3	29.6	2.3	5.1	12.2	9.7	18.4	19.6	64.8	86.7
Initial Queue De	_			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	_			118.0	36.7	41.8	80.9	32.7	35.5	64.2	55.1	63.8	70.8	110.8	132.7
Level of Service				F	D	D	F 40.0	C	D	E	E	E	E 407	F	F
Approach Delay				48.7		D	40.0	)	D	59.5	)	E	107.	3	F
Intersection De	ay, s/ve	eh / LOS				67	7.2	STORE OF THE			BIE	-	E	-	
Multimadal Da	oult-	A STONE OF			EB	ليمات		WB	and the same of th		NB			SB	
Multimodal Re Pedestrian LOS	-	1108		3.4		С	3.5	_	C	3.3		С	3.3	_	С
redestrian LOS	Score	/ 103		1.5		В	1.3	_	A	1.3	-	A	1.7	_	В

		HCS	7 Sig	naliz	ed In	tersec	tion	Resu	Its Sı	ımma	ry				
										40					
General Inform	nation							_		ction In			_	111 14174	
Agency				_				_	Duratio		0.25				
Analyst				Analy	sis Dat	e 8/4/20	016		Area Ty	/pe	Othe		<u></u>		÷
Jurisdiction				Time	Period				PHF		0.90		→ • •	w∳e	*
Urban Street		Hawthorne Bouleva	ard	Analy	sis Yea	r 2016			Analysi	s Period	1> 7	:00	7		
Intersection		244th Street		File N	ame	2-Hav	vthorne	e-244th	Exist A	M.xus				5 † †	1
Project Descrip	tion	MILE OF THE PROPERTY OF THE PR			- 43010	1 1 2				V	rajhura.			7 4 1 4 5	120
Demand Inform	nation		- 1000		EB			WE	3		NB			SB	ESE
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v				0	24	4	0	57	_	_	158		38	1043	
0. 11.6			1		1119		al and	-	Jie 16	17 2			37/9		
Signal Informa	Name and Address of the Owner, where			-	.,	∐ Vis						1 4			1
Cycle, s	45.0	Reference Phase	2	-	R	TY.						-	<b>→</b> 2	3	+-
Offset, s	0	Reference Point	End	Green	21.0	16.0	0.0	0.0	0.0	0.0				- 191	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	4.0	0.0	0.0	0.0				<b>&gt;</b>	100	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Timer Results	Its			EBI		EBT	WE	RI	WBT	NB		NBT	SB		SBT
Assigned Phase						2	111		6	142		8	- 00	_	4
Case Number				-	_	8.0	-	_	8.0	1	_	6.0	-	-	6.0
	_			-		25.0			25.0			20.0	-		20.0
	Duration, s ge Period, ( Y+R c ), s			_		9.0	_		9.0	-	_	4.0	+	_	
	American Inc.			-	-	0.0	-		0.0	-	-	-	+	-	4.0
	-			-	-	0.0	-	_	0.0	+-	-	3.2	+-	_	3.2
Queue Clearand				-	-	0.0			0.0	-	-	17.3	-	-	18.0
Green Extensio	-	( <i>g</i> <sub>e</sub> ), s			-	0.0	_	-	0.0	-	-	0.0	+	_	0.0
Phase Call Prob	_				-			_		-		1.00	-	_	1.00
Max Out Probab	oility	THE PARTY OF THE P	00000	-			4 18 3		16. VI 18			1.00		1000	1.00
Movement Gro	up Res	sults			EB			WB			NB		T	SB	
Approach Move	ment			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h			0			0		4	1757		42	1159	
Adjusted Satura	tion Flo	ow Rate (s), veh/h/li	n		0			0		492	1698		277	1698	
Queue Service	Time (	g s ), S			0.0			0.0		0.3	15.3		0.7	8.5	
Cycle Queue Cl	earance	e Time (gc), s		-	0.0			0.0		8.9	15.3		16.0	8.5	
Green Ratio (g/	/C)									0.36	0.36		0.36	0.36	
Capacity (c), v	_									242	1812		165	1812	
Volume-to-Capa	-	tio (X)			0.000			0.000		0.018	0.970		0.257	0.640	
	_	In (50 th percentile)			0			0		0.8	173.9		10.2	65.2	
	_	eh/In (50 th percentil			0.0			0.0		0.0	6.8		0.4	2.6	
		RQ) (50 th percent	and the same of the same of		0.00			0.00		0.01	0.87		0.10	0.33	
Uniform Delay (	-		-,							15.8	14.3		22.5	12.1	
Incremental Del	_				0.0			0.0		0.0	14.5		0.3	0.6	
Initial Queue De					0.0			0.0		0.0	0.0		0.0	0.0	
Control Delay (	-									15.8	28.8		22.8	12.7	
Level of Service	-	211								B	C		C	B	
Approach Delay	_	/1.OS		9.6		Α	10.7	7	В	28.8	_	С	13.0		В
Intersection Delay				3.0		21	_		5	20.0	,		C 13.0	,	В
10. Justin 10.	, 570				4		DE !	13.425	3			186	10 M	4	124
Multimodal Res	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	/ LOS		3.2		С	3.2		С	2.1		В	2.1		В
Bicycle LOS Sco	ore / LC	S		0.5		Α	0.7		Α	1.5		Α	1.1		Α

THE PARTY OF THE P			1300			-		-		section.	1	30000			lood red
General Inform	nation									tion Inf		on	_	<u> </u>	Ja lg
Agency									Duration	, h	0.25		-	***	*
Analyst				Analys	sis Date	8/4/20	16	P	Area Typ	ре	Other	r	<u>4</u>		
Jurisdiction				Time I	Period			F	PHF		0.90		414416	w ∳ €	
Urban Street		Hawthorne Bouleva	rd	Analys	sis Year	2016		P	Analysis	Period	1> 7:	00	7		
Intersection		244th Street		File N	ame	2-Haw	thorne-	244th E	Exist PN	1.xus				511	† ſ
Project Descrip	tion								5 6 8					14144	114
Demand Inform	nation				EB			WB			NB			SB	
Approach Move	ment			L	Т	R	L	T	R	L	T	R	L	Т	F
Demand (v), v	the state of the s			0	59	21	0	57	51	30	1242	2	74	1582	
			100	15 130			277	Die Fin	A PAR		6	Lake	SEE S		
Signal Informa	tion				- 5	L Ju					10	- 48	1		L
Cycle, s	45.0	Reference Phase	2		H ·	12						19	<b>↔</b> ,	3	13
Offset, s	0	Reference Point	End	Green	21.0	16.0	0.0	0.0	0.0	0.0			7	1993	15
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	0.0	0.0	0.0	0.0	-		7	7763	~
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	18	-5	6	7	
Timer Results		Act of St	1.05	EBI		EBT	WB		WBT	NBI		NBT	SB	L	SBT
Assigned Phase	2					2			6			8			4
Case Number						8.0			8.0			6.0			6.0
Phase Duration						25.0			25.0			20.0			20.0
Change Period,	-	-\ c				9.0			9.0			4.0	1		4.0
Max Allow Head	_				_	0.0			0.0		_	3.3			3.3
the second secon				-	-	0.0			0.0			18.0			18.0
Queue Clearan	-				-	0.0		-	0.0	-		0.0	-		0.0
Green Extensio	-	( g e ), s		-	-	0.0			0.0	-		1.00	1		1.00
Phase Call Prob	_			-	-	_					-	1.00	-		1.00
Max Out Probal	ollity	STATE OF THE PROPERTY			344				1000		-	1.00		1000	1.00
Movement Gro	up Res	ults			EB			WB			NB		T	SB	
Approach Move	-	Juito		L	T	R	L	T	R	L	Т	R	L	T	F
Assigned Move	_			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	_	\ veh/h		-	0	12		0		33	1380		82	1758	
_	_	ow Rate (s), veh/h/li	2		0			0		277	1698		399	1698	
Queue Service	Market Street, Square,				0.0			0.0		0.7	10.8		5.2	15.3	
Cycle Queue C					0.0			0.0		16.0	10.8		16.0	15.3	
Green Ratio ( <i>g</i>	_	e fille (ge), s			0.0			3.3		0.36	0.36		0.36	0.36	
The second second second second	_									164	1812		206	1812	
Capacity (c), v		atio ( V )			0.000			0.000		0.203	0.762		0.399		-
Volume-to-Capa					0.000			0.000		8.1	86.7		19.9	174.5	
		/In ( 50 th percentile) eh/In ( 50 th percenti			0.0			0.0		0.3	3.4		0.8	6.9	
		The same of the sa			0.00			0.00		0.08	0.43		0.20	0.87	
The second secon		RQ) (50 th percent	iie)		0.00			0.00		22.5	12.8		21.0	14.3	
Uniform Delay (					0.0			0.0		0.2	1.8		0.5	14.3	
Incremental De	And in case of the last of the				0.0			0.0			0.0		0.0	0.0	-
Initial Queue De					0.0			0.0		0.0	_		21.5	28.9	
Control Delay (										22.7	14.6		C C	28.9 C	-
Level of Service				40.5			40 -		D	C	В	P	-		_
Approach Delay	-	An Ottom Street		10.3	3	В	10.7		В	14.8	5	В	28.6	)	С
Intersection De	lay, s/ve	eh / LOS		The same		21	.9	SIN THE				4	С	1	
Multimadal Da	oulte.	DUNIE STEEL	*	M.E. Ta	EB			WB	- James		NB	4	1000	SB	
Multimodal Re Pedestrian LOS		/1.00	-	3.2		С	3.2		C	2.1		В	2.1		В
Pagaetrian I ()	Score	/ LUS		3.2			3.2			2.1		ט	2.1		D

		HCS	7 Sig	naliz	ed In	ters	ec	tion F	Resu	lts Su	mma	ry				×
						Will be	â			Walter 1	1.00				Name	
General Inforn	nation									Interse			on	_	11	
Agency						Levi				Duration		0.25		- 4		
Analyst				-		te 8/4	/20	016		Area Ty	pe	Othe	r			~
Jurisdiction				Time		_				PHF		0.97		44		-
Urban Street		Hawthorne Bouleva	ırd	Analy		_	_			Analysis		1> 7:	:00	7		
Intersection		Newton Street		File N	ame	3-⊦	law	vthorne	-Newto	on Exist	AM.xus				5 1 1	<b>†</b>
Project Descrip	tion		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	dayses	750				- 35	795 7		12 12	11000		1414	7 7 7
Demand Inform	nation	pept Santania		PERM	EE	3			W	В		NB			SB	
Approach Move	ement			L	T	F	7	L	T	R	L	Т	R	L	Т	R
Demand (v), v	eh/h			22	75	8	0	83	11	2 104	96	1584	4	36	100	9
			. 3											12000	DESCRIPTION OF THE PARTY OF THE	
Signal Informa		D ( D)	0	-	3	<u></u>	2		1			19			-	
Cycle, s	45.6	Reference Phase	2	-	3	6 4	1	51		1		1-1	1	<b>♦</b> 2	3	4
Offset, s	0	Reference Point	End	Green		2.3		2.0	20		0.0			<b>5</b>	n in	
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow		4.0		0.0	4.0		0.0				7	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	)	0.0	0.0	0.0	0.0		5	6	The San Co	8
Timer Results				EBI	L	EBT		WB		WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	e					2				6	3		8	7		4
Case Number						6.0				5.0	2.0		4.0	2.0	_	4.0
Phase Duration	9					12.9				12.9	8.3	_	26.5	6.3		24.4
	e Duration, s ge Period, ( Y+R ♭), s					4.0	Н			4.0	4.0	_	4.0	4.0	_	4.0
	ge Period, ( Y+R ɛ), s Illow Headway ( MAH ), s				-	3.2				3.2	3.1	_	3.0	3.1		3.0
Queue Clearan				_		5.7	-	-	_	8.7	4.4	_	12.9	2.9	_	12.4
				_	-	0.5	-	-		0.2	0.1	_	7.9	0.0		8.0
Green Extensio		( <i>g</i> e ), s		_		1.00	$\dashv$	_	-	1.00	0.7	_	1.00	0.3	_	1.00
Phase Call Prol				-	+	0.54	$\dashv$		-	1.00	0.0		0.27	0.00		0.26
Max Out Probal	DIIITY	TO SEE STORY		- P.	70.2	0.54	13		1000	1.00	0.0		0.27	0.0		0.20
Movement Gro	up Res	sults			EB				WB			NB			SB	
Approach Move	ement			L	Т	R		L	Т	R	L	T	R	L	T	R
Assigned Move	ment			5	2	12		1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h		23	160			86	115	107	99	1633		37	1040	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/li	n	1297	1738	3		1246	1900	1610	1810	1698		1810	1781	
Queue Service	Time (	g s ), S		0.7	3.7			3.0	2.4	2.6	2.4	10.9		0.9	10.4	
Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		3.1	3.7			6.7	2.4	2.6	2.4	10.9		0.9	10.4	
Green Ratio (g	/C)			0.19	0.19			0.19	0.19	0.19	0.09	0.49		0.05	0.45	
Capacity (c), v	eh/h			343	338			299	369	313	170	2512		90	1597	
Volume-to-Capa	acity Ra	atio (X)		0.066	0.47	3		0.287	0.313	0.343	0.581	0.650		0.414	0.651	
Back of Queue	(Q), ft	/In (50 th percentile)		4.5	32.1			19.1	22.3	20.8	23.3	68.2		9.2	73.2	
Back of Queue	(Q), ve	eh/ln (50 th percentil	le)	0.2	1.3			0.8	0.9	0.8	0.9	2.7		0.4	2.9	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.05	0.32			0.19	0.22	0.21	0.23	0.34		0.09	0.37	
Uniform Delay (	(d1), s.	/veh		17.1	16.3			19.3	15.8	15.9	19.8	8.6		21.0	9.8	
Incremental De	_			0.0	0.4			0.2	0.2	0.2	1.2	0.1		1.1	0.2	
Initial Queue De	elay ( d	з), s/veh		0.0	0.0			0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	_			17.1	16.7			19.5	15.9	16.1	21.0	8.7		22.2	10.0	
Level of Service	-			В	В			В	В	В	С	Α		С	Α	
Approach Delay				16.7	7	В		17.0		В	9.4		Α	10.4	1	В
Intersection Del	_	the state of the s					10	).9						В		
MANAGE .	No. of	UP DES	21				4		LATE	5 200		West.	1			
Multimodal Re	_				EB		_	0.0	WB		-	NB	-	-	SB	_
Pedestrian LOS	_			2.9	_	С	_	3.2	_	C	2.4	_	В	2.2	_	В
Bicycle LOS Sc	ore / LC	OS		0.8		Α		1.0		A	1.4		Α	1.4		Α

		HCS	7 Sig	nalize	ed Int	ersec	tion I	Resu	Its Su	mmai	y	7.2		F 2 8 8	
			3			12.5		1				Media	Lipsch	<b>ग्राम</b> ्स	delad
General Inform	nation	1						_	Intersec			on			
Agency				1		laa		$\rightarrow$	Duration		0.25		- 2		
Analyst						8/4/20	016	$\overline{}$	Area Ty	pe	Othe	r	<b>一</b> 鼻		*
Jurisdiction				_	Period	-		_	PHF		0.97				7
Urban Street		Hawthorne Bouleva	ırd		sis Yea	_		_	Analysis		1> 7:	00			
Intersection		Newton Street		File N	ame	3-Hav	wthorne	-Newto	n Exist I	PM.xus				5 1 1	
Project Descrip	tion		V 60		-	11.00	2000	F 14	130	1815	1000		DENIE S	11141	14
Demand Inform	mation	A Company of the San			EB			W	3		NB	raus pull		SB	
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v				16	52	107	193	55	95	94	124	1	49	1555	5
Villa be part	-100	The Control	O. nes	E5152									Onga-ti-	1700	
Signal Informa	_	D ( D)	-	-	2	= 2		1						~	
Cycle, s	48.9	Reference Phase	2	-	3	5	51		1		1	1	<b>♦</b> 2	3	
Offset, s	0	Reference Point	End	Green		3.0	1.4	22.		0.0			<b>5</b> -		
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow		4.0	0.0	4.0		0.0	The second second	- 1-3		1	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	VALUE OF THE PARTY	5	6	7	
Timer Results				EBI		EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	e					2			6	3		8	7		4
Case Number						6.0			5.0	2.0		4.0	2.0		4.0
Phase Duration	· s					14.0			14.0	8.4	_	27.9	7.0		26.5
		c) s				4.0			4.0	4.0	_	4.0	4.0		4.0
	nge Period, ( Y+R c), s Allow Headway ( <i>MAH</i> ), s					3.3			3.3	3.1		3.0	3.1	_	3.0
Queue Clearan				-		6.2			12.0	4.5	_	16.0	3.3		14.1
The second secon	-					0.5		-	0.0	0.1	_	7.8	0.0	_	8.4
Green Extension	-	( <i>g</i> e ), s				1.00			1.00	0.73		1.00	0.5		1.00
Phase Call Prol				-		0.76			1.00	0.00		0.42	0.00		0.37
Max Out Proba	Dility	150	-			0.76	10500	SERVE .	1.00	0.00		0.42	0.00		0.37
Movement Gro	up Res	sults			EB			WB			NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h		16	164		199	57	98	97	1279		51	1603	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/li	n	1368	1695		1241	1900	1610	1810	1781		1810	1698	
Queue Service	Time (	g s ), S		0.5	4.2		5.8	1.2	2.5	2.5	14.0		1.3	12.1	
Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		1.7	4.2		10.0	1.2	2.5	2.5	14.0		1.3	12.1	
Green Ratio (g	/C)			0.20	0.20		0.20	0.20	0.20	0.09	0.49		0.06	0.46	
Capacity (c), v	reh/h			393	347		295	388	329	163	1742		110	2345	
Volume-to-Capa	-	atio (X)		0.042	0.473		0.674	0.146	0.298	0.596	0.734		0.458	0.683	
Back of Queue	(Q), ft.	/In (50 th percentile)		3.4	35.8		62.1	11.4	20.4	25.2	101.2		13.4	84.3	
The second second second second	_	eh/ln (50 th percentil		0.1	1.4		2.5	0.5	0.8	1.0	4.0		0.5	3.3	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.03	0.36		0.62	0.11	0.20	0.25	0.51		0.13	0.42	
Uniform Delay	(d1), s	/veh		16.6	17.1		22.3	16.0	16.5	21.4	10.0		22.2	10.4	
Incremental De		and the second s		0.0	0.4		4.9	0.1	0.2	1.3	0.7		1.1	0.2	
Initial Queue De	-			0.0	0.0	1	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (		Name and Address of the Owner o		16.7	17.5		27.2	16.0	16.7	22.7	10.6		23.3	10.6	
Level of Service	and the latest designation of the latest des			В	В		С	В	В	С	В		С	В	
Approach Delay	-			17.4		В	22.5	5	C	11.5	5	В	11.0		В
Intersection De	THE RESERVE OF THE PERSON NAMED IN					12	2.6						В		
Mark Street	PAUL	A VENEZA SE	1 66		THE .		1313	LA CO	SER	1		100	A Prince		377
Multimodal Re	-				EB	•		WB	_		NB	_	-	SB	
Pedestrian LOS	-			3.2	$\overline{}$	С	2.9	-	C	2.4	-	В	2.2	_	В
Bicycle LOS Sc	ore / LC	OS		0.8		Α	1.1		A	1.6		В	1.4		Α

				558 5	- "		- 1-1	Territory.	STOP 3					4741	RI UI
General Inform	ation							_	Intersect	-	-	n	- 1	1111	
Agency								_	Duration,		0.25		2		
Analyst				Analysi	s Date	9/25/20	)18		Area Type	9	Other				
Jurisdiction				Time P	eriod			_	PHF		0.90		745454 \$	W∳E	*
Urban Street		Hawthorne Bouleva	ırd	Analysi	s Year	2018			Analysis I		1> 7:0	0	7		
Intersection		Via Valmonte		File Na	me	4-Hawt	thorne-V	/ia Va	Imonte E	xist AM	R.xus			ጎተተተ	^
Project Descript	tion								-	A 1 6 5 5			1	4 1 4 4 1	
			500	80.00	EB			WE	3		NB	9 9 10	1	SB	
Demand Inform	_			L	T	R	L	Т	-	L	T	R	L	T	R
Approach Move				0	236	67	1	0	_	46	1566	36	3	1157	0
Demand (v), v	eh/h	TELEVISION OF STREET		U	230	07						No.	MAG	TANK.	100
Signal Informa	tion				JU	2		Т						- 21/4	Digital .
Cycle, s	90.0	Reference Phase	2	1		N E	1					0 4 19	Y	2	<b>+</b>
Offset, s	0	Reference Point	End	Green	59.1	18.6	0.3	0.0	0.0	0.0					K
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0		0.0		4			7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	-	0.0	100	5	6	7	Na.
7 JIOO WIOGE	A LANGE			10 10 10							1890	TELES !		FE	SAL.
Timer Results	100			EBL		EBT	WBL		WBT	NBL		NBT	SBL		SBT
Assigned Phase	е					4			8			2	-		6
Case Number						12.0			12.0		_	5.0		_	6.0
Phase Duration	, S					22.6			4.3		_	33.1			63.1
	ge Period, ( Y+R c), s					4.0			4.0			4.0			4.0
AND DESCRIPTION OF THE PARTY OF	Allow Headway ( <i>MAH</i> ), s					3.1			3.2			0.0			0.0
	Allow Headway ( <i>MAH</i> ), s e Clearance Time ( <i>g</i> s ), s					18.1			2.1						
Green Extension	and the second second					0.4			0.0			0.0			0.0
Phase Call Pro	-	,				1.00			0.05						
Max Out Proba						0.03			0.00						
I LOS AS ILIS	it The		Land A	4.014					200				WATER OF	OP	- 4-1
Movement Gro	oup Res	sults			EB			WE	-		NB	-		SB	_ D
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move	ement			7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow	Rate ( v	/), veh/h			0		1		1	51	1740	40	3	1286	0
Adjusted Satur	ation FI	ow Rate ( $s$ ), veh/h/	'In		0		1810		1610	437	1725	1610	282	1900	0
Queue Service	Time (	g s ), s			0.0		0.1		0.1	5.3	15.6	0.8	0.6	9.0	0.0
Cycle Queue C	learand	ce Time ( $g_c$ ), s			0.0		0.1		0.1	14.3	15.6	0.8	16.2	9.0	0.0
Green Ratio (	g/C)						0.00		0.00	0.66	0.66	0.66	0.66	0.66	
Capacity (c),	veh/h						7		6	323	3399	1058	216	3744	0.00
Volume-to-Cap	acity R	atio (X)			0.000		0.170		0.190	0.158	0.512	0.038	0.015	0.343	0.00
		t/In ( 50 th percentile			0		0.8		0.8	13.9	123.6	6.1	1	77.8	0.0
	(Q), v	reh/ln (50 th percent			0.0		0.0		0.0	0.6	4.9	0.2	0.0	3.1	-
Back of Queue		( DO ) ( EO th porcen	ntile)		0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
		(RQ) (50 th percen	,	-8			44.7		44.7	10.0	8.0	5.4	12.2	6.8	0.0
Back of Queue	Ratio		,		-		4.5		5.7	1.0	0.6	0.1	0.1	0.3	0.0
Back of Queue Queue Storage	e Ratio ( <i>d</i> <sub>1</sub> ), s	s/veh			0.0			_							0.0
Back of Queue Queue Storage Uniform Delay	e Ratio ( <i>d</i> <sub>1</sub> ), s elay ( <i>d</i>	s/veh 2), s/veh			0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	-
Back of Queue Queue Storage Uniform Delay Incremental De	e Ratio ( d 1 ), s elay ( d elay ( d	s/veh 2), s/veh 13), s/veh			-		0.0		50.4	11.1	8.5	5.5	12.3	7.1	
Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D	e Ratio ( d 1 ), s elay ( d elay ( d ( d ), s/v	s/veh 2 ), s/veh 1 3 ), s/veh veh			0.0		0.0 49.2 D		50.4 D	11.1 B	8.5 A	5.5 A	12.3 B	7.1 A	
Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay	e Ratio (d1), selay (d) elay (d), s/ve (LOS	s/veh 2), s/veh 13), s/veh veh		45.6	0.0	D	0.0 49.2 D 49.8		50.4	11.1	8.5 A	5.5 A A	12.3 B 7.1	7.1 A	A
Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay Level of Service	e Ratio (d1), selay (d ) elay (d ) elay (d ) elay (c (d), s/v ce (LOS	s/veh 2), s/veh 3), s/veh yeh )		45.6	0.0		0.0 49.2 D		50.4 D	11.1 B	8.5 A	5.5 A A	12.3 B	7.1 A	
Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay Level of Servic Approach Dela Intersection Delay	e Ratio (d1), selay (d elay (d elay (d), s/v e (LOS ay, s/velay, s/v elay, s/v	s/veh 2), s/veh 3), s/veh yeh )		45.6	0.0		0.0 49.2 D 49.8		50.4 D	11.1 B	8.5 A	5.5 A A	12.3 B 7.1	7.1 A	
Back of Queue Queue Storage Uniform Delay Incremental De Initial Queue D Control Delay Level of Service Approach Delay	e Ratio (d1), selay (d elay (d elay (d), s/v e (LOS ay, s/velay, s/v elay, s/v	s/veh 2), s/veh 3), s/veh yeh )		45.6	0.0 EB		0.0 49.2 D 49.8	WE	50.4 D	11.1 B	8.5 A NB	5.5 A A	12.3 B 7.1	7.1 A SB	

### **HCS7 Signalized Intersection Results Summary** 7474177 Intersection Information **General Information** JIII 0.25 Duration, h Agency Other Analysis Date 9/25/2018 Area Type Analyst PHF 0.90 Time Period Jurisdiction 1> 7:00 Analysis Period Analysis Year 2018 Hawthorne Boulevard **Urban Street** 4-Hawthorne-Via Valmonte Exist PM R.xus File Name Via Valmonte Intersection **Project Description** NB SB **WB** EB **Demand Information** T R L Т R 1 T R R L L Approach Movement 18 16 1872 0 3 20 62 1199 0 149 63 13 Demand (v), veh/h Д, Signal Information 2 Reference Phase 90.0 Cycle, s Offset, s 0 Reference Point End 0.0 0.0 0.0 Green 60.4 13.8 3.8 Simult. Gap E/W On 0.0 0.0 0.0 Uncoordinated No 4.0 Yellow 4.0 4.0 0.0 0.0 0.0 0.0 0.0 Force Mode Simult. Gap N/S On Red 0.0 Fixed **NBT** SBL SBT **WBT NBL EBT** WBL **EBL Timer Results** 6 2 4 8 Assigned Phase 5.0 5.0 12.0 12.0 Case Number 64.4 64.4 7.8 17.8 Phase Duration, s 4.0 4.0 4.0 4.0 Change Period, (Y+Rc), s 3.3 0.0 0.0 3.1 Max Allow Headway (MAH), s 13.5 4.1 Queue Clearance Time (gs), s 0.0 0.0 0.1 0.3 Green Extension Time (ge), s 0.63 1.00 Phase Call Probability 0.00 0.00 Max Out Probability SB WB NB EB **Movement Group Results** Т R T R L R L T R L L T Approach Movement 2 12 6 16 8 18 5 1 7 14 3 4 Assigned Movement 2080 0 20 18 40 69 1332 0 Adjusted Flow Rate (v), veh/h 1699 202 1725 1610 418 1809 1610 0 Adjusted Saturation Flow Rate (s), veh/h/ln 0.0 10.2 0.4 1.8 40.0 2.1 20.4 0.0 Queue Service Time (gs), s 40.0 2.1 60.4 10.2 0.4 12.0 0.0 0.0 Cycle Queue Clearance Time (gc), s 0.67 0.67 0.67 0.04 0.67 0.67 0.67 Green Ratio (g/C) 2430 1081 72 126 3476 1081 313 Capacity (c), veh/h 0.000 0.558 0.547 0.383 0.018 0.057 0.856 0.000 Volume-to-Capacity Ratio (X) 2.8 4.4 347 0 22.6 51.7 78.8 0 Back of Queue (Q), ft/ln (50 th percentile) 2.1 3.2 0.1 0.2 13.9 0.0 0.9 0.0 Back of Queue (Q), veh/ln (50 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Queue Storage Ratio (RQ) (50 th percentile) 0.00 9.2 11.4 0.0 42.3 38.2 6.5 4.9 Uniform Delay (d1), s/veh 0.3 4.1 0.0 2.5 16.0 0.3 0.0 0.0 Incremental Delay ( d 2 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Queue Delay (d3), s/veh 0.0 44.8 54.2 6.9 4.9 9.5 15.6 Control Delay (d), s/veh В Α Α D D Α Level of Service (LOS) 15.5 В 44.8 D 9.1 Α 40.1 D Approach Delay, s/veh / LOS В 15.0 Intersection Delay, s/veh / LOS SB WB NB EB **Multimodal Results** 2.1 В 3.3 2.1 В C C 3.1 Pedestrian LOS Score / LOS В 1.3 A 2.2 A 0.6 A 0.9 Bicycle LOS Score / LOS

		HCS	7 Sig	nalize	d Inte	ersec	tion F	Resul	ts Su	nmar	y	10000		All S	NIE E
	4.4								Intersec	tion Inf	ormatic	on.		14144	E S
General Inform	nation							_	Duration		0.25	JII		111	
Agency				Analus	is Date	0/4/2/	016	_	Area Typ		Other				
Analyst						0/4/20	010		PHF	<i>.</i>	0.92		4-4	-71	-
Jurisdiction			-4	Time F		2016			Analysis	Doriod	1> 7:0	20	-		-
Urban Street		Hawthorne Bouleva	ira	_	is Year	_	. 41		_		_	00	2		
Intersection		Rolling Hills Road		File Na	ame	5-Hav	wtnorne-	Rolling	Hills Ex	(ISTAIVI.)	kus		-	1	23/24
Project Descrip	tion	W-100-1-10-1-1-1-1				-	Sec.	100	2-165	2000	5	232		THE REAL PROPERTY OF THE PARTY	No.
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	Т	R
Demand (v), v	-			0	2	0	86	2	424	0	1333	3	277	809	
THE LAND		140000000000000000000000000000000000000				0 13									
Signal Informa	tion			1		- 6	N 12	a de			1	- 1 2		-	
Cycle, s	60.0	Reference Phase	2		<b>F</b>	5			Ť .		0.00	1	<b>♦</b> 2	3	4
Offset, s	0	Reference Point	End	Green	11.8	0.0	7.4	28.8	0.0	0.0				IL	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	0.0	0.0			7	7	Ť
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
				EDI	1	CDT	\A/D		WBT	NB		NBT	SB		SBT
Timer Results				EBL		EBT 2	WB	_	6	3	-	8	7	-	4
Assigned Phase	е			-	-		-	-	5.0	2.0		4.0	2.0		4.0
Case Number					_	8.0	-	-	15.8	0.0	-	32.8	11.4	_	44.2
Phase Duration					_	15.8	-	-			_	-	4.0		4.0
the same of the sa	ge Period, ( Y+R ▷), s			_	-	4.0		-	4.0	4.0	_	4.0	-	_	
THE RESERVE AND ADDRESS OF THE PARTY OF THE	Allow Headway ( <i>MAH</i> ), s				_	0.0	-	-	0.0	0.0	_	3.0	3.1	_	3.0
Queue Clearan			-					-		-	_	23.4	6.9	_	8.5
Green Extension	-	( g e ), s			_	0.0	_	-	0.0	0.0	_	5.5	0.5	_	8.0
Phase Call Pro	bability							-			_	1.00	0.99	_	1.00
Max Out Proba	bility					01122		-	-			0.37	0.00	)	0.02
Movement Gro	oup Res	sults			EB			WB			NB		-	SB	
Approach Move	-			L	T	R	L	Т	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow I	_	), veh/h			0		93	2	461	0	1449		301	879	
	_	ow Rate (s), veh/h/l	n		0		1437	1900	1610	1810	1781		1757	1781	
Queue Service					0.0		3.4	0.1	11.8	0.0	21.4		4.9	6.5	
		e Time (gc), s			0.0		3.4	0.1	11.8	0.0	21.4		4.9	6.5	
Green Ratio (g	THE RESIDENCE AND ADDRESS OF THE PERSON NAMED IN	(3 · // -					0.20	0.20	0.32		0.48		0.12	0.67	
Capacity (c), V	-						401	373	514	3	1712		432	2387	
Volume-to-Cap	and with the last of	atio (X)			0.000		0.233	0.006	0.897	0.000	0.846		0.697	0.368	
		/In (50 th percentile)	)		0		29.5	0.6	207.4	0	187.7		48.5	35.7	
		eh/ln (50 th percenti			0.0		1.2	0.0	8.3	0.0	7.4		1.9	1.4	
A ANDREAS OF THE PARTY OF THE P	THE RESERVE OF THE PERSON NAMED IN	RQ) (50 th percent			0.00		0.74	0.01	4.15	0.00	0.94		0.24	0.18	
Uniform Delay		THE RESERVE AND ADDRESS OF THE PARTY OF THE	,				20.8	19.4	19.5	0.0	13.6		25.2	4.3	
Incremental De	STATE OF TAXABLE PARTY.				0.0		1.4	0.0	20.9	0.0	2.6		0.8	0.0	
Initial Queue D	-				0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	_						22.1	19.4	40.4	0.0	16.2		26.0	4.4	
Level of Service	_	AND THE PERSON NAMED IN COLUMN 2 IN COLUMN					С	В	D		В		С	A	
Approach Dela				19.4		В	37.3	_	D	16.2	2	В	9.9		Α
Intersection De	the same of the sa						7.5						В		
STATE OF THE STATE				3.0.3	WE									The state of the s	- della
Multimodal Re	sults				EB			WB			NB			SB	
Pedestrian LOS	S Score	/LOS		2.8	_	С	2.9	_	С	2.8	_	С	2.0	_	В
Bicycle LOS So	core / L	OS		0.5		Α	1.4		Α	1.7		В	1.5		Α

		HCS	7 Sig	nalize	ed Int	terse	ction I	Resu	Its Su	mmai	ry				
Consultations	COLUMN TO A						for the	4,5	Interne	tion In	formati			1414	ofeded
General Inform	nation							_	Interse			ion	_		
Agency				I 4	· D · i	- 10/4/0	040	_	Duration		0.25		100		
Analyst						e 8/4/2	016	_	Area Ty	pe	Othe		- A	4	-
Jurisdiction			-24	-	Period	- 0040			PHF	Davis	0.99		至 4	77"	-
Urban Street		Hawthorne Bouleva	ard	_	sis Yea			_	Analysis	-		:00	-		
Intersection		Rolling Hills Road		File N	ame	5-На	wthorne	-Rolling	g Hills E.	XIST PIM.	xus		_	111	1012
Project Descrip	tion	OT LOT AS A STATE OF THE STATE			-			1,520	William I	5 7 75					PE
Demand Inform	nation				EB			WE	3	T	NB			SB	-
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v	-			0	3	1	86	0	326	0	101	_	429	1301	
			di vi	1000	Wind.		7 3	BUE	STATE OF	TIME.	1400				100
Signal Informa	tion				- 5	<u> </u>	R 16	R.							
Cycle, s	60.0	Reference Phase	2		Ħ.	5			T.				<b>4</b>		+
Offset, s	0	Reference Point	End	Green	15.1	0.0	9.7	23.	2 0.0	0.0			K	1 +	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	4.0	4.0	4.0	0.0	0.0			2	<b>\</b> _	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
				EDI		CDT	L VA/D		VA/DT	L ND		NDT	T CD		CDT
Timer Results				EBI	-	EBT	WB	L	WBT	NB	_	NBT	SB	_	SBT
Assigned Phase	9			-	-	2	-		6	3		8	7		4
Case Number					-	8.0	-		5.0	2.0	_	4.0	2.0	_	4.0
Phase Duration	e Duration, s nge Period, ( <i>Y+R ₀</i> ), s				-	19.1	-	-	19.1	0.0	_	27.2	13.		40.9
CONTRACTOR OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAMED	AND DESCRIPTION OF THE PROPERTY OF THE PROPERT					4.0	-	-	4.0	4.0	_	4.0	4.0	_	4.0
CONTRACTOR DESCRIPTION OF THE PARTY OF THE P	Allow Headway ( <i>MAH</i> ), s				-	0.0	-		0.0	0.0	-	3.0	3.1	_	3.0
Queue Clearan		THE RESERVE AND ADDRESS OF THE PARTY OF THE			-		-	-				16.8	9.1		15.5
Green Extensio	the second second second	( g e ), S		_	_	0.0	-		0.0	0.0		6.4	0.7	_	7.8
Phase Call Prob						-	-	_			-	1.00	1.00	_	1.00
Max Out Probat	oility		-	-	-	300 3			7 - 3		-	0.22	0.0	j	0.04
Movement Gro	up Res	sults			EB		1	WB			NB		7	SB	
Approach Move	_			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F		) veh/h			0		87	0	329	0	1023		433	1314	
		ow Rate (s), veh/h/li	n		0		1435	1900		1810	1781		1757	1781	
Queue Service		AND RESIDENCE OF THE PARTY OF T			0.0		2.9	0.0	9.1	0.0	14.8		7.1	13.5	
Cycle Queue Cl					0.0		3.0	0.0	9.1	0.0	14.8		7.1	13.5	
Green Ratio ( g	STATE OF TAXABLE PARTY.	(3-71-					0.25	0.25	0.41		0.39		0.16	0.62	
Capacity ( c ), v	-						478	477	665	3	1377		570	2193	
Volume-to-Capa	_	atio (X)			0.000		0.182	0.000		0.000	0.743		0.760	0.599	
	_	/In (50 th percentile)			0		24.5	0	81	0	132.2		68.5	87.9	
		eh/In (50 th percenti			0.0		1.0	0.0	3.2	0.0	5.2		2.7	3.5	
		RQ) (50 th percent			0.00		0.61	0.00	1.62	0.00	0.66		0.34	0.44	
Uniform Delay (	-	THE RESERVE THE PARTY OF THE PA					18.0	0.0	13.0	0.0	15.8		24.0	7.0	
Incremental Del					0.0		0.8	0.0	2.6	0.0	0.5		0.8	0.1	
Initial Queue De		the state of the s			0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	-	the state of the s					18.8	0.0	15.6	0.0	16.4		24.8	7.1	
Level of Service	Married World Co., Name of Street, or other						В		В		В		С	Α	
Approach Delay				16.9		В	16.3	3	В	16.4	1	В	11.5		В
Intersection Del							3.7				-		В		
The state of the	2072					14 3	To all	23	A Phil		E ALUN-		Total Control		
Multimodal Re	sults				EB			WB			NB			SB	
Pedestrian LOS	_			2.8	$\overline{}$	С	2.9	_	С	2.8		С	2.0		В
Bicycle LOS Sc	ore / LC	OS		0.5		Α	1.2		Α	1.3		Α	1.9		В

	HCS	7 Sig	nalize	d Inte	ersec	tion R	esu	Its Sun	nmai	ry	100			
						37.0		Intersect	ion In	formatio	n		1791	F 4
General Information							_	Duration.		0.25	,,,,		*	
Agency			Analusi	- Data	10/4/20	16	_	Area Type		Other	-	4		
Analyst			_		8/4/20	110	_	PHF	=	0.88		4	.3,	*
Jurisdiction			Time P		2040		-		Dariad	_	0	7		*
Urban Street	Whiffletree Lane		Analysi					Analysis I	_		0	25		
Intersection	Rolling Hills Road		File Na	me	6-Roll	ing Hills	-vvniπ	fletree Exi	St AIVI.	xus		-	*	22
Project Description		4 1 100		12000	3:94)	11.36	105				450		N - 12 100 107 10	
Demand Information	1			EB			W	В		NB			SB	
Approach Movement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand (v), veh/h			0	330	0	0	48	8 0	0	45	20	0	14	3
				1000	1 111		Sp. II	5047/478						
Signal Information	Deference Dhoop	1 2	-	. 7 3	210					100		4		4
Cycle, s 45.0		2 End	-	F3 *	310	77					1	2	3	
Offset, s 0	Reference Point	End	Green		1.3	3.6	0.0		0.0			4		
Uncoordinated No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0		0.0				-	
Force Mode Fixe	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	10.0		12 12 12			
Timer Results			EBL		EBT	WBI		WBT	NB	BL I	NBT	SBI		SBT
Assigned Phase					2			6			8			4
Case Number					8.0			8.0			12.0			12.0
Phase Duration, s					32.1			32.1			7.6			5.3
Change Period, (Y+	Rc) s				4.0			4.0			4.0			4.0
Max Allow Headway					0.0			0.0			3.1			3.1
Queue Clearance Tir	A STATE OF THE PARTY OF THE PAR										3.8			2.5
Green Extension Tim					0.0			0.0			0.1			0.0
Phase Call Probabilit											0.60			0.21
Max Out Probability	у									(	0.00			0.00
A COUNTY	State of the state		12.3			2		at and						
Movement Group R	esults			EB			WB	-		NB		-	SB	
Approach Movement			L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Movement			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (	v), veh/h		0		0	0		0		0			0	-
Adjusted Saturation I	Flow Rate ( s ), veh/h/	/In	0		0	0		0		0	-		0	-
Queue Service Time	(gs), s		0.0		0.0	0.0		0.0		0.0			0.0	-
Cycle Queue Clearai	nce Time ( g c ), s		0.0		0.0	0.0		0.0		0.0			0.0	-
Green Ratio ( g/C )														-
Capacity ( c ), veh/h														-
Volume-to-Capacity	Ratio (X)		0.000		0.000	0.000		0.000		0.000			0.000	-
	ft/In (50 th percentile		0		0	0		0		0			0	-
	veh/ln (50 th percent		0.0		0.0	0.0		0.0		0.0			0.0	-
Queue Storage Ratio	(RQ)(50 th percen	ntile)	0.00		0.00	0.00		0.00		0.00			0.00	-
Uniform Delay ( d 1)	s/veh													-
Incremental Delay (	d 2), s/veh		0.0		0.0	0.0		0.0		0.0			0.0	
Initial Queue Delay (	d 3), s/veh		0.0		0.0	0.0		0.0		0.0			0.0	_
Control Delay ( d ), s	/veh													
Level of Service (LO	S)													
Approach Delay, s/ve	eh / LOS		3.7		Α	3.9		Α	20.	.9	С	23.1		С
The same of the sa					5	5.4					ALC: NO.	A		
Intersection Delay, s														
TANK DESIGNATION		and the	The same	ED			\//E	3		NR			SR	
Intersection Delay, s  Multimodal Results Pedestrian LOS Sco			2.0	EB	В	2.0	WE	B B	2.	NB	С	2.7	SB	С

		HCS	7 Sig	nalize	d Int	ersec	tion F	Resi	ılts Suı	nma	ry		NAME OF TAXABLE PARTY.		
MEDICAL CONTRACT		A STATE	NE S	2816	- 1	- 1	11.3		Intersec	tion I	form of	OR STATE	5 1 3	14241	latel
General Inforn	nation										-	on	- 1	4	I Maria
Agency						To 1410	040		Duration		0.25		- 2		-
Analyst				-		8/4/2	016		Area Typ	е	Othe	r			
Jurisdiction				Time F					PHF		0.98		-	7	7
Urban Street		Whiffletree Lane		-		2016			Analysis	-		:00	- 2		
Intersection		Rolling Hills Road		File Na	ame	6-Rol	ling Hills	-Whi	ffletree Ex	ist PM	.xus			*	
Project Descrip	tion		-	6996	1000	9 -5		233		- 74				14147	110
Demand Inforr	nation				EB			V	/B		NB			SB	
Approach Move	ement			L	T	R	L	1	r R	L	T	R	L	T	R
Demand (v), v	eh/h			0	508	0	0	38	37 0	0	15	15	0	16	6
Circul Informa	Alan.				THE C	1 111	400				2550				
Signal Informa	PRODUCTION OF THE PARTY OF THE	D. f Dhana		-		= 212	9				5.	130	7		本
Cycle, s	45.0	Reference Phase	2	-	₹.	51	7	1				1	<b>♀</b> ₂	3	
Offset, s	0	Reference Point	End	Green		1.5	1.9	0.0		0.0			5	"Man in	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	The second second second	4.0	4.0	0.0		0.0			7	4 100	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	8	7	
Timer Results				EBL		EBT	WB		WBT	NE	3L	NBT	SE	BL	SBT
Assigned Phase	е					2			6			8			4
Case Number						8.0			8.0			12.0			12.0
Phase Duration	. s					33.6			33.6			5.9			5.5
Change Period,	_	c). S				4.0			4.0			4.0			4.0
Max Allow Head	-					0.0			0.0			3.2			3.1
Queue Clearan	_											2.8			2.6
Green Extensio	-					0.0			0.0			0.0			0.0
Phase Call Prol	-	(90),0										0.32			0.24
Max Out Probal	-											0.00		_	0.00
		thousand			ED	1100		VA/E		A A	ND	200		CD	
Movement Gro		sults			EB	-		WE	-	-	NB	I D	-	SB	T 5
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	_	And in contrast of the last of		0		0	0		0	_	0			0	_
THE RESERVE THE PARTY OF THE PA	OF REAL PROPERTY.	ow Rate ( $s$ ), veh/h/l	n	0		0	0		0		0		_	0	-
Queue Service		the second liverage and the se		0.0		0.0	0.0		0.0		0.0		_	0.0	-
Cycle Queue C	_	e Time ( <i>g c</i> ), s		0.0		0.0	0.0		0.0		0.0		-	0.0	
Green Ratio ( g	and the last of th								-		-		_		-
Capacity (c), v	-						0.000		0.000		0.000			0.000	
Volume-to-Capa	_			0.000		0.000	0.000	-	0.000		0.000		-	0.000	-
the same of the sa	Name and Address of the Owner, where	/In (50 th percentile)		0		0	0		0		0		-	0	-
The second liverage and the se		eh/ln (50 th percenti		0.0		0.0	0.0	-	0.0		0.0		-	0.0	_
the second secon	-	RQ) (50 th percent	tile)	0.00		0.00	0.00		0.00		0.00		-	0.00	
Uniform Delay (	And in column 2 is not a local division in column 2 is not a local			0.0		0.0	0.0		0.0		0.0		-	0.0	
Incremental De	-	AND DESCRIPTION OF THE PARTY OF		0.0		0.0	0.0		0.0		0.0		-	0.0	-
Initial Queue De	Name and Address of the Owner, where the Owner, which the			0.0		0.0	0.0		0.0		0.0		-	0.0	
Control Delay (	and the second second							-	-		-			-	
Level of Service						_	0.4	-					00		_
Approach Delay	NAME OF TAXABLE PARTY.	AND REAL PROPERTY AND ADDRESS OF THE PARTY AND		3.2		Α	3.1		Α	22.	4	С	22.9	9	С
Intersection De	lay, s/ve	eh / LOS	Co. 222	S PORTO	1000	4	.2	1 10	100000		12 5 5 1		A		1 years
Multimodal Re	sulte	A STATE OF THE STA	and a		EB		The state of the s	WE	3		NB			SB	11 E S 14
Pedestrian LOS	-	/I OS		2.0		В	2.0	T	В	2.7	-	С	2.7		С
i Guostilali LUC	ore / LO	The second liverage and the se	_	0.9		A	0.8	1	A	0.5	_	A	0.5	-	A

Shipping the state of	3-1-1	March St.					5 19 M	Sand o	LAST I				Charles .	or by burners	Destroit
General Inform	ation								Intersect			on		14741	55
Agency									Duration,	h	0.25		0		
Analyst				Analys	is Date	8/4/20	16		Area Typ	е	Other		2		
Jurisdiction				Time F	Period				PHF		0.90		4	*	
Urban Street		Fallenleaf Drive		Analys	is Year	2016			Analysis	Period	1> 7:0	00	7		
Intersection		Rolling Hills Road		File Na	ame	7-Roll	ing Hills	-Faller	nleaf Exis	t AM.x	us			*	
Project Descrip	tion													14144	11
TO THE PLANE	-1-5	CHIPCE SEE	vi = 1		EB			WE			NB	533	1	SB	
Demand Inform				-	T	R	L	T	R	L	T	R	L	T	T
Approach Move	_			L			11	431		0	45	0	0	59	
Demand (v), v	eh/h	1 22 - 1		29	314	0	11	43	0	0	45	0	0	39	
Signal Informa	tion						T			T		W// E	- a	Till	I
Cycle, s	45.0	Reference Phase	2	1	<u></u> → *	E/A	7					1	-		4
Offset, s	0	Reference Point	End	Crass	26.0	24	20	0.0	0.0	0.0		1 2	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		3.4	4.0	0.0	0.0	0.0			~		K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	1 -	5	6	7	
			193					The state of	00.00						
Timer Results				EBL		EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	Э					2			6			8			4
Case Number						6.0			6.0			12.0			12.0
Phase Duration	, s					30.9			30.9			6.8			7.4
Change Period,	(Y+R	c), s				4.0			4.0			4.0			4.0
Max Allow Head	dway ( /	MAH), s				0.0			0.0			3.0			3.0
Queue Clearan	and the second or the second	Acceptance of the second										3.2			3.5
Green Extensio	ACCRECATE VALUE OF THE PARTY OF					0.0			0.0			0.1			0.1
Phase Call Prob	-											0.46			0.56
Max Out Probal	-											0.00			0.00
	SIM NA	子·中国 是中国 被				100									Str. I
Movement Gro	_	ults			EB		_	WB	-		NB	_	<u>-</u>	SB	_
Approach Move	_			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F				32	349	0	12	479	0		0			0	-
	-	ow Rate ( $s$ ), veh/h/l	n	930	1900	0	1048	1900	-		0			0	-
Queue Service				0.7	1.8	0.0	0.2	2.6	0.0		0.0		_	0.0	-
Cycle Queue C	-	e Time ( <i>g c</i> ), s		3.4	1.8	0.0	2.1	2.6	0.0		0.0			0.0	
Green Ratio ( g				0.60	0.60		0.60	0.60						-	-
Capacity ( c ), v	-			661	2268		743	2268	-						-
Volume-to-Capa				0.049		0.000	0.016	0.211	-		0.000		_	0.000	-
	_	In (50 th percentile)		2.9	10.5	0	1	15	0		0			0	-
	_	eh/ln (50 th percenti	-	0.1	0.4	0.0	0.0	0.6	0.0		0.0			0.0	-
NAME OF TAXABLE PARTY.	_	RQ) (50 th percent	tile)	0.03	0.05	0.00	0.01	0.07	0.00	1	0.00			0.00	
Uniform Delay (	-			5.0	4.0		4.5	4.2			-		-		-
Incremental De	-	CONTRACTOR OF THE PARTY OF THE	1	0.1	0.1	0.0	0.0	0.2	0.0		0.0		-	0.0	
Initial Queue De	elay ( d	3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	_
Control Delay (	d ), s/v	eh		5.1	4.2		4.5	4.4							
Level of Service	e (LOS)			Α	Α		Α	Α							
Approach Delay	y, s/veh	/LOS		4.3		Α	4.4		Α	21.3	3	С	20.	9	С
Intersection De	lay, s/ve	eh / LOS				6	.3						A	Sc. 950 c a	
TWO IS				1 July		-		VAID			ND	4.10		SB	
	sults				EB		2.0	WB	В	2.8	NB	С	2.8		С
Multimodal Re Pedestrian LOS				2.0		В									

		HCS	7 Sig	nalize	ed Int	ersec	tion I	Resu	Its Su	mma	ry				
		long.	-						Interes	tion le	fa			1424	cheled
General Inform	nation							_	Intersec			on	_	4	AIR AIR S
Agency				Land	· D-4	- 10/4/0	040	_	Duration		0.25				
Analyst				-	_	e 8/4/2	016		Area Typ	е	Othe	r	<b>— 嗣一</b>		
Jurisdiction					Period	0040		_	PHF	D	0.96	00	_	-11	- 7
Urban Street		Fallenleaf Drive		_		r 2016			Analysis	_		:00	27		
Intersection		Rolling Hills Road		File N	ame	7-Rol	ling Hill	s-Falle	nleaf Exi	st PM.x	us		_	*	and the same of
Project Descrip	tion					2 - 5	-	N BOOK			20/10	35000		14141	HIM
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ment			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v	-			35	437	0	20	39	3 0	0	24	0	0	46	0
Rev Total							-								10
Signal Informa	tion				-	1									
Cycle, s	45.0	Reference Phase	2	-	=	51	0				200	1	₹ 2	3	
Offset, s	0	Reference Point	End	Green	28.7	2.7	1.6	0.0	0.0	0.0	100		K		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0	0.0	0.0		9 8			V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
Timer Results	1, 11			EBI		EBT	WB		WBT	NB		NBT	SI	RI I	SBT
Assigned Phase				LDI	-	2	VVL		6	IND	-	8	-		4
Case Number	,			-	-	6.0			6.0			12.0	1	_	12.0
Phase Duration	•			-	-	32.7	-	+	32.7	-	-	5.6	+	_	6.7
Change Period,	THE RESIDENCE OF THE PERSON NAMED IN	a) e			-	4.0		-	4.0			4.0	1	_	4.0
Max Allow Head	-			-		0.0			0.0		-	3.0	-		3.0
Queue Clearan	and the second second				_	0.0			0.0		-	2.6	1	-	3.1
Green Extensio	-	AND DESCRIPTION OF THE PERSON			-	0.0		-	0.0			0.0	+-	_	0.1
Phase Call Prob	-	(90),5				0.0			0.0			0.27			0.45
Max Out Probab	-				-			_			-	0.00	1		0.00
Wax Out 1 Tobal		and the state of t	9431		300		FIRE			1000		433	-		
Movement Gro	up Res	sults			EB			WB			NB			SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		36	455	0	21	409	0		0			0	
Adjusted Satura	ation Flo	ow Rate ( s ), veh/h/lr	1	992	1900	0	951	1900	0		0			0	
Queue Service	Time (	g s ), S		0.7	2.2	0.0	0.4	2.0	0.0		0.0			0.0	
Cycle Queue Cl	learanc	e Time ( <i>g c</i> ), s		2.7	2.2	0.0	2.7	2.0	0.0		0.0			0.0	
Green Ratio ( g	/C)			0.64	0.64		0.64	0.64							
Capacity (c), v	eh/h			748	2422		719	2422							
Volume-to-Capa	acity Ra	atio (X)		0.049	0.188	0.000	0.029	0.169	0.000		0.000			0.000	
	_	/In (50 th percentile)		2.5	10.8	0	1.5	9.5	0		0			0	
	-	eh/ln (50 th percentil		0.1	0.4	0.0	0.1	0.4	0.0		0.0			0.0	
the same of the sa	and the same of	RQ) (50 th percenti	le)	0.03	0.05	0.00	0.01	0.05	0.00		0.00		-	0.00	
Uniform Delay (				3.9	3.4	0.0	3.9	3.3	0.0		0.0				
Incremental Del	-			0.1	0.2	0.0	0.1	0.2	0.0	-	0.0		-	0.0	
Initial Queue De	_			0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	_	-	0.0	
Control Delay (	THE RESERVE OF THE PERSON NAMED IN			4.0	3.5		4.0	3.5	-				-		-
Level of Service	THE RESERVE TO THE PERSON NAMED IN			A	A	^	A 3.5	Α	Λ	22.1	5	С	21.	2	С
Approach Delay	THE RESERVE AND ADDRESS OF THE PARTY OF THE			3.6		A	3.5		Α	22.5	,	C	A 21.	3	C
Intersection Del	ay, S/VE	all/LUS	TES	1000	TE T	MINE.		5000	100 S 20	1975	No. of St.	87 - F	A STATE OF THE PARTY OF THE PAR	W = 1	
Multimodal Re	sults	STATE OF THE STATE		The same	EB			WB			NB		T	SB	
Pedestrian LOS	-	/LOS		2.0	_	В	2.0		В	2.8		С	2.8		С
Bicycle LOS Sc	-			0.9		Α	0.8		Α	0.5		Α	0.6	3	Α
					-										

		HCS	7 Sig	nalize	ed Int	ersec	tion l	Resu	Its Su	mmai	y			100	
General Inform	nation		-	-		فيمث	-5	hard to	Intersed	ction In	format	ion		기계시하.	I B U
	nation	KHR Associates							Duration		0.25			111	
Agency		KHK ASSOCIATES		Analy	sis Date	e 8/1/2	016		Area Ty		Othe				
Analyst		Torrance California		Time		0/1/2	010	-	PHF	pe	0.88			wie	*_
Jurisdiction		Crenshaw Bouleva		_		r 2016		-	Analysis	Poriod	1> 7		<u></u>		~
Urban Street			ra	-	sis Yea	_	_		shaw Ex			.30			
Intersection Project Descrip	tion	Rolling Hills Road		File N	ame	0-K0	iling mili	s-Cren	Silaw Ex	ISLAWI.X	us			) † † 63626	
REMINISTRA		Carl Laborator	27	100			Lie				Par	200	NO ST		IIG I
Demand Inform			-		EB	1 5	-	W		-	NB	-		SB	1 -
Approach Move				L	T	R	L	T		L	T	R		T	R
Demand (v), v	eh/h	- A 15 TH	-	143	144	59	22	17	7 196	115	131	3	154	1003	3
Signal Informa	tion														
Cycle, s	120.0	Reference Phase	2	1	- ×		=3			2		<u></u>	<b>→</b>	1	4
Offset, s	0	Reference Point	End	Green	2.4	F 7		8.4	2.2	31.4		1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		5.7 4.0	48.9	4.0		4.0		7	4		r.t
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		5	6	7	
		/F-304E-15VE		EDI		EDT	L NA		MOT	NID		NDT	CD		OPT
Timer Results				EBI	-	EBT 2	WE 1	SL	WBT 6	NB 3	_	NBT 8	SB 7	_	SBT
Assigned Phase	е			5	-		2.0		3.0	1.1	-	4.0	1.1		4
Case Number				2.0		3.0				-	_	_	_	_	4.0
Phase Duration		\		17.1		62.6	7.4		52.9	12.4	_	35.4	14.6	_	37.6
Change Period,	or other Desirement of the last			4.0		4.0	4.0	_	4.0	4.0	_	2.9	4.0		4.0
Max Allow Head	_			3.0 13.1		0.0	3.0	$\rightarrow$	0.0	3.0 8.4	_	33.4	3.0 10.5		2.9
Queue Clearan Green Extensio		AND RESIDENCE OF SHARP PARKET OF THE PARKET		0.1		0.0	0.0		0.0	0.4	_	0.0	0.1	_	26.9
Phase Call Pro	-	( g e ), s		1.00		0.0	0.5	_	0.0	0.99	_	1.00	1.00	_	1.00
Max Out Probal				1.00	_		0.00	_		0.00	_	1.00	0.06		0.66
De la					1000	11-12	-			77.	SEE		Samuel of the last	1-3	
Movement Gro	up Res	ults			EB			WB			NB			SB	
Approach Move	ment			L	Т	R	L	T	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h		163	164	67	25	201	223	131	1492		175	1140	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	n	1739	1826	1608	1739	1826	1607	1781	1698		1781	1698	
Queue Service	Time (	g s ), S		11.1	7.7	3.5	1.7	10.4	13.3	6.4	31.4		8.5	24.9	
Cycle Queue Cl	learance	e Time ( <i>g c</i> ), s		11.1	7.7	3.5	1.7	10.4	13.3	6.4	31.4		8.5	24.9	
Green Ratio ( g	/C )			0.11	0.49	0.49	0.03	0.41	0.41	0.33	0.26		0.35	0.28	
Capacity (c), v	eh/h			190	892	786	49	744	655	212	1333		217	1428	
Volume-to-Capa	acity Ra	itio (X)		0.856	0.183		0.508	0.270	_	0.618	1.119	-	0.806	0.798	
	_	In (50 th percentile)		153.9	88.7	32.7	20.3	125.2		68.6	522.9		100.5	264	
		eh/ln (50 th percenti		5.9	3.4	1.3	0.8	4.8	5.6	2.7	20.6		4.0	10.4	
	_	RQ) (50 th percent	ile)	0.51	0.30	0.11	0.07	0.42	0.48	0.34	2.61		0.34	0.88	-
Uniform Delay (				54.7	23.3	21.9	58.0	29.7	30.7	32.4	44.3		32.1	40.0	
Incremental Del				19.4	0.5	0.2	3.0	0.9	1.4	1.1	64.2		7.7	3.0	
Initial Queue De	_			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	-
Control Delay (		en		74.1	23.7	22.1	61.0	30.6 C	32.2	33.5	108.5		39.8	43.1	-
Level of Service		/1.00		E 44.3	С	D	33.0		C	C	F	F	D 42.6	D	D
Approach Delay				44.3			7.3		C	102.	4	F	E 42.6	,	D
Intersection Del	ay, s/ve	at / LOS	ALC: N		201		4.5	188			3-10	U.		1	
Multimodal Re	sults				EB			WB			NB			SB	
Pedestrian LOS		/LOS		3.3	T	С	3.3	_	С	2.5	_	В	2.4	_	В
Bicycle LOS Sc				1.1		Α	1.2	_	A	1.4	_	A	1.2	_	A

Generated: 1/22/2018 8:48:04 AM

		HCS	7 Sig	nalize	ed Int	ersec	tion F	Resu	lts Su	mmai	у				
	A dis-						- 1941		ration .					14141	tend
General Inform	nation							_	Intersed	-	-	on	_		
Agency		KHR Associates				_		_	Duration	_	0.25		_		
Analyst				Analy	sis Date	e 8/1/2	016		Area Ty	ре	Othe	r	=		*
Jurisdiction		Torrance California		Time	Period				PHF		0.97		₩ →	₩∳E	1
Urban Street		Crenshaw Bouleva	rd	Analy	sis Yea	2016			Analysis	Period	1> 7:	30	7		
Intersection		Rolling Hills Road		File N	ame	8-Rol	ling Hills	s-Crens	shaw Ex	ist PM.	us			511	1
Project Descrip	tion				abor						- 5-7			14144	11
Demand Inform	mation			6.11	EB		1000	WE	3		NB			SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	F
Demand (v), v	_			160	280	86	41	213	3 161	99	987		269	1002	
			-3	3300		100	E E E	1000							H
Signal Informa	-				7	_ 2		L	2   1	ı   J	u l	_		K	L
Cycle, s	120.0	Reference Phase	2		- 6	R	₹	1		12	1		₹ .		+-
Offset, s	0	Reference Point	End	Green	4.5	4.7	48.9	7.1	4.9	25.	9		K		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	4.0	4.0		1	4	1	K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
ELS DELY	7	WEST THE ST			380		45.00								
Timer Results				EB	L	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	е			5		2	1		6	3		8	7		4
Case Number				2.0		3.0	2.0		3.0	1.1	_	4.0	1.1		4.0
Phase Duration	ı, s			17.3	3	61.6	8.5		52.9	11.		29.9	20.	0	38.7
Change Period	, ( Y+R	c), S		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	dway ( /	MAH), s		3.0		0.0	3.0		0.0	3.0		2.9	3.0		2.9
Queue Clearan	ce Time	(gs), s		13.3	3		4.9			7.3		25.5	16.0	0	23.7
Green Extension	-			0.1		0.0	0.0		0.0	0.1		0.4	0.0		4.5
Phase Call Pro				1.00			0.76	3		0.9	7	1.00	1.00	0	1.00
Max Out Proba	bility			1.00	)		0.00			0.00		1.00	1.00	0	0.23
Movement Gro	oup Res	sults			EB			WB			NB			SB	
Approach Move	_			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F		), veh/h		165	289	89	42	220	166	102	1018		277	1033	
	_	ow Rate (s), veh/h/l	n	1739	1826	1608	1739	1826	_	1781	1698		1781	1698	
Queue Service	_		.,	11.3	14.4	4.7	2.9	11.4	9.7	5.3	23.5		14.0	21.7	
Cycle Queue C				11.3	14.4	4.7	2.9	11.4	9.7	5.3	23.5		14.0	21.7	
Green Ratio ( g		c inite (90), s		0.11	0.48	0.48	0.04	0.41	0.41	0.27	0.22		0.37	0.29	
Capacity (c), v				192	877	772	66	744	654	216	1098		308	1474	
		tio ( V )		0.858		-	0.643	0.295	_	0.473	0.927		0.899	0.701	
Volume-to-Capa				156.7	176.6	_	34.4	138.9	_	57.5	276.5		204.5	225.2	
		In (50 th percentile)		6.0	6.8	1.8	1.3	5.3	3.9	2.3	10.9		8.1	8.9	
		eh/In (50 th percenti		0.52	0.59	0.15	0.11	0.46	0.34	0.29	1.38		0.68	0.75	
		RQ) (50 th percent	iile)	54.6	26.1	22.8	57.7	30.1	29.4	34.6	46.1		31.8	38.0	
Uniform Delay				19.7	1.0	0.3	3.9	1.0	0.9	0.6	12.8		26.7	1.3	
Incremental De	_			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Initial Queue De	_	CONTRACTOR OF THE PARTY OF THE		_	_	-	61.6	31.1	30.4	35.2	59.0		58.5	39.3	
Control Delay (	_	en		74.4	27.1	23.1		31.1 C	30.4 C		59.0 E		58.5 E		
Level of Service		// 00		E 40.0	С	С	E 22.0		C	D		_		D	_
Approach Delay				40.8	)	D	33.8	,	C	56.8		E	43.3	,	D
Intersection De	lay, s/ve	en / LOS	30		100	46	5.2	-	-		- 0000		D	1	
Multimodal Re	sults	Miles Andrews			EB	7	-	WB			NB	- 0.0	1	SB	
Pedestrian LOS		/LOS		3.3	_	С	3.3		С	2.5		В	2.4	_	В
Bicycle LOS So	-			1.4	_	A	1.2	_	A	1.1	_	A	1.2	_	A
BICYCIE LOS SO	ore / LC	75		1.4		^	1.2		^	1.1		^	1.2		H

		HCS	7 Sig	naliz	ed Int	terse	ction	Resu	Its Su	mma	ry	4555	1 400 500		
Concret lafa	anti	19 19 19 19 19		and the			1923	-2-4	Interse	ction In	formati	ion	a production	ا خارا ا	
General Inforn	nation	I/IID Associates						-			0.25		_		
Agency		KHR Associates		T A 1-	-:- D-4	- 10/4/	2040	-	Duratio		-		-		
Analyst		- 0.17		-	sis Dat	e  8/1/	2016	-	Area Ty	pe	Othe		- 2		
Jurisdiction		Torrance California		111112	Period	004	•		PHF	D : 1	0.95		- 3	77	
Urban Street		Pacific Coast High		-	sis Yea	_			Analysis		1> 7:	:30	28		
Intersection		Crenshaw Bouleva	rd	File N	ame	9-P(	CH-Cren	shaw E	:XIST AM	xus			_		
Project Descrip	tion			10 - T-			-	KS113	200					14147	HI
Demand Inform	nation				EB			W	В		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	eh/h			163	938		637	19	17	57	985	478	135	619	
Cinnal Informa	tion				1	100				1					
Signal Informa Cycle, s	120.0	Reference Phase	2	1	10	_	= .7	<b>:</b>	2 1	2	9	_	4	1	4
Offset, s	0	Reference Point	End					,			M	1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		6.1	46.0						-		
Force Mode	Fixed	Simult. Gap L/V	On	Yellow	0.0	4.0	0.0	0.0	-	4.0 0.0		5		7	P
Force Mode	rixeu	Simult. Gap 14/5	Oll	Neu	0.0	10.0	10.0	0.0	0.0	10.0				200	DON
Timer Results				EB	L	EBT	WE	3L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	е			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1	1	4.0	2.0		3.0	1.1		4.0
Phase Duration	, s			10.0	0	50.0	20.	0	60.0	9.2		37.3	12.	7	40.8
Change Period,	(Y+R	c), S		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	dway ( A	MAH), s		3.0		0.0	3.0	)	0.0	3.0		3.0	3.0		3.0
Queue Clearan	ce Time	(gs), s		5.6			16.	5		6.0		35.3	8.6	5	14.2
Green Extensio		CALL PROPERTY AND ADDRESS OF THE PARTY AND ADD		0.2		0.0	0.0		0.0	0.0		0.0	0.1		6.1
Phase Call Prof				1.00	0		1.0	0		0.8	6	1.00	0.99	9	1.00
Max Out Probal				0.00	0		1.0	0		0.0	0	1.00	0.0	1	0.06
Movement Gro	un Pos	ulte	320	0000	EB			WB			NB	1 mg 18		SB	
Approach Move	-	uits		L	T	R	L	T	R	L	T	R	L	T	R
The second second second	-		_	5	2		1	6	1	3	8	18	7	4	
Assigned Move Adjusted Flow F	_	\ voh/h		172	987	-	671	2018		60	1037	503	142	652	
	_	A RESIDENCE OF THE PARTY OF THE	n	1689	-	-	1689	1658	-	1781	1698	1608	1781	1698	
Queue Service		ow Rate ( s ), veh/h/l	11	3.6	1738 31.3	-	14.5	46.0	_	4.0	22.2	33.3	6.6	12.2	
Cycle Queue C		THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.		3.6	31.3	-	14.5	46.0	_	4.0	22.2	33.3	6.6	12.2	
Green Ratio ( g	-	e iiiie (ge), s		0.43	0.38		0.53	0.47	-	0.04	0.28	0.28	0.36	0.31	-
Capacity ( c ), v				316	1332	-	708	2323	_	78	1414	446	239	1561	
Volume-to-Capa	-	tio ( Y )		0.543	-	-	0.947	0.869	-	0.774	-	-	0.594	0.418	
		In (50 th percentile)		37.3	373.7	_	208.5	520.1	_	48	232.4	_	70.9	123.9	
	_	eh/In (50 th percenti	-	1.4	14.4		8.0	20.0	_	1.9	9.1	22.9	2.8	4.9	
		RQ) (50 th percent	and the latest designation of the latest des	0.12	1.25		0.69	1.73	-	0.24	1.16	2.90	0.24	0.41	
Uniform Delay (		The second second second second second	uio)	29.0	39.2	-	28.3	37.8	the same of the same of	56.8	39.3	43.4	29.7	33.1	
Incremental De	-			0.5	3.8		21.6	4.7	1	6.0	1.8	82.2	0.9	0.1	
Initial Queue De	_			0.0	0.0	-	0.0	0.0	1	0.0	0.0	0.0	0.0	0.0	
Control Delay (		The state of the s		29.5	43.0		49.9	42.6		62.8	41.1	125.6	30.6	33.2	
Level of Service	ASSESSMENT OF THE PARTY OF THE	211		C	D		D	D		E	D	F	C	C	
Approach Delay		/1.0S		41.0	-	D	44.4	-	D	68.5		E	32.7	_	С
Intersection Del	-			41.0			18.5			00.0			D OZ. /		0
	1, 5, 5, 10		112			CAR				REE			132		
Multimodal Re	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	/ LOS		3.4		С	3.3		С	3.1		С	3.3		С
Bicycle LOS Sc	ore / LC	OS		1.4		Α	2.0		В	1.4		Α	0.9		Α

		HCS	7 Sig	nalize	d Int	erse	ction F	Resu	Its S	ummai	ry				
Conorel Inform	nation	cili de la companya d	150	men	-	2 - 10		-	Intere	ection In	formati	on	-7613-6	141741	FL
General Inform	nation	IVIID Associates							Duratio		0.25	OII		111	Ļ
Agency		KHR Associates		Analys	ia Dat	0/1/	2016	$\rightarrow$	Area T		Othe		4		
Analyst		T 0-1161-				e 8/1/2	2010	_	PHF	ype	0.94	1		w t	
Jurisdiction		Torrance California		Time F		2046	,	$\rightarrow$	_	ia Dariad	_	20	- 3		4
Urban Street		Pacific Coast High	_	-	sis Yea	-			THE RESERVE OF THE PERSON NAMED IN	is Period	1> /	30	- 3		
Intersection		Crenshaw Bouleva	rd	File Na	ame	19-PC	CH-Crens	snaw E	XIST PI	I.xus					(
Project Descrip	tion	3300	-			200	-	- 199		7 10 7	-130		21922/10		
Demand Inform	nation		-		EB			W	В		NB			SB	
Approach Move	ement			L	T	R	L	Т	F	L	Т	R	L	T	R
Demand (v), v	_			169	1247		464	142	24	73	690	445	323	1074	
NI STATE				1000	350				1.75		271	100			
Signal Informa	-				2		<b>← π</b>		2	17	L.	_		~	
Cycle, s	120.0	Reference Phase	2		1	7		15			17	1	4	3	
Offset, s	0	Reference Point	End	Green	6.0	4.6	47.4	6.7	5.	3 26.	0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	AND REAL PROPERTY.				7	1	D
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.	0.0	1	.5	6	7	8
Timer Results			ŽĮ.	EBI	3745	EBT	WB		WBT	NB		NBT	SB		SBT
				5	-	2	1	_	6	3	_	8	7		4
Assigned Phase	9			1.1	-	4.0	1.1		4.0	2.0		3.0	1.1		4.0
Case Number						51.4	18.6	_	60.0	10.	_	30.0	20.0	-	39.3
Phase Duration		V -		10.0	-	_	4.0	_	4.0	4.0	_	4.0	4.0	_	4.0
Change Period,				4.0	-	4.0	3.0	_	0.0	3.0		3.0	3.0	_	3.0
Max Allow Head	_			3.0	-	0.0	-	_	0.0	7.2	_	28.0	18.0	_	26.5
Queue Clearan	-	COLUMN TO THE REAL PROPERTY OF THE PERTY OF		5.7	+	0.0	0.3	_	0.0	0.1	_	0.0	0.0	_	4.5
Green Extensio	distance of the last of the la	( g e ), s		1.00	-	0.0	1.00	_	0.0	0.9	_	1.00	1.00	_	1.00
Phase Call Prob	-			0.00	_		1.00	_		0.0	_	1.00	1.00		0.48
Max Out Probal	ollity	No. of the Paris		0.00			1.00			0.0	U	1.00	1.00		0.40
Movement Gro	up Res	sults			EB			WB		T	NB			SB	
Approach Move	-			L	Т	R	L	T	R	L	T	R	L	Т	R
Assigned Move	_			5	2		1	6		3	8	18	7	4	
Adjusted Flow F	_	), veh/h		180	1327		494	1515		78	734	473	344	1143	
	_	ow Rate (s), veh/h/l	n	1702	1752		1702	1658		1781	1698	1608	1781	1698	
Queue Service	-			3.7	44.7		12.3	31.6		5.2	15.8	26.0	16.0	24.5	
Cycle Queue C				3.7	44.7		12.3	31.6		5.2	15.8	26.0	16.0	24.5	
Green Ratio (g	_	(3 - 7)		0.45	0.40		0.53	0.47		0.06	0.22	0.22	0.37	0.29	
Capacity (c), v	-			417	1385		552	2322		99	1104	348	359	1500	
Volume-to-Capa		atio (X)		0.432	0.958		0.895	0.652	2	0.783	0.665	1.359	0.958	0.762	
		/In (50 th percentile)		37.6	587.2	-	220.5	347.2	2	61.1	166.7	684	280.8	256	
	_	eh/In (50 th percenti		1.5	22.8		8.5	13.4	_	2.4	6.6	27.4	11.1	10.1	
		RQ) (50 th percent	-	0.13	1.96		0.74	1.16		0.31	0.83	3.47	0.94	0.85	
Uniform Delay (	-			23.5	43.2		36.7	32.9		55.9	43.0	47.0	34.2	38.5	
Incremental De	lay (d2	), s/veh		0.3	16.0		14.7	1.4		5.0	1.2	179.1	36.1	2.1	
Initial Queue De	elay ( d	з), s/veh		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (	d), s/ve	eh		23.7	59.2		51.4	34.4		61.0	44.2	226.1	70.3	40.6	
Level of Service	(LOS)			С	Е		D	С		E	D	F	Е	D	
Approach Delay	, s/veh	/LOS		55.0		D	38.	5	D	112	3	F	47.5		D
Intersection Del	lay, s/ve	eh / LOS					59.7						E		
LE VALUE OF THE		4						14.5	4	giras.	1.5			-	
Multimodal Re	-				EB	-		WB		-	NB		0.0	SB	
Pedestrian LOS	_			3.4	_	С	3.3	-	C	3.1	$\overline{}$	С	3.3	_	С
Bicycle LOS Sc	ore / LC	OS		1.7		В	1.6		В	1.2		Α	1.3		Α

000		12 3	DATE			IN SE		733		F . 3	ary	388	00		5 8
ation								Inters	ecti	ion Inf	ormatio	on			
	KHR Associates						$\rightarrow$	_	_	-	0.25			7 1 12	
	TO III CO LOCALIDO		Analys	is Date	8/1/2	016		Area	Туре	9	Other		4		
	Torrance California				-		$\overline{}$	-	71		0.80		#		Ξ
		vav			2016		$\neg$	Analy	sis F	Period	1> 7:	30			•
		·uj	-			CH-Vista	_		_		_			5 1 1	
ion	riota montana		1		1									ৰ কিপ	11
	HE STATE OF STREET												1300	TO THE	
nation				EB	4		W	В			NB			SB	
ment			L	Т	R	L	Т		R	L	Т	R	L	T	R
eh/h			47	1131		65	151	0		150	145	119	282	114	190
						1000	111								
				2	_	= . 8 4	2	71				-	7		本
		-	-	- 6		-	12	17					<b>→</b> 21	.3	
			Green	5.2	0.4	57.7			-	0.0					17-1
_		-	_		0.0	4.0					1		Y	1 5	Y
Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0	.0	0.0		5	6	7	
COLUMN			FRI		FRT	WB		WBT		NBI		NBT	SBI		SBT
									7						4
,						_									9.0
•			_		-		_		+						29.6
	10		-	_	_	-		_			_				4.0
			_		-	-	_	_	7			-			3.1
-			_		0.0	-	_	0.0				makes between the same of			25.4
	And the second s				0.0	-	-	0.0	1		_				0.1
	( g e ), s		_		0.0	-	_	0.0			_				1.00
THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			_	_		-	_		1						1.00
Jility	W 18 1		0.00	-		0.00		9/10		38			E 15	TURES.	The said
up Res	ults		CH IIC	EB			WB				NB			SB	1
ment			L	Т	R	L	Т	R		L	Т	R	L	Т	R
-	THE DESIGNATION OF THE PERSON		5	2		1	6			3	8	18	7	4	14
	), veh/h		59	1414		81	1888	3		188	173	157	353	143	238
_		n	1723	1723	- 9.4	1723	1723	3		1774	1863	1588	1774	1863	1572
Time (	g s ), S		2.0	46.1		2.8	58.1			12.4	10.7	11.5	23.4	3.8	16.8
learanc	e Time ( g c ), s		2.0	46.1	1	2.8	58.1			12.4	10.7	11.5	23.4	3.8	16.8
/C)			0.52	0.48		0.53	0.48			0.13	0.13	0.13	0.21	0.21	0.21
eh/h		- 4	134	1655	1-0-1	176	1668	3		224	236	201	378	794	335
acity Ra	atio (X)		0.438	0.854		0.462	1.13	2		0.835	0.732	0.783	0.933	0.180	0.709
(Q), ft	/In (50 th percentile)		20.5	548.2		28.3	1053	3		144.3	129.3	115.2	337.6	43.8	171.5
(Q), v	eh/In (50 th percenti	ile)	0.8	21.1		1.1	40.5			5.5	5.0	4.6	13.0	1.7	6.9
Ratio (	RQ) (50 th percent	tile)	0.07	1.83	1	0.09	3.51			0.94	0.63	0.59	2.20	0.21	0.87
			28.4	36.8		25.9	-	_		51.2	50.5	50.8	46.4	38.6	43.8
lay (d2	), s/veh		0.8	5.8		0.7	67.3			3.1	1.7	2.5	28.7	0.0	5.6
_			0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
_			29.2	42.7		26.6	108.	0		54.3	52.1	53.3	75.1	38.7	49.4
(LOS)			С	D		С	F			D	D	D	E	D	D
-			42.2		D	104.	6	F		53.3	3	D	59.7	7	E
lay, s/ve	eh / LOS				7	2.3							E		
100	CONTRACTOR OF THE SECOND		65		The same	450						Mar.	-11	FILL	
				EB			WB				NB			SB	
sults			2.8		С	2.9	_	C	-	2.9		С	2.9	_	С
	ment eh/h  tion  120.0  0  No Fixed  Away ( // ce Time n Time pability  bility  wup Resement ment Rate ( v ation Flo Clearanc // C) eh/h acity Ra ( Q ), ft ( Q ), v Ratio ( ( ( Q ), v Ratio ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (	KHR Associates  Torrance California Pacific Coast Highw Vista Montana  ion  nation  ment eh/h  tion  120.0 Reference Phase 0 Reference Point No Simult. Gap E/W Fixed Simult. Gap N/S  expected by Simult. Gap N/S  fixed Simult. Gap N/S  graph (y+Rc), s  dway (MAH), s  toe Time (ge), s  toability bility  toup Results  ment Rate (v), veh/h ation Flow Rate (s), veh/h/l Time (gs), s  learance Time (gc), s  control of the control fixed packet (s), s  fixed (v), veh/h  ation Flow Rate (s), veh/h/l  Time (gs), s  fixed packet (s), s  fix	KHR Associates  Torrance California Pacific Coast Highway Vista Montana  ion  nation ment eh/h  tion  120.0 Reference Phase 2 0 Reference Point End No Simult. Gap E/W On Fixed Simult. Gap N/S On  set Time (g s), s n Time (g s), s nobility politity  sup Results ment ment Rate (v), veh/h acity Ratio (X) (Q), ft/ln (50 th percentile) (Q), veh/ln (50 th percentile) (Q1), s/veh elay (d2), s/veh elay (d3), s/veh	KHR Associates	KHR Associates	KHR Associates	KHR Associates								

		HCS	7 Sig	nalize	d Int	ers	sect	tion R	lesu	Its	Sun	nmar	У				
8.5:15		122-11-11-33							S. M. S.		بالسماعة		A S	562		14241	ireled
General Inform	ation								-	_		tion Info	-	on	- 1	3091	100
Agency		KHR Associates							_		ration,		0.25		20		
Analyst				Analys	is Date	e 8/	/1/20	16			еа Тур	е	Other				
Jurisdiction		Torrance California		Time F					-	PH			0.98		- 12		
Urban Street		Pacific Coast Highw	way	Analys	is Yea				_		_	Period	1> 7:3	30	2		
Intersection		Vista Montana		File Na	ame	10	0-PC	H-Vista	Mont	ana	Exist	PM.xus	3				
Project Descript	tion														1	4147	7 (
Demand Inform	nation				EB	-			WI	В		100000	NB			SB	
Approach Move	-			L	T	T	R	L	T	-	R	L	T	R	L	T	R
	-			59	1270	1		188	-	-		115	198	146	351	207	96
Demand (v), v	en/n			55	121		-	100	-		5 4				1000	STORY.	No.
Signal Informa	tion					T	,			6			1	7 1		TOWN	
Cycle, s	120.0	Reference Phase	2	1	7 8	-	E	-4 2		12			×		4	500 3	4
Offset, s	0	Reference Point	End	Green	E 2	2	0	54.3	25.	Ω	14.9	0.0			2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow			3.8	4.0	4.0	_	4.0	0.0		7	7	1000	st:
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0		0.0	0.0	1	5	8	7	Y
Toron Mode		17 MARS 12 1 DAG	11000		10	-	2 34	100			THE	C C C C	1-128				
Timer Results				EBL		EB	Т	WBI	L	W	ВТ	NBL	-	NBT	SBI	-	SBT
Assigned Phase	Э			5		2		1		6	_			8			4
Case Number				1.1		4.0	)	1.1		4.	.0			10.0			9.0
Phase Duration	, S			9.2		58.	3	13.0	)	62	2.1			18.9			29.8
Change Period,	(Y+R	c), S		4.0		4.0	)	4.0		4.	.0			4.0			4.0
Max Allow Head	dway ( /	MAH), s		3.0		0.0	)	3.0		0.	.0			3.1			3.0
Queue Clearan	and the second second			4.2				8.7						14.2			25.7
Green Extensio	Married Street Co., Name of Street, or other Designation of the Owner, where the Publishers of the Owner, where the Owner, which is the Owner, which	THE RESERVE OF THE PARTY OF THE		0.1		0.0	)	0.3		0.	.0			0.7			0.1
Phase Call Prol	NAME OF TAXABLE PARTY.			0.87				1.00	)					1.00			1.00
Max Out Probal				0.00				0.00						0.00			1.00
	41-1				ED.		Mary .		WB		1935	DE PE	NB			SB	M. To
Movement Gro	-	sults			EB	_	R	1	T	T	R	L	T	R	L	T	R
Approach Move				L	T	+	K	L	6	+		3	8	18	7	4	14
Assigned Move	_			5	2	+	-	1	-	+	-	117	184	167	358	211	98
Adjusted Flow I		THE RESERVE THE PARTY OF THE PA		60	1296	-	_	192	1376	_		_	-	_	1781	1870	1578
STREET, SQUARE BUILDING STREET, SQUARE STREET, SQUA	ALCOHOLD THE REAL PROPERTY.	ow Rate (s), veh/h/	In	1739	1738	-	-	1739	1738			1781	1870	1609	23.7	5.6	6.2
Queue Service				2.2	41.6	+	_	6.7	43.7	-		7.4	11.4	12.2	23.7	5.6	6.2
Cycle Queue C	MARKET STREET, SQUARE,	$e Time (g_c), s$		2.2	41.6	_	-	6.7	43.7	$\rightarrow$	_	7.4	11.4	12.2	0.21	0.21	0.21
Green Ratio (g				0.50	0.45	_	_	0.54	0.48	_	_	0.12	0.12	_	383	804	339
Capacity (c), v	OCCUPATION OF THE OWNER, THE OWNE			175	1574	-		234	1683	_	-	221	233	200	0.936	0.263	-
Volume-to-Cap		THE RESIDENCE OF THE PARTY OF T	,	0.344	0.824	-	_	0.819	0.81			0.530	0.789	0.837	337.1	64.5	60.3
		/In (50 th percentile		22.3	497.1	-	-	71.9	517.9	_		82.9		_	_	2.5	-
		eh/ln (50 th percent		0.9	19.1	_	_	2.8	19.9	-		3.3 0.55	5.4 0.68	5.0 0.63	13.3 2.25	0.32	0.30
NAME AND ADDRESS OF THE OWNER, WHEN PERSON ADDRESS OF THE OWNER, WHEN PERSON AND ADDRESS OF THE OWNER, WHEN	THE RESERVE OF THE PERSON NAMED IN	RQ) (50 th percen	itile)	0.07	1.66	-		0.24	1.73	-	-	-		-	46.3	39.2	39.4
Uniform Delay	_			24.9	37.4	+		26.5	35.7	$\rightarrow$		49.3	51.0	51.4 3.5	29.5	0.1	0.2
Incremental De	SHOW OF THE PERSON			0.4	5.0	+		2.7	4.5	-				-	-		-
Initial Queue D	-			0.0	0.0	+		0.0	0.0	-		0.0	0.0	0.0 54.9	0.0	39.3	39.6
Control Delay (	OCCUPANT OF THE OWNER,			25.3	42.5	+	-	29.2	40.3	+		50.0	53.3	-	75.8	-	-
Level of Service	THE RESIDENCE AND ADDRESS.			С	D	_		C	D			D 53.0	D	D	E	D	D
Approach Dela	-	Control of the Contro		41.7		D	_	38.9	,	D	,	53.0	,	D	58.9		E
Intersection De	lay, s/ve	eh / LOS					44	8	5 3		THE ST	7-7-1		- 30/11	D	-	
Multimodal Re	eulte		15.		EB				WB	}			NB	Short,	1	SB	
	Juito			-	_	-				_	_	-		^	0.0		С
Pedestrian LOS	-	/1.0S		2.8		С		2.9		(	C	2.9		C	2.9		C

HCS+: Unsignalized Intersections Release 5.6

EXITAR

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 8:00 - 9:00 A.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_\_

DIT TO D	I T T D		
	I L I K	L T R	1.
0 202 0	13 489 40	10 266 0	-
	10 202 0	0 202 0 13 489 40	0 202 0 13 489 40 0 266 0

	Eastbou	und	West	bound	North	oound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	207		202		13	489	266	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1			1		2	1	
Opposing-Lanes	1			1		L	2	2
Conflicting-lanes	2			2		L	1	
Geometry group	2			2		5	4	a
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	207		202		13	489	266	
Left-Turn	0		0		13	0	0	
Right-Turn	0		0		0	0	0	
	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group		2		2		5		4 a
Adjustments Exhibi	it 17-3:	3:						
hLT-adj		0.2		0.2		0.5		0.2

hRT-adj	-0.6	-0.6		0.7	-0.6
hHV-adj	1.7	1.7		1.7	1.7
hadj, computed	0.0	0.0	0.5	0.0	0.0

Worksheet 4 - Depart	re Headway	and S	ervice	Time
----------------------	------------	-------	--------	------

	Eastl	oound	West	bound	Northb	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	207		202		13	489	266	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.18		0.18		0.01	0.43	0.24	
hd, final value	6.97		6.98		7.01	6.50	6.61	
x, final value	0.401		0.392		0.025	0.883	0.489	
Move-up time, m	2	2.0		2.0	2	.3	1	2.0
Service Time	5.0		5.0		4.7	4.2	4.6	

## \_Worksheet 5 - Capacity and Level of Service\_\_\_\_\_

	Eastbound	Westbound	Northb	ound	Southbound
	L1 L2	L1 L2	L1	L2	L1 L2
Flow Rate	207	202	13	489	266
Service Time	5.0	5.0	4.7	4.2	4.6
Utilization, x	0.401	0.392	0.025	0.883	0.489
Dep. headway, hd	6.97	6.98	7.01	6.50	6.61
Capacity	518	518	433	556	543
95% Queue Length	2.0	1.9	0.1	15.4	2.8
Delay	14.6	14.5	9.9	50.4	15.9
LOS	В	В	A	F	C
Approach:					
Delay	14.6	14.5	4	9.3	15.9
LOS	В	В	F		C
Intersection Delay	29.7	Intersectio	n LOS D		



Etal

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 5:00 - 6:00 P.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	I E	astboi	ind	We	estbou	ind	N	orthbo	und	1 S	outhbo	und	1
	L	T	R	L	T	R	L	T	R	L	T	R	- !
Volume	10	23	0	-   -	185	0	16	382	34	-10	577	0	
% Thrus Le				,			7775			1.00			

Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 L T LTR LTR Configuration LTR 1.00 1.00 6 382 0 0 1.00 1.00 1.00 PHF 185 23 577 Flow Rate 0 1 1 2 0 % Heavy Veh 0 ī No. Lanes 2 1 1 Opposing-Lanes 1 2 2 2 Conflicting-lanes 1 1 Geometry group 2 5 4a Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbo	und	Westb	ound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	23		185		6	382	577	
Left-Turn	0		0		6	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group	2		2			5		4a
Adjustments Exhibi	t 17-33:							
hLT-adi	0.	2	0	. 2		0.5		0.2

hRT-adj hHV-adj	-0.6 1.7	-0.6 1.7	-0.7 1.7	-0.6 1.7
hadj, computed	0.0	0.0	0.5 0.0	0.0
	_Worksheet 4 -	Departure Headway	and Service Time	
				Q 20 1 1 1 1

	East	oound	West	oound	Northb	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	23		185		6	382	577	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.02		0.16		0.01	0.34	0.51	
hd, final value	7.06		6.48		6.43	5.93	5.35	
x, final value	0.045		0.333		0.011	0.629	0.858	
Move-up time, m		2.0	2.0		2	2.3		2.0
Service Time	5.1		4.5		4.1	3.6	3.4	

Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Eastb	ound	West	bound	Northb	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	23		185		6	382	577	
Service Time	5.1		4.5		4.1	3.6	3.4	
Utilization, x	0.045		0.333		0.011	0.629	0.858	
Dep. headway, hd	7.06		6.48		6.43	5.93	5.35	
Capacity	460		561		600	606	671	
95% Queue Length	0.1		1.5		0.0	4.9	14.0	
Delay	10.4		12.7		9.2	18.5	37.4	
LOS	В		В		A	C	E	
Approach:								
Delay	1	0.4		12.7	1	8.4		37.4
LOS	В		11	В	C		F	2
Intersection Delay	26.7		Int	ersectio	on LOS D			

Analyst			HCS	7 Sig	naliz	ed In	tersec	tion I	Resi	ılts Su	mmaı	у				
Analysis	# T			$\mathcal{L}^{F}$						40				16 harris	articet relative to	et et et
Agency		nation														
Durins Durins   Time   Period	Agency		KHR Associates		,							$\rightarrow$		- 2		
Palos Verdes Dr North   Analysis Vesir   2016	Analyst				_		e 8/1/2	016			pe			_====		-
Demand Information	Jurisdiction		Torrance California		_							_		***		-
Demand Information	Urban Street				_							1> 7	:30			~
Demand Information	Intersection		Hawthorne Bouleva	ard	File N	ame	12-H	awthorn	e-PVI	Exist Al	M.xus				511	7
Approach Movement	Project Descrip	tion			K				1	3 5 11			(3 de (3 s.)	COR THE	ነ 4 ነ ቀ ነ	187
Signal Information	Demand Inform	nation			1	EB			W	B		NB			SB	
Signal Information	Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	R
Cycle, s   120,0   Reference Phase   2   2   2   3   4   26   19,0   4   4   4   4   4   4   4   4   4		_			31	917	285	126	55	3 252	183	417	165	333	406	13
Cycle, s   120,0   Reference Phase   2   2   2   3   4   26   19,0   4   4   4   4   4   4   4   4   4								= 100				BLE	1 - 1			
Offsets         0         Reference Point         End Uncoordinated No Simult. Gap EAW         On Yellow         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0         4.0         0.0	The second secon	_	I = 4 = 5:		-	2		≒.,		2 511	2 21		/	7	-	1
Office   A   A   B   B   B   B   B   B   B   B		_		_	-		,	3		1	170	17	1	<b>♦</b> 2	3	-
Fixed   Simult. Gap N/S   On   Red   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0   0.0					Green	4.1	1.8	63.0			19.			_		- 48
BBL   BBT   WBL   WBT   NBL   NBT   SBL   SBT   SBL   SBT   Assigned Phase   5   2   1   6   3   8   7   4   4   4   4   4   4   4   4   4				_	-										1	V
Assigned Phase	Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Assigned Phase	Timer Results				EBI		EBT	WB	L	WBT	NB		NBT	SB	L	SBT
Case Number  1.1   3.0   1.1   3.0   1.1   3.0   2.0   3.0  Phase Duration, s  8.1   67.0   9.9   68.9   17.4   23.0   20.0   25.7  Change Period, (Y+R c), s  4.0   4.0   4.0   4.0   4.0   4.0   4.0   4.0   4.0   4.0   4.0   4.0    Max Allow Headway (MAH), s  3.0   0.0   3.0   0.0   3.0   3.0   3.0   3.0   3.0    Queue Clearance Time (g *), s  Papersoach Movement  L   T   R   L   T   R   L   T   R   L   T   R   L   T   R   L   T   R    Adjusted Saturation Flow Rate (s), veh/h/n  Adjusted Saturation Flow Rate (s), veh/h/n  Queue Service Time (g *), s  1.1   23.4   14.0   2.2   11.7   11.6   11.3   15.1   13.0   16.0   178   178    Capecible Saturation Flow Rate (s), veh/h/n  Afgoreen Ratio (g C)   0.56   0.53   0.53   0.57   0.54   0.54   0.77   0.77   0.75   0.56    Capacity (C), veh/h  Afgoreen Ratio (g C), veh/h	100000000000000000000000000000000000000	e			5			1		6	3		8	7		4
Phase Duration, s  8.1   67.0   9.9   68.9   17.4   23.0   20.0   25.7   Change Period, (Y+R c), s   4.0					1.1		3.0	1.1		3.0	1.1		3.0	2.0		3.0
Change Period, ( Y+R c ), s  Max Allow Headway ( MAH ), s  3.0  0.0  3.0  0.0  3.0  0.0  3.0  0.0  3	Phase Duration, s			8.1		67.0	9.9		68.9	17.4	4	23.0	20.0	0	25.7	
Max Allow Headway ( MAH+), s  3.0 0.0 3.0 0.0 3.0 3.0 3.0 3.0 3.0 3.0				_	4.0	4.0		4.0	4.0		4.0	4.0		4.0		
Queue Clearance Time (g s), s       3.1       4.2       13.3       17.1       18.0       16.3         Green Extension Time (g s), s       0.0       0.0       0.2       0.0       0.1       1.9       0.0       2.2         Phase Call Probability       0.68       0.99       1.00       1.00       1.00       1.00       0.03         Movement Group Results       EB       WB       NB       SB         Approach Movement       L       T       R<						_		_	_	0.0		_		3.0		
Green Extension Time ( g e ), s  O.0  O.0  O.0  O.0  O.0  O.0  O.0  O.			_			_	_			_			_			
Phase Call Probability    0.68							0.0		_	0.0	-	_			_	
Max Out Probability    D.00			(90),0			$\rightarrow$		-	_		-	_		-	_	
Back of Queue (Q), ft/ln (50 th percentile)   10.2   235   128.4   20.1   116.3   127.7   130.7   629.8   158   8.8   8.8   158   7.4   149   160.7   179.7   130.7   629.8   158   8.8   160.7   179.8   160.7   179.8   17						_			_			_				-
Approach Movement  L T R L T R L T R L T R Assigned Movement  5 2 12 12 1 6 16 3 8 18 7 4 14 Adjusted Flow Rate ( v ), veh/h  Adjusted Flow Rate ( v ), veh/h  Adjusted Saturation Flow Rate ( s ), veh/h/ln 1753 1752 1608 1702 1752 1608 1781 1781 1607 1781 1781 1580 Queue Service Time ( g s ), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9 Cycle Queue Clearance Time ( g c ), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9 Green Ratio ( g/C )  0.56 0.53 0.53 0.57 0.54 0.54 0.27 0.16 0.16 0.16 0.13 0.18 0.18 Capacity ( c ), veh/h  459 1840 844 648 1894 869 301 565 255 238 643 285 Volume-to-Capacity Ratio ( X )  Back of Queue ( Q ), ft/ln (50 th percentile)  10.2 235 128.4 20.1 116.3 105.6 127.7 172.7 130.7 629.8 158 8.8 Back of Queue ( Q ), veh/ln (50 th percentile)  0.4 9.1 5.1 0.8 4.5 4.2 5.0 6.8 5.2 24.8 6.2 0.3 Queue Storage Ratio ( RQ ) (50 th percentile)  10.2 235 128.4 20.1 116.3 15.3 37.1 48.8 47.9 52.0 46.1 40.6 Incremental Delay ( d 1), s/veh  10.0 1.2 1.3 0.1 0.5 1.0 3.2 3.7 2.3 270.7 0.9 0.0 Initial Queue Delay ( d 3), s/veh  10.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	TERMS		HI COMPANY			350	A : - An		212		SERVI	The same		- 7.		
Assigned Movement  5	Movement Gro	up Res	sults			EB			_	_		_			SB	
Adjusted Flow Rate ( \( \varphi \), veh/h  Adjusted Flow Rate ( \( \varphi \), veh/h  Adjusted Saturation Flow Rate ( \( \varphi \), veh/h/ln  1753 1752 1608 1702 1752 1608 1781 1781 1607 1781 1781 1781 1580  Queue Service Time ( \( g \( \varphi \), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9  Cycle Queue Clearance Time ( \( g \( \varphi \), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9  Green Ratio ( \( g \( C \) \)  Capacity ( \( c \) , veh/h  459 1840 844 648 1894 869 301 565 255 238 643 285  Volume-to-Capacity Ratio ( \( X \) 0.075 0.554 0.375 0.216 0.324 0.322 0.676 0.820 0.719 1.558 0.701 0.051  Back of Queue ( \( Q \) , veh/ln (50 th percentile)  10.2 235 128.4 20.1 116.3 105.6 127.7 172.7 130.7 629.8 158 8.8  Back of Queue ( \( Q \) , veh/ln (50 th percentile)  0.4 9.1 5.1 0.8 4.5 4.2 5.0 6.8 5.2 24.8 6.2 0.3  Queue Storage Ratio ( \( RQ \) (50 th percentile)  0.03 0.78 0.44 0.07 0.39 0.36 0.64 0.86 0.66 2.10 0.53 0.03  Uniform Delay ( \( d \) ), s/veh  12.5 19.1 16.9 13.9 15.4 15.3 37.1 48.8 47.9 52.0 46.1 40.6  Incremental Delay ( \( d \) ), s/veh  12.5 20.3 18.1 14.0 15.8 16.3 40.3 52.5 50.2 322.7 47.0 40.7  Level of Service ( LOS)  B C B B B B B D D D D F D D  Approach Delay, s/veh / LOS  55.3  Multimodal Results  EB WB NB D D D T F D D  Approach Delay, s/veh / LOS	Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Adjusted Saturation Flow Rate (s), veh/h/ln  Adjusted Saturation Flow Rate (s), veh/h/ln  Queue Service Time (gs), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9  Cycle Queue Clearance Time (gc), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9  Cycle Queue Clearance Time (gc), s  1.1 23.4 14.0 2.2 11.7 11.6 11.3 15.1 13.0 16.0 14.3 0.9  Green Ratio (g/C)  O.56 0.53 0.53 0.57 0.54 0.54 0.27 0.16 0.16 0.13 0.18 0.18  Capacity (c), veh/h  459 1840 844 648 1894 869 301 565 255 238 643 285  Volume-to-Capacity Ratio (X)  Back of Queue (Q), ft/ln (50 th percentile)  10.2 235 128.4 20.1 116.3 105.6 127.7 172.7 130.7 629.8 158 8.8  Back of Queue (Q), veh/ln (50 th percentile)  0.4 9.1 5.1 0.8 4.5 4.2 5.0 6.8 5.2 24.8 6.2 0.3  Queue Storage Ratio (RQ) (50 th percentile)  10.2 12.5 19.1 16.9 13.9 15.4 15.3 37.1 48.8 47.9 52.0 46.1 40.6 Incremental Delay (d1), s/veh  Incremental Delay (d2), s/veh  O.0 1.2 1.3 0.1 0.5 1.0 3.2 3.7 2.3 270.7 0.9 0.0  Control Delay (d3), s/veh  O.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	<b>Assigned Move</b>	ment			5	2	12	1	6	_	3	8	18	7	4	14
Queue Service Time (gs), s       1.1       23.4       14.0       2.2       11.7       11.6       11.3       15.1       13.0       16.0       14.3       0.9         Cycle Queue Clearance Time (gc), s       1.1       23.4       14.0       2.2       11.7       11.6       11.3       15.1       13.0       16.0       14.3       0.9         Green Ratio (g/C)       0.56       0.53       0.53       0.57       0.54       0.54       0.27       0.16       0.16       0.13       0.18       0.18         Capacity (c), veh/h       459       1840       844       648       1894       869       301       565       255       238       643       285         Volume-to-Capacity Ratio (X)       0.075       0.554       0.375       0.216       0.324       0.322       0.66       0.820       0.719       1.558       0.701       0.051         Back of Queue (Q), ft/lin (50 th percentile)       10.2       235       128.4       20.1       116.3       105.6       12.77       17.27       130.7       629.8       158       8.8         Back of Queue (Q), stroth       10.50 th percentile)       0.4       9.1       5.1       0.8       4.5       4.2       5.0 <td>Adjusted Flow F</td> <td>Rate (v</td> <td>), veh/h</td> <td></td> <td>34</td> <td>1019</td> <td>317</td> <td>140</td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>451</td> <td>14</td>	Adjusted Flow F	Rate (v	), veh/h		34	1019	317	140		_					451	14
Cycle Queue Clearance Time ( g c ), s	Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	n	1753	1752	1608		_		1781	1781	1607	-	1781	1580
Green Ratio ( g/C )	Queue Service	Time (	g s ), S		1.1	_	_	_	-	_	_		-			_
Capacity ( c ), veh/h  Capacity ( c ), veh/h  A59 1840 844 648 1894 869 301 565 255 238 643 285  Volume-to-Capacity Ratio ( X )  0.075 0.554 0.375 0.216 0.324 0.322 0.676 0.820 0.719 1.558 0.701 0.051  Back of Queue ( Q ), ft/ln ( 50 th percentile)  10.2 235 128.4 20.1 116.3 105.6 127.7 172.7 130.7 629.8 158 8.8  Back of Queue ( Q ), veh/ln ( 50 th percentile)  0.4 9.1 5.1 0.8 4.5 4.2 5.0 6.8 5.2 24.8 6.2 0.3  Queue Storage Ratio ( RQ ) ( 50 th percentile)  0.03 0.78 0.44 0.07 0.39 0.36 0.64 0.86 0.66 2.10 0.53 0.03  Uniform Delay ( d 1 ), s/veh  12.5 19.1 16.9 13.9 15.4 15.3 37.1 48.8 47.9 52.0 46.1 40.6  Incremental Delay ( d 2 ), s/veh  0.0 1.2 1.3 0.1 0.5 1.0 3.2 3.7 2.3 270.7 0.9 0.0  Initial Queue Delay ( d 3 ), s/veh  0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		1.1	23.4	14.0	2.2	_				_	_	14.3	0.9
Volume-to-Capacity Ratio ( X )  0.075	Green Ratio (g	/C)			0.56	0.53	-		_	_	_	_	_	_	_	0.18
Back of Queue ( Q ), ft/ln ( 50 th percentile)  Back of Queue ( Q ), veh/ln ( 50 th percentile)  Back of Queue ( Pola), veh ( 16.3 th percentile)  Back of Queue ( Pola), veh ( 16.3 th percentile)  Back of Queue ( Pola), veh ( 16.3 th	Capacity (c), v	eh/h			459				_	_	_		-		_	_
Back of Queue ( Q ), veh/ln ( 50 th percentile)  Queue Storage Ratio ( RQ ) ( 50 th percentile)  Queue Storage Ratio ( RQ ) ( 50 th percentile)  Uniform Delay ( d 1), s/veh  12.5 19.1 16.9 13.9 15.4 15.3 37.1 48.8 47.9 52.0 46.1 40.6 10.0 46.1 10.0 1.2 1.3 0.1 0.5 1.0 3.2 3.7 2.3 270.7 0.9 0.0 10.0 10.0 10.0 10.0 10.0 10.0 1	Volume-to-Capa	acity Ra	ntio (X)		0.075		_	-	_		_	_	_			0.051
Queue Storage Ratio ( RQ ) ( 50 th percentile)       0.03       0.78       0.44       0.07       0.39       0.36       0.64       0.86       0.66       2.10       0.53       0.03         Uniform Delay ( d 1), s/veh       12.5       19.1       16.9       13.9       15.4       15.3       37.1       48.8       47.9       52.0       46.1       40.6         Incremental Delay ( d 2), s/veh       0.0       1.2       1.3       0.1       0.5       1.0       3.2       3.7       2.3       270.7       0.9       0.0         Initial Queue Delay ( d 3), s/veh       0.0       0.							_		_							-
Uniform Delay ( d 1), s/veh						-		_	_	_	_	_	_	_	-	-
Incremental Delay ( d 2 ), s/veh		-		ile)	-	-	-	_	_	_	_					-
Initial Queue Delay ( d 3 ), s/veh  Control Delay ( d ), s/veh  12.5   20.3   18.1   14.0   15.8   16.3   40.3   52.5   50.2   322.7   47.0   40.7    Level of Service (LOS)  B C B B B B B D D D F D D  Approach Delay, s/veh / LOS  Intersection Delay, s/veh / LOS  Multimodal Results  EB WB NB SB  Pedestrian LOS Score / LOS  2.9 C 2.9 C 3.1 C 3.0 C						_		-					-	-		-
Control Delay ( d ), s/veh  12.5 20.3 18.1 14.0 15.8 16.3 40.3 52.5 50.2 322.7 47.0 40.7  Level of Service (LOS)  Approach Delay, s/veh / LOS  Intersection Delay, s/veh / LOS  ■ EB WB NB SB  ■ MB NB SB  ■ MB NB NB SB  ■ MB NB							-			-				-		-
B   C   B   B   B   D   D   D   D   D   D   D					_	_		_		-	-	-	-	_	_	-
Approach Delay, s/veh / LOS  19.6 B 15.7 B 49.1 D 169.0 F  Intersection Delay, s/veh / LOS  Multimodal Results  EB WB NB SB  Pedestrian LOS Score / LOS  2.9 C 2.9 C 3.1 C 3.0 C					_	_	_	_	_	_			_		-	
Intersection Delay, s/veh / LOS			Marine of the Control			_		_		_		_			_	_
Multimodal Results         EB         WB         NB         SB           Pedestrian LOS Score / LOS         2.9         C         2.9         C         3.1         C         3.0         C		-			19.6					R	49.1				U	-
Multimodal Results         EB         WB         NB         SB           Pedestrian LOS Score / LOS         2.9         C         2.9         C         3.1         C         3.0         C	intersection De	ay, s/ve	The second secon	385		100	0	J.3	(F. 2.1.)	12-11-11	100	10-5	1			
Pedestrian LOS Score / LOS         2.9         C         2.9         C         3.1         C         3.0         C	Multimodal Re	sults			A ST.	EB		-	WB		-	NB	- Secretary		SB	
		-	/LOS		2.9	_	С	2.9	T	C	3.1		С	3.0	_	С
						_			_						_	_

### **HCS7 Signalized Intersection Results Summary** Intersection Information 14444 General Information JIII Duration, h 0.25 Agency KHR Associates Other Analysis Date 8/1/2016 Area Type Analyst PHF 0.90 Jurisdiction Torrance California Time Period 1>7:30 **Analysis Period** Urban Street Palos Verdes Drive North Analysis Year 2016 Hawthorne Boulevard File Name 12-Hawthorne-PVD Exist PM.xus Intersection **Project Description Demand Information** FB WB NB SB T R T R T L T R L L L R Approach Movement 24 707 232 138 1050 313 227 347 133 197 397 23 Demand (v), veh/h Signal Information Л 2 120.0 Reference Phase Cycle, s 0 Reference Point Offset, s End 16.0 Green 3.5 2.4 63.9 18.2 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 0.0 4.0 4.0 0.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red EBL WBL **WBT NBL** NBT SBI **Timer Results EBT** SBT 5 2 6 3 8 7 1 4 **Assigned Phase** 3.0 1.1 3.0 2.0 3.0 1.1 3.0 1.1 Case Number 70.3 67.9 10.0 20.0 22.2 20.0 22.2 7.5 Phase Duration, s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Change Period, (Y+Rc), s 0.0 3.0 3.0 0.0 3.0 3.0 3.0 3.0 Max Allow Headway (MAH), s 16.2 14.4 16.6 2.8 4.3 16.4 Queue Clearance Time (gs), s 1.9 0.0 Green Extension Time ( g e ), s 0.0 0.0 0.3 0.0 0.0 1.8 1.00 0.99 1.00 1.00 1.00 0.59 Phase Call Probability 0.00 0.00 1.00 0.03 1.00 0.06 Max Out Probability WB NB SB EB **Movement Group Results** L Т R L T R L Т R L T R Approach Movement 5 2 12 1 6 16 3 8 18 7 4 14 **Assigned Movement** 27 786 258 153 1167 348 252 386 148 219 441 26 Adjusted Flow Rate (v), veh/h 1781 1781 1753 1752 1608 1702 1752 1608 1781 1781 1607 1579 Adjusted Saturation Flow Rate (s), veh/h/ln 16.2 10.7 2.3 26.8 14.8 14.2 12.4 10.3 14.6 14.4 1.7 Queue Service Time (gs), s 8.0 2.3 26.8 14.2 Cycle Queue Clearance Time (gc), s 0.8 16.2 10.7 14.8 12.4 10.3 14.6 14.4 1.7 0.55 0.28 0.13 0.53 0.59 0.55 0.15 0.15 0.15 0.56 0.53 0.15 Green Ratio (g/C) 888 260 1865 856 827 1936 312 539 243 238 539 239 Capacity (c), veh/h 0.103 0.421 0.301 0.185 0.603 0.391 0.809 0.715 0.607 0.922 0.818 0.107 Volume-to-Capacity Ratio (X) 7.8 162 97.6 21.3 266 133.9 181.5 137 102.1 222.6 163.8 16.4 Back of Queue (Q), ft/ln (50 th percentile) 0.3 6.3 3.9 0.8 10.3 5.4 7.1 5.4 4.1 8.8 6.4 0.6 Back of Queue (Q), veh/ln (50 th percentile) 0.07 0.89 0.46 0.91 0.69 0.52 0.74 0.55 0.03 0.54 0.34 0.05 Queue Storage Ratio (RQ) (50 th percentile) 18.0 47.6 Uniform Delay (d1), s/veh 14.8 16.9 15.6 12.1 15.3 37.1 48.4 51.4 49.3 43.9 0.1 0.7 0.9 0.0 1.4 1.3 13.7 0.7 0.9 37.1 3.1 0.1 Incremental Delay (d2), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Queue Delay (d3), s/veh 17.6 16.5 12.1 19.4 16.6 50.8 49.1 48.5 88.5 52.4 44.0 14.8 Control Delay (d), s/veh В В В В В В D D F D D D Level of Service (LOS) 18.2 63.6 17.3 В B 49.5 D Ε Approach Delay, s/veh / LOS Intersection Delay, s/veh / LOS 31.2 C

Multimodal Results	EB		WB		N	IB	SB		
Pedestrian LOS Score / LOS	2.9	С	2.9 C		3.1	С	3.0	С	
Bicycle LOS Score / LOS	1.4	Α	1.9	В	1.1	Α	1.1	Α	

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General Inform	mation	Towns and the second							Intersed		_		_	111	
Agency		KHR Associates		_		127272			Duration		0.25				
Analyst				-	sis Date	8/1/20	016		Area Ty	ре	Othe				*
Jurisdiction		Torrance California			Period	-			PHF		0.90		_ <del>2</del>	w∳e	~
Urban Street		Crenshaw Bouleva		-	sis Year	_		-	Analysis		1> 7	:30	7		
Intersection Palos Verdes Dr North			File N	ame	13-Cr	enshaw	-PVD	Exist AM	.xus			_	111	r	
Project Descrip	otion													ነ 4 ነ 4 ሃ	111
					50		1000	14/			AUD			OP	
Demand Infor				-	EB	T 5	-	W		-	NB	_		SB	T =
Approach Mov	-			L	T	R	L	T		L	T	R	L	T	R
Demand (v), v	/eh/h		-	98	831	459	54	69	5 285	465	416	100	388	411	56
Signal Informa	ation		1	all man		Name of Street	41.0	R I	-	3/20					
Cycle, s	120.0	Reference Phase	2	-	120	-13	7	Ħ	2 60				4	1	4
Offset, s	0	Reference Point	End			3	7		1 9	11 1	=19	1 1	Y 2	13	
Uncoordinated	No	Simult. Gap E/W	On	Green		0.7	63.2				18	4	4		
Force Mode	Fixed	Simult. Gap L/W	On	Yellow	0.0	0.0	0.0	0.0	_	0.0	100		6	7	Y
Force wode	rixeu	Simult. Gap N/S	OII	rteu	0.0	0.0	0.0	10.0	10.0	0.0	1,				
Timer Results		EB		EBT	WB	L	WBT	NB		NBT	SB	L	SBT		
Assigned Phase		5		2	1		6	3		8	7		4		
Case Number		1.1		4.0	1.1		4.0	1.1		3.0	2.0		3.0		
Phase Duration, s		9.8	- 6	37.8	9.2		67.2	20.0		23.0	20.0	0	23.0		
Change Period	, (Y+R	c), S		4.0	4.0		4.0		4.0	4.0	4.0		4.0		4.0
Max Allow Hea	-			3.0	-	0.0	3.0		0.0	3.0		3.0	3.0		3.0
Queue Clearan				3.7			2.9			18.0	)	17.1	18.0	0	16.9
Green Extension				0.2		0.0	0.1		0.0	0.0		1.9	0.0		1.9
Phase Call Pro	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			0.97			0.86			1.00	1.00		1.00		1.00
Max Out Proba				0.00			0.00	0		1.00	)	0.10	1.00	0	0.10
								100		1	- 30			2000	
Movement Gro	oup Res	sults			EB			WB			NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	ement			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow	Rate (v	), veh/h		109	753	681	60	573	516	517	462	111	431	457	62
Adjusted Satur	ation Flo	ow Rate ( s ), veh/h/l	n	1702	1841	1621	1702	1841	_	1781	1781	1607	1781	1781	1579
Queue Service	Time (	g s ), s		1.7	38.8	40.7	0.9	25.7	_	16.0	15.1	7.5	16.0	14.9	4.1
Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		1.7	38.8	40.7	0.9	25.7	25.7	16.0	15.1	7.5	16.0	14.9	4.1
Green Ratio ( g	7/C)			0.58	0.53	0.53	0.57	0.53	0.53	0.29	0.16	0.16	0.13	0.16	0.16
Capacity (c),	/eh/h			604	979	862	397	969	872	314	563	254	238	563	250
Volume-to-Cap	acity Ra	atio (X)		0.180	0.769	0.790	0.151	0.591	0.592	1.645	0.821	0.437	1.815	0.811	0.249
Back of Queue	(Q), ft	/In (50 th percentile)		15.4	436.5	397.2	8.6	281.1	247.2	868.4	172.6	73.9	818.1	169.6	40.6
Back of Queue	(Q), ve	eh/ln (50 th percenti	le)	0.6	16.9	15.9	0.3	10.9	9.9	34.2	6.8	3.0	32.2	6.7	1.6
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.05	1.45	1.37	0.03	0.94	0.85	4.34	0.86	0.38	2.73	0.57	0.14
The state of the s			440	20.0	00.7	40.0	40.5	40.5	00.5	40.0	45.7	50.0	40.0	440	

2.9

14.3

0.1

0.0

14.3

В

27.9

2.9

1.8

22.2

5.8

0.0

28.0

C

EB

22.7

7.3

0.0

29.9

C

103.5

C

С

В

19.3

0.1

0.0

19.4

В

22.2

19.5

2.6

0.0

22.2

С

WB

19.5

2.9

0.0

22.5

C

C

39.5

304.4

0.0

343.9

F

190.0

3.0

1.4

48.9

3.7

0.0

52.5

D

NB

45.7

0.4

0.0

46.1

D

F

C

Α

52.0

383.0

0.0

435.0

F

225.3

3.0

1.3

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48.8

3.3

0.0

52.1

D

SB

44.3

0.2

0.0

44.5

D

F

C

C

Uniform Delay ( d 1 ), s/veh

Control Delay (d), s/veh

Approach Delay, s/veh / LOS

Pedestrian LOS Score / LOS

Bicycle LOS Score / LOS

Intersection Delay, s/veh / LOS

Level of Service (LOS)

**Multimodal Results** 

Incremental Delay ( d 2 ), s/veh

Initial Queue Delay ( d 3 ), s/veh

### **HCS7 Signalized Intersection Results Summary** 1414717 Intersection Information **General Information** 0.25 Duration, h Agency KHR Associates Analysis Date 8/1/2016 Area Type Other Analyst PHF 0.90 Time Period Jurisdiction Torrance California Analysis Period 1> 7:30 Analysis Year |2016 Crenshaw Boulevard **Urban Street** Palos Verdes Dr North File Name 13-Crenshaw-PVD Exist PM.xus Intersection **Project Description** WB NB SB EB **Demand Information** R L Т R L R L T R T L Approach Movement 244 487 358 64 354 362 53 47 765 294 114 745 Demand (v), veh/h Signal Information Reference Phase 120.0 Cycle, s 54 Offset, s 0 Reference Point End 16.0 16.9 0.0 Green 4.9 1.0 65.2 Uncoordinated Simult. Gap E/W On No 0.0 4.0 4.0 Yellow 4.0 0.0 4.0 0.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 **NBT** SBL WBL WBT NBL SBT **EBL EBT Timer Results** 1 6 3 8 7 4 2 Assigned Phase 5 4.0 3.0 2.0 3.0 4.0 1.1 1.1 Case Number 1.1 70.2 20.0 20.9 20.0 20.9 9.9 8.9 69.2 Phase Duration, s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Change Period, (Y+Rc), s 3.0 3.0 3.0 3.0 3.0 0.0 3.0 0.0 Max Allow Headway (MAH), s 2.8 3.9 18.0 15.0 18.0 15.1 Queue Clearance Time (gs), s 0.2 0.0 0.0 1.7 0.0 1.7 0.0 0.1 Green Extension Time $(g_e)$ , s 0.99 1.00 1.00 1.00 1.00 0.82 Phase Call Probability 0.03 1.00 0.00 1.00 0.03 0.00 Max Out Probability WB NB SB EB **Movement Group Results** R L R R T T L T R L T L Approach Movement 18 7 2 12 1 6 16 3 8 4 14 5 Assigned Movement 393 402 52 617 560 127 574 525 541 398 71 59 Adjusted Flow Rate (v), veh/h 1683 1781 1781 1607 1781 1781 1702 1841 1578 1702 1841 1665 Adjusted Saturation Flow Rate (s), veh/h/ln 24.4 16.0 13.0 4.8 16.0 13.1 4.0 0.8 27.6 27.8 1.9 24.4 Queue Service Time (gs), s 24.4 13.0 4.8 16.0 27.6 27.8 1.9 24.4 16.0 13.1 4.0 Cycle Queue Clearance Time (gc), s 0.8 0.14 0.13 0.14 0.54 0.59 0.55 0.55 0.27 0.14 0.14 0.58 0.54 Green Ratio (g/C) 238 581 1015 929 312 500 226 500 222 595 1001 905 Capacity (c), veh/h 0.218 0.565 0.566 1.737 0.795 0.315 1.656 0.804 0.266 0.088 0.616 0.619 Volume-to-Capacity Ratio (X) Back of Queue (Q), ft/ln (50 th percentile) 7 299.2 265.7 17 261.6 233.8 955.6 145.2 47.1 701.3 147.6 39.3 1.9 11.6 10.6 0.7 10.1 9.4 37.6 5.7 27.6 5.8 1.5 Back of Queue (Q), veh/ln (50 th percentile) 0.3 0.02 1.00 0.91 0.06 0.87 0.80 4.78 0.73 0.24 2.34 0.49 0.13 Queue Storage Ratio (RQ) (50 th percentile) 14.0 17.5 17.5 41.0 49.9 46.4 52.0 50.0 46.0 18.8 Uniform Delay (d1), s/veh 13.3 18.8 2.3 1.5 0.3 313.3 1.7 0.0 3.2 0.1 2.5 344.5 0.2 2.8 Incremental Delay ( d 2 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Queue Delay (d3), s/veh 46.7 22.0 19.8 20.0 385.6 51.4 365.3 51.7 46.3 13.4 21.6 14.1 Control Delay (d), s/veh В F D D F D В C C C Level of Service (LOS) 19.3 F 195.7 21.5 C B 230.1 F Approach Delay, s/veh / LOS 104.1 F Intersection Delay, s/veh / LOS

WB

C

A

2.9

1.5

EB

2.9

1.5

C

В

3.0

1.2

SB

C

NB

3.0

1.3

C

A

**Multimodal Results** 

Pedestrian LOS Score / LOS

Bicycle LOS Score / LOS

		HCS	7 Sig	nalize	d Inte	ersec	tion F	Resul	ts Sur	nmar	y				
1 804 5 E S 1 Bac			والمالية	الله ال			E Ma		ntoreoc	tion Inf	ormatic	on.	-	141441	FU
General Information								_	Intersection Information  Duration, h 0.25					* [	
Agency KHR Associates			1	. 5 .	04400	110	_								
Analyst						8/1/20	016		Area Typ	е	Other				~
Jurisdiction		Torrance California		Time F		-			PHF		0.90	00		5	
Urban Street		Rolling Hills Road			is Year	_			Analysis	-	1> 7:	30	-3		
Intersection		Palos Verdes Dr No	orth	File Na	ame	14-Ro	Iling Hil	ls-PVD	Exist Al	M.xus				ጎተሰ	
Project Descript	tion				- CATH	15 45				10 - II	10000	5 70	NAME OF TAXABLE PARTY.	ነ 4 1 ቀ ም	P C
Demand Inform	nation		-		EB		1	WB	3		NB			SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), v			-	29	54	51	187	59	_	62	846	_	28	887	13
Demand (V), V	en/m	THE RESERVE	1000	20			101			-			100	SEC.	SIL
Signal Informa	tion					1 5									I
Cycle, s	90.0	Reference Phase	2	1	76	- 2			12		<b>K</b>		0	1	4
Offset, s	0	Reference Point	End			0.7	14.0	00.0	100.0	0.0		1	7 2	1 3	
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		3.7	4.0	26.0 4.0	26.0	0.0		7	<del>}</del>		rt
	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	Y
Force Mode	Tixeu	Oliniali. Gap 14/5	Oil	, tou	10.0			10.0		QUE BY		721			
Timer Results				EBL		EBT	WB		WBT	NBL		NBT	SB		SBT
Assigned Phase	9			5		2	1		6			8			4
Case Number				1.1		3.0	1.1		3.0			9.0			10.0
Phase Duration, s			7.3		15.0	15.0		22.7			30.0			30.0	
Change Period, ( Y+R c ), s			4.0	_	4.0	4.0		4.0		4.0				4.0	
Max Allow Headway ( MAH ), s			3.0	-	0.0			0.0			3.0		2		
Queue Clearance Time ( g s ), s			3.4		0.0	10.9	_			28.0				28.0	
			0.0		0.0	0.2	-	0.0		_	0.0	-	_	0.0	
Green Extension Time ( g e ), s			0.55	_	0.0	0.99	_	0.0		_	1.00		_	1.00	
Phase Call Probability			0.00			0.12	_		-		1.00		_	1.00	
Max Out Probat	oility			0.00		(C. C.)	0.12	E SEE	A	25,50	Name of	1.00	TO BE	-	1.00
Movement Gro	up Res	sults			EB			WB			NB			SB	
Approach Move				L	T	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	_	) veh/h		32	60	57	208	66	37	69	940	232	31	1000	
		ow Rate (s), veh/h/l	In	1753	1841	1597	1753	1841	1602	1781	1870	1607	1781	1865	
Queue Service				1.4	2.7	2.9	8.9	2.6	1.7	2.6	26.0	10.8	1.1	26.0	
Cycle Queue C				1.4	2.7	2.9	8.9	2.6	1.7	2.6	26.0	10.8	1.1	26.0	
Green Ratio (g	_	(9 0 /10		0.16	0.12	0.12	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity (c), v	-			306	226	196	417	382	333	515	540	464	515	539	
Volume-to-Capa	and the latest device the latest devices the latest	atio (X)		0.105	0.266		0.499	0.172	-	0.134	1.740	0.500	0.060	1.856	
	_	/In (50 th percentile)	)	14.9	34	32	90.7	31.1	16.8	26	1572.	97.4	11.5	1764.4	
					4.0	4.0	0.5	10	0.7	10	6	20	0.5	60.5	
		eh/ln (50 th percent		0.6	1.3	1.3	3.5 0.30	0.10	0.7	0.13	61.9 7.86	3.9 0.49	0.5	69.5 5.88	
		RQ) (50 th percent	tile)	0.05	0.11	0.11	27.6	29.3	28.9	23.7	32.0	26.6	23.2	32.0	
Uniform Delay (				0.1	2.9	3.7	0.3	1.0	0.7	0.0	340.5	0.3	0.0	392.1	
Initial Queue De	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
				32.4	38.7	39.6	27.9	30.3	29.6	23.7	372.5	26.9	23.2	424.1	
Control Delay (	-			C	D	D	C	C	C	C	F	C	C	F	
Level of Service				37.7		D	28.6		C	288.	_	F	412.		F
Approach Delay		NAME AND ADDRESS OF THE OWNER, TH		31.1			2.0		U	200.	_		F 412.		,
milersection De	iay, S/V	EII / LOS	To the	1000	Fee	- Lo	CONTR	481	3 000	2550		6 93 7	1	18 34	
		Haller & P. L. Street, b.		The same of	ED			WB			NB			SB	
Multimodal Re	sults				EB			VVD			IND			OD	
Multimodal Re		/LOS		2.5	_	В	2.3		В	2.5	_	В	2.4		В

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		HCS	7 Sig	nalize	ed In	tersec	tion F	Resu	lts Su	mmar	У				
Add to the second									- 1-5/1	- 1000	1915		The same		and the
General Information									Intersec			∳ ( নৰ\স্কা	1 L		
Agency KHR Associates							_	Duration				- 2			
Analyst			Analysis Date 8/1			016	_	Area Typ	ре	Othe	r			K_	
Jurisdiction Torrance California			-	Period	_		_	PHF		0.90			w fe	¥ _	
Urban Street		Rolling Hills Road		_	sis Yea	_		_	Analysis		1> 7:	30	7		
Intersection		Palos Verdes Dr No	orth	File Na	ame	14-R	olling Hi	lls-PVD	Exist P	M.xus				ጎ † ሶ	
Project Descrip	tion		1000				1 5 5 5		7 2 2					ነ 4 በቀጥ	14
Demand Inform	nation		la constitution of the con		EB			WE	3		NB			SB	
Approach Move	ment			L	T	R	L	Т	R	L	T	R	L	T	R
Demand (v), v				22	47	78	644	56	25	33	829	221	5	679	11
							To Carlo							A LINE	
Signal Informa	-			-	2	7	∃.,	胃型	N			/	7	~	人
Cycle, s	90.0	Reference Phase	2	-	F 1	2		5	171				<b>♦</b> 2	3	
Offset, s	0	Reference Point	End	Green	2.7	9.3	6.0	26.0					_	TO THE	- 10
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	4.0	0.0				1	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
Timer Results			3105	EBL		EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9			5		2	1		6			8			4
Case Number				1.1		3.0	1.1		3.0			9.0			10.0
Phase Duration, s			6.7		10.0	20.0	0	23.3			30.0			30.0	
Change Period, ( Y+R c ), s			4.0		4.0	4.0		4.0			4.0			4.0	
Max Allow Headway ( MAH ), s			3.0	_	0.0	3.0		0.0			3.0			2.9	
Queue Clearance Time ( g s ), s			3.1			18.0	_				28.0			28.0	
Green Extension Time ( $g \circ )$ , s		0.0		0.0	0.0	-	0.0			0.0			0.0		
Phase Call Probability		0.46	_	0.0	1.00	_				1.00			1.00		
Max Out Probability			0.00			1.00	_			_	1.00			1.00	
NAME OF STREET				E RE	EL &		Service .			Sec. 1		TEST.	-		T.
Movement Gro	-	ults		-	EB	1 5	-	WB	I D	-	NB			SB	
Approach Move	-			L	T	R	L	T	R	L	T	R	7	T	R
Assigned Move				5	2	12	740	6	16	3	8	18	-	4	14
Adjusted Flow F		The second secon		24	52	87	716	62	28	37	921	246	6	767	-
		ow Rate (s), veh/h/lr	n	1753	1841	-	1753	1841	1603	1781	1870	1607	1781	1865	-
Queue Service				1.1	2.5	4.9	16.0	2.5	1.2	1.3	26.0	11.5	0.2	26.0	
Cycle Queue Cl		e Time ( <i>g c</i> ), s		1.1	2.5	4.9	16.0	2.5	1.2	1.3	26.0	11.5	0.2	26.0	
Green Ratio ( g				0.10	0.07	0.07	0.27	0.21 394	0.21 343	0.29 515	0.29 540	0.29	0.29 515	0.29	
Capacity (c), v	_			221	123	106	444	-	-	_	1.705		_	-	
Volume-to-Capa				0.110	0.426	_	1.611 952.9	0.158 29.1	0.081	0.071	1513.	0.529	0.011	1.423	
Back of Queue	(Q), tt/	/In (50 th percentile)		12.3	36.5	80.9	952.9	29.1	12.5	13.0	5	104.9	2	1037.6	
Back of Queue	( Q ), ve	eh/In ( 50 th percentil	le)	0.5	1.4	3.2	36.9	1.1	0.5	0.5	59.6	4.2	0.1	40.9	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.04	0.12	0.28	3.18	0.10	0.04	0.07	7.57	0.53	0.01	3.46	
Uniform Delay (	d 1), s	/veh		37.2	40.3	_	33.6	28.8	28.3	23.2	32.0	26.9	22.8	32.0	
Incremental Del	ay ( d 2	), s/veh		0.1	10.4	_	285.4	0.9	0.5	0.0	325.0	0.6	0.0	201.0	
Initial Queue De	elay ( d	з), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	d), s/ve	eh		37.3	50.8	89.9	318.9	29.6	28.8	23.3	357.0	27.4	22.8	233.0	
Level of Service	(LOS)			D	D	F	F	С	C	С	F	С	С	F	
Approach Delay	, s/veh	/LOS		69.5	,	Е	286.	6	F	279.	6	F	231.	5	F
Intersection Del	ay, s/ve	h / LOS				25	7.2						F		
Multimodal Re	culte	是是在4年上海。		P. P. L.	EB	-		WB	- 2-2		NB	36	1.12.1	SB	Sent.
WILLIAM COM RE	อนเเอ				_	_	-	_	_	-	_	-	-		_
Pedestrian LOS	Score	LIOS		2.5		В	2.3		В	2.5		В	2.4		В

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_\_\_\_\_

Analyst:

Agency/Co.:

KHR Associates

Date Performed:

11/15/17

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_

| Eastbound | Westbound | Northbound | Southbound | |L T R |L T R |L T R 277 137 |0 350 94 1131 0 173 % Thrus Left Lane

Westbound Northbound Southbound Eastbound L1 L2 L1 L2 L1 L2 L1 L2 L TR Configuration 1.00 1.00 1.00 1.00 1.00 PHF 73 137 0 0 444 131 277 Flow Rate 0 0 0 % Heavy Veh 2 1 2 No. Lanes 1 2 0 Opposing-Lanes 2 2 2 Conflicting-lanes 5 1 3b Geometry group Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet\_\_\_\_

	Eastbound		West	bound	North	bound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rates:							5.21		
Total in Lane			73	137	444		131	277	
Left-Turn			73	0	0		131	0	
Right-Turn			0	137	94		0	0	
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0	
Prop. Right-Turns			0.0	1.0	0.2		0.0	0.0	
Prop. Heavy Vehicle			0.0	0.0	0.0		0.0	0.0	
Geometry Group				1		3b		5	
Adjustments Exhibit	17-3	3:							
hLT-adj				0.2		0.2		0.5	

hRT-adj hHV-adj hadj, computed  $\begin{array}{cccc}
-0.6 & & -0.6 \\
1.7 & & 1.7 \\
0.2 & -0.6 & -0.1
\end{array}$ 

-0.7 1.7 0.5 0.0

Worksheet 4 - Departure Headway and Service Time\_\_\_\_\_

	Eastbound		Westb	ound	North	bound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate			73	137	444		131	277	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial			0.06	0.12	0.39		0.12	0.25	
hd, final value			6.16	5.35	5.28		6.10	5.59	
x, final value			0.125	0.204	0.651		0.222	0.430	
Move-up time, m			2	.0		2.0	2	. 3	
Service Time			4.2	3.4	3.3		3.8	3.3	

Worksheet 5 - Capacity and Level of Service\_\_\_\_\_

astbound	Westb	ound	Northk	ound	Southbound		
1 L2	L1	L2	L1	L2	L1	L2	
	73	137	444		131	277	
	4.2	3.4	3.3		3.8	3.3	
	0.125	0.204	0.651		0.222	0.430	
	6.16	5.35	5.28		6.10	5.59	
Dep. headway, hd Capacity					595	644	
95% Queue Length					0.9	2.2	
	10.0+	9.7	18.0		10.5	12.5	
	В	A	C		В	В	
Approach: Delay			18.0		1	11.9	
LOS					В	3	
Intersection Delay 14.0			Intersection LOS B				
		1 L2 L1  73 4.2 0.125 6.16 608 0.4 10.0+ B	1 L2 L1 L2  73 137 4.2 3.4 0.125 0.204 6.16 5.35 608 685 0.4 0.8 10.0+ 9.7 B A	1 L2 L1 L2 L1  73 137 444  4.2 3.4 3.3  0.125 0.204 0.651  6.16 5.35 5.28  608 685 683  0.4 0.8 5.4  10.0+ 9.7 18.0  B A C	1 L2 L1 L2 L1 L2  73 137 444 4.2 3.4 3.3 0.125 0.204 0.651 6.16 5.35 5.28 608 685 683 0.4 0.8 5.4 10.0+ 9.7 18.0 B A C	1 L2 L1 L2 L1 L2 L1  73 137 444 131 4.2 3.4 3.3 3.8 0.125 0.204 0.651 0.222 6.16 5.35 5.28 6.10 608 685 683 595 0.4 0.8 5.4 0.9 10.0+ 9.7 18.0 10.5 B A C B	1 L2 L1 L2 L1 L2 L1 L2  73 137 444 131 277 4.2 3.4 3.3 3.8 3.3 0.125 0.204 0.651 0.222 0.430 6.16 5.35 5.28 6.10 5.59 608 685 683 595 644 0.4 0.8 5.4 0.9 2.2 10.0+ 9.7 18.0 10.5 12.5 B A C B B  9.8 18.0 11.9 A C B

EX IST PM

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_

Analyst:

Agency/Co.: KHR Associates

Date Performed: 11/15/17

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_\_

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | L T R | Volume | 0 0 0 | 60 330 60 | 60 304 46 | 88 330 0 | % Thrus Left Lane

	East	bound	West	bound	North	oound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	T
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			60	60	350		88	330
% Heavy Veh			0	0	0		0	0
No. Lanes				2		1		2
Opposing-Lanes				0	2	2	13	1
Conflicting-lanes			10.3	2	2	2	1.73	2
Geometry group				1		3b		5
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet\_\_\_\_\_

East	oound	West	bound	North	bound	South	bound
L1	L2	L1	L2	L1	L2	L1	L2
		60	60	350		88	330
		60	0	0		88	0
		0	60	46		0	0
		1.0	0.0	0.0		1.0	0.0
		0.0	1.0	0.1		0.0	0.0
		0.0	0.0	0.0		0.0	0.0
			1		3b		5
17-3	3:						
			0.2		0.2		0.5
	L1		L1 L2 L1  60 60 0 1.0 0.0 0.0	L1 L2 L1 L2  60 60 60 0 0 60 1.0 0.0 0.0 1.0 0.0 0.0 17-33:	L1 L2 L1 L2 L1  60 60 350 60 0 0 0 60 46 1.0 0.0 0.0 0.0 1.0 0.1 0.0 0.0 0.0	L1 L2 L1 L2 L1 L2  60 60 350 60 0 0 0 60 46 1.0 0.0 0.0 0.0 1.0 0.1 0.0 0.0 0.0 1 3b	L1 L2 L1 L2 L1 L2 L1  60 60 350 88 60 0 0 88 0 60 46 0 1.0 0.0 0.0 1.0 0.0 1.0 0.1 0.0 0.0 0.0 0.0 1.0 1 3b

hRT-adj hHV-adj hadj, computed

-0.6 1.7 0.2 -0.6 -0.1

-0.6 1.7

-0.7 1.7 0.5 0.0

Worksheet 4 - D	eparture Headway	and	Service	Time_
-----------------	------------------	-----	---------	-------

	East	oound	Westb	ound	North	oound	Southb	ound
	L1	L2	L1	L2	L1 350	L2	L1 88	L2 330
Flow rate hd, initial value	3.20	3.20	60 3.20	60 3.20	3.20	3.20	3.20	3.20
x, initial	3.20	3.20	0.05	0.05	0.31		0.08	0.29
hd, final value			5.89	5.09	5.04		5.67	5.17
x, final value			0.098	0.085	0.490	2.0	0.139	.3
Move-up time, m Service Time			3.9	3.1	3.0		3.4	2.9

Worksheet 5 - Capacity and Level of Service\_

	East	oound	Westb	ound	North	oound	Southb	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate			60	60	350		88	330	
Service Time			3.9	3.1	3.0		3.4	2.9	
Utilization, x			0.098	0.085	0.490		0.139	0.474	
Dep. headway, hd			5.89	5.09	5.04		5.67	5.17	
Capacity			600	750	714		629	702	
95% Queue Length			0.3	0.3	2.8		0.5	2.7	
Delay			9.5	8.6	12.9		9.3	12.5	
LOS			A	A	В		A	В	
Approach:						12.9	1	1.8	
Delay				0.0		12.9 B	E	3-2	
LOS			P		** ACCC 13	В	L	)	
Intersection Delay	11.8		Inte	ersection	n LOS B				



Phone:

Fax:

E-Mail:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_\_\_

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics\_

Eastbound Westbound Northbound
L1 L2 L1 L2 L1 L2

Configuration LTR

LTR LTR L TR LTR Configuration 1.00 1.00 1.00 1.00 PHF 1.00 60 125 Flow Rate 291 364 265 0 0 0 % Heavy Veh 0 1 1 No. Lanes 1 2 1 1 Opposing-Lanes 1 2 1 Conflicting-lanes 2 4a Geometry group

Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet\_\_\_\_\_

	Eastb	ound	Westbound	Northbound	South	bound
	L1	L2	L1 L2	L1 L2	L1	L2
Flow Rates:						
Total in Lane	291		364	265	60	125
Left-Turn	77		41	71	60	0
Right-Turn	75		141	19	0	33
-	0.3		0.1	0.3	1.0	0.0
Prop. Right-Turns	0.3		0.4	0.1	0.0	0.3
Prop. Heavy Vehicl			0.0	0.0	0.0	0.0
Geometry Group	2		2	4 a		5
Adjustments Exhibi	t 17-33	:				
hLT-adi		. 2	0.2	0.2		0.5



Southbound L1 L2

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.1	-0.2	0.0	0.5 -0.2

Worksheet	4	_	Departure	Headway	and	Service	Time	
WOLKSHEEL	4	_	Departure	neauway	anu	DETATOR	TILL	

	Eastl	oound	West	bound	North	bound	Southb	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate	291		364		265		60	125	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.26		0.32		0.24		0.05	0.11	
hd, final value	6.01		5.77		6.44		7.56	6.86	
x, final value	0.486		0.583		0.474		0.126	0.238	
Move-up time, m	2	2.0		2.0		2.0	2	. 3	
Service Time	4.0		3.8		4.4		5.3	4.6	

\_Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Eastk	oound	West	bound	North	bound	Southk	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	291		364		265		60	125	
Service Time	4.0		3.8		4.4		5.3	4.6	
Utilization, x	0.486		0.583		0.474		0.126	0.238	
Dep. headway, hd	6.01		5.77		6.44		7.56	6.86	
Capacity	594		628		564		462	521	
95% Queue Length	2.8		4.1		2.7		0.4	0.9	
Delay	14.7		16.8		15.2		11.4	11.7	
LOS	В		C		C		В	В	
Approach:									
Delay	1	14.7		16.8		15.2	1	1.6	
LOS	E	3	100	C		C	В	}	
Intersection Delay	y 15.0-		Int	ersectio	on LOS B				

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Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 4:00 - 5:00 P.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics\_

| Southbound | Eastbound | Westbound | Northbound I L T R | L T T R L 207 110 145 15 163 162 136 69 139 Volume

% Thrus Left Lane

	Eastb	ound	West	oound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	121		312		170		63	214
% Heavy Veh	0		0		0		0	0
No. Lanes	1			1		1	2	2
Opposing-Lanes	1			1	113	2	1	1
Conflicting-lanes	2		2	2		1	10	1
Geometry group	2		2	2		4a	1	5
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet\_\_

	Eastbou	ind	Westbou	nd No:	rthbound	South	bound
	L1	L2	L1	L2 L	1 L2	L1	L2
Flow Rates:							
Total in Lane	121		312	17	0	63	214
Left-Turn	39		36	10		63	0
Right-Turn	10		207	15		0	52
Prop. Left-Turns	0.3		0.1	0.	1	1.0	0.0
	0.1		0.7	0.	1	0.0	0.2
Prop. Heavy Vehicl			0.0	0.	0	0.0	0.0
Geometry Group	2		2		4a		5
Adjustments Exhibi	t 17-33:						20.02
hLT-adj	0.2	2	0.2		0.2		0.5



hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	-0.4	-0.0	0.5 -0.2

Worksheet 4	-	Departure	Headway	and	Service	Time
-------------	---	-----------	---------	-----	---------	------

	East	Eastbound		bound	North	bound	ound Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate	121		312		170		63	214	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.11		0.28		0.15		0.06	0.19	
hd, final value	5.67		4.97		5.61		6.43	5.75	
x, final value	0.191		0.431		0.265		0.113	0.342	
Move-up time, m	2.0		2.0		2.0		2	.3	
Service Time	3.7		3.0		3.6		4.1	3.5	

Worksheet 5 - Capacity and Level of Service\_

	Eastb	ound	West	oound	North	oound	Southb	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	121		312		170		63	214	
Service Time	3.7		3.0		3.6		4.1	3.5	
Utilization, x	0.191		0.431		0.265		0.113	0.342	
Dep. headway, hd	5.67		4.97		5.61		6.43	5.75	
Capacity	637		726		654		573	629	
95% Queue Length	0.7		2.2		1.1		0.4	1.5	
Delay	10.0+		11.7		10.6		9.9	11.4	
LOS	В		В	В		В		В	
Approach:									
Delay	10.0+		1	11.7	- 0	10.6	11.1		
LOS	В		I	3	1	3	В	3	
Intersection Delay	y 11.1		Inte	ersectio	on LOS B				

EXIST

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_\_

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour
East/West Street: Newton Street
North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_\_

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | Volume | 104 77 5 | 3 113 103 | 14 9 14 | 12 3 40 |

% Thrus Left Lane

	Easth	Eastbound		oound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	181	5	116	103	23	14	15	40
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes	2	2		2		2		2
Opposing-Lanes		2		2		2		2
Conflicting-lanes	2		2		2		2	
Geometry group	5			5		5		5
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet\_\_\_\_\_

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	181	5	116	103	23	14	15	40
Left-Turn	104	0	3	0	14	0	12	0
Right-Turn	0	5	0	103	0	14	0	40
Prop. Left-Turns	0.6	0.0	0.0	0.0	0.6	0.0	0.8	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl	e0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

hRT-adj		-0.7	4	0.7	-	0.7	-0.7			
hHV-adj		1.7		1.7		1.7	1.7			
hadi, computed	0.3	-0.7	0.0	-0.7	0.3	-0.7	0.4	-0.7		

\_\_Worksheet 4 - Departure Headway and Service Time\_\_

	Eastbound		Westb	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	181	5	116	103	23	14	15	40
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16	0.00	0.10	0.09	0.02	0.01	0.01	0.04
hd, final value	5.20	4.21	4.91	4.19	5.80	4.79	5.87	4.77
x, final value	0.261	0.006	0.158	0.120	0.037	0.019	0.024	0.053
Move-up time, m	2	. 3	2	.3	2	.3	2	. 3
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5

Worksheet 5 - Capacity and Level of Service\_\_\_\_\_

	Easth	ound	Westh	oound	Northb	ound	Southb	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	181	5	116	103	23	14	15	40	
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5	
Utilization, x	0.261	0.006	0.158	0.120	0.037	0.019	0.024	0.053	
Dep. headway, hd	5.20	4.21	4.91	4.19	5.80	4.79	5.87	4.77	
Capacity	696	500	725	858	575	700	750	800	
95% Queue Length	1.1	0.0	0.6	0.4	0.1	0.1	0.1	0.2	
Delay	9.7	6.9	8.5	7.5	8.7	7.6	8.7	7.7	
LOS	A	A	A	A	A	A	A	A	
Approach:									
Delay	9	9.7		3.0	8	.3	8	.0	
LOS	A		A	1	A		A		
Intersection Delay	8.7		Inte	ersection	LOS A				

EXIST

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_

	Ea	astbou	ind	I W	estbou	ind	l N	orthbo	ound	I S	outhb	ound	1
	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	153	116	12	15	142	15	116	18	2	- 37	16	150	=

% Thrus Left Lane

	East	Eastbound		bound	North	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	169	12	147	15	34	2	53	150
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes	1	2		2 2		2	2	
Opposing-Lanes	2	2	2		2		2	
Conflicting-lanes	2	2		2	2		2	
Geometry group	5		- 0	5	I	5		5
Duration, T 1.00	hrs.							

\_Worksheet 3 - Saturation Headway Adjustment Worksheet\_\_\_

	East	bound	West	bound	North	bound	South	bound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rates:									
Total in Lane	169	12	147	15	34	2	53	150	
Left-Turn	53	0	5	0	16	0	37	0	
Right-Turn	0	12	0	15	0	2	0	150	
Prop. Left-Turns	0.3	0.0	0.0	0.0	0.5	0.0	0.7	0.0	
	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	
Prop. Heavy Vehicl	Le0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Geometry Group 5 Adjustments Exhibit 17-33:		5		5		5		5	
hLT-adj		0.5		0.5		0.5		0.5	

hRT-adj	-0	. 7	-0	. 7	-0	. 7		. 7
hHV-adj		. 7	1	. 7		. 7		. 7
hadj, computed			0.0	-0.7	0.2	-0.7	0.3	-0.7
Wor	ksheet	4 - Depa	arture H	eadway a	and Serv	ice Time		
	Eastb	ound	Westb	ound	Northb	ound	Southb	ound
	L1		L1	L2	L1	L2	L1	L2
Flow rate		12				2		150
hd, initial value		3.20	3.20	3.20	3.20	3.20	3.20	
imitial	0 15	0.01	0.13	0.01	0.03	0.00	0.05	0.13
hd, final value	5 41	4.56	5.30	4.58	5.83	4.90	5.77	4.72
x, final value	0 254	0.015	0.216	0.019	0.055	0.003	0.085	0.197
Move-up time, m	0.231	3	2	.3	2	. 3	2	.3
Service Time	3 1	2.3	3.0	2.3	3.5		3.5	2.4
		5 - Cap	acity an	d Level	of Serv	rice		
		ound	Westb		Northb		Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	169	12	147	15	34	2	53	150
Service Time		2.3		2.3		2.6	3.5	2.4
Utilization, x				0.019			0.085	0.197
Dep. headway, hd	5 41	4.56		4.58			5.77	4.72
	676	600		750			663	750
Capacity 95% Queue Length		0.0	0.8			0.0	0.3	0.7
	10 0-	7.3	9.5	7.4				8.6
Delay	Α	Α	Α	A	A	A	A	A
LOS	A	17	1.1					

9.3

A A Intersection LOS A

9.8

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8.8

8.7

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Approach:

LOS

Delay

Intersection Delay 9.2

		HCS	7 Sig	naliz	ed Int	tersec	tion F	Resu	Its Su	mmar	у	COLUM			
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General Inforn	nation	luum						_			0.25	on	- 1	ĮΙζ	
Agency		KHR Associates	_	I A	-:- D-1	0/4/0	040	$\rightarrow$	Duration		_	_			
Analyst		- 0.07				e 8/1/2	016	_	Area Typ	oe	Othe	Г	4 7	w∱E	<b>→</b> [2]
Jurisdiction		Torrance California		-	Period	0040			PHF	Desiral	0.90	20	_ E	5	~
Urban Street		Pacific Coast Highv	vay	_	sis Yea	_	211.0.11		Analysis		1> 7:	30	_5		ŕ
Intersection		Calle Mayor		File N	ame	18-P	CH-Calle	е Маус	or Exist A	IVI.XUS			-	។† មានកាន់ក	ECHOL
Project Descrip	tion		3.75	F. 10 30	4.40	015100	200	-	T E IS	50 50		85.50			H II
Demand Inform	nation				EB	CS LUIS		W	3		NB		1	SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v				118	206	167	94	22	9 160	145	788	32	176	941	299
SOLE TO SE	133	The Revision			1012	OF LEE		-				1		171	O. P. Co
Signal Informa	tion				2	2			2 211		N I	_		K	
Cycle, s	90.0	Reference Phase	2		1	73		4		100	17	-	$\Leftrightarrow$		4
Offset, s	0	Reference Point	End	Green	5.6	1.0	25.5	6.9	1.1	33.9					
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0	_	4.0	142.00	/	7	1	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	ő	7	8
				ED	Sec.	EBT	WB	N.q.	WBT	NB	SERVICE SERVICE	NBT	SB	- Copie	SBT
Timer Results				EB 5	_	2	1	L	6	3	-	8	7	_	4
Assigned Phase Case Number	е			1.1		4.0	1.1		4.0	1.1		3.0	1.1		3.0
	hase Duration, s				3	30.5	9.6	_	29.5	10.9	_	37.9	12.		39.1
						4.0	4.0		4.0	4.0	$\rightarrow$	4.0	4.0	_	4.0
	nange Period, ( Y+R c), s ax Allow Headway ( MAH ), s				_	0.0	3.0	_	0.0	3.0	_	3.0	3.0	_	3.0
				3.0 6.7	$\rightarrow$	0.0	5.7	_	0.0	6.9	_	35.9	7.9	_	37.0
Queue Clearan				0.7	_	0.0	0.1	_	0.0	0.3	_	0.0	0.2	_	0.0
Green Extensio		( <i>g</i> <sub>e</sub> ), s		0.96	_	0.0	0.93	_	0.0	0.98	_	1.00	0.99	_	1.00
Phase Call Prol				0.00			0.00	_		0.00	_	1.00	0.00		1.00
Max Out Proba	Dility			0.00		200	0.00			0.00		1.00	0.00		1.00
Movement Gro	up Res	sults			EB			WB			NB	100000000000000000000000000000000000000		SB	
Approach Move	ement			L	Т	R	L	T	R	L	Т	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		131	219	196	104	227	205	161	876	36	196	1046	332
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	n	1753	1841	1567	1753	1841	1587	1781	1870	1609	1781	1870	1583
Queue Service	Time (	g s ), S		4.7	8.6	9.1	3.7	9.1	9.6	4.9	33.9	1.3	5.9	35.0	14.6
Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		4.7	8.6	9.1	3.7	9.1	9.6	4.9	33.9	1.3	5.9	35.0	14.6
Green Ratio ( g	/C)			0.36	0.29	0.29	0.34	0.28	0.28	0.45	0.38	0.38	0.47	0.39	0.39
Capacity (c), v	reh/h			374	541	461	352	521	449	217	705	606	240	728	616
Volume-to-Capa	acity Ra	atio (X)		0.350	0.404	0.425	0.297	0.437	0.456	0.742	1.243	0.059	0.815	1.436	0.539
Back of Queue	(Q), ft	In (50 th percentile)		46.3	98.9	88	37.1	106.1		48	946.4	11	58.7	1402.8	127.3
Back of Queue	(Q), ve	eh/In ( 50 th percenti	le)	1.8	3.8	3.5	1.4	4.1	3.8	1.9	37.3	0.4	2.3	55.2	5.0
		RQ) (50 th percent	ile)	0.15	0.33	0.30	0.12	0.35	0.33	0.24	4.73	0.06	0.20	4.68	0.42
Uniform Delay				20.8	25.4	25.6	21.2	26.4	26.6	21.1	28.0	17.9	20.8	27.5	21.2
Incremental De	_			0.2	2.2	2.9	0.2	2.6	3.3	1.9	121.0	0.0	2.6	203.9	0.5
Initial Queue De	THE RESERVE OF THE PERSON NAMED IN			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (				21.0	27.7	28.5	21.3	29.0	29.9	23.0	149.0	17.9	23.3	231.4	21.8
Level of Service				C	С	С	C 27.0	C	С	C	F	В	C	F	С
Approach Delay				26.4	+	C 11	27.9	9	С	125.	1	F	161.	3	F
Intersection De	iay, s/ve	eh / LOS	1		G 81	11	2.1	700	W 1 1 1 1		*	-	F		- 35
Multimodal Re	sulte				EB	Na ar All	121	WB			NB	-		SB	19
Pedestrian LOS		/LOS		2.4		В	2.4		В	2.8		С	2.8	_	С
Bicycle LOS Sc	-			0.9	_	Α	0.9		A	2.3	_	В	3.1	_	С
					_		_			_	-				

		HCS	7 Sig	nalize	d Inte	ersect	tion R	esul	ts Sur	nmar	y			200	8 7
									ntersec	tion Inf	ormatic	on		14 Y + 1	
General Inform	ation	liano A							Duration.		0.25			111	
Agency		KHR Associates		A a l	i- Data	0/4/20	16	_	Area Typ		Other		4		
Analyst		- 0 "				8/1/20	10	_	PHF	-	0.90		_ <u>-</u>		<b>★</b>
Jurisdiction		Torrance California		Time F	of State of	2016			Analysis	Dariod	1> 7:3	30	— ₹ ₹		~
Urban Street		Pacific Coast Highw	vay	Analys			II Calla	_	r Exist P	-	11-7.0	30	- 3	* * *	
Intersection		Calle Mayor		File Na	ame	18-PC	H-Calle	iviayo	EXIST	WI.XUS			-	111	t- C
Project Descrip	tion			100		6.33	100	50,50	A East	and the	4/4-	330	\$3.53		
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ment			L	Т	R	L	Т	R	L	T	R	L	T	R
Demand (v), v				118	231	225	56	141	133	190	1029	49	172	940	84
CALL TO								No.							
Signal Informa	tion				2		7 4	<u> </u>	v.	1	i i	_	7		人
Cycle, s	90.0	Reference Phase	2		- 6	R	<b>3</b> *	5	5	N W	17	1	$\Theta$	3	
Offset, s	0	Reference Point	End	Green	4.7	1.8	25.5	8.0	0.6	33.4	1		_		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0	0.0	4.0				1	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	4 8 7 7 7	5	6	7	8
Timer Results				EBL		EBT	WBI	-	WBT	NBI	N. C.	NBT	SBI		SBT
Assigned Phase				5	-	2	1		6	3		8	7		4
Case Number	=			1.1		4.0	1.1		4.0	1.1		3.0	1.1		3.0
	•			10.6	_	31.3	8.7		29.5	12.6	3	38.0	12.0		37.4
Phase Duration	nange Period, ( Y+R c ), s				_	4.0	4.0	_	4.0	4.0	_	4.0	4.0	_	4.0
	nange Period, ( $Y+R_c$ ), s ax Allow Headway ( $MAH$ ), s				_	0.0	3.0	_	0.0	3.0		2.9	3.0	_	2.9
Queue Clearan				3.0 6.7		0.0	4.2	_		8.5	_	36.0	7.8		35.3
Green Extension	-			0.1		0.0	0.0	_	0.0	0.2	_	0.0	0.2		0.0
	-	( <i>g e</i> ), s		0.96	_	0.0	0.79	_	0.0	0.99	_	1.00	0.99	_	1.00
Phase Call Pro Max Out Proba	_			0.00	_		0.00	_		0.01	_	1.00	0.00	_	1.00
Max Out Proba	Dility	S1	F -5	0.00		200		THE R			FATE D		1	15 3	St. 10
Movement Gro	up Res	sults			EB			WB			NB			SB	
Approach Move	ement			L	T	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow I	Rate ( v	), veh/h		131	257	250	62	157	148	211	1143	54	191	1044	93
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	ln	1753	1841	1555	1753	1841	1554	1781	1870	1609	1781	1870	1582
Queue Service	Time (	g s ), S		4.7	10.2	12.0	2.2	6.0	6.8	6.5	34.0	2.0	5.8	33.3	3.6
Cycle Queue C	learanc	ce Time ( g c ), s		4.7	10.2	12.0	2.2	6.0	6.8	6.5	34.0	2.0	5.8	33.3	3.6
Green Ratio (g	/C)			0.36	0.30	0.30	0.34	0.28	0.28	0.47	0.38	0.38	0.46	0.37	0.37
Capacity (c), v	/eh/h			428	558	471	302	521	440	251	706	608	238	693	586
Volume-to-Cap	acity Ra	atio (X)		0.306	0.460	0.530	0.206	0.301	_	0.841	1.619	0.090	0.803	1.507	0.159
Back of Queue	(Q), ft	/In (50 th percentile)	)	46.2	117.5	117.1	21.9	69.1	65	68	1766. 1	17	58.1	1493.4	30.8
Back of Queue	(Q), v	eh/ln ( 50 th percent	ile)	1.8	4.6	4.7	0.9	2.7	2.6	2.7.	69.5	0.7	2.3	58.8	1.2
		(RQ) (50 th percent		0.15	0.39	0.40	0.07	0.23	0.22	0.34	8.83	0.09	0.19	4.98	0.10
Uniform Delay		THE RESERVE AND ADDRESS OF THE PARTY OF THE		20.5	25.4	26.0	21.5	25.3	25.6	20.7	28.0	18.0	20.9	28.3	19.0
Incremental De	-			0.1	2.7	4.2	0.1	1.5	2.1	4.9	284.9	0.0	2.4	235.8	0.0
Initial Queue D	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	-			20.6	28.1	30.3	21.6	26.8	27.6	25.6	312.9	18.1	23.3	264.1	19.0
Level of Servic				С	С	С	С	С	С	С	F	В	С	F	В
Approach Dela				27.4	1	С	26.2	2	C	258.	4	F	212.	3	F
		THE RESERVE OF THE PARTY OF THE				17	9.9					100	F	24.0.70	
Intersection De												- 19-			
Intersection De					ED	N. H.		\A/P			NR			SR	
	sults	4100	25.2	2.4	ЕВ	В	2.4	WB	В	2.8	NB	С	2.8	SB	С

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**Existing Plus Project** 

**Highway Capacity Method** 

Part of the last		HCS 2	010 3	ignaii	zea II	iters	ectioi	1 Kes	suits s	umm	ary	196	100		
General Inform	ation	PARTY DESIGNATION	91.	21.75					Intersed	tion Inf	ormati	on		ا جا جامعه ا	1- L
	lation	KHR Associates					_	_	Duration		0.25	011		TITI	ĻĻ
Agency		KITK ASSOCIATES		Analys	sis Date	8/1/20	116		Area Typ		Othe	r			
Analyst		Torrance California		Time F		0/1/20	710	_	PHF		0.95				-
Jurisdiction	-				sis Year	2016			Analysis	Period	1> 7:	30	- 3 -		-
Urban Street		Pacific Coast Highy		-		_	J Houth	_	+P AM.		127.	30	-		
Intersection	4'	Hawthorne Bouleva	ard	File N	ame	11-PCI	1-Hawu	IOITIE L	TI AIVI.	xus			-	1111	
Project Descrip	tion		3 11	227		7030	ATRON.		- 50	-160	175	13 E N	NAME OF TAXABLE PARTY.		-
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	Т	R
Demand (v), v	eh/h			265	1020	265	144	104	9 241	291	1355	5 61	181	733	302
Signal Informa		D. farrage Dhana	_		20	-2		<b>⊨</b> '	N L	21		_		1	4
Cycle, s	120.0	Reference Phase	2 End		2	3	₹.	5	5		7		Z	3	
Offset, s	0	Reference Point	End	Green		3.7	46.0	8.7	4.0	29.3	3		_		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	_	0.0	4.0	0.0	0.0	0.0	1000			7	P
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		2		-	
Timer Results				EBI		EBT	WB		WBT	NB		NBT	SB		SBT
Assigned Phase	<u> </u>			5		2	1		6	3		8	7		4
Case Number				2.0		4.0	2.0		4.0	2.0		4.0	2.0		3.0
FIRE BUD HOUSE	ase Duration, s				_	53.7	16.3		50.0	16.7	-	37.3	12.	_	33.3
CONTRACTOR OF THE PARTY OF THE	ange Period, ( Y+R c), s				_	4.0	4.0	-	4.0	4.0	_	4.0	4.0	$\rightarrow$	4.0
	ange Period, ( Y+R c ), s x Allow Headway ( MAH ), s				_	0.0	3.0		0.0	3.0	_	3.0	3.0	_	3.0
Queue Clearan				3.0	_	0.0	12.3	_		12.5	_	33.9	8.5	_	24.9
Green Extension				0.0		0.0	0.1		0.0	0.3	_	0.0	0.2	-	2.8
Phase Call Pro		(90),0		1.00	_		0.99	9		1.00	$\rightarrow$	1.00	1.00		1.00
Max Out Proba				1.00			0.44	_		0.61	_	1.00	0.00	0	0.86
		1 32 34			ED.			WB			NB			SB	
Movement Gro		suits		L	EB	R	L	Т	R	L	T	R	L	T	R
Approach Move	-			5	2	12	1	6	16	3	8	18	7	4	14
Assigned Move		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		279	935	417	152	936	422	306	1001	489	191	772	318
Adjusted Flow I			n	The second second	1827	1629	1740	1827	1647	1723	1863	1819	1723	1691	1575
The second second second second	-	ow Rate ( $s$ ), veh/h/l		1740	24.2	24.2	10.3	25.5	25.5	10.5	31.9	31.9	6.5	16.3	22.9
Queue Service				16.0	24.2	24.2	10.3	25.5	25.5	10.5	31.9	31.9	6.5	16.3	22.9
Cycle Queue C Green Ratio ( g	Approximate the latest	e fille (yc), s		0.13	0.41	0.41	0.10	0.38	0.38	0.11	0.28	0.28	0.07	0.24	0.24
Capacity (c), v	_	_		232	1514	675	178	1400	_	365	1033	504	251	1238	384
Volume-to-Cap	-	atio ( X )		1.200	0.618	_	0.851	0.669	-	0.839	0.970	-	0.761	0.623	0.828
Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, whic	and the latest designation of the	/In ( 50 th percentile)	)	381.4	268.7	243.7	134.4	288.8	-	125.3	439.8	-	72.8	171.4	250.5
The second secon	_	eh/In (50 th percent		14.8	10.4	9.7	5.2	11.2	10.6	4.9	17.0	18.2	2.8	6.6	10.0
THE RESERVE OF THE PARTY OF THE		RQ) (50 th percent		1.27	0.90	0.84	0.45	0.96	0.91	0.62	2.16	2.32	0.24	0.56	0.85
Uniform Delay				52.0	27.7	27.7	53.0	30.7	30.7	52.6	42.9	42.9	54.6	40.4	43.0
AND DESCRIPTION OF THE PARTY OF	And in case of the last of the			123.8	1.9	4.2	16.8	2.6	5.6	8.8	20.8	32.1	1.8	0.7	13.1
-	cremental Delay ( d 2 ), s/veh itial Queue Delay ( d 3 ), s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	ontrol Delay ( d ), s/veh			0.0 175.8	29.6	31.9	69.7	33.2	36.3	61.5	63.7	74.9	56.4	41.2	56.1
	evel of Service (LOS)				С	С	Е	С	D	E	E	Е	Е	D	E
AND DESCRIPTION OF THE PERSON NAMED IN	pproach Delay, s/veh / LOS					E	37.7	7	D	66.4		E	47.2	2	D
Intersection De	-					52	2.5						D		
							1-11	\A/D	James	300	ND	1 %	-	CD	
Multimodal Re		/1.00		3.4	EB	С	3.5	WB	С	3.3	NB	С	3.3	SB	С
Penestrian I ()	destrian LOS Score / LOS cycle LOS Score / LOS					U	3.5	-	U	3.3		U	3.3		U

		HCS 2	010 S	ignal	ized l	nters	ectio	n Res	ults S	Summ	ary		10. E #10.		
						27/12	200			diam lud			Sept 1	الجداد إدار	O BOOK
General Inform	nation	lune .						_	Intersec		_	on	- 1	JIII	
Agency		KHR Associates		T		la a		$\rightarrow$	Duration		0.25				
Analyst				_		e 8/1/20	)16		Area Typ	oe	Othe	r			*
Jurisdiction		Torrance California		Time I				_	PHF		0.90			A4 + E	÷
Urban Street		Pacific Coast High		_		r 2016			Analysis	-	1> 7:	30	2		
Intersection		Hawthorne Bouleva	ard	File N	ame	1-PCI	H-Hawth	norne E	+P PM.	xus				<u> ጎጎተተ</u>	*
Project Descrip	tion		COLUMN TO SERVICE			100 100		-	2000		-		-	14147	HIM
Demand Inform	mation				EB			WB			NB		1	SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), v				220	1121	_	191	_	_	320			376	1222	_
Demand (V), V	CII/II	NAME OF TAXABLE PARTY.	-	220	1121	040	101	302		320	001	70	010	1222	010
Signal Informa	ition							111	. 2			POF		TOTAL	
Cycle, s	120.0	Reference Phase	2	1	2 6	- <u> </u> → °	-			5.21			<b>=</b>	1	4
Offset, s	0	Reference Point	End	Green	16.0	46.0	14.2	1.8	26.0	0.0		1	<b>Y</b> 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0	4.0	0.0	- 3	7	4		1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	Y	5	6	7	
and the same		The Control	Way.					-		RAIL					Pil
<b>Timer Results</b>	100			EBI		EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	е			5		2	1		6	3		8	7		4
Case Number				2.0		4.0	2.0		4.0	2.0		4.0	2.0		3.0
Phase Duration	nase Duration, s					50.0	20.0	0	50.0	18.2	2	30.0	20.	)	31.8
Change Period	nange Period, (Y+Rc), s					4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	dway ( /	<i>MAH</i> ), s		3.0		0.0	3.0		0.0	3.0		3.0	3.0		3.0
Queue Clearan	ce Time	(gs), s		18.0			16.	1		14.0		24.6	16.3	2	29.8
Green Extension	n Time	(ge), s		0.0		0.0	0.0		0.0	0.2		1.1	0.0		0.0
Phase Call Pro	bability		Julia	1.00			1.00	)		1.00		1.00	1.00	)	1.00
Max Out Proba	bility			1.00			1.00	)		1.00		1.00	1.00	)	1.00
111								meals.	-6.4	SV					
Movement Gro	-	ults			EB			WB			NB			SB	
Approach Move	-			L	Т	R	L	T	R	L	Т	R	L	T	R
Assigned Move	-		- (1)	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow I				244	1134	498	212	917	415	356	728	350	418	1358	417
	_	ow Rate (s), veh/h/l	In	1774	1863	1632	1774	1827	1652	1740	1881	1805	1740	1708	1575
Queue Service	-			16.0	32.4	32.5	14.1	24.8	24.8	12.0	22.5	22.6	14.2	27.8	27.8
Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		16.0	32.4	32.5	14.1	24.8	24.8	12.0	22.5	22.6	14.2	27.8	27.8
Green Ratio ( g				0.13	0.38	0.38	0.13	0.38	0.38	0.12	0.22	0.22	0.13	0.23	0.23
Capacity (c), v	-			237	1428	626	237	1400	633	413	815	391	464	1186	364
Volume-to-Cap				1.033	_	0.796	0.897	0.655	The state of the last of the l	0.862	0.893	0.895	0.901	1.145	1.144
the state of the s	NAME OF TAXABLE PARTY.	In (50 th percentile)		287.9		_	208.1	276.2	-	148.5	292.5	304	185.1	499.2	494.7
		eh/ln (50 th percent	_	11.3	14.8	14.0	8.2	10.9	10.4	5.8	11.5	12.2	7.3	19.7	19.8
	THE RESIDENCE OF THE PARTY OF T	RQ) (50 th percent	tile)	0.96 52.0	1. <b>25</b> 32.8	1.18	0.69	0.94	0.89	0.74	1.45	1.53	0.61	1.65	1.68
	Iniform Delay ( d 1 ), s/veh					32.8	51.2	30.5	30.5	51.9	45.6	45.7	51.2	46.1	46.1
Incremental De	ncremental Delay ( d 2 ), s/veh					10.1	31.8	2.4	5.2	12.9	11.8	21.7	19.9	75.6	92.2
Initial Queue De	itial Queue Delay ( d ₃ ), s/veh					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	ontrol Delay ( d ), s/veh					42.9	83.0	32.9	35.7	64.8	57.5	67.4	71.1	121.7	138.3
Level of Service	evel of Service (LOS)					D	F	С	D	E	E	E	E	F	F
Approach Delay	y, s/veh	/ LOS		49.6		D	40.5	5	D	61.7		E	115.	2	F
Intersection De	lay, s/ve	eh / LOS				70	).5						E		
intersection be															
	N LE	William St.		-				14.00		1					
Multimodal Re	-			3.4	EB	С	3.5	WB	С	3.3	NB	С	3.3	SB	С

Mile on 1916	- 60	HCS 2	2010	Signa	alize	d Ir	nters	ectio	n Re	sults	Sumi	mary					
General Inform	nation	He false world				40.00			-y- 3 }	Intons		LES					
Agency	iiatioii	1				_					ection I			1		له اله اله	
Analyst				1000	harin D	\-\-	0/4/00	110		Durati		0.2					
Jurisdiction				_		_	8/4/20	116		Area 1	уре	_	her		4		
Urban Street		Hawthorne Bouleva		-	e Perio	_	0040			PHF		0.9			4		
Intersection		244th Street	ard	_	lysis Y	_	_				sis Perio	d 1>	7:00	)	7		
Project Descrip	tion	244th Street		File	Name		2-Haw	thorne	e-244th	E+PA	M.xus					511	11
r roject bescrip	LION	NI PER	- 1.9					1-3		-						1114	YFC
Demand Inform	nation				E	В			W	В		N	IB			SE	
Approach Move	ement			L	1	Т	R	L	Т		₹ L	-	Г	R	L	T	
Demand (v), v	eh/h			0	2	24	4	0	_	_	_		29		38		_
Signal Informa	tion	THE STATE OF THE S			SIE			77	1000		THE CO	E		103	100		
Signal Informa		Deference Dhara	-	4	Я	1	J's									1	INC
Cycle, s	45.0	Reference Phase	2	-	$\Rightarrow$	K	51							4			D
Offset, s	0	Reference Point	End	Gree	n 21.	.0	16.0	0.0	0.0	0.0	0.0	)					
Uncoordinated	No	Simult. Gap E/W	On	Yello			4.0	0.0	0.0	0.0	0.0			÷	<del>-</del>		N
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0	0.0	0.0	)		5	6		
Timer Results				EE	21	E	ВТ	10/0		MOT					100		
Assigned Phase	,				DL	-	_	WE	SL	WBT	NE	3L	NE		SE	3L	SBT
Case Number						_	2			6	-		8	_			4
	ase Duration, s			-	-	-	.0			8.0	1		6.				6.0
	ange Period, (Y+Rc), s			-	-	25	-			25.0	-		20.	_		-	20.0
CONTRACTOR OF THE PARTY OF THE	ange Period, ( Y+R c ), s x Allow Headway ( MAH ), s				-	9				9.0			4.0				4.0
Queue Clearanc				-	_	0.	.0		_	0.0	-		3.2	_			3.2
Green Extension							-						18.	0			18.0
Phase Call Prob		(g e ), S				0.	0			0.0	-		0.0	)			0.0
								elle					1.0	0			1.00
Max Out Probab	ility					1136	_						1.0	0			1.00
Movement Grou	ıp Resi	ults			EB	3		1000	WB			NB			II.	CD	
Approach Mover	ment			L	Т	T	R	L	Т	R	L	T	T	R	L	SB	T 5
Assigned Moven	nent			5	2		12	1	6	16	3	8		_	7	T	R
Adjusted Flow R	ate (v)	, veh/h			0		-		0	10	4	1810	+	-		4	-
NAME AND ADDRESS OF TAXABLE PARTY.		w Rate (s), veh/h/ln			0			= = 0	0		486	1691			42	1172	-
Queue Service T					0.0	+	-		0.0		0.3	16.0	+	_	263	1691	-
Cycle Queue Cle		THE RESERVE THE PARTY OF THE PA			0.0	_	-		0.0		9.1		-	_	0.0	8.7	
Green Ratio ( g/0	The same of the same of	(3.7)			0.0				0.0		0.36	16.0	-	_	6.0	8.7	
apacity ( c ), ve								150			239	0.36	-	_	.36	0.36	-
olume-to-Capac	-	io(X)			0.000	0			0.000		_	1804	-	_	160	1804	
Name and Address of the Owner, where the Owner, which is the Owner,		n (50 th percentile)			0.000						0.019	1.003			264	0.650	-
		n/ln (50 th percentile	2)		0.0	-			0.0		0.8	207		_	0.2	65.4	
		RQ) (50 th percentile			0.00						0.0	8.3		_	0.4	2.6	
niform Delay (		THE RESIDENCE OF THE PARTY OF T	-/		0.00	-		-	0.00		0.01	1.05			.10	0.33	
cremental Dela	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN				0.0				0.0		15.9	14.5		$\overline{}$	2.5	12.2	
itial Queue Dela	-				0.0	+			0.0		0.0	22.0		_	0.3	0.7	
ontrol Delay ( d	THE OWNER WHEN				0.0				0.0		0.0	0.0			0.0	0.0	
evel of Service (			-			-	-			-	16.0	36.5		_	2.8	12.8	
pproach Delay,	-	LOS		9.6		^		10.7		D	В	F		_	С	В	
tersection Delay	_		-	9.0		Α	-	10.7		В	36.4		D		13.2		В
Dela	, arverr			11555	1500		26.3	-	1 - 5	1		SUL	- 10	С			
ultimodal Resu	ults				EB				WR			ND				CD	
lultimodal Resu edestrian LOS S		LOS		3.2	EB	С		3.2	WB	С	2.1	NB	В	T	2.1	SB	В

	0.04.5	HCS 2	010 S	ignal	ized l	nters	ectio	n Res	ults	Sumn	nary			* ****	
General Inform	nation				100				Interco	ction In	formati	ion		14741	I E U
	nation	1						_			0.25			111	
Agency				Analy	oie Det	0/4/20	116	_	Duration Area Ty		_		- 3		
Analyst				_		e 8/4/20	010	_	PHF	pe	Othe 0.90	_	± 4	, n	A
Jurisdiction		II. the De I	44	-	Period	2040		_		Daviad	_		- X	5	
Urban Street		Hawthorne Bouleva	ira	_	sis Yea	_	46	_	_	Period	1> 7:	:00			
Intersection	tion	244th Street		File N	ame	2-Haw	vtnorne	-244tn	E+P PM	ı.xus	-		_	1 1 1 2 2	1 2 2
Project Descrip	uon	The state of the s	W 10 7 7 19	CO FIL	500	335			Was I	500	S. S. A.	1	-	THE STATE OF	THE REAL PROPERTY.
Demand Inform	nation				EB	1		WE	3		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v	eh/h			0	59	21	0	57	51	30	1269	9	74	1615	
Signal Informa	tion		A STATE OF THE PARTY OF THE PAR			1 1:						- 1			
Signal Informa	_	Deference Dhase	2	1		يا ي							7	1-27	N
Cycle, s	45.0	Reference Phase	2	-	3	51							<b>Q</b> 2	3	
Offset, s	0	Reference Point	End		21.0	16.0	0.0	0.0	0.0				5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	0.0	0.0	0.0	0.0					4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
Timer Results	NO SAN	Company of the second		EBI		EBT	WB		WBT	NB		NBT	SB	L	SBT
Assigned Phase	e					2			6			8	1		4
Case Number		Ber Derror				8.0	DEE		8.0		110	6.0	1 100		6.0
	ase Duration, s					25.0			25.0			20.0			20.0
	ange Period, ( Y+R c), s					9.0	an.		9.0			4.0			4.0
	ange Period, ( <i>Y+R c</i> ), s x Allow Headway ( <i>MAH</i> ), s					0.0			0.0			3.3	1		3.3
Queue Clearan						0.0	1000		0.0			18.0			18.0
Green Extensio		The second secon				0.0			0.0			0.0			0.0
Phase Call Prob		(90),3	14.55	2000		0.0			0.0		100	1.00	100		1.00
Max Out Probat	-											1.00			1.00
		TO THE PERSON	de s					100	100			I Comment	the state		
<b>Movement Gro</b>	up Res	ults			EB			WB	1118	113	NB	130		SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h			0			0		33	1410		82	1794	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/li	n	14.0	0			0	1	267	1691		388	1691	
Queue Service	Time ( g	g s ), S			0.0			0.0		0.1	11.2		4.8	15.9	
Cycle Queue Cl	learance	e Time ( g c ), s		- 7	0.0			0.0		16.0	11.2		16.0	15.9	
Green Ratio (g.	/C)						1			0.36	0.36		0.36	0.36	
Capacity (c), v	eh/h			-				THE VI		161	1804	174,17	202	1804	
Volume-to-Capa	acity Ra	itio (X)			0.000			0.000		0.207	0.782		0.408	0.995	
Back of Queue	(Q), ft/	In (50 th percentile)			0	711		0		8.1	89		19.9	197.1	
Back of Queue	(Q), ve	eh/In ( 50 th percentil	e)		0.0			0.0		0.3	3.6		0.8	7.9	
Queue Storage	Ratio (	RQ) (50 th percent	ile)		0.00		41(1) 51	0.00		0.08	0.45	110	0.20	1.00	
Uniform Delay (	-									22.5	12.9		21.3	14.5	
Incremental Del	lay ( d 2	), s/veh			0.0		VIIIV	0.0		0.2	2.1		0.5	19.9	
Initial Queue De	-				0.0			0.0		0.0	0.0		0.0	0.0	
Control Delay (	-	eh			N.E.	1				22.7	15.0		21.8	34.3	
Level of Service										С	В		С	C	
Approach Delay				10.3	3	В	10.7		В	15.2	2	В	33.8	3	C
Intersection Del	ay, s/ve	eh / LOS				24	.8	igal elle			1000		С	-	-
Multimodal Re	culte		-		EB			WB	28-7	- 32	NB		1000	SB	No.
Pedestrian LOS	No. of Concession, Name of Street, or other Designation, or other	/108		3.2	_	С	3.2		С	2.1	_	В	2.1	1	В
	-			_	_		-	_	_		_	_	_		
Bicycle LOS Sc	ore / LC	OS		0.6		Α	0.7		Α	1.3		Α	1.5		Α

	HCS 2	010 S	ignal	ized I	nters	ection	n Res	ults S	umm	ary		937	- Marie Co	
Consultate america	MERCA	STE S			73231	- 100		ntersec	tion In	formati	on		기시시하기	I BITU
General Information	1						_			0.25	OII	_	111	
Agency	-		I A = = b	:- D-4-	0/4/0	046	_	Duration		Othe		1.0		
Analyst			<del></del>	sis Date	8/4/2	016		Area Typ	oe	-	<u> </u>			-
Jurisdiction			Time I		2010		_	PHF	Darian	0.97	00	_ 37	2	-
Urban Street	Hawthorne Bouleva	ard	-	sis Year	_			Analysis		1> 7:	00			
Intersection	Newton Street		File N	ame	3-Hav	wthorne	-Newto	n E+P A	M.xus			_	7 1 1	ACTION A
Project Description				- 82	9888	SO ESS	3714	N TO S		-	19.19			THE REAL PROPERTY.
Demand Information	1			EB	N.		WB	3		NB			SB	
Approach Movement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), veh/h			22	75	82	87	112	104	103	1636	3	36	1021	1 7 4
			Mark Control					-100						
Signal Information	Reference Phase	2	1	3	= 2		1					7	1	
Cycle, s 46.8		-			19	51					1	4	3	
Offset, s 0	Reference Point	End	Green	-	2.3	2.2	21.1		0.0			4		
Uncoordinated Yes	Simult. Gap E/W	On	Yellow		4.0	0.0	4.0	0.0	0.0				7	T
Force Mode Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	-	5	5	7 7 2	
Timer Results			EBI	71	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase					2			6	3		8	7		4
Case Number					6.0			5.0	2.0		4.0	2.0	)	4.0
Phase Duration, s					13.2			13.2	8.5		27.3	6.3	3	25.1
Change Period. ( Y+I	range Period, ( Y+R c), s				4.0		11/4	4.0	4.0		4.0	4.0		4.0
	ange Period, ( Y+R c ), s ax Allow Headway ( MAH ), s				3.2			3.2	3.1		3.0	3.1		3.0
Queue Clearance Tin					5.9			9.1	4.6		13.7	2.9		12.8
Green Extension Tim					0.5			0.1	0.1		8.0	0.0		8.2
Phase Call Probabilit				313	1.00			1.00	0.75	5	1.00	0.3	8	1.00
Max Out Probability					0.59			1.00	0.00	0	0.31	0.0	0	0.29
	will be a seen			ATOM	MI	1	VA/ID			NID		7-10	0.0	2-1
Movement Group R	esults	1831		EB			WB			NB	-		SB	
Approach Movement			L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow Rate (			23	162		90	115	107	106	1687		37	1053	
Adjusted Saturation F		In	1297	1737	1911611	1244	1900	1610	1810	1691		1810	1773	
Queue Service Time			0.7	3.9		3.2	2.4	2.7	2.6	11.7		0.9	10.8	-
Cycle Queue Clearar	ice Time ( g c ), s		3.1	3.9		7.1	2.4	2.7	2.6	11.7		0.9	10.8	
Green Ratio (g/C)			0.20	0.20		0.20	0.20	0.20	0.10	0.50		0.05	0.45	
Capacity (c), veh/h			342	342		296	374	317	174	2525		89	1598	
Volume-to-Capacity F			0.066	0.474		0.303	0.309	0.339	0.610	0.668		0.417	0.659	-
Back of Queue (Q),	NAME AND ADDRESS OF THE OWNER, THE PARTY OF		4.7	33.6	2	20.7	23	21.4	25.9	73.2		9.5	76.6	
Back of Queue (Q),		-	0.2	1.3		0.8	0.9	0.9	1.0	2.9		0.4	3.1	
Queue Storage Ratio		tile)	0.05	0.34	4	0.21	0.23	0.21	0.26	0.37		0.09	0.39	
Uniform Delay ( d 1 ),			17.4	16.6		19.8	16.1	16.2	20.3	8.8		21.6	10.0	
Incremental Delay ( c			0.0	0.4		0.2	0.2	0.2	1.3	0.2		1.2	0.2	
Initial Queue Delay (			0.0	0.0		0.0	0.0	0.0	0.0	0.0	,	0.0	0.0	
Control Delay ( d ), se		-	17.4	17.0	100	20.0	16.2	16.4	21.6	9.0		22.7	10.2	
Level of Service (LOS			В	В		В	В	В	С	Α		С	В	
Approach Delay, s/ve			17.1	13	В	17.4	4	В	9.8		Α	10.6	3	В
Intersection Delay, s/	veh / LOS			-	1	1.1	100			-000		В		Na am
		1134	-		E S	alian.	NA/ID			ND	24	1	SB	100
Multimodal Paculta				FR			VVH			IVIE				
Multimodal Results Pedestrian LOS Scor	0/1/09		2.9	EB	С	3.2	WB	С	2.4	NB	В	2.2	_	В

		HCS 20	010 S	ignali	ized l	nters	ection	n Res	ults S	umm	ary				
			100				W.L.	Sec.	Intersec	tion In	formati	on	-	ነ 4 74 1	RU.
General Inforn	nation							_			1	on	_	111	
Agency				T		Tarrian			Duration		0.25		-		
Analyst				_	sis Date	8/4/20	)16	_	Area Typ	oe	Othe	r			~_ 8
Jurisdiction				Time F		-		_	PHF		0.97		_ # -	44.5	
Urban Street		Hawthorne Bouleva	rd		sis Year				Analysis	_	1> 7:	00	7		4
Intersection		Newton Street		File N	ame	3-Hav	vthorne-	-Newto	n E+P P	M.xus				111	
Project Descrip	tion	Strait att The Strait Strait	-	-	-	40.00			- III	1000		V =		াৰ াৰণ	INIA
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ement			L	Т	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	_	li de la companie		16	52	109	208	55	95	111	1270	)	49	1588	3
	DE TOTAL	THE PARTY OF		12.57				DIE!				10			Best 1
Signal Informa		The same of the sa	The second		-34	= 6		1						~	3
Cycle, s	50.0	Reference Phase	2		3	5	51	9	r				<b>♦</b>	3	3
Offset, s	0	Reference Point	End	Green	10.0	3.0	1.8	23.2	2 0.0	0.0			N.		
Uncoordinated	Yes	Simult. Gap E/W	On	Yellow	_	4.0	0.0	4.0	0.0	0.0				1	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		6	6	#	8
Timer Results	150/2/2	NEW STEPS OF STREET		EBI		EBT	WB		WBT	NB		NBT	SB		SBT
Assigned Phase	ρ			LUI		2			6	3		8	7		4
Case Number		I have been a larger to				6.0			5.0	2.0		4.0	2.0		4.0
Phase Duration	S					14.0			14.0	8.8		28.9	7.0		27.2
	ange Period, (Y+Rc), s				_	4.0			4.0	4.0		4.0	4.0		4.0
	ange Period, ( Y+R c ), s x Allow Headway ( <i>MAH</i> ), s					3.3			3.3	3.1	_	3.0	3.1	-	3.0
Queue Clearan	_					6.3			12.0	5.1	_	16.6	3.3		14.8
Green Extension	-				_	0.5			0.0	0.1	_	7.8	0.0		8.4
Phase Call Pro		( g e ), s			_	1.00			1.00	0.80	_	1.00	0.50	_	1.00
Max Out Proba						0.84	-		1.00	0.00		0.46	0.00	_	0.40
Wax Odt Floba	Dility	Martin - 17 1	EN				100			Sing.	3837	1000		55199	
Movement Gro	up Res	sults			EB			WB		0.13	NB	- 18		SB	
Approach Move	ement .			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	13
Adjusted Flow I	Rate ( v	), veh/h		16	166		214	57	98	114	1309		51	1637	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/li	n	1368	1694		1239	1900	1610	1810	1773	10	1810	1691	
Queue Service	Time (	g s ), S		0.5	4.3		5.7	1.2	2.6	3.1	14.6		1.3	12.8	
Cycle Queue C	learanc	e Time ( g c ), s		1.7	4.3		10.0	1.2	2.6	3.1	14.6		1.3	12.8	1
Green Ratio (g	/C)			0.20	0.20		0.20	0.20	0.20	0.10	0.50		0.06	0.46	
Capacity (c), v	/eh/h	de la company		384	339		284	380	322	173	1770		110	2355	
Volume-to-Cap	acity Ra	atio (X)		0.043	0.490		0.754	0.149	0.304	0.661	0.740		0.461	0.695	
Back of Queue	(Q), ft	/In (50 th percentile)		3.5	37.7	800	76.9	11.8	21.2	30.7	105.2		13.8	88.6	
NAME AND ADDRESS OF THE OWNER, WHEN PERSON NAMED IN	-	eh/ln (50 th percenti		0.1	1.5		3.1	0.5	0.8	1.2	4.2		0.6	3.5	
	_	RQ) (50 th percent	-	0.04	0.38	3-1	0.77	0.12	0.21	0.31	0.53		0.14	0.45	
Uniform Delay				17.2	17.7		23.1	16.5	17.0	21.8	9.9		22.7	10.6	
Incremental De				0.0	0.4		9.8	0.1	0.2	1.6	0.8		1.1	0.3	
Initial Queue De	_			0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (				17.2	18.1	-	32.9	16.5	17.2	23.4	10.8		23.8	10.9	-
Level of Service	_			В	В		С	В	В	С	В		С	В	
Approach Dela				18.0		В	26.2	2	С	11.8	3	В	11.2	2	В
Intersection De	and the same of th					13	3.3						В		
		The Contract		FE	FO	4.14		VA/D			AUD.		1	C.D.	alle y
Multimodal Re					EB	0	20	WB	_	- 0.4	NB	D .	0.0	SB	D
	-			0.8	-	C	2.9		C	2.4	_	В	2.2	_	В
Bicycle LOS So	estrian LOS Score / LOS cle LOS Score / LOS					Α	1.1		Α	1.7		Α	1.4		Α

No.	25.19	HCS 2	010 S	ignali	zed I	nters	ectior	ı Re	esults S	Summ	ary		11.65		
General Inform	ation	<b>是是作为</b>	3200						Intersed	tion In	formati	on	100	ነ ላ ፕሎ ነ	
	lation							_	Duration		0.25	011		411	Ļ
Agency				Analys	sis Date	9/25/2	2018		Area Ty		Othe	r	- 2		
Analyst Jurisdiction				Time F		31231	2010		PHF		0.90	-	*		4
Urban Street		Hawthorne Bouleva	rd	7 11 11 1		2018			Analysis	Period	1> 7:	00	74		
Intersection		Via Valmonte	iiu	File Na		_	wthorne-	\/ia\	/almonte			00		* * * *	
Project Descrip	tion	via vaimonte		I lie ive	anic	4-110	WITIOTTIC	via	vaimonto	1 / \(\vert \)	TV.AUS			ነ ቁ ሰቀጥ	1- 1
Project Descrip	Maria	British No.	33			330			COLL	200	-		0800		
Demand Inform	nation				EB			٧	VB		NB			SB	
Approach Move	ement			L	T	R	L		T R	L	Т	R	L	Т	R
Demand (v), v	eh/h			55	236	71	1		0 1	46	1570	36	3	1179	0
The state of the s										de la				100	
Signal Informa	tion				717	2 6							-4-		
Cycle, s	90.0	Reference Phase	2		FA	*   S							7	3	-
Offset, s	0	Reference Point	End	Green	55.9	21.7	0.3	0.	0.0	0.0					Ā
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	0.	and the latest designation of the latest des	0.0	-	4	D	1 37	7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0.0	0.0		5	6	7/	
Timer Results				EBI		EBT	WB		WBT	NB		NBT	SB		SBT
Assigned Phase	•			LDI		4	VVD	_	8	110	-	2	0.0		6
Case Number	5			100		12.0			12.0			5.0			6.0
E DIAMETER STREET	hase Duration, s					25.7			4.3			59.9			59.9
						4.0			4.0			4.0			4.0
	nange Period, ( Y+R c ), s ax Allow Headway ( MAH ), s					3.1			3.2			0.0			0.0
Queue Clearan			15.5			21.3			2.1			0.0			0.0
Green Extensio	_					0.4			0.0			0.0			0.0
Phase Call Prob		(90),0		9191		1.00	100		0.05						
Max Out Probal	-					0.35			0.00						
	W IN SU	100000	5 3 5	1	-113	1 - 50							-	21	
Movement Gro	up Res	ults			EB			W	В	100	NB			SB	
Approach Move	ement			L	T	R	L	Т	_	L	Т	R	L	Т	R
Assigned Move	ment		10)	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow F	Rate (v	), veh/h			402		1		1	51	1744	40	3	1310	0
Adjusted Satura	ation Flo	ow Rate ( $s$ ), veh/h/l	n		1822	12.13	1810		1610	426	1725	1610	281	1900	0
Queue Service	Time (	g s ), S			19.3		0.1		0.1	6.0	17.3	0.9	0.6	10.2	0.0
Cycle Queue C	learanc	e Time ( g c ), s			19.3		0.1	100	0.1	16.2	17.3	0.9	18.0	10.2	0.0
Green Ratio ( g					0.24		0.00		0.00	0.62	0.62	0.62	0.62	0.62	
Capacity ( c ), v					440		7		6	297	3217	1001	200	3543	
Volume-to-Capa	_				0.914	-	0.170		0.190	0.172	0.542	0.040	0.017	0.370	0.00
		/In (50 th percentile)		200	256.7	1	0.8	-	0.8	15.9	144.2	7	1.2	92.5	0
		eh/In (50 th percenti			10.3		0.0		0.0	0.6	5.8	0.3	0.0	3.7	0.0
	ACCRECATION AND ADDRESS.	RQ) (50 th percent	ile)	-	0.00		0.00	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (	the same of the sa			-	33.2		44.7		44.7	12.4	9.7	6.6	14.9	8.4	0.0
	cremental Delay ( d 2 ), s/veh				17.1	-	4.5		5.7	1.3	0.7	0.1	0.2	0.3	0.0
Initial Queue De	-				0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	-				50.3 D		49.2 D		50.4 D	13.6 B	10.4 B	6.7	15.0 B	8.7 A	
Level of Service				50.3		D	49.8		D	10.4		В	8.7	_	A
Approach Delay Intersection Del				50.3			49.0		D	10.2			0.7 B		Α
intersection De	ay, S/VE	SII / LOO	7 2	300	32	FEE				7 3		100	20126	1000	13/18
Multimodal Re	sults				EB		211	W	В		NB			SB	
Pedestrian LOS		/ LOS		3.4		С	3.3		С	2.2		В	2.5		В
Bicycle LOS Sc				1.2		Α	0.5		Α	1.5		Α	1.2		Α

	artistant o	HCS 2	010 S	ignal	ized	Inte	erse	ectio	n Res	sults	Sumn	nary				
General Inform	action			- E C			J. S. L.			Inda na a			- 1000		The Property	E PER S
	nation								_	Interse				_	<u> </u>	
Agency				1		. 101	05/0	040	_	Duratio		0.25				R
Analyst				Analy		_	25/2	018	-	Area Ty	ре	Othe		1 4 1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		*
Jurisdiction				Time		$\rightarrow$			$\rightarrow$	PHF	-	0.90			WIE	**
Urban Street		Hawthorne Bouleva	ard	Analy	_	_	18		_	Analysis	_					* F
Intersection		Via Valmonte		File N	ame	4-	Haw	thorne	-Via Va	almonte	E+P PN	/I R.xus		_	5111	7
Project Descrip	tion				1000	70.53		1000			-	1000	Sec. (1).		14145	THE ID
Demand Inform	nation		- 17	100	EE	3			WE	3		NE	3		SB	
Approach Move	ement			L	T	T	R	L	Т	R	L	Т	R	L	T	R
Demand (v), v	eh/h			33	149	9	66	13	3	20	62	121	2 18	16	1935	
Signal Informa	Alexander of the same				1 11:			<b>PER</b>								
Signal Informa	_	D ( D)	-		717		2							-4-		
Cycle, s	90.0	Reference Phase	2		R4	r R								2		→ .
Offset, s	0	Reference Point	End	Green	_		5.8	3.8	0.0	0.0	0.0					Ā
Uncoordinated	No	Simult. Gap E/W	On	Yellow	_	4.		4.0	0.0	0.0	0.0		~	D		7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.	0	0.0	0.0	0.0	0.0		5	8		8
Timer Results				EBI		EBT		WB		WBT	NB		NBT	SB		SBT
Assigned Phase	9					4		7.1-		8			2			6
Case Number	1000			100		12.0				12.0	I I I		5.0			5.0
	nase Duration, s					19.8	-			7.8			62.4			62.4
	ange Period, (Y+Rc), s					4.0				4.0			4.0			4.0
	nange Period, ( Y+R c ), s ax Allow Headway ( MAH ), s					3.1				3.3			0.0			0.0
Queue Clearand				N		15.4				4.1			0.0			0.0
Green Extensio	_					0.4				0.1			0.0			0.0
Phase Call Prob		(90),0		NA TO		1.00				0.63			0.0	105750		0.0
Max Out Probab	100000000000000000000000000000000000000				-	0.00				0.00						
					100		100	15/5	1886			FEET ST	Undian.	135-63	W-10-87	1 THE
<b>Movement Gro</b>	up Res	ults			EB				WB	li li li	1000	NB	HER MAN	list	SB	The same
Approach Move	ment			L	Т	R		L	Т	R	L	Т	R	L	T	R
Assigned Mover	ment			7	4	14	4	3	8	18	5	2	12	1	6	16
Adjusted Flow F	Rate (v	), veh/h			276				40		69	1347	20	18	2150	0
Adjusted Satura	tion Flo	w Rate (s), veh/h/lr	n		1802				1699		189	1725	1610	412	1809	1610
Queue Service	Time ( g	g s ), S			13.4				2.1		12.1	11.1	0.4	1.9	46.3	0.0
Cycle Queue Cl	earance	e Time ( g c ), s			13.4			1000	2.1	I I I	58.4	11.1	0.4	13.1	46.3	0.0
Green Ratio ( g/	(C)				0.18				0.04		0.65	0.65	0.65	0.65	0.65	0.65
Capacity (c), ve	eh/h				316	4 5			72	V	105	3360	1045	296	2348	1045
Volume-to-Capa	city Ra	tio (X)			0.872				0.558		0.653	0.401	0.019	0.060	0.915	0.000
Back of Queue (	(Q), ft/	In (50 th percentile)		N. 14	153				22.6		57.7	88.5	3.1	4.9	431.9	0
Back of Queue (	(Q), ve	eh/In ( 50 th percentil	e)		6.1				0.9		2.3	3.5	0.1	0.2	17.3	0.0
AND RESIDENCE OF THE PERSON NAMED IN		RQ) (50 th percenti	le)		0.00				0.00		0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (	d 1), s/	veh			36.1				42.3		42.8	7.5	5.6	10.6	13.7	0.0
Incremental Del	ay ( d 2	), s/veh			4.8	100			2.5		27.4	0.4	0.0	0.4	7.0	0.0
Initial Queue De	lay (d	3), s/veh			0.0				0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	h			41.0				44.8		70.1	7.8	5.6	11.0	20.7	0.0
Level of Service	(LOS)				D				D		Е	Α	Α	В	С	
Approach Delay				41.0		D		44.8		D	10.8	3	В	20.6		С
Intersection Dela	ay, s/ve	h/LOS					18.	7						3	- Decree	
Multime del De	ulle-	A STATE OF THE STATE OF			ED			100	1A/D		A ST	115	1000		Series or	
Multimodal Res	-	11.00		2.4	EB	-		2.2	WB	0	0.4	NB	_		SB	
Pedestrian LOS	-	The second secon		3.1		C	+	3.3		C	2.1	-	В	2.1		В
Bicycle LOS Sco	ore / LO	5		0.9	- 1	Α		0.6		A	1.3		Α	2.3		В

		HCS 20	010 S	ignali	zed I	nters	ectior	Res	ults S	umm	ary	ST 30	1 - 1	5. 40	
	41		1750		Jihre .	- 200	18. 1		Intersec	tion Inf	ormati	on		ነተኘቀ፤	A L
General Inform	ation							_			0.25	OII	_	111	
Agency				Ι Δ Ι	- D-4-	0/4/0/	246	_	Duration		-				
Analyst				_		8/4/20	סות	_	Area Typ PHF	е	Other		1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		<u></u>
Jurisdiction				Time F	,	0040		_		Daviad	-	00	-		-
Urban Street		Hawthorne Bouleva	ird	_		2016		_	Analysis	_	1> 7:	00	-		
Intersection		Rolling Hills Road		File Na	ame	5-Hav	vthorne-	-Rolling	Hills E+	P AM.X	us		_	111	at Park
Project Descript	tion	7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1000	S. C. E. R		-110		-	- T- 1/11	MATERIAL TO		139-8		HINT	OR DE
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ment			L	Т	R	L	Т	R	L	T	R	L	T	R
Demand (v), v	eh/h			0	2	0	86	2	426	0	1335	5	281	819	
Cianal Informa	tion									1					
Signal Informa	60.0	Reference Phase	2	1			a b	K A			100		4	1	1
Cycle, s	_	Reference Point	End		-2	1		2	1			3 19	2	3	
Offset, s	0			Green		0.0	7.5	29.0		0.0			4	LL	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	0.0	0.0	4.0 0.0	0.0	0.0	0.0	000	5	6	1	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	10.0	10.0	10.0	0.0	. 15 7				
Timer Results				EBL		EBT	WB	L	WBT	NBI		NBT	SB		SBT
Assigned Phase	Э					2			6	3		8	7		4
Case Number						8.0	1		5.0	2.0		4.0	2.0		4.0
Phase Duration	nase Duration, s					15.6			15.6	0.0		33.0	11.5	5	44.4
Change Period,	nange Period, ( Y+R c), s					4.0			4.0	4.0		4.0	4.0		4.0
	ax Allow Headway ( <i>MAH</i> ), s					0.0			0.0	0.0		3.0	3.1		3.0
Queue Clearan	_							604-0			F 0	23.5	7.0		8.6
Green Extensio	The second second					0.0			0.0	0.0		5.5	0.5		8.1
Phase Call Prof					N/A				V- In a li			1.00	0.99	9	1.00
Max Out Probal	-											0.39	0.00	)	0.02
	1		-		EB			WB			NB			SB	
Movement Gro	_	suits		-	Т	R	L	T	R	L	T	R	L	T	R
Approach Move	-			L				-	16	-	8	IX	7	4	K
Assigned Move	and the last owner or the last owner owner or the last owner			5	2	12	1	6	463	0	-		305	890	
Adjusted Flow F					0		93	2		_	1451		1757	1773	
The second secon	_	ow Rate (s), veh/h/l	n		0		1437	1900	1610	1810	1773 21.5		5.0	6.6	
Queue Service	-				0.0		3.4	0.1	11.6	-	21.5		5.0	6.6	
Cycle Queue C	-	te Time ( $gc$ ), s			0.0		3.4	0.1		0.0	_		_		
Green Ratio ( g	_		1				0.19	0.19	0.32 511	3	0.48		0.12	0.67	
Capacity (c), v		r:- ( )()			0.000		396	-	-	0.000			0.699	0.373	
Volume-to-Capa					0.000	2.50	0.236	0.006	0.906	_	0.848		49.2	34.9	
	Name and Address of the Owner, where the Owner, which the	t/In (50 th percentile)			0		29.7	-		0	_		2.0	_	
	-	eh/ln (50 th percenti			0.0		1.2	0.0	8.5 4.26	0.0	7.4		0.25	0.18	
THE RESERVE OF THE PARTY OF THE	Name and Address of the Owner, where	(RQ) (50 th percent	iile)		0.00		0.74	0.01	-	0.00	-	100	25.2	4.3	
Uniform Delay	-				0.0	-	20.9	19.6	19.6	0.0	13.6		_		
Incremental De	_				0.0		1.4	0.0	22.2	0.0	2.6		0.8	0.0	-
Initial Queue De					0.0		0.0	0.0	0.0	0.0	0.0		26.0	4.3	
Control Delay (							22.3 C	19.6 B	41.8 D	0.0	16.2 B		26.U		
Level of Service		And the same of th		40.0		P	_			10.0		D	-	Α	^
Approach Delay		transfer and the State of the S		19.6		В	38.5	9	D	16.2		В	9.8		Α
Intersection De	lay, s/ve	eh / LOS	4 10			1	7.7		7777	T Second	1		В	Frie	
Multimodal Re	sults			-	EB		100	WB			NB			SB	
Pedestrian LOS	_	/LOS		2.8		С	2.9		С	2.8		С	2.0		В
Bicycle LOS So	_	the second second second second		0.5	_	Α	1.4	_	Α	1.7	_	Α	1.5	_	Α

	HCS 2010					Inters	ectior	Res	ults S	umm	ary		-72		
		<b>地</b>							Intersec	tion Inf	ormatic	n.	a di Pisa	ነ ላ ፕሞ ነ	R U
General Inform	nation											)II	- 1	ŢŢĻ	
Agency						101410	040	_	Duration		0.25				
Analyst				Analys		e 8/4/2	016	_	Area Typ	e	Other		144441		<u>~</u>
Jurisdiction				Time F		2212		_	PHF	D : 1	0.99	20	- 3		~
Urban Street		Hawthorne Bouleva	ard	Analys		_		_	Analysis		1> 7:0	00			
Intersection		Rolling Hills Road		File Na	ame	5-Hav	wthorne-	Rolling	Hills E+	P PM.x	us		_	5 † †	2000
Project Descript	tion		2000	- Servery		- North	1150	110			1.75			I SI II SP Y	I ENGIN
Demand Inform	nation				EB			WB	3		NB			SB	
Approach Move	ment			L	T	R	L	Т	R	L	T	R	L	Т	R
Demand (v), v	eh/h			0	3	1	86	0	332	0	1020		431	1309	
Signal Informa	tion				1,31			1	Total I						
	60.0	Reference Phase	2		7	<u>⊨</u> 2	4 m	C T					A	1	1
Cycle, s	0	Reference Point	End		74	1			T L				Y 2	3	
Offset, s			On	Green		0.0	9.8	23.4		0.0			4	L	
Uncoordinated	No	Simult. Gap E/W	On	Yellow Red	0.0	0.0	4.0 0.0	0.0	0.0	0.0	- 10		6	7	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	10.0	10.0	10.0	10.0	10.0					
Timer Results		The second		EBL		EBT	WB	L	WBT	NB		NBT	SB	L	SBT
Assigned Phase	Э					2			6	3		8	7		4
Case Number	Mile i					8.0			5.0	2.0		4.0	2.0		4.0
Phase Duration	, s					18.8			18.8	0.0		27.4	13.8	8	41.2
Change Period,	(Y+R	c), S				4.0			4.0	4.0		4.0	4.0		4.0
Max Allow Head	dway ( /	MAH), s				0.0			0.0	0.0		3.0	3.1		3.0
OF THE OWNER OF THE OWNER OF THE OWNER, THE									1			17.0	9.1		15.6
A STATE OF THE PROPERTY OF THE	eue Clearance Time ( $g_s$ ), s en Extension Time ( $g_e$ ), s					0.0			0.0	0.0		6.4	0.7		7.9
	een Extension Time ( g e ), s			1000	. 9		1000					1.00	1.00	0	1.00
Max Out Probal	ase Call Probability											0.23	0.06	6	0.04
400	13/6	Charles To the			100	4	Real Property					1		0.0	ALTER!
Movement Gro	-	sults			EB			WB			NB		-	SB	
Approach Move				L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	ment	and the second	United I	5	2	12	1	6	16	3	8		7	4	0.11
Adjusted Flow F					0	-	87	0	335	0	1030		435	1322	
		ow Rate ( $s$ ), veh/h/l	n		0		1435	1900		1810	1773		1757	1773	1000
Queue Service					0.0		2.9	0.0	9.3	0.0	15.0		7.1	13.6	
Cycle Queue C	and the same of th	e Time ( g c ), s		1	0.0	1000	3.0	0.0	9.3	0.0	15.0	1	7.1	13.6	
Green Ratio ( g	-						0.25	0.25	0.41		0.39		0.16	0.62	-
Capacity (c), v	eh/h						473	470	661	3	1382		572	2196	
Volume-to-Capa	acity Ra	atio (X)			0.000	)	0.184	0.000	-	0.000	0.745		0.761	0.602	
	The second second	/In (50 th percentile)			0		24.6	0	83.7	0	131.3		69	86.2	
Back of Queue	(Q), v	eh/In (50 th percenti	ile)		0.0		1.0	0.0	3.3	0.0	5.3		2.8	3.4	
Queue Storage	Ratio (	RQ) (50 th percent	tile)		0.00		0.62	0.00	1.67	0.00	0.67		0.35	0.44	1
Uniform Delay (	(d1), s	/veh					18.2	0.0	13.2	0.0	15.7		24.0	6.9	
Incremental De	lay (da	2), s/veh	- 1- 1		0.0		0.9	0.0	2.8	0.0	0.6		0.8	0.1	
Initial Queue De	elay ( d	з ), s/veh			0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	d), s/v	eh				1	19.0	0.0	16.0	0.0	16.3		24.8	7.0	
Level of Service	e (LOS)						В		В		В		С	A	
Approach Delay	y, s/veh	/LOS		17.1		В	16.6	3	В	16.3	3	В	11.4	1	В
Intersection De	lay, s/ve	eh / LOS				1	3.7					0 50	В		E 35 N
	ntersection Delay, s/veh / LOS					All la	900	14/0	The same	المتا	ND	J. 30	The said	CD	
Multimadal Da	Iultimodal Results				FR			WH			NH			SH	
Multimodal Re	_	/1.06		2.8	EB	С	2.9	WB	С	2.8	NB	С	2.0	SB	В

T-2-4-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-	HCS 2010					Inters	ectio	n Re	sults \$	Sumn	nary				
									Lutana	4	340 3	T But	ALTERNATION OF	기 박 각 화	formula.
General Inform	nation	1							Interse				-	4	THE IN
Agency						Taa			Duration		0.25				
Analyst				_		e 8/4/2	016		Area Ty	pe	Othe		4 4 7		
Jurisdiction				Time F	_				PHF		0.88				*
Urban Street		Whiffletree Lane		Analys		_			Analysis		_	:00	X		
Intersection		Rolling Hills Road		File Na	ame	6-Rol	ling Hills	s-VVhi	ffletree E	+P AM.	xus		-	*	
Project Descrip	tion	Water State of the	124 45 1	N 7 4 1 5	20-7	CH S				- 65-53		No. of Lot		ጎ ተ ተ ተ ነ	
Demand Inform	nation			200	EB			V	/B		NE	3		SB	N. Contraction
Approach Move	ment			L	T	R	L	1	T R	L	Т	R	L	T	R
Demand (v), v	eh/h		-	0	334	0	0	49	90 0	0	45	20	0	14	3
Signal Informa	tion								SUETE.	The state of					
Signal Informa		Reference Phase	2	1	. 7						1		7		本
Cycle, s	45.0		2		₹.	51	7		1				<b>♦</b> ₂		
Offset, s	0	Reference Point	End	Green		1.3	3.6	0.0		0.0		HEVIEW	5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0		0.0			Y		V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
Timer Results				EBL		EBT	WB		WBT	NE	BL	NBT	SE	3L	SBT
Assigned Phase	9					2			6			8			4
Case Number	900	Mar 6-1-50	11	154	BETT OF	8.0			8.0		18	12.0	1991		12.0
Phase Duration	, s					32.1			32.1			7.6			5.3
Change Period,	_	c). S				4.0	TQ1		4.0			4.0	100		4.0
	_					0.0			0.0			3.1			3.1
Charles and the Control of the Contr	Allow Headway ( <i>MAH</i> ), s le Clearance Time ( <i>g</i> s ), s		27-24		301	A TOWN	-					3.8			2.5
Green Extension						0.0			0.0			0.1			0.0
Phase Call Prob		(90),0	Stanil	200		A SECTION AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON ADDRESS OF THE PERSO	10000	E 1				0.60	1000		0.21
Max Out Probab	-											0.00			0.00
	rig.		P - 1		-10	1			MALE STATE		3	15-30	-		W. S.
Movement Gro	-	sults		-	EB		- Jan	WE	-		NB	1000		SB	
Approach Move				L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	the state of the s			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	-			0		0	0		0		0			0	
		ow Rate (s), veh/h/lr	1	0		0	0	1	0		0		25.4	0	1972
Queue Service		and the second s		0.0		0.0	0.0		0.0		0.0			0.0	
Cycle Queue Cl	_	e Time ( g c ), s		0.0	die.	0.0	0.0		0.0		0.0			0.0	
Green Ratio ( g/	_													-	
Capacity (c), v															
Volume-to-Capa		NAME AND ADDRESS OF THE OWNER, WHEN PERSON NAMED IN		0.000		0.000	0.000		0.000		0.000			0.000	
AND DESCRIPTION OF THE PARTY OF	CONTRACTOR DESIGNATION	In (50 th percentile)		0		0	0		0		0			0	
	_	eh/In (50 th percentil	-	0.0		0.0	0.0		0.0		0.0			0.0	
The second secon	THE RESERVE THE PERSON NAMED IN	RQ) (50 th percenti	ie)	0.00		0.00	0.00		0.00	-	0.00			0.00	
Uniform Delay (	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			0.0		0.0	0.0		0.0		0.0			0.0	
Incremental Del	-			0.0		0.0	0.0		0.0	-	0.0			0.0	
Initial Queue De	_			0.0		0.0	0.0		0.0	-	0.0			0.0	
Control Delay (	-							2 72		-					
Level of Service	_			0.7		^	10			0.1		0	00		
Approach Delay	THE RESERVE AND ADDRESS OF THE PARTY.	NAME AND ADDRESS OF THE OWNER, WHEN PERSON WAS ADDRESS.	-	3.7		A	4.0		Α	21.0	0	С	23.		С
Intersection Del	ay, s/ve	en / LOS		S (20. 1		5	.4	3 39			6	1	A	7 70	STATE OF THE
Multimodal Res	sults				EB			WB			NB			SB	
	-	1100		2.0	T	В	2.0		В	2.7	_	В	2.7	_	В
Pedestrian LOS	modal Results strian LOS Score / LOS														

	HCS 2010					nters	ection	Re	sults	Su	ımm	ary			ALTHOUGH ST	
O	PUES		DE A						Intoro	o o ti	on In	formation			1474	UKU
	tion										-		on	-	4	
Agency	_					1011101	110		Durati	_		0.25		-		
Analyst				Analys		8/4/20	)16	_	Area	Type		Other		- 1		
Jurisdiction				Time F		-			PHF			0.98		_		*
Urban Street	_	Vhiffletree Lane		Analys		_			Analy			1> 7:	00	- F		
Intersection	_	Rolling Hills Road		File Na	ame	6-Roll	ing Hills	-Whi	ffletree	E+P	PM.x	us		_	*	
Project Description	n	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		San Acros	10	km all m	BEET CO.	-			- 8	72 - 189			14141	141
Demand Informa	tion				EB			V	/B	L ,		NB			SB	
Approach Moveme	ent			L	Т	R	L	1	Г	R	L	T	R	L	T	R
Demand (v), veh			1	0	510	0	0	39	93	0	0	15	15	0	16	6
Signal Information	on					TIII			NAME OF							
		Reference Phase	2	1		211								7		4
	_		_		₹.	SI	7						- 1	<b>7</b> 2		
Offset, s		Reference Point	End	Green	The same of the sa	1.5	1.9	0.0		.0	0.0		JIT P	5-	1 - 3	
		Simult. Gap E/W	On	Yellow		4.0	4.0	0.0		.0	0.0			V		W
Force Mode F	ixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0 0	.0	0.0	1.5	5	6	7	
Timer Results				EBL		EBT	WB		WBT		NB		NBT	SE	BL	SBT
Assigned Phase						2			6				8			4
Case Number	Title.	A THE PARTY OF	7 30	Chass		8.0	WE SE	231	8.0				12.0	150	A PIPE	12.0
Phase Duration, s						33.6			33.6	7			5.9			5.5
	nge Period, ( Y+R c), s				_	4.0			4.0		- 100		4.0	1190		4.0
	Allow Headway ( <i>MAH</i> ), s					0.0			0.0	7			3.2			3.1
A STATE OF THE OWNER,					100	0.0	100000	E P	0.0		11.70		2.8			2.6
	eue Clearance Time ( g s ), s					0.0			0.0	+			0.0			0.0
	een Extension Time ( g e ), s  ase Call Probability					0.0			0.0				0.32	1000		0.24
	-	tainin the think						-	-	-		-	0.00	-		0.00
Max Out Probabili	ity	Jan 19 19 19 19 19 19 19 19 19 19 19 19 19	205	55035	3. 2		32.65	986		200	318		0.00	THE PARTY		0.00
<b>Movement Group</b>	p Resu	Its			EB			WE	3			NB		5083	SB	TR.
Approach Moveme	ent			L	T	R	L	Т	R		L	Т	R	L	Т	R
Assigned Moveme	ent			5	2	12	1	6	16		3	8	18	7	4	14
Adjusted Flow Rat	te ( v ),	veh/h		0		0	0		0			0			0	
Adjusted Saturation	on Flow	Rate (s), veh/h/lr	1	0		0	0		0		ME I	0			0	100
Queue Service Tir	me ( g s	s), s		0.0		0.0	0.0		0.0			0.0			0.0	
Cycle Queue Clea				0.0		0.0	0.0	0.020	0.0		3	0.0			0.0	(Rem)
Green Ratio (g/C																
Capacity (c), veh				-	241110	-	PER ST	hila	1 8"			11111			-	
Volume-to-Capaci		o(X)		0.000		0.000	0.000		0.00	00		0.000			0.000	
THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	_	(50 th percentile)		0	Mary 1	0	0		0	_		0		100	0	
The second secon	STATE OF THE OWNER, WHEN	/In (50 th percentil	e)	0.0		0.0	0.0		0.0	-		0.0			0.0	
	-	(Q) (50 th percent	_	0.00	7386	0.00	0.00		0.0	-		0.00	-		0.00	
Uniform Delay ( d	THE RESERVE OF THE PERSON NAMED IN									1						
Incremental Delay	-		1	0.0	CHAIR!	0.0	0.0	1	0.0			0.0			0.0	
Initial Queue Dela	Name and Address of the Owner, where			0.0		0.0	0.0		0.0	-		0.0			0.0	
Control Delay ( d )	-			5.5		5.0			0.0			3.0		1	0.0	
Level of Service (I	-									+						
	-	100		3.2		Α	3.1		Α	-	22.5		С	22.	9	С
Approach Delay, s Intersection Delay	-		-	3.2		_	.2		^	-	22.0			A 22.	9	U
mersection belay	, siven	7200		1	17.61		A P	178	1	-	13	100	11 2 1	Page 18	31.38	5-16-7
Multimodal Resu	ılts			100 - S	EB			WE	3			NB			SB	
Pedestrian LOS S	Score / I	LOS		2.0		В	2.0		В		2.7		В	2.7	'	В
Bicycle LOS Score	e / LOS			0.9	11	Α	0.8		Α		0.5		Α	0.5	5	Α

	e redistri	HCS 2	010 S	ignali	ized l	nters	ectio	n Res	ults S	umn	nary				
General Inform	ation	<b>出意的意见。</b> 也多数。					100	( Bass	Intersec	tion In	formati	on	-	74741	IBU
	auon	1						_	Duration		0.25	OII		*	
Agency				Analy	sis Date	e 8/4/20	116	_	Area Typ	_	Othe	r	- 2		
Analyst				Time F		0/4/20	J10		PHF		0.90				-
Jurisdiction		Callanta of Drive			_	r 2016		_	Analysis	Doring		00	- 3		-
Urban Street		Fallenleaf Drive		-	sis Yea	_	lina Hill	_	nleaf E+F		_	00	-		
Intersection Project Descript	ion	Rolling Hills Road		File N	ame	7-Roi	ing mil	s-rallel	ileai ETI	AIVI.X	us		-	14147	1 + 1
4571372080	chy ?	International In	1	251		RASI	449		H I W	100		100		E E	
Demand Inform					EB			WE	-		NB	_		SB	
Approach Move	-			L	T	R	L	Т	R	L	T	R	L	T	R
Demand (v), ve	eh/h			29	318	0	11	433	3 0	0	45	0	0	59	0
Signal Informa	tion												NE D		1
Cycle, s	45.0	Reference Phase	2		<b>→</b> *		7				13		<b>=</b>		4
Offset, s	0	Reference Point	End	Croon	26.9	3.4	2.8	0.0	0.0	0.0		1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow	_	4.0	4.0	0.0	0.0	0.0			4	31 000	sta
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	Y 8
	5. X. H	application in	MARK	EDI		CDT	\A/D		WBT	NE	1	NDT	SE	21	CDT
Timer Results				EBI	-	EBT	WB	L		INE	DL	NBT	SI	DL	SBT
Assigned Phase	)					2			6	-		8			4
Case Number						6.0			6.0	-		12.0			12.0
Phase Duration,						30.9			30.9			6.8			7.4
Change Period,	-					4.0			4.0			4.0	-		4.0
NAME AND ADDRESS OF TAXABLE PARTY.	x Allow Headway ( $MAH$ ), s eue Clearance Time ( $g$ $s$ ), s					0.0	100000		0.0			3.0	-		3.0
	eue Clearance Time ( g s ), s				-	0.0			0.0			3.2	-		3.5
THE RESERVE AND ADDRESS OF THE PARTY OF THE	een Extension Time ( g e ), s					0.0			0.0	-		0.1	-		0.1
	ase Call Probability						-					0.46			0.56
Max Out Probab	oility	The Water	-		-	-	Name of Street	Name of	245560		Walter St.	0.00			0.00
Movement Gro	up Res	sults			EB	17,110		WB			NB		1	SB	Name of the last
Approach Move	ment			L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Mover	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		), veh/h		32	353	0	12	481	0		0			0	
CHARLES STORY OF THE PARTY OF T		ow Rate (s), veh/h/l	n	928	1900	0	1044	1900	0		0			0	F
Queue Service	Time (	g s ), S		0.7	1.9	0.0	0.2	2.6	0.0		0.0			0.0	
Cycle Queue Cl		the same of the sa	Die (+)	3.4	1.9	0.0	2.1	2.6	0.0		0.0			0.0	
Green Ratio ( g/	STATE OF TAXABLE PARTY.			0.60	0.60		0.60	0.60							
Capacity (c), ve	eh/h	11.50		659	2268	A SELECTION OF THE PERSON OF T	740	2268							14 71
Volume-to-Capa	city Ra	atio (X)		0.049	0.156	0.000	0.017	0.212	0.000		0.000			0.000	
Name and Address of the Owner, where the Owner,	-	/In (50 th percentile)		2.9	10.6	0	1	15	0		0	MIN		0	100
NAME AND ADDRESS OF TAXABLE PARTY.	THE OWNER WHEN	eh/ln (50 th percenti		0.1	0.4	0.0	0.0	0.6	0.0		0.0			0.0	
AND RESIDENCE OF THE PARTY OF T	-	RQ) (50 th percent	_	0.03	0.05	0.00	0.01	0.08	0.00	15	0.00			0.00	
Uniform Delay (	-	The second secon		5.0	4.0		4.5	4.2							
Incremental Del	-			0.1	0.1	0.0	0.0	0.2	0.0	100	0.0			0.0	1
Initial Queue De	-			0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (	-			5.1	4.2		4.5	4.4				-			
Level of Service	_	AND DESCRIPTION OF THE PERSON		Α	Α		Α	Α							
Approach Delay		THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN	26-1	4.3	2147	Α	4.4		Α	21.	3	С	20.	9	С
Intersection Del	OF REAL PROPERTY.					6	.3						Α		
The same of				-	EB			WB	THE .		NB	اللقصا	100	SB	Edwide
Multimodal Pag									110			JU			
Multimodal Res	timodal Results estrian LOS Score / LOS					В	2.0		В	2.8		С	2.8		С

	HCS 2010					nters	ection	n Res	ults S	umm	ary	2 - Sea. 1	100	12.		2013
Consequence of					5 / W. P.				Intersec	tion In	formati	on	and the last	Į.	4741	p Q
	ation							_	Duration,		0.25	OII	-		4	
Agency				A = = b ==	i- D-4-	0/4/00	146	_	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	_	Othe					
Analyst			_		sis Date	8/4/20	716		Area Typ PHF	е	0.96			<i>y</i>	"in	-
Jurisdiction				Time F		0040		_		David	_	00		X*	9	-
Urban Street		Fallenleaf Drive		_	sis Year	_	I (:II)	_	Analysis			00	5			
Intersection		Rolling Hills Road		File Na	ame	/-Roll	ing Hills	s-Faller	nleaf E+F	PIVI.XI	JS		-	200	*	2012
Project Descrip	tion		175	NESS CO.	1100	Section 1	10	15 15		No.				HICK.	O SUCH ALC	D(I)
Demand Inform	nation			2	EB			WE	3		NB				SB	
Approach Move	ment			L	T	R	L	T	R	L	Т	R		L	Т	R
Demand (v), v	eh/h	The Later	318	35	439	0	20	399	0	0	24	0		0	46	0
Circulations of	Alan												HYROAT.			
Signal Informa		Deference Dhase	2	1	1	= 211/2						- 1		1 15		<b>A</b>
Cycle, s	45.0	Reference Phase	2		₹.	Sir	7					- 1	4	2	3	
Offset, s	0	Reference Point	End	Green	The second liverage of the second	2.7	1.6	0.0	0.0	0.0			1			
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0	0.0	0.0						Y
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		3	3103	b	- A	8
Timer Results				EBI		EBT	WB	L	WBT	NB	L	NBT		SBL		SBT
Assigned Phase	9					2			6			8	1			4
Case Number	755					6.0	1130		6.0			12.0	3/4			12.0
Phase Duration	, s					32.7			32.7			5.6				6.7
Change Period,		c), S	3351	1	2/10	4.0	-		4.0	View 1		4.0	RET			4.0
Max Allow Head	-					0.0			0.0			3.0				3.0
Queue Clearan	Name and Address of the Owner, where			E.		12 13	PRO L				A	2.6				3.1
Green Extensio						0.0			0.0			0.0				0.1
Phase Call Pro				X		"makey	100			100	Feb Hall	0.27				0.45
Max Out Probal	_											0.00				0.00
	Pull 3				ED.			IAID			ND	1			CD	
Movement Gro	-	sults			EB		-	WB	-	-	NB	_ n	-		SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	_	T	R
Assigned Move	MANAGEMENT OF THE PARTY OF THE			5	2	12	1	6	16	3	8	18	7	-	4	14
Adjusted Flow F				36	457	0	21	416	0		0			-	0	
The second secon	-	ow Rate (s), veh/h/l	n	986	1900	0	949	1900			0		1100	-	0	
Queue Service				0.7	2.2	0.0	0.4	2.0	0.0	The same of	0.0		1000		0.0	
Cycle Queue C	_	e Time $(g_c)$ , s		2.7	2.2	0.0	2.7	2.0	0.0	17/11/14	0.0		-	-	0.0	
Green Ratio ( g	_			0.64	0.64		0.64	0.64					+	+		
Capacity (c), v	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN			744	2422	0.000	717	2422	_		0.000		-	-	2.000	
Volume-to-Capa	_	and the second s		0.049	0.189	-	0.029	9.7	0.000		0.000			1	0.000	
	Name and Address of the Owner, where	/In (50 th percentile)		2.5	10.8	0	1.5	_			_		-	-		
	_	eh/In (50 th percenti		0.1	0.4	0.0	0.1	0.4	0.00		0.0				0.0	
The second secon	The second second	RQ) (50 th percent	ile)	0.03	0.05	0.00	3.9	3.3	0.00		0.00		-		0.00	
Uniform Delay	OCCUPANT DESCRIPTION			0.1	0.2	0.0	0.1	0.2	0.0		0.0				0.0	
Incremental De	Name and Address of the Owner, where			0.1	0.2	0.0	0.0	0.2	0.0		0.0		-		0.0	
Initial Queue De	-			4.0	3.5	0.0	4.0	3.5	0.0		0.0				0.0	
Control Delay (	-				3.5 A		A.0	A					-	-		
Level of Service	-			A 3.6		Α	3.5	-	Α	22.	5	С	1	21.4		С
Approach Delay	Name and Address of the Owner, where the Owner, which is the Owner,	NAME OF TAXABLE PARTY.		3.6			.9		^	22.5		U	A	. 1.4		U
Intersection De	ay, S/V6	SII / LOS	\$150°		91			215	7,54-3	708	16-	No.		20	1	100
Multimodal Re	sults				EB	=200[8]		WB			NB				SB	
Pedestrian LOS	_	/LOS		2.0		В	2.0		В	2.8		С		2.8		С
Bicycle LOS So	-	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLU		0.9		Α	0.8	1100	Α	0.5		Α		0.6		Α

Commonstation	SB T R 1004  SBT 4
Agency	SB T R 1004
Analyst	SB T R 1004
Jurisdiction	T R 1004 SBT 4
Urban Street	T R 1004 SBT 4
Intersection	T R 1004 SBT 4
Demand Information	T R 1004 SBT 4
Demand Information         EB         WB         NB         Approach Movement         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         T         R         L         D         Infection	T R 1004 SBT 4
Approach Movement       L       T       R       L       T<	T R 1004 SBT 4
Demand ( v ), veh/h         145         144         61         22         177         196         116         1313         154           Signal Information           Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         Red         0.0         4.0         4.0         0.0         4.0	T R 1004 SBT 4
Demand ( v ), veh/h         145         144         61         22         177         196         116         1313         154           Signal Information           Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         Red         0.0         4.0         4.0         0.0         4.0	1004 SBT 4
Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         48.7         8.4         2.2         31.4           Force Mode         Fixed         Simult. Gap N/S         On         Red         0.0         0.0         0.0         0.0         4.0         1.1         4.0         1.1         4.0         1.1         4.0         1.1         4.0         1.1         4.0         1.1         4.0	4
Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         4.0         4.0         4.0         0.0         0.0         4.0 <td< td=""><td>4</td></td<>	4
Offset, s         0         Reference Point Uncoordinated No Simult. Gap E/W On Force Mode         End Simult. Gap E/W On Feroe Mode         Simult. Gap E/W On Feroe Mode         Simult. Gap N/S On Feroe Mode Fixed Simult. Gap N/S On Feroe Mode Mode Mode Mode Mode Mode Fixed Simult. Gap N/S On Feroe Mode Mode Mode Mode Mode Mode Mode Mo	4
Uncoordinated   No   Simult. Gap E/W   On   Yellow   4.0   4.0   4.0   4.0   0.0   4.0   4.0   0.0	4
Force Mode         Fixed         Simult. Gap N/S         On         Red         0.0         1.1         4.0         4.0         4.0         4.0         4.0         4.0 <td>4</td>	4
Timer Results         EBL         EBT         WBL         WBT         NBL         NBT         SBL           Assigned Phase         5         2         1         6         3         8         7           Case Number         2.0         3.0         2.0         3.0         1.1         4.0         1.1           Phase Duration, s         17.4         62.6         7.4         52.7         12.4         35.4         14.6           Change Period, (Y+Rc), s         4.0         4	4
Assigned Phase 5 2 1 6 3 8 7  Case Number 2.0 3.0 2.0 3.0 1.1 4.0 1.1  Phase Duration, s 17.4 62.6 7.4 52.7 12.4 35.4 14.6  Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  Max Allow Headway (MAH), s 3.0 0.0 3.0 0.0 3.0 2.9 3.0  Queue Clearance Time (gs), s 13.3 3.7 8.4 33.4 10.5  Green Extension Time (ge), s 0.1 0.0 0.0 0.0 0.1 0.0 0.1  Phase Call Probability 1.00 0.57 0.99 1.00 1.00  Max Out Probability 1.00 0.00 0.00 0.00 0.00 0.0  Movement Group Results EB WB NB  Approach Movement L T R L T R L T R L  Assigned Movement 5 2 12 1 6 16 3 8 7	4
Assigned Phase 5 2 1 6 3 8 7  Case Number 2.0 3.0 2.0 3.0 1.1 4.0 1.1  Phase Duration, s 17.4 62.6 7.4 52.7 12.4 35.4 14.6  Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0  Max Allow Headway (MAH), s 3.0 0.0 3.0 0.0 3.0 2.9 3.0  Queue Clearance Time (gs), s 13.3 3.7 8.4 33.4 10.5  Green Extension Time (ge), s 0.1 0.0 0.0 0.0 0.1 0.0 0.1  Phase Call Probability 1.00 0.57 0.99 1.00 1.00  Max Out Probability 1.00 0.00 0.00 0.00 0.00 0.0  Movement Group Results EB WB NB  Approach Movement L T R L T R L T R L  Assigned Movement 5 2 12 1 6 16 3 8 7	4
Case Number         2.0         3.0         2.0         3.0         1.1         4.0         1.1           Phase Duration, s         17.4         62.6         7.4         52.7         12.4         35.4         14.6           Change Period, (Y+Rc), s         4.0<	
Phase Duration, s       17.4       62.6       7.4       52.7       12.4       35.4       14.6         Change Period, (Y+R c), s       4.0	7.0
Change Period, (Y+Rc), s       4.0       3.0       2.0       3.0       2.9       3.0       3.0       2.9       3.0       3.0       2.9       3.0       3.0       2.9       3.0       3.0       2.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0 <th< td=""><td>37.5</td></th<>	37.5
Max Allow Headway ( MAH ), s       3.0       0.0       3.0       0.0       3.0       2.9       3.0         Queue Clearance Time ( g s ), s       13.3       3.7       8.4       33.4       10.5         Green Extension Time ( g e ), s       0.1       0.0       0.0       0.0       0.1       0.0       0.1         Phase Call Probability       1.00       0.57       0.99       1.00       1.00         Max Out Probability       1.00       0.00       0.00       1.00       0.07         Movement Group Results       EB       WB       NB         Approach Movement       L       T       R       L       T       R       L       T       R       L       T       R       L         Assigned Movement       5       2       12       1       6       16       3       8       7	
Queue Clearance Time ( g s ), s       13.3       3.7       8.4       33.4       10.5         Green Extension Time ( g e ), s       0.1       0.0       0.0       0.0       0.1       0.0       0.1         Phase Call Probability       1.00       0.57       0.99       1.00       1.00         Max Out Probability       1.00       0.00       0.00       1.00       0.07         Movement Group Results       EB       WB       NB       NB         Approach Movement       L       T       R       L	
Green Extension Time ( g e ), s       0.1       0.0       0.0       0.0       0.1       0.0       0.1         Phase Call Probability       1.00       0.57       0.99       1.00       1.00         Max Out Probability       1.00       0.00       0.00       1.00       0.07         Movement Group Results       EB       WB       NB         Approach Movement       L       T       R       L       T       R       L       T       R       L       T       R       L         Assigned Movement       5       2       12       1       6       16       3       8       7	
Phase Call Probability         1.00         0.57         0.99         1.00         1.00           Max Out Probability         1.00         0.00         0.00         1.00         0.07           Movement Group Results         EB         WB         NB           Approach Movement         L         T         R	4.1
Max Out Probability         1.00         0.00         0.00         1.00         0.07           Movement Group Results         EB         WB         NB           Approach Movement         L         T         R	
Movement Group Results         EB         WB         NB           Approach Movement         L         T         R	
Approach Movement         L         T         R         L         T         R         L         T         R         L           Assigned Movement         5         2         12         1         6         16         3         8         7	0.00
Assigned Movement 5 2 12 1 6 16 3 8 7	SB
	TR
Adjusted Flow Rate ( v ), veh/h 165 164 69 25 201 223 132 1492 175	4
	1141
Adjusted Saturation Flow Rate ( s ), veh/h/ln 1723 1810 1608 1723 1810 1607 1774 1691 1774	1691
Queue Service Time ( g s ), s       11.3       7.8       3.6       1.7       10.5       13.4       6.4       31.4       8.5	25.1
Cycle Queue Clearance Time ( g c ), s 11.3 7.8 3.6 1.7 10.5 13.4 6.4 31.4 8.5	25.1
Green Ratio ( g/C ) 0.11 0.49 0.49 0.03 0.41 0.41 0.33 0.26 0.35	0.28
Capacity ( c ), veh/h 192 884 786 49 734 651 211 1326 217	1418
Volume-to-Capacity Ratio ( X ) 0.859 0.185 0.088 0.513 0.274 0.342 0.624 1.125 0.806 (	0.804
Back of Queue ( Q ), ft/ln ( 50 th percentile) 157.7 88.8 33.8 20.3 125.7 140.2 70.9 540.3 103.2 2	271.9
Back of Queue ( Q ), veh/ln ( 50 th percentile) 6.1 3.4 1.4 0.8 4.8 5.6 2.7 20.8 4.0	10.5
	0.89
Uniform Delay ( <i>d</i> <sub>1</sub> ), s/veh 54.6 23.3 21.9 58.1 29.9 30.9 32.4 44.3 32.2	40.2
Incremental Delay ( d 2 ), s/veh 20.6 0.5 0.2 3.1 0.9 1.4 1.1 66.6 7.8	3.2
Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0
	43.4
Level of Service (LOS)         E         C         C         E         C         C         F         D	D
Approach Delay, s/veh / LOS 44.8 D 33.2 C 104.7 F 42.9	D
Intersection Delay, s/veh / LOS 68.5	D
Multimodal Results EB WB NB	
Pedestrian LOS Score / LOS 3.3 C 3.3 C 2.5 B 2.4	D
Bicycle LOS Score / LOS 1.1 A 1.2 A 1.4 A 1.2	

		HCS 2	010 S	ignal	ized	Inters	ectio	n Re	sults S	Summ	ary	13.77=			
General Inform	nation	<b>以</b> 自己的 1000 1000 1000 1000 1000 1000 1000 10				U.Alay		4	Interse	tion In	ormati	ion		147年1	I PLU
	nation	KHD Associates						-			0.25	OII	- 1	111	
Agency		KHR Associates		Analys	aia Dat	0/1/2	016	-	Duration		Othe	_			
Analyst		Townson Colifornia		_		e 8/1/2	016	-	Area Ty PHF	pe	0.97	1			_
Jurisdiction		Torrance California		Time I		- 2040		-		Dariad	_	20			-
Urban Street		Crenshaw Bouleva	ra	-	sis Yea	_	lina Lill		Analysis	-	1> 7:	.30	- 5		
Intersection	·	Rolling Hills Road		File N	ame	8-R0	ling Hill	s-Cren	shaw E+	P PIVI.X	us		_	7 1 1	A CONTRACT
Project Descrip	tion		3 1 1 1 1 1 1	- 40	- 112	-		1000	SILS		2500H	1/4			THE REAL PROPERTY.
Demand Inform	nation				EB			W	В		NB			SB	
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	T	R
Demand (v), v	eh/h			161	280	87	41	21	3 161	102	987		269	1005	
THE REAL PROPERTY.		<b>计算数字。</b>								1 1:				A. A.	
Signal Informa	_			4	1.	_2		`⊨ '	7 7	u li	u .	_		K	
Cycle, s	120.0	Reference Phase	2		- 4	R	=3	100		1	1		<b>7</b> 2	3	1
Offset, s	0	Reference Point	End	Green		4.9	48.7			25.	9		5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0		4.0					V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Timer Results	The state			EBI		EBT	WB	BL	WBT	NB		NBT	SB		SBT
Assigned Phas	e			5		2	1		6	3		8	7		4
Case Number	01 -01			2.0		3.0	2.0		3.0	1.1	721 .	4.0	1.1		4.0
Phase Duration	. s			17.4	-	61.6	8.5		52.7	11.3	_	29.9	20.	0	38.6
-	ge Period, ( Y+R c), s					4.0	4.0		4.0	4.0	_	4.0	4.0		4.0
	Allow Headway ( <i>MAH</i> ), s					0.0	3.0	_	0.0	3.0	_	2.9	3.0		2.9
	ue Clearance Time ( g s ), s						4.9	_	1	7.5	_	25.6	16.		23.9
	eue Clearance Time ( $g_s$ ), s en Extension Time ( $g_e$ ), s					0.0	0.0	-	0.0	0.1	_	0.3	0.0		4.4
	en Extension Time ( g e ), s se Call Probability						0.76	_		0.97		1.00	1.00	_	1.00
Max Out Proba	_			1.00			0.0	0		0.00	_	1.00	1.00		0.25
E Have					400		1	100			- 67		No. Own	200	350
Movement Gro	up Res	sults			EB			WB		5 1	NB	ine di	Part .	SB	15/6-1
Approach Move	_			L	T	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ment	A SERVICE OF THE SERV		5	2	12	1	6	16	3	8		7	4	10
Adjusted Flow I	Rate (v	), veh/h		166	289	90	42	220	166	105	1018		277	1036	
Adjusted Satura	ation Flo	ow Rate ( $s$ ), veh/h/l	n	1723	1810	1608	1723	1810	_	1774	1691		1774	1691	
Queue Service				11.4	14.6	4.7	2.9	11.6	_	5.5	23.6		14.1	21.9	
Cycle Queue C	-	e Time ( g c ), s		11.4	14.6	4.7	2.9	11.6	-	5.5	23.6		14.1	21.9	
Green Ratio (g				0.11	0.48	0.48	0.04	0.41	0.41	0.28	0.22		0.37	0.29	
Capacity (c), v	_			193	868	772	65	734	652	216	1095		307	1461	
Volume-to-Cap				0.860	0.332	-	0.649	0.299	-	0.486	0.930		0.903	0.709	
	-	In (50 th percentile)		159	177	45.2	34.4	139.4		60.6	284.2		211.1	232.3	
	_	eh/ln (50 th percenti		6.1	6.8	1.8	1.3	5.4	4.0	2.3	10.9		8.1	8.9	
	_	RQ) (50 th percent	tile)	0.53	0.59	0.16	0.11	0.46	0.34	0.30	1.39		0.69	0.76	
Uniform Delay	_			54.6	26.2	22.8	57.7	30.2	-	34.6	46.2		31.8	38.2	
Incremental De	-			0.0	0.0	0.3	0.0	0.0	0.9	0.6	0.0		0.0	0.0	
Initial Queue De							-	-	_		_		-	-	
Control Delay (	_			75.3 E	27.2 C	23.1 C	61.7 E	31.3 C	30.5 C	35.2 D	59.4 E		59.4 E	39.6 D	
Level of Service			-	41.2	-	D	34.0	-	C	57.1		E	43.8	_	D
Approach Delay Intersection De				41.2			5.5		0	37.			D 43.0		U
intersection De	ay, sive	M17 E00	C 1999	3777	10.00	1			4 : 198		-	1	69 11 10	2 /50	
Multimodal Re	sults				EB		n in	WB			NB			SB	
Pedestrian LOS		/ LOS		3.3		С	3.3		С	2.5		В	2.4		В
Bicycle LOS So				1.4		Α	1.2		A	1.1		Α	1.2		Α

		HCS 2	010 S	ignal	ized	Inter	sectio	n Re	sults	Summ	ary	9390			100
General Inform	ation		4 19		1.71%		C.		Interse	ction Inf	formati	on		14741	
	iation	KHR Associates							Duratio		0.25	···		111	Ļ
Agency Analyst		Ki ii k Associates		Analys	sis Da	te 8/1/	2016		Area Ty		Othe	r			
Jurisdiction		Torrance California			Period	_	2010		PHF	PC	0.95				=
Urban Street	_	Pacific Coast Highw	vav	-	sis Yea	_	ñ			s Period	1> 7:	30	- 3-		5
Intersection		Crenshaw Boulevar		File N			CH-Cren	shaw F	THE RESERVE AND ADDRESS OF THE PARTY.		1. 7.	00	- 3	K 4 4 4	,
Project Descrip	tion	Crensnaw Bodieval	u	THEIV	arric	3-1	311-01011	SHOW L		AUG				<u>ነ</u> ተተቀካ	1 12 17
Domand Inform	nation				EB	200		W	B		NB	SCHOOL SECTION	7	SB	
Demand Inform	Control Control			L	T	R	L	T	-	L	T	R	L	T	R
Approach Move	-			167	945	_	63		-	57	986	_	135	624	
Demand (v), v	en/n	Market Street	-	107	943		03	19	19	31	900	419	133	024	Name of
Signal Informa	tion								\ \ \						
Cycle, s	120.0	Reference Phase	2	1	2	7	7-3	<u></u>		700	2 - 1		4	1	D
Offset, s	0	Reference Point	End	C	0.0	6.0	46.0	5.2	25		17	-1	2	3	4
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		6.0 4.0	46.0	4.0			3		7		12
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	8
			200			545.0	F 27 90		4	-					
Timer Results				EBI	-	EBT	W	3L	WBT	NB	L	NBT	SB	_	SBT
Assigned Phase	9			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.		4.0	2.0	-	3.0	1.1	_	4.0
Phase Duration				4.0	_	50.0	20.	_	60.0	9.2	$\rightarrow$	37.3	12.		40.7
Contract of the last of the la					_	4.0	4.0	_	4.0	4.0	_	4.0	4.0		4.0
	Allow Headway ( <i>MAH</i> ), s					0.0	3.0	_	0.0	3.0	_	3.0	3.0	_	3.0
	eue Clearance Time ( g s ), s					0.0	0.0		0.0	0.0		35.3	8.7 0.1		14.4 6.1
	en Extension Time ( g e ), s					0.0	1.0		0.0	0.86	_	1.00	0.9	-	1.00
Phase Call Prol Max Out Proba	-		100	0.00			1.0	_		0.00	-	1.00	0.0		0.07
Wax Out 1 Tobal	omity		13 80	0.00			JEVER I		200			The state	1		
Movement Gro	up Res	sults		100	EB			WB			NB		- 50	SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move	ment			5	2		1	6		3	8	18	7	4	
Adjusted Flow F	Rate ( v	), veh/h		176	995		671	2020	)	60	1038	504	142	657	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	n	1673	1723		1673	1643	3	1774	1691	1608	1774	1691	
Queue Service	Time (	g s ), S		3.8	32.0		15.0	46.6		4.0	22.3	33.3	6.7	12.4	
Cycle Queue C	learanc	e Time ( g c ), s	100	3.8	32.0		15.0	46.6		4.0	22.3	33.3	6.7	12.4	
Green Ratio ( g	/C)			0.43	0.38	_	0.53	0.47	_	0.04	0.28	0.28	0.36	0.31	
Capacity (c), v				313	1319	_	696	2301		77	1407	446	238	1554	
Volume-to-Capa		CONTRACTOR OF THE PARTY OF THE		0.562	_	_	0.964	-		0.775	0.738	-	0.597	0.423	
		/In (50 th percentile)	-	38.3	378.9	-	221.1	524.	-	49.1	238.6	574.9	72.5	128	
		eh/In (50 th percenti		1.5	14.6	_	8.5	20.2	-	1.9	9.2	23.0	2.8	4.9	
The second secon		RQ) (50 th percent	tile)	0.13	1.26	_	0.74	1.75	_	0.24	1.17	2.92	0.24	0.42	
Uniform Delay				29.1	39.5	-	29.4	38.1		56.8	39.4	43.4	29.7	33.2	
Incremental De	_	The state of the s		0.6	4.0		25.3	5.1		6.1	1.8	83.4	0.9	0.1	
Initial Queue De	_			0.0	0.0 43.5		0.0	0.0 43.2		0.0 62.8	0.0 41.2	0.0 126.8	30.6	33.2	
Control Delay (	_			29.7 C	43.5 D		54.7 D	43.2 D		62.6 E	D D	F	C	C C	
Level of Service Approach Delay				41.4	-	D	46.	-	D	69.0	-	E	32.8	-	С
Intersection De				710			49.4			50.0			D		
		100					TO SE				200			EQ:	
Multimodal Re	-				EB			WB			NB			SB	
Pedestrian LOS				3.4	_	С	3.3	_	С	3.1	_	С	3.3	_	С
Bicycle LOS So	ore / LO	OS		1.5	191	Α	2.0	)	Α	1.4		Α	0.9		Α

		HCS 2	010 S	ignal	ized l	nters	ection	n Res	ults S	Summ	ary				
							200			Chillie .				in charges of	THE REAL PROPERTY.
General Inform	nation							$\rightarrow$		ction In	_	on	4	   1   1	
Agency		KHR Associates				1		_	Duration	_	0.25				
Analyst				-	sis Date	8/1/2	016	_	Area Ty	pe	Othe	r			-
Jurisdiction		Torrance California		Time I		-		_	PHF		0.94		_===	₩ <del> </del> Ē	7
Urban Street		Pacific Coast Highy	-	-	sis Year	_		_		Period	1> 7:	30			•
Intersection		Crenshaw Bouleva	rd	File N	ame	9-PC	H-Crens	haw E	+P PM.	xus				5111	1
Project Descrip	tion					-								াৰ াৰণ	111
Demand Inform	mation				EB	Units		WE	3		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	eh/h			171	1250		464	142	8	73	690	446	323	1092	
								ACCURATION NO.							
Signal Informa		Reference Phase	2		20	- 5		H '	7	y   1	N E	_	7	1	7
Cycle, s	120.0		-				3	5			17			3	
Offset, s	0	Reference Point	End	Green		4.8	47.1	6.7	5.3		0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	4.0					7	P
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
Timer Results				EBI		EBT	WB		WBT	NB		NBT	SB		SBT
Assigned Phas	e			5		2	1		6	3		8	7		4
Case Number	od's			1.1		4.0	1.1		4.0	2.0		3.0	1.1		4.0
Phase Duration	ge Period, ( Y+R c), s					51.1	18.9	9	60.0	10.	7	30.0	20.0		39.3
Change Period	ge Period, ( Y+R c), s					4.0	4.0		4.0	4.0		4.0	4.0	16	4.0
	Allow Headway ( MAH ), s					0.0	3.0		0.0	3.0		3.0	3.0		3.0
	Allow Headway ( <i>MAH</i> ), s ue Clearance Time ( <i>g</i> <sub>s</sub> ), s						14.7	7		7.2		28.0	18.0		27.1
	ue Clearance Time $(g_s)$ , s en Extension Time $(g_e)$ , s					0.0	0.2		0.0	0.1		0.0	0.0		4.3
Phase Call Pro			170	1.00			1.00	0	1	0.92	2	1.00	1.00	)	1.00
Max Out Proba	_			0.00			1.00	)		0.00	0	1.00	1.00		0.53
Movement Gro	un Poc	ulte			EB			WB			NB		77.05	SB	
Approach Move		uita		L	Т	R	L	Т	R	L	T	R	L	T	R
	_	WEST THOUSAND		5	2	The state of	1	6	I N	3	8	18	7	4	IX.
Assigned Move		\ voh/h		182	1330		494	1519		78	734	474	344	1162	
			In	1689	1739		1689	1643	-	1774	1691	1608	1774	1691	
Queue Service		ow Rate (s), $\frac{1}{2}$	1	3.8	45.4		12.7	32.1		5.2	15.9	26.0	16.0	25.1	
		e Time ( g c ), s		3.8	45.4		12.7	32.1		5.2	15.9	26.0	16.0	25.1	
Green Ratio (g		5 /iiio (g c), 5		0.44	0.39		0.53	0.47		0.06	0.22	0.22	0.37	0.29	
Capacity (c),		Biological Company		412	1366	-	550	2299	1000	99	1099	348	357	1493	
Volume-to-Cap		atio (X)	-	0.441	0.973		0.898	0.661	_	0.784	0.668	1.362	0.962	0.778	
	-	/In (50 th percentile)	)	38.2	603.7		222.2	347		62.1	169.6	-	288.1	267.4	
		eh/In (50 th percenti	-	1.5	23.4		8.6	13.5		2.4	6.6	27.5	11.2	10.4	
	_	RQ) (50 th percent	and the latest designation of the latest des	0.13	2.01		0.74	1.17		0.31	0.83	3.49	0.95	0.88	160
Uniform Delay			/	23.7	43.7		37.4	33.1		55.9	43.0	47.0	34.3	38.8	
Incremental De				0.3	18.8		15.5	1.5		5.0	1.3	180.4	37.3	2.4	
Initial Queue D	_			0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (				24.0	62.4	Hillien	52.9	34.6	1-1-1-1	61.0	44.3	227.4	71.7	41.2	
Level of Service	_			С	E		D	С		E	D	F	Е	D	
Approach Dela		NAME OF TAXABLE PARTY.		57.8	3	E	39.1		D	112.	9	F	48.2		D
	_					60	0.8						E		
	ersection Delay, s/veh / LOS						,	Z L		11-11	The same	13 P.	pulling .	The state of	2
	ultimodal Results							IAID			NID			0.0	
Multimodal Re	-	11.00		3.4	EB	С	3.3	WB	С	3.1	NB	С	3.3	SB	С

	HCS 2010						ers	ectio	n Re	sults	Sum	mary				
Consultation		門是它是對抗之	The sea		C. C											
General Inform	nation	T.								_	ection I				<u> </u>	I I L
Agency		KHR Associates		,		-				Durat	on, h	0.2		100	2++	
Analyst				_	sis Da	$\overline{}$	3/1/2	016		Area	Гуре	Oth		4 - 4 - 7		
Jurisdiction		Torrance California	_	-	Period	-				PHF		0.80				÷
Urban Street		Pacific Coast Highw	vay		sis Ye	$\rightarrow$	2016				sis Perio		7:30	7		
Intersection		Vista Montana		File N	lame	1	10-P	CH-Vist	a Mont	ana E	+P AM.x	us			11	*
Project Descrip	tion			SEC. 25.			-								ነ ተ ነ ተ ነ	7 + 1
Demand Inform	nation				E	3			W	3		N	В		SB	
Approach Move	ement			L	T	-	R	L	Т	_	٦ L		-	L	T	R
Demand (v), v				47	113	_		65	_		15			_	-	
			1000		SET SE					NEW T				200		130
Signal Informa	tion									<u>u</u>						
Cycle, s	120.0	Reference Phase	2		-	C=	3	-3	Z	17			_	4		4
Offset, s	0	Reference Point	End	Green	1 56	-	0.4	57.2	25.	6 1	5.2 0.	0	1	2		
Uncoordinated	No	Simult. Gap E/W	On	Yellow			0.0	4.0	4.0				1	7		KŤ.
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0	0.			5	6	7	8
Timer Results		CATA PARTICIPATION		EB		EB	т	WE	1	WBT	N	BL	NDT	0.0		OPT
Assigned Phase				5	_	2		1	)L	6	IN	DL	NBT	SE	SL	SBT
Case Number	,			_			_	_			-		8	-	_	4
Phase Duration	•			1.1	-	4.0		1.1		4.0	-	-	10.0			9.0
Change Period,		\ o		10.0		61.	_	9.6		61.2	-	-	19.2	-	_	29.6
				3.0	_	4.0	-	4.0		4.0		-	4.0			4.0
The second secon					_	0.0	,	3.0	$\rightarrow$	0.0			3.1	+	_	3.1
THE RESIDENCE OF THE PARTY OF T	ue Clearance Time ( $g_s$ ), s en Extension Time ( $g_e$ ), s					0.0		4.8		0.0	-		14.4			25.5
	en Extension Time ( $g$ $_{ m e}$ ), s					0.0	)	0.1	_	0.0	-		0.8	-		0.1
The second second second second second	se Call Probability				0		-	0.9	-				1.00			1.00
Max Out Probab	onity			0.00		888	-	0.00	0		-	7	0.00	_	Name of Street	1.00
Movement Gro	up Res	ults	100		EB			1000	WB			NB	O STATE		SB	
Approach Move	ment			L	T		R	L	T	R	L	T	R	L	T	R
Assigned Mover	ment		11 212	5	2			1	6		3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		59	1416			81	1900		188	173	158	354	143	238
Adjusted Satura	tion Flo	w Rate (s), veh/h/lr	1	1723	1723			1723	1723		1774	-	1589	1774	1863	1572
Queue Service		AND DESCRIPTION OF THE PARTY OF		2.0	46.2			2.8	57.2		12.4	10.8	11.6	23.5	3.8	16.8
Cycle Queue Cl		THE RESIDENCE OF THE PARTY OF T		2.0	46.2			2.8	57.2		12.4	10.8	11.6	23.5	3.8	16.8
Green Ratio ( g/				0.53	0.48	T		0.52	0.48		0.13	0.13	0.13	0.21	0.21	0.21
Capacity (c), ve	eh/h			146	1653			169	1642	1	225	236	201	379	796	336
Volume-to-Capa		tio (X)		0.402	0.857	_		0.481	1.157		0.835		-	0.934	0.179	0.707
Back of Queue (	Q), ft/l	n (50 th percentile)		20.3	550.7			28.7	1100.8		144.3	-	-	339.6	43.7	171.3
Market State of State		h/ln (50 th percentil	e)	0.8	21.2	-		1.1	42.3		5.5	5.0	4.6	13.1	1.7	6.9
	THE REAL PROPERTY.	RQ) (50 th percenti	-	0.07	1.84	-		0.10	3.67		0.94	0.63	0.59	2.21	0.21	0.87
Uniform Delay (				28.0	36.9	1		26.7	40.9		51.2	50.5	50.8	46.4	38.6	43.7
Incremental Dela				0.7	6.0			0.8	78.1		3.1	1.7	2.6	29.0	0.0	5.5
Initial Queue De				0.0	0.0			0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (				28.7	42.9		1	27.5	119.0		54.3	52.1	53.4	75.3	38.6	49.2
Level of Service	_			С	D			С	F		D	D	D	E	D	D
Approach Delay,		LOS		42.3		D		115.3	_	F	53.		D	59.7		E
Intersection Dela							76.	-						E		
100 901		MAN TO SELECT			1133			25.30			The same	1	T.C.	A Paris	7733	-
Multimodal Res	-				EB				WB			NB			SB	
Pedestrian LOS	Score /	LOS		2.8		С		2.9		C	2.9		С	2.9		С
Bicycle LOS Sco	re / LO	S	- 1	1.7		Α		2.1		В	0.9		Α	1.1		Α

	HCS 2010					In	ters	ectio	n Re	sul	ts S	umm	nary				
	1000										4				1000	L. S	STRI
General Inform	nation									Inte	ersec	tion In	format	ion		1474	
Agency		KHR Associates		4						Dur	ration	, h	0.25		100	111	٠,١
Analyst				Analy	sis Da	ate	8/1/2	016		Are	а Тур	е	Othe	er			
Jurisdiction		Torrance California		Time	Period	t				PH	F		0.98		4		-
Urban Street		Pacific Coast Highv	vay	Analy	sis Ye	ar	2016			Ana	alysis	Period	1> 7	:30	¥		-
Intersection		Vista Montana		File N	ame		10-P	CH-Vist	a Mont	ana	E+P	PM.xu	s			14	t.
Project Descrip	tion															1414	7 + 7
Demand Inform	nation				E	3			W	B		7.16	NE	NEW C		SB	
Approach Move				L	T	_	R	L	T	_	R	L	T	R	L	T	R
Demand (v), v	-			59	127	-		188	_	_		116	-			_	
Demaria (V),	CHIN	EGENERAL PROPERTY.	CALIFORNIA	-	NAME OF		12 12 15	100	, 10.	74		110	100		334	201	90
Signal Informa	tion		ALC: U		T												
Cycle, s	120.0	Reference Phase	2	1	2	6	2	F-4							A		4
Offset, s	0	Reference Point	End	Croon	F 2	$\dashv$	2.0	52.0			45.0	0.0		1	2		
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow			3.9 0.0	53.9 4.0	26. 4.0	-	15.0 4.0	0.0		7	7		-4.
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0	_	0.0	0.0		5	6	7	Y
Times Possille			TEM!	FD			AT DE	VA/ID		10.00	O.T.	NE		AUDT	0.0		
Timer Results			000	EBI			BT	WB	SL	WE		NB	L	NBT	SE	3L	SBT
Assigned Phase	Э			5		_	2	1		6	_	_		8	-		4
Case Number		The state of the s		1.1			.0	1.1		4.0				10.0			9.0
Phase Duration				9.2	_	_	7.9	13.	_	61.	_			19.0			30.0
					_	_	.0	4.0	_	4.0	_			4.0	100		4.0
	Allow Headway ( <i>MAH</i> ), s ue Clearance Time ( <i>g</i> s ), s					0.	.0	3.0	_	0.0	0			3.1			3.0
THE RESIDENCE OF THE PARTY OF	ue Clearance Time ( g s ), s						-	8.8						14.3			26.0
The second secon	en Extension Time ( g e ), s					0.	.0	0.3	_	0.0	0			0.7			0.0
Phase Call Pro				0.87	-			1.00						1.00			1.00
Max Out Probal	oility		_	0.00				0.00	0	2 10 0				0.00			1.00
Movement Gro	un Doo	ulta			EB				WB				NID			OD	141
Approach Move	-	uits		L	Т	-	R	L	T		D		NB	_ n	100	SB	T 5
Assigned Move	-			5	2		K	1	6		R	L	T	R	L	T	R
	-	\ unb/b		60	1302					+	-	3	8	18	7	4	14
Adjusted Flow F			•		_	-		192	1382	-		118	184	168	361	211	98
Queue Service		w Rate ( $s$ ), veh/h/lr		1723	1723	_		1723	1723	-		1774	1863	1603	1774	1863	1572
				2.2	42.5	_	1000	6.8	44.6	-		7.5	11.5	12.3	24.0	5.6	6.2
Cycle Queue Cl	-	s time ( g c ), S	-	2.2	42.5	_		6.8	44.6	-		7.5	11.5	12.3	24.0	5.6	6.2
Green Ratio (g				0.49	0.45	-	5,000	0.54	0.48	-		0.12	0.12	0.12	0.22	0.22	0.22
Capacity ( c ), v	_	tio ( V )		170	1548	-		229	1660	-		222	233	200	384	807	341
Volume-to-Capa	_			0.354	0.841	_		0.836	0.832	-		0.534	0.791	0.838	0.940	0.262	0.288
		In (50 th percentile)	0)	22.5	506.4	_		72.9	526.9	-		85.7	139.9	125.2	350.4	65.8	59.2
THE RESERVE AND ADDRESS OF THE PARTY OF THE	-	eh/ln (50 th percentil	Name and Address of the Owner, where	0.9	19.5	_		2.8	20.3			3.3	5.4	5.0	13.5	2.5	2.4
	-	RQ) (50 th percenti	ie)	0.08	1.69	-		0.24	1.76	-		0.56	0.68	0.64	2.28	0.32	0.30
Uniform Delay (		and the same of th		25.4	38.0	+		26.8	36.2	-		49.2	51.0	51.3	46.2	39.0	39.3
Incremental Del	_			0.5	5.7	+		3.1	5.1	-		0.7	2.3	3.6	30.5	0.1	0.2
Initial Queue De				0.0	0.0	-	min to the	0.0	0.0	-		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (		III.	10.	25.9	43.7			29.9	41.3	-		50.0	53.3	54.9	76.8	39.1	39.4
Level of Service		/1.00		C	D			C	D	1		D	D	D	E	D	D
Approach Delay				42.9		D		39.9		D		53.0		D	59.4		E
Intersection Del	ay, s/ve	n / LOS	E WANTS	EDF I		in.	45	.0	-			-7.55		135 31	D	1988	
Multimodal Res	sults				EB	-	70		WB				NB	7 3		SB	
Pedestrian LOS		LOS		2.8		С		2.9	_	C		2.9		С	2.9	_	С
Bicycle LOS Sc	_			1.6		A		1.8	_	A	_	0.9		A	1.0	_	A

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 8:00 - 9:00 A.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics\_

	1	Ea	stbou	nd	l W	estbou	nd	No	orthbo	ound	l S	outhbo	ound	1
	1	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	10	)	207	0	-10	202	0	- -  13	489	40	- 10	267	0	-

% Thrus Left Lane

	Eastbound		Westbound		North	bound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	207		202		13	489	267	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1		- 4	1		2	- 1	
Opposing-Lanes	1		1	1		1	2	2
Conflicting-lanes	2			2		1	1	Ĺ)
Geometry group	2		2	2		5	4	la
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	207		202		13	489	267	
Left-Turn	0		0		13	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group		2		2		5		4a
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.2	0.0	0.2		0.5		0.2

hRT-adj	1.7		1.7		-0.7 1.7			
hHV-adj							1.7	
adj, computed 0.0			0.0		0.5 0.0		0.0	
Wor	ksheet	4 - Dep	arture 1	Headway a	nd Serv	rice Tim	e	
	Eastbound				Northbound		South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	207		202		13	489	267	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.18		0.18		0.01	0.43	0.24	
hd, final value	6.97		6.99		7.02	6.51	6.62	
x, final value	0.401		0.392			0.884		
Move-up time, m	2.0		2.0		2.3			
Move-up time, m Service Time	5.0		5.0		4.7	4.2	4.6	
Wor				nd Level				
Wor	Eastb	ound	West	oound	Northk	ound		
Wor	Eastb	ound	West		Northk	ound	South	bound L2
Flow Rate	Easth L1	oound L2	Westl	bound L2	Northk L1	bound L2 489	L1 267	L2
Flow Rate	Easth L1	oound L2	Westl	bound L2	Northk L1 13 4.7	bound L2 489 4.2	L1 267 4.6	L2
Flow Rate Service Time	Eastb L1 207 5.0	ound L2	Westl L1	bound L2	Northk L1 13 4.7	489 4.2	267 4.6	L2
Flow Rate Service Time Utilization, x	Eastb L1 207 5.0 0.401	oound L2	Westh L1 202 5.0	bound L2	Northk L1 13 4.7 0.025 7.02	489 4.2 0.884 6.51	267 4.6 0.491 6.62	L2
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity	Easth L1 207 5.0 0.401 6.97 518	oound L2	Westh L1 202 5.0 0.392 6.99 518	bound L2	Northb L1 13 4.7 0.025 7.02 433	489 4.2 0.884 6.51 556	267 4.6 0.491 6.62 545	L2
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Oueue Length	Easth L1 207 5.0 0.401 6.97 518 2.0	oound L2	Westh L1 202 5.0 0.392 6.99 518 1.9	bound L2	Northb L1 13 4.7 0.025 7.02 433 0.1	489 4.2 0.884 6.51 556 15.4	267 4.6 0.491 6.62 545 2.8	L2
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length	Easth L1 207 5.0 0.401 6.97 518 2.0	oound L2	Westh L1 202 5.0 0.392 6.99 518 1.9	bound L2	Northb L1 13 4.7 0.025 7.02 433 0.1 9.9	489 4.2 0.884 6.51 556 15.4 50.5	267 4.6 0.491 6.62 545 2.8 15.9	L2
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length	Easth L1 207 5.0 0.401 6.97 518 2.0	oound L2	Westh L1 202 5.0 0.392 6.99 518 1.9	bound L2	Northb L1 13 4.7 0.025 7.02 433 0.1 9.9	489 4.2 0.884 6.51 556 15.4 50.5	267 4.6 0.491 6.62 545 2.8 15.9	L2
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach:	Easth L1 207 5.0 0.401 6.97 518 2.0 14.6 B	oound L2	Westle L1  202 5.0 0.392 6.99 518 1.9 14.5 B	bound L2	Northk L1 13 4.7 0.025 7.02 433 0.1 9.9 A	489 4.2 0.884 6.51 556 15.4 50.5	267 4.6 0.491 6.62 545 2.8 15.9 C	L2
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach:	Easth L1 207 5.0 0.401 6.97 518 2.0 14.6 B	oound L2	Westh L1 202 5.0 0.392 6.99 518 1.9 14.5 B	bound L2	Northk L1 13 4.7 0.025 7.02 433 0.1 9.9 A	489 4.2 0.884 6.51 556 15.4 50.5 F	267 4.6 0.491 6.62 545 2.8 15.9 C	L2 15.9
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach: Delay	Easth L1 207 5.0 0.401 6.97 518 2.0 14.6 B	oound L2	Westh L1 202 5.0 0.392 6.99 518 1.9 14.5 B	bound L2	Northk L1 13 4.7 0.025 7.02 433 0.1 9.9 A	489 4.2 0.884 6.51 556 15.4 50.5 F	267 4.6 0.491 6.62 545 2.8 15.9 C	L2

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 5:00 - 6:00 P.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_\_

R	I T	m								
	1 1	T	R	L	T	R	L	T	R	1
0	10	185	0	16	383	34	$-\frac{1}{0}$	577	0	-
	0	0   0	0  0 185	0 0 185 0	0   0 185 0   6	0   0 185 0   6 383	0   0 185 0   6 383 34	0   0 185 0   6 383 34   0	0   0 185 0   6 383 34   0 577	0   0 185 0   6 383 34   0 577 0

	Easth	oound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	23		185		6	383	577	
% Heavy Veh	0		0		0	0	0	
No. Lanes		1		1		2		1
Opposing-Lanes	1.5	1		1		1		2
Conflicting-lanes	2	2	12	2		1		1
Geometry group	2	2		2		5		4 a
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	23		185		6	383	577	
Left-Turn	0		0		6	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group	2			2		5		4a
Adjustments Exhibi	t 17-33	:						
hLT-adi		. 2		0.2		0.5		0.2

hRT-adj	-0.6	-0.6	-0.7	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	0.0	0.5 0.0	0.0
	_Worksheet 4 -	Departure Headway	and Service Time	<u> </u>

	East	oound	West	bound	Northk	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	23		185		6	383	577	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.02		0.16		0.01	0.34	0.51	
hd, final value	7.07		6.48		6.44	5.93	5.36	
x, final value	0.045		0.333		0.011	0.631	0.858	
Move-up time, m	2	2.0		2.0	2	. 3	2	2.0
Service Time	5.1		4.5		4.1	3.6	3.4	

Worksheet 5 - Capacity and Level of Service\_\_\_

	Eastbound	Westbound	Northbo	ound	Southbound
	L1 L2	L1 L2	L1	L2	L1 L2
Flow Rate	23	185	6	383	577
Service Time	5.1	4.5	4.1	3.6	3.4
Utilization, x	0.045	0.333	0.011	0.631	0.858
Dep. headway, hd	7.07	6.48	6.44	5.93	5.36
Capacity	460	561	600	608	671
95% Queue Length	0.1	1.5	0.0	4.9	14.0
Delay	10.4	12.7	9.2	18.6	37.5
LOS	В	В	A	C	E
Approach:					
Delay	10.4	12.7	18	. 5	37.5
LOS	В	В	C		E
Intersection Delay	26.8	Intersectio	n LOS D		

		HCS 2	010 S	ignal	ized l	Inters	ectio	n Res	sults S	umm	ary				
MA STE	41			200		195781			Intersed	tion Inf	ormati	an Bar		기계 기약 I	(K(I)
General Inforn	nation	IZUD A						_				on	- 1	JJJ	
Agency		KHR Associates		I 4	: D-4	0/4/0/	240	_	Duration	-	0.25	_	- 5		
Analyst		T O-lifeie		-		e 8/1/20	010	$\rightarrow$	Area Typ	Эе	Othe 0.90			.1.	
Jurisdiction		Torrance California	.41-	Time I		- 2040		$\rightarrow$	PHF	Dariad	1> 7:				
Urban Street		Palos Verdes Dr No		-	sis Yea			_	Analysis E+P AM		1> 7.	.30	- 3		-
Intersection		Hawthorne Bouleva	ard	File N	ame	12-Ha	wtnorn	e-PVD	E+P AIV	.xus			-	<b>1</b> 1 1	1679 P.O.
Project Descrip	tion		8		-	A 3.5		151.55	Sec. 1	-					ALCOHOL:
Demand Inform	nation				EB		9 11-	WI	3		NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	T	R	L	T	R
Demand (v), v	eh/h			31	917	285	126	55	3 253	183	418	165	335	412	15
			1,000												
Signal Informa	_	D ( D)		4	Ja	_	= ,,	⊨ '	2	. 2		_	7	~	1
Cycle, s	120.0		2			-	₹.	1		12.	7	1	♥ .	3	4
Offset, s	0	Reference Point	End	Green		1.8	62.9	13.		19.2					
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0	The second secon	4.0			7	1	Y
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	· ·	7	8
Timer Results				EBI		EBT	WB	L	WBT	NBI		NBT	SB	L	SBT
Assigned Phase	Э			5		2	1		6	3		8	7		4
Case Number			1111	1.1		3.0	1.1		3.0	1.1		3.0	2.0		3.0
Phase Duration	, S			8.1		66.9	9.9		68.7	17.4	1	23.2	20.0	0	25.8
Change Period,		c), s		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	NAME AND ADDRESS OF TAXABLE PARTY.			3.0		0.0	3.0		0.0	3.0		3.0	3.0		3.0
Queue Clearan		and the same of th		3.1			4.2		-	13.3	3	17.2	18.0	)	16.6
Green Extensio				0.0		0.0	0.2		0.0	0.1		2.0	0.0		2.2
Phase Call Pro		( ) ·		0.68	3		0.99	9	131	1.00		1.00	1.00	)	1.00
Max Out Probal				0.00			0.00	)		1.00		0.12	1.00		0.04
104		R. D. L. S. L.	L. Carlo	330	CLEA			200	1 7 %	THE RE	ALC:			T	TAUR
Movement Gro	up Res	ults			EB			WB			NB	100		SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		AND RESIDENCE AN		34	1019	317	140	614	281	203	464	183	372	458	17
		ow Rate ( $s$ ), veh/h/l	n	1740	1739	1608	1689	1739	-	1774	1773	1607	1774	1773	1573
Queue Service		The second secon		1.1	23.7	14.0	2.2	11.9	11.7	11.3	15.2	13.0	16.0	14.6	1.1
Cycle Queue C	-	e Time ( <i>g</i> ₅ ), s		1.1	23.7	14.0	2.2	11.9	11.7	11.3	15.2	13.0	16.0	14.6	1.1
Green Ratio ( g	-			0.56	0.52	0.52	0.57	0.54	-	0.27	0.16	0.16	0.13	0.18	0.18
Capacity (c), v	_			454	1823	843	641	1877	-	298	566	257	237	643	285
Volume-to-Capa	-			0.076	0.559	0.376	0.218	0.327	-	0.682	0.820	_	1.574	0.712	0.058
AND RESIDENCE OF THE PARTY OF T		In (50 th percentile)		10.2	236.3	128.6	20.1	116.7	-	130	176.1	130.5	648.7	163.2	10.1
_		eh/In (50 th percenti	_	0.4	9.2	5.1	0.8	4.5 0.39	0.37	5.0 0.64	6.8 0.87	5.2 0.66	25.1 2.13	6.3 0.54	0.4
THE RESERVE THE PARTY OF THE PA		RQ) (50 th percent	lie)	0.03	19.2	16.9	14.1	15.4	15.4	37.0	48.8	47.8	52.0	46.2	40.6
Uniform Delay ( Incremental De	-			0.0	1.2	1.3	0.1	0.5	1.0	3.4	3.8	2.2	277.5	1.1	0.0
	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	nitial Queue Delay ( d 3 ), s/veh Control Delay ( d ), s/veh					18.2	14.1	15.9	16.4	40.4	52.5	50.1	329.5	47.3	40.7
	evel of Service (LOS)					В	В	В	В	D	D	D	F	D	D
_	pproach Delay, s/veh / LOS					В	15.8		В	49.1	-	D	171.	_	F
	ntersection Delay, s/veh / LOS					56	5.1				-		E		
						123	210	EE		0.1			- 111		
Multimodal Re	-				EB	_	-	WB			NB	_		SB	
Pedestrian LOS	-			2.9		C	2.9	_	C	3.1		C	3.0	-	C
Bicycle LOS So	ore / LC	OS		1.6		Α	1.3		Α	1.2		Α	1.2		Α

		HCS 2	010 S	ignal	ized	Inters	ectio	n Res	sults S	Summ	ary				
		<b>的</b> 是一个		35/2						4	1. 22	THE STATE OF			Start.
General Inform	ation								Intersed	tion In		on			
Agency		KHR Associates							Duration	ı, h	0.25		2	2 * *	×
Analyst				Analy	sis Dat	e 8/1/2	016		Area Typ	oe	Othe	r	<u></u>		<b>~</b> _ 8
Jurisdiction		Torrance California		Time	Period				PHF		0.90				÷
Urban Street		Palos Verdes Drive	North	Analy	sis Yea	r 2016			Analysis	Period	1> 7	30	14		× 1
Intersection		Hawthorne Bouleva	ırd	File N	ame	12-Ha	awthorn	e-PVD	E+P PN	1.xus				htt	7
Project Descrip	tion							_		1000000				ነተነቀን	1 1
Demand Inform	nation				EB	N. Carlotte		WE	3		NB			SB	
Approach Move	_			L	Т	R	L	Т	R	L	T	R	L	T	R
Demand (v), v				25	707	232		-	-	-	_	_	_	403	24
Bemana (V), V	CHAIT	THE RESERVE	2058	- 11-11	101	Total Control						1	-	100	
Signal Informa	tion				T	1 6			s 121			THE			84
Cycle, s	120.0	Reference Phase	2	1	2		74		D. Carrie	1.71	1		4	1	4
Offset, s	0	Reference Point	End	-		100	3	10		17	1	7	2	3	4
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow	_	0.0	63.6 4.0	4.0	0 18.5 4.0	0.0	-	7	<b>A</b>		-4-
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	2	Y
		19 6 2 36				100									
Timer Results				EB	L	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9			5		2	1		6	3	_	8	7		4
Case Number			1.0	1.1		3.0	1.1	_	3.0	1.1	_	3.0	2.0		3.0
Phase Duration	, S			7.6		67.6	10.		69.9	20.0		22.5	20.0	_	22.5
Change Period,	-			4.0		4.0	4.0	-	4.0	4.0		4.0	4.0		4.0
Max Allow Head	lway ( /	<i>ИАН</i> ), s		3.0		0.0	3.0		0.0	3.0		3.0	3.0	_	3.0
Queue Clearand	Queue Clearance Time ( g s ), s						4.4			16.2	2	14.5	16.7	7	16.7
Green Extensio	n Time	(ge), s		0.0		0.0	0.3		0.0	0.0		1.9	0.0		1.8
Phase Call Prob	ability			0.60			0.9	9		1.00	)	1.00	1.00		1.00
Max Out Probab	oility			0.00	)		0.0	0		1.00	)	0.03	1.00		0.07
Manager Com		14.			EB			WB		-	NB	-		CD	
Movement Gro		uits		-		T 0	-	T	I D		T	I D	-	SB	I D
Approach Move				L	Т	R	L	6	16	L 3	8	18	L		R
Assigned Move	_	\		5	2	12	1		350	252	390	148	7	4	14
Adjusted Flow F	_	CONTRACTOR OF THE PARTY OF THE		28	786	258	153	1167		-			220	448	27
		ow Rate (s), veh/h/li	n	1740	1739	1608	1689	1739	-	1774	1773	1607	1774	1773	1572
Queue Service				0.9	16.5	10.8	2.4	27.3	15.0	14.2	12.5	10.3	14.7	14.7	1.8
Cycle Queue Cl	-	e Time ( g c ), s		0.9	16.5	10.8	2.4	27.3	15.0	14.2	12.5	10.3	14.7	14.7	1.8
Green Ratio ( g				0.56	0.53	0.53	0.58	0.55	0.55	0.29	0.15	0.15	0.13	0.15	0.15
Capacity (c), v		E- (W)		256	1843	852	816	1911	884	311	546	247	237	546	242
Volume-to-Capa	_	AND RESIDENCE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.		0.109	0.426 163.5	-	0.188 21.5	0.611 269.2		0.812	0.715	0.598	0.930	0.821	0.110
	-	In (50 th percentile) wh/ln (50 th percentile)	_	0.3	6.3	3.9	0.8	10.4	5.4	7.1	5.5	4.1	8.9	6.6	0.7
	_	RQ) (50 th percent		0.03	0.55	0.34	0.07	0.90	0.47	0.91	0.69	0.52	0.76	0.56	0.7
Uniform Delay (			110)	15.0	17.1	15.8	12.3	18.3	15.6	36.9	48.3	47.3	51.4	49.2	43.7
	-			0.1	0.7	0.9	0.0	1.5	1.3	14.1	0.8	0.9	39.2	3.4	0.1
	ncremental Delay ( d 2 ), s/veh nitial Queue Delay ( d 3 ), s/veh					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	17.9	16.7	12.3	19.8	16.9	51.0	49.0	48.2	90.7	52.5	43.8		
	Control Delay ( d ), s/veh				В	В	В	В	В	D	D	D	F	D	D
NAME AND ADDRESS OF TAXABLE PARTY.	evel of Service (LOS)  Approach Delay, s/veh / LOS					В	18.9	_	В	49.5	_	D	64.3	_	E
Intersection Del				17.5			1.6			45.0			C 04.0		_
AND DESIGNATION		19/1/19/19	1		-		2.5						2 1	Sail	
Multimodal Res	the second second	A Later Property		1	EB			WB			NB			SB	
Pedestrian LOS	_	Annual Control of the		2.9		С	2.9		С	3.1		С	3.0		С
Bicycle LOS Sc	cle LOS Score / LOS					Α	1.9		Α	1.1		Α	1.1		Α

		HCS 2	010 S	ignal	ized l	Inters	ection	n Res	ults S	Summ	ary				
		To Star Park		SIL	To be				lu 4 a u a a a	diam lud	- www. a 41		7	기 박 17 <del>하</del> 1	NATION AND ADDRESS OF THE PARTY
General Inforn	nation	L						_	Intersec		_	on	-	JII	
Agency		KHR Associates				1			Duration	_	0.25		=		N. Company
Analyst				-		e 8/1/20	016	_	Area Typ	oe	Othe	r	4 - 4		-
Jurisdiction		Torrance California		Time I		-		_	PHF		0.90		_ 🗒 😅	W + E	=
Urban Street		Crenshaw Boulevar	-	-		r 2016		-	Analysis		1> 7:	30	2		
Intersection		Palos Verdes Dr No	orth	File N	ame	13-Cr	enshaw	-PVD I	E+P AM.	xus				511	
Project Descrip	tion			0.00	7.3	-	-	00000						ነ 4 ነ ቀ ነ	1111
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand (v), v				98	833	459	54	696	285	465	417	100	388	413	56
		Control of the second						HOUSE.		2000		11		337	
Signal Informa					2	_ 2	7	ا ا	s 21		13			K	1
Cycle, s	120.0	Reference Phase	2		- 4	R	₹ '	5	100	17	- 1		$\Theta$	3	
Offset, s	0	Reference Point	End	Green	5.2	0.7	63.1	16.0		0.0			_		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	_	0.0	4.0	4.0	4.0	0.0	300			1	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Timer Results				EBI		EBT	WB	L	WBT	NB		NBT	SB		SBT
Assigned Phase	e			5		2	1		6	3		8	7		4
Case Number		THE RESERVE		1.1			1.1		4.0	1.1		3.0	2.0		3.0
Phase Duration	. s			9.8		67.7	9.2		67.1	20.0		23.1	20.0	)	23.1
Change Period		c) s	Facility (	4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	-	the last like th		3.0	_	0.0	3.0		0.0	3.0	_	3.0	3.0	_	3.0
Queue Clearan	_			3.7			2.9	_		18.0	_	17.2	18.0		17.0
Green Extension				0.2	_	0.0	0.1	-	0.0	0.0		1.9	0.0	_	1.9
Phase Call Prol		(90),0		0.97			0.86	_		1.00		1.00	1.00	_	1.00
Max Out Proba	-			0.00			0.00	_		1.00	_	0.11	1.00		0.10
Control of the Contro		45	J. Diego		-	150	100		11 3	-	1000	7.120	STATE OF THE PARTY.	SEN	1
Movement Gro	up Res	sults			EB		1-10	WB			NB			SB	
Approach Move	ement			L	T	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow I	Rate ( v	), veh/h		109	754	682	60	573	517	517	463	111	431	459	62
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	n	1689	1827	1609	1689	1827	1644	1774	1773	1607	1774	1773	1573
Queue Service	Time (	g s ), S		1.7	39.5	41.4	0.9	26.0	26.1	16.0	15.2	7.5	16.0	15.0	4.2
Cycle Queue C	learanc	e Time ( g c ), s		1.7	39.5	41.4	0.9	26.0	26.1	16.0	15.2	7.5	16.0	15.0	4.2
Green Ratio ( g	/C)			0.57	0.53	0.53	0.57	0.53	0.53	0.29	0.16	0.16	0.13	0.16	0.16
Capacity (c), v	/eh/h			596	970	855	389	960	864	313	564	255	237	564	250
Volume-to-Capa		atio (X)		0.183	0.777	0.798	0.154	0.597	0.598	1.653	0.822	0.435	1.823	0.814	0.249
Back of Queue	(Q), ft	/In (50 th percentile)		15.5	441.4	403.1	8.6	283.4	249.4	885.1	175.8	73.8	833	173.4	40
Back of Queue	(Q), v	eh/In (50 th percenti	le)	0.6	17.1	16.1	0.3	11.0	10.0	34.3	6.8	3.0	32.3	6.7	1.6
ALCOHOLOGICAL DESCRIPTION OF THE PARTY OF TH		RQ) (50 th percent		0.05	1.47	1.39	0.03	0.94	0.86	4.36	0.87	0.37	2.73	0.57	0.14
Uniform Delay	(d1), s	/veh		14.4	22.4	22.9	19.7	19.7	19.7	39.5	48.8	45.6	52.0	48.8	44.2
Incremental De				0.1	6.1	7.7	0.1	2.7	3.0	307.7	3.8	0.4	386.3	3.5	0.2
Initial Queue De	elay ( d	3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	eh		14.5	28.5	30.6	19.7	22.4	22.7	347.1	52.6	46.0	438.3	52.2	44.4
Level of Service		В	С	C	В	С	С	F	D	D	F	D	D		
	Approach Delay, s/veh / LOS					C	22.4	1	С	191.	4	F	226.	5	F
THE RESERVE AND ADDRESS OF THE PARTY OF THE	Intersection Delay, s/veh / LOS					10	4.3						F		
Multimadal D	oults.				EB		pellin.	WB			NB			SB	
Multimodal Re		/100		2.9	ED	С	2.9	_	С	3.0	IND	С	3.0	1	С
Pedestrian LOS	_			1.8		A	1.4	_	A	1.4		A	1.3	-	-
Bicycle LOS So	ore / LC	J3		1.0		^	1.4			1.4		^	1.3		Α

CHR Associates  Forrance California  Crenshaw Boulevar  Palos Verdes Dr No		Analys					Intersec	tion Inf	ormatic	on	455	ነዛፕቀነ	F.L
Forrance California Crenshaw Boulevar		_					Intersec	tion int	ormatic	nn -			Example 1
Forrance California Crenshaw Boulevar		_						1.		J11	-	111	
Crenshaw Boulevar		_		Ta / / / / /	110	_	Duration		0.25				
Crenshaw Boulevar		I Time I		8/1/20	)16		Area Typ	е	Other				<b>÷</b>
						_	PHF		0.90	•	- 3		-
Palos Verdes Dr No	orth	_	sis Year	_		_	Analysis		1> 7:	30	_		
	71 (11)	File N	ame	13-Cr	enshaw	-PVD E	E+P PM.	xus			_	<u> ጎተተ</u>	
	Service and			<i>1</i> -		6500	2000	-	-	900017		HIAM	BIL
			EB			WE	3		NB	a in	IE	SB	
		L	Т	R	L	Т	R	L	T	R	L	T	R
		47	766	294	114	747	7 244	487	361	64	354	363	53
				1 6									
Reference Phase	2		2 6	- 2	=	Ħ `	A				4	1	4
					-2	1				1	2	3	
					The second second		The second name of the second		- 10		<b>5</b> -		-4-
				_					_	5	6	7	Y
Simult. Gap 14/5	Oll	Neu	10.0	10.0	10.0	10.0	10.0	10.0				and the second	
		EBI		EBT	WB	L	WBT	NBI		NBT	SBI		SBT
		5		2	1		6	3		8	7		4
		1.1		4.0	1.1		4.0	1.1		3.0	2.0		3.0
		8.9		69.1	9.9		70.1	20.0	)	20.9	20.0	)	20.9
), s		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
		3.0		0.0	3.0		0.0	3.0		3.0	3.0		3.0
	THE PERSON	2.8		200	3.9	474	1 2 14	18.0	)	15.1	18.0		15.2
		0.1		0.0	0.2		0.0	0.0		1.7	0.0		1.7
		0.82			0.99	9		1.00	)	1.00	1.00		1.00
		0.00			0.00	)		1.00		0.03	1.00	)	0.03
ilte			FB			WB			NB			SB	
iito		1		R	L		R	L		R	L		R
		_	_		_		-	_				-	14
veh/h		2000				_		_				-	59
	n	-	10000000	-	Section 2015	-	-	T-100-100	-		-	_	1572
		-	-	-	-				_			-	4.0
		-	-	-		_	-	_			-		4.0
Time ( 9 c ), s		-	_	-		-	-		-				0.14
		_			_		_				_		222
o(X)		_		_		-		-					0.265
		_	_	_	-	-	-	_				-	38.7
	-			_	_	_	Name and Address of the Owner, where the Owner, which the Owner, where the Owner, where the Owner, which the	_	-	-			1.5
THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN		_	_	0.92	0.06	0.88	0.81	4.79	0.73	0.24	2.34	0.49	0.13
			18.9	19.0	14.2	17.7	17.7	41.0	49.9	46.3	52.0	49.9	46.0
Iniform Delay ( d 1 ), s/veh					0.1	2.4	2.6	347.0	1.7	0.3	316.3	1.8	0.2
COLUMN TO SERVICE STATE OF THE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
control Delay ( d ), s/veh					14.3	20.0	20.2	388.0	51.6	46.6	368.3	51.8	46.2
evel of Service (LOS)					В	С	С	F	D	D	F	D	D
Approach Delay, s/veh / LOS				C	19.5	5	В	230.	9	F	196.9	9	F
ntersection Delay, s/veh / LOS											F		
	1		ED			MAID	2: 10	possi.	NID			CD	
1.00		2.0	-	C	20	_	C	20		C	3.0	_	С
		-	_	-			-	_	_				A
	s), s Time (gc), s  o (X) n (50 th percentile) n/In (50 th percentile) RQ) (50 th percentive h, s/veh h, s/veh h	Reference Point Simult. Gap E/W On Simult. Gap N/S	Reference Point Simult. Gap E/W On Simult. Gap E/W On Red  Simult. Gap N/S On Red    EBI   5	Reference Point Simult. Gap E/W On Simult. Gap E/W On Red 0.0    EBL	Reference Point Simult. Gap E/W On Simult. Gap E/W On Red 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	Reference Point   End   Green   4.9   1.0   65.1   Yellow   4.0   0.0   4.0   A.0   A.0	Reference Point   End   Green   4.9   1.0   65.1   16.0	Reference Point   End   Green   4.9   1.0   65.1   16.0	Reference Phase   2   Reference Point   End   Simult. Gap E/W   On   Yellow   4.0   0.0   4.0   4.0   4.0   0.0	Reference Phase 2 Reference Point End Simult. Gap E/W On Yellow 4.0 0.0 4.0 4.0 4.0 0.0	Reference Phase   2	Reference Phase 2 Reference Point   End   Green   4.9   1.0   65.1   16.0   16.9   0.0   0	Reference Phase 2 Reference Point End Simult. Gap EW On Simult. Gap EW On Red 0.0 0.0 4.0 4.0 4.0 0.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1

		HCS 2	010 8	ignal	ized l	nters	ection	n Res	sults S	3umm	ary				
		BENEVA SE LE								0.50		9		distribution of	E Company
General Inform	nation							$\rightarrow$	Intersed				- 1	<b>や</b> [ 5年7年1	pa la
Agency		KHR Associates							Duration		0.25		_		-
Analyst						e 8/1/2	016		Area Ty	pe	Othe				*
Jurisdiction		Torrance California		11111	Period	-		_	PHF		0.90	-	_ ‡ 📑		*
Urban Street		Rolling Hills Road		_		r 2016			Analysis		1> 7:	:30	7		
Intersection		Palos Verdes Dr No	orth	File N	ame	14-R	olling Hil	lls-PVD	E+P A	√l.xus				ጎተሰ	
Project Descrip	otion	517 C	-		-		-		200			-		ነ4 ነቀም	17
Demand Infor	mation		-		EB	L		WE	3		NB			SB	
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	T	R
Demand (v), v	/eh/h			29	56	51	187	60	33	62	846	209	28	887	13
Signal Informa	ation	Number of Street													
	_	Reference Phase	2	1	2 /	- 3	月.7	H 241	N			_	7	7	小
Cycle, s	90.0	Reference Phase	2 End				₹.	5	17				4	3	The same of
Offset, s			_	Green		3.7	11.0	26.0	-				4		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	0.0	0.0	0.0	0.0		0.0			K	7	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0			6	4	
Timer Results				EB		EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phas	e			5		2	1		6			8			4
Case Number				1.1		3.0	1.1		3.0			9.0			10.0
Phase Duration	1, S			7.3		15.0	15.0	0	22.7			30.0			30.0
Change Period	, (Y+R	c), s		4.0		4.0	4.0		4.0			4.0			4.0
Max Allow Hea				3.0		0.0	3.0		0.0			3.0			2.9
Queue Clearan				3.4				0				28.0			28.0
Green Extension	-			0.0		0.0	0.2		0.0			0.0			0.0
Phase Call Pro				0.5	5	1	0.99	_		-		1.00			1.00
Max Out Proba				0.00	-		0.12	2				1.00		-	1.00
Movement Gro	un Pas	ulte			EB			WB			NB			SB	
Approach Move		uita		L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow		) veh/h		32	62	57	208	67	37	69	940	232	31	1000	17
The second second second		ow Rate (s), veh/h/lr	n	1740	1827	1597	1740	1827	1602	1774	1863	1607	1774	1858	
Queue Service				1.4	2.8	2.9	9.0	2.7	1.7	2.6	26.0	10.8	1.1	26.0	
Cycle Queue C				1.4	2.8	2.9	9.0	2.7	1.7	2.6	26.0	10.8	1.1	26.0	
Green Ratio ( g		e fille ( g c ), s		0.16	0.12	0.12	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity ( c ), v				303	222	194	412	379	333	513	538	464	513	537	
Volume-to-Cap	_	tio (X)		0.106	0.280	-	0.504	0.176	-	0.134	1.747	0.500	0.061	1.863	
		In (50 th percentile)		14.9	35.5	32.1	90.8	31.7	16.8	26.4	1602.	97.4	11.7	1742.6	
Dack of Queue	( 0, 10	in ( oo ar percenale)		14.5	30.0	JZ. 1	00.0	31.7	10.0	20.4	8	57.4	11.7	17-72.0	
Back of Queue	(Q), ve	eh/In ( 50 th percentil	le)	0.6	1.4	1.3	3.5	1.2	0.7	1.0	62.1	3.9	0.5	69.7	
Queue Storage	Ratio (	RQ) (50 th percenti	ile)	0.05	0.12	0.11	0.30	0.11	0.06	0.13	7.89	0.49	0.04	5.90	
Uniform Delay	(d1), s/	/veh		32.5	35.9	36.0	27.6	29.3	28.9	23.7	32.0	26.6	23.2	32.0	
Incremental De	lay (d2	), s/veh		0.1	3.1	3.8	0.4	1.0	0.7	0.0	343.7	0.3	0.0	395.5	
Initial Queue D	nitial Queue Delay ( d 3 ), s/veh					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	d), s/ve	eh		32.5	39.1	39.8	28.0	30.3	29.6	23.7	375.7	26.9	23.2	427.5	
Level of Service	e (LOS)			С	D	D	С	С	С	С	F	С	С	F	
Approach Dela	y, s/veh	/ LOS		37.9		D	28.7	7	С	290.	9	F	415.	3	F
Intersection De	lay, s/ve	h/LOS				29	4.0						F		
Multimadal Da	oulte	West of the second			EB			WB			NB		1	SB	21.
Multimodal Results						_	-	_	В	-	_	-		-	В
Pedestrian LOS	Coore	/100		2.5		В	2.3 1.0			2.5		В	2.4		

Marie Santa	Amount	HCS 2	010 S	ignal	ized	Inters	ectio	n Res	sults S	Summ	ary	100	59110		
Consuel Inform	a dian		L Contract		1000			-	Interse	tion In	formati	on	113 1000	1 4 14 4 I	EU
General Inform	nation	lians a second						_				on	- 1	41	No.
Agency		KHR Associates		1		101110		-	Duration		0.25				
Analyst				-		e 8/1/2	016		Area Ty	pe	Othe	r			~_
Jurisdiction		Torrance California			Period			$\rightarrow$	PHF		0.90			Wife	7
Urban Street		Rolling Hills Road		-	sis Yea				Analysis		1> 7:	30	- 3		
Intersection		Palos Verdes Dr No	orth	File N	ame	14-R	olling Hi	lls-PVE	E+P P	M.xus				ጎ † ሶ	
Project Descrip	tion	PARTICIPATION IN COLUMN TO							10000		000		Sales Total	14147	HIII.
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move				L	T	R	L	T	-	L	T	R	L	T	R
Demand ( v ), v				22	48	78	644	-		33	829	_	_	679	11
Demand (V), V	VIIII		CONTRACTOR	NAME OF TAXABLE PARTY.	10	10				- 00	1020		NAME OF TAXABLE	010	
Signal Informa	tion	TO CHEW COLD				5			<u>.</u>		1				
Cycle, s	90.0	Reference Phase	2		7			- K	17				4		幼
Offset, s	0	Reference Point	End	Green	27	9.3	6.0	26.		0.0			-	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	-	0.0		1	<del>-</del>		KÍZ
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		5	6	7	8
								11/2	12.5			100			
Timer Results	100			EB	L	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9			5	_	2	1		6			8	-		4
Case Number				1.1	_	3.0	1.1	-	3.0			9.0	-		10.0
Phase Duration				6.7	_	10.0	20.0	-	23.3	-		30.0	-		30.0
Change Period,	_		4.14	4.0	_	4.0	4.0	_	4.0		15 10	4.0			4.0
Max Allow Head				3.0		0.0	3.0	_	0.0			3.0			2.9
Queue Clearan				3.2	_		18.0	-		-		28.0			28.0
Green Extensio		(ge), s		0.0		0.0	0.0	_	0.0			0.0	-	-	0.0
Phase Call Prol	The second division in which the second			0.46			1.00					1.00			1.00
Max Out Probal	oility	KINT OF THE REAL PROPERTY.		0.00	)		1.00	J				1.00	No.		1.00
Movement Gro	up Res	sults			EB	1000		WB			NB			SB	
Approach Move				L	T	R	L	T	R	L	Т	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		), veh/h		24	53	87	716	64	28	37	921	246	6	767	
		ow Rate (s), veh/h/li	n	1740	1827	1586	1740	1827	1603	1774	1863	1607	1774	1857	
Queue Service				1.2	2.5	4.9	16.0	2.6	1.2	1.4	26.0	11.5	0.2	26.0	
Cycle Queue C				1.2	2.5	4.9	16.0	2.6	1.2	1.4	26.0	11.5	0.2	26.0	
Green Ratio (g				0.10	0.07	0.07	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity (c), v		anh a salesi		220	122	106	440	391	343	513	538	464	513	537	
Volume-to-Capa	acity Ra	itio (X)		0.111	0.438	0.820	1.625	0.165	0.081	0.072	1.712	0.529	0.011	1.429	
Back of Queue	(Q), ft	(In (50 th percentile)	i te	12.3	37.6	80.9	964.3	30.3	12.5	13.8	1542. 7	104.9	2	1026.5	-7
Back of Queue	(Q). ve	eh/In ( 50 th percentil	le)	0.5	1.5	3.2	37.4	1.2	0.5	0.5	59.8	4.2	0.1	41.1	
		RQ) (50 th percent		0.04	0.13	0.28	3.21	0.10	0.04	0.07	7.59	0.53	0.01	3.48	2
Uniform Delay (				37.2	40.4	41.5	33.6	28.8	28.3	23.2	32.0	26.9	22.8	32.0	
Incremental De	_			0.1	11.0	48.4	291.7	0.9	0.5	0.0	328.1	0.6	0.0	203.6	
	nitial Queue Delay ( d 3 ), s/veh					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	_	THE RESERVE TO THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW		37.3	51.4	89.9	325.2	29.7	28.8	23.3	360.1	27.4	22.8	235.6	
Level of Service	_			D	D	F	F	С	С	С	F	С	С	F	
Approach Delay				69.6		Е	291.	4	F	282.	0	F	234.	0	F
Intersection Del	-					26	0.2						F		
Multimodal Re	Author del Boorde				EB			WB	-		NB	and the		SB	200
	_	/10S		2.5		В	2.3	_	В	2.5	_	В	2.4	_	В
. cucstilati LOS	lestrian LOS Score / LOS /cle LOS Score / LOS					A	1.8		A	2.5	-	В	1.8	_	A

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_\_\_

Analyst:

Agency/Co.: KHR Associates

Date Performed: 11/15/17

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

\_\_Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	We	estbou	ind	No	orthbo	und	Sc	uthbo	und
	L	T	R	1 L	T	R	L	T	R	L	T	R
Volume	10		0	173	277	137	-10	350	9.1	131	277	-0

	Eastbound		West	bound	Northb	ound	Southk	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	T
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			73	137	444		131	277
% Heavy Veh			0	0	0		0	0
No. Lanes				2	1		2	2
Opposing-Lanes				0	2		1	
Conflicting-lanes				2	2		2	2
Geometry group			1.0	1	3	b	5	5
Duration, T 1.00	hrs.							

Worksheet	3	-	Saturation	Headway	Adjustment	Worksheet	

Eas	tbound	West	bound	North	bound	South	bound
L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:							
Total in Lane		73	137	444		131	277
Left-Turn		73	0	0		131	0
Right-Turn		0	137	94		0	0
Prop. Left-Turns		1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns		0.0	1.0	0.2		0.0	0.0
Prop. Heavy Vehicle		0.0	0.0	0.0		0.0	0.0
Geometry Group			1		3b		5
Adjustments Exhibit 17-	33:						
hLT-adj			0.2	(	).2		0.5



hRT-adj	-	0.6	-0.6		0.7
hHV-adj		1.7	1.7		1.7
hadj, computed	0.2	-0.6	-0.1	0.5	0.0

nhv-adj			1	/	-		4	/
hadj, computed			0.2	-0.6	-0.1		0.5	0.0
Wor	ksheet	4 - Dep	arture F	leadway	and Serv	vice Tim	ne	
	East	oound	Westh	ound	Northk	oound	Southb	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate					444		131	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.06	0.12	0.39		0.12	0.25
hd, final value					5.28		6.10	5.59
x, final value				0.204			0.222	0.430
Move-up time, m				2.0		2.0	2	.3
Service Time			4.2	3.4	3.3		3.8	3.3
		oound	pacity an	ound			Southb	ound
	L1	L2		L2		L2	L1	
Flow Rate			73	137	444		131	277
Service Time			4.2	3.4	3.3		3.8	3.3
Utilization, x					0.651		0.222	0.430
Dep. headway, hd					5.28		6.10	5.59
Capacity					683		595	
95% Queue Length					5.4		0.9	
Delay				9.7			10.5	
100					C		R	

В

A

9.8

A

Intersection LOS B

C

18.0

C

Intersection Delay 14.0

Approach:

LOS

Delay

LOS

11.9

10.5 12.5 B B

В

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 11/15/17

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics\_

	I E	astbo	und	We	estbou	nd	1 No	orthbo	und	S	outhbo	und	J
	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	10	0	0	160	330	60	160	304	46	188	330	0	=1

	East	bound	West	bound	Northk	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	T
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			60	60	350		88	330
% Heavy Veh			0	0	0		0	0
No. Lanes				2		1	2	2
Opposing-Lanes				0	2	2		
Conflicting-lanes			- 3	2	2	2	2	2
Geometry group				1	3	3b	į.	5
Duration, T 1.00	hrs.							

 Worksheet	3 -	Saturation	Hea	dway	Adjustment	Workshe	et	
	East	bound	West	bound	d North	oound	South	oound
	r 1	T 2	T.1	T.	7. T.1	T.2	T.1	T.2

	Easti	ouna	west	Dound	MOTCH	Douna	South	Douna
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			60	60	350		88	330
Left-Turn			60	0	0		88	0
Right-Turn			0	60	46		0	0
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns			0.0	1.0	0.1		0.0	0.0
Prop. Heavy Vehicle			0.0	0.0	0.0		0.0	0.0
Geometry Group				1		3b		5
Adjustments Exhibit	17-33	3:						
hLT-adj				0.2	10	0.2		0.5

hRT-adj	-0.6		-0.6	-	0.7
hHV-adj		1.7	1.7		1.7
hadj, computed	0.2	-0.6	-0.1	0.5	0.0

Worksheet	4	-	Departure	Headway	and	Service	Time	
			and the second second	1				

	Easth	oound	Westb	ound	North	oound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			60	60	350		88	330
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.05	0.05	0.31		0.08	0.29
hd, final value			5.89	5.09	5.04		5.67	5.17
x, final value			0.098	0.085	0.490		0.139	0.474
Move-up time, m			2	.0	2	2.0	2	. 3
Service Time			3.9	3.1	3.0		3.4	2.9

# \_\_Worksheet 5 - Capacity and Level of Service\_\_\_

	East	bound	Westh	oound	Northbound	South	oound
	L1	L2	L1	L2	L1 L2	L1	L2
Flow Rate			60	60	350	88	330
Service Time			3.9	3.1	3.0	3.4	2.9
Utilization, x			0.098	0.085	0.490	0.139	0.474
Dep. headway, hd			5.89	5.09	5.04	5.67	5.17
Capacity			600	750	714	629	702
95% Queue Length			0.3	0.3	2.8	0.5	2.7
Delay			9.5	8.6	12.9	9.3	12.5
LOS			A	A	В	A	В
Approach:							
Delay			9	.0	12.9	1	1.8
LOS			A	4	В	E	
Intersection Delay	11.8		Inte	rsection	n LOS B		

Phone:

Fax:

E-Mail:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Date Performed: 11/15/2017
Analysis Time Analysis Time Period: 7:30 - 8:30 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R Volume | 77 | 139 | 75 | 43 | 182 | 142 | 71 | 175 | 19 | 60 92

% Thrus Left Lane

	Eastb	ound	West	oound	North	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	291		367		265		60	125
% Heavy Veh	0		0		0		0	0
No. Lanes	1			1	1		2	2
Opposing-Lanes	1			1	2	2		1
Conflicting-lanes	2		2	2	1		- 13	Ĺ
Geometry group	2		2	2	4	a	1	5
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		West	oound	North	oound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	291		367		265		60	125
Left-Turn	77		43		71		60	0
Right-Turn	75		142		19		0	33
Prop. Left-Turns	0.3		0.1		0.3		1.0	0.0
Prop. Right-Turns	0.3		0.4		0.1		0.0	0.3
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	0.0
Geometry Group	2	2	2	2	4	a		5
Adjustments Exhibi	t 17-33	3:						
hLT-adj	(	1.2	(	0.2	(	).2		0.5

hRT-adj	-0.			0.6		0.6		0.7
hHV-adj	1.	. /		1.7		1.7	0 5	
hadj, computed	-0.1		-0.2		0.0		0.5	-0.2
Wor	ksheet	4 - Dep	arture I	Headway	and Serv	vice Tim	ne	
	Eastbo	ound	West	oound	North	Northbound		oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	291		367		265		60	125
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.26		0.33		0.24		0.05	
hd, final value	6.02		5.78		6.45		7.58	6.87
x, final value	0.487		0.589		0.475		0.126	0.239
Move-up time, m	2.	. 0	2	2.0	2.0		2	2.3
Service Time	4.0		3.8		4.5		5.3	4.6
wor	KSHeet .	- Cap	acity ar	nd Level	of Serv	/ice		
WOL	Eastbo	ound	West	oound	North	oound	Southb	
WOI			West				Southb	oound L2
	Eastbo	ound	West	oound	North	oound		
Flow Rate	Eastbo L1	ound	Westk L1	bound L2	Northk L1	oound	L1 60 5.3	L2 125 4.6
Flow Rate Service Time	Eastbo L1 291 4.0	ound	Westk L1	bound L2	Northk L1 265	bound L2	L1 60	L2 125 4.6
Flow Rate Service Time Utilization, x	Eastbo L1 291 4.0 0.487	ound	Westk L1 367 3.8	bound L2	Northk L1 265 4.5	bound L2	L1 60 5.3	L2 125 4.6 0.239
Flow Rate Service Time Utilization, x Dep. headway, hd	Eastbo L1 291 4.0 0.487	ound	Westk L1 367 3.8 0.589	bound L2	Northk L1 265 4.5 0.475 6.45 564	bound L2	60 5.3 0.126 7.58 462	125 4.6 0.239 6.87 521
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length	Eastbo L1 291 4.0 0.487 6.02	ound	Westk L1 367 3.8 0.589 5.78	bound L2	Northk L1 265 4.5 0.475 6.45 564 2.7	bound L2	60 5.3 0.126 7.58 462 0.4	L2 125 4.6 0.239 6.87 521 0.9
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length	Eastbo L1 291 4.0 0.487 6.02 594 2.8 14.7	ound	Westk L1 367 3.8 0.589 5.78 622 4.2 17.0	bound L2	Northk L1 265 4.5 0.475 6.45 564 2.7 15.2	bound L2	L1 60 5.3 0.126 7.58 462 0.4 11.4	L2 125 4.6 0.239 6.87 521 0.9 11.7
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay	Eastbo L1 291 4.0 0.487 6.02 594 2.8	ound	Westk L1 367 3.8 0.589 5.78 622 4.2	bound L2	Northk L1 265 4.5 0.475 6.45 564 2.7	bound L2	60 5.3 0.126 7.58 462 0.4	L2 125 4.6 0.239 6.87 521 0.9
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS	Eastbo L1 291 4.0 0.487 6.02 594 2.8 14.7 B	ound L2	Westk L1 367 3.8 0.589 5.78 622 4.2 17.0 C	Dound L2	Northk L1 265 4.5 0.475 6.45 564 2.7 15.2	Dound L2	L1 60 5.3 0.126 7.58 462 0.4 11.4 B	L2 125 4.6 0.239 6.87 521 0.9 11.7 B
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS	Eastbo L1 291 4.0 0.487 6.02 594 2.8 14.7 B	ound	Westk L1 367 3.8 0.589 5.78 622 4.2 17.0 C	Dound L2	Northk L1 265 4.5 0.475 6.45 564 2.7 15.2 C	Dound L2	L1 60 5.3 0.126 7.58 462 0.4 11.4 B	L2  125 4.6 0.239 6.87 521 0.9 11.7 B
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach:	Eastbo L1 291 4.0 0.487 6.02 594 2.8 14.7 B	Dund L2	Westk L1 367 3.8 0.589 5.78 622 4.2 17.0 C	Dound L2	Northk L1 265 4.5 0.475 6.45 564 2.7 15.2 C	Dound L2	L1 60 5.3 0.126 7.58 462 0.4 11.4 B	L2  125 4.6 0.239 6.87 521 0.9 11.7 B

Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 4:00 - 5:00 P.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | Volume | 39 72 10 | 38 69 209 | 10 145 15 | 63 162 52 |

% Thrus Left Lane

	Eastbound		West	bound	Northk	oound	South	oound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LTR		LTR		LTR		L	TR	
PHF	1.00		1.00		1.00		1.00	1.00	
Flow Rate	121		316		170		63	214	
% Heavy Veh	0		0		0		0	0	
No. Lanes	1		1		1		2		
Opposing-Lanes	1			1	2	2			
Conflicting-lanes	2			2	1	L	1	L	
Geometry group	2		2		4a		5		
Duration, T 1.00	hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet\_

	Eastb	ound	West	bound	North	bound	South	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rates:									
Total in Lane	121		316		170		63	214	
Left-Turn	39		38		10		63	0	
Right-Turn	10		209		15		0	52	
Prop. Left-Turns	0.3		0.1		0.1		1.0	0.0	
Prop. Right-Turns	0.1		0.7		0.1		0.0	0.2	
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	0.0	
Geometry Group	2			2		4a		5	
Adjustments Exhibi	t 17-33	:							
hLT-adj	0	. 2	(	0.2		0.2		0.5	



hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	-0.4	-0.0	0.5 -0.2

	Eastk	oound	West	oound	North	oound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	121		316		170		63	214
nd, initial value		3.20	3.20	3.20	3.20	3.20	3.20	3.20
	0.11		0.28		0.15		0.06	0.19
hd, final value	5.68		4.98		5.62		6.44	5.76
x, final value			0.437		0.265		0.113	
Move-up time, m		2.0	2.0		2.0		2	.3
Service Time	3.7		3.0		3.6		4.1	3.5
Wor	ksheet	5 - Cap	acity an	nd Level	of Serv	vice		
	Easth	oound	Westbound		Northbound		Southbound	
	L1		L1	L2	L1	L2	L1	L2
	121		316		170		63	214
Flow Rate	161							
	3.7		3.0		3.6		4.1	3.5
Service Time			3.0 0.437		3.6 0.265		4.1 0.113	0.34

6.44 5.76 4.98 5.62 Dep. headway, hd 5.68 630 573 629 718 Capacity 637 1.1 0.4 1.6 95% Queue Length 0.7 2.3 10.0- 11.5 10.6 10.0+ 11.8 Delay A В В LOS В Approach: 11.8 10.6 B B 11.1 10.0+ Delay В LOS

Intersection Delay 11.1 Intersection LOS B

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing AM Peak Hour
East/West Street: Newton Street
North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics\_

	Ea	stbo	und	W	estbou	ind	No	orthb	ound	S	outhb	ound	
	L	T	R	L	T	R	l L	T	R	L	T	R	1
Volume	104	81	5	13	117	103	114	9	14	112	3	40	-¦

% Thrus Left Lane

	Easth	Eastbound		Westbound		oound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	185	5	120	103	23	14	15	40
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes	2	2	2		2		2	
Opposing-Lanes	2	2	2		2		2	
Conflicting-lanes	2	2		2		2	2	
Geometry group	5		5		5		5	
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet\_

	Eastbound		West	bound	Noxth	bound	Couth	bound
				1.21 5 12.13 2.1				
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	185	5	120	103	23	14	15	40
Left-Turn	104	0	3	0	14	0	12	0
Right-Turn	0	5	0	103	0	14	0	40
Prop. Left-Turns	0.6	0.0	0.0	0.0	0.6	0.0	0.8	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl	e0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

hRT-adj			-	0.7		0.7	-0.7		
hHV-adj			1.7		1.7		1.7		
hadj, computed	0.3	-0.7	0.0	-0.7	0.3	-0.7	0.4	-0.7	

\_Worksheet 4 - Departure Headway and Service Time\_

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	185	5	120	103	23	14	15	40
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16	0.00	0.11	0.09	0.02	0.01	0.01	0.04
hd, final value	5.19	4.21	4.91	4.20	5.81	4.81	5.89	4.79
x, final value	0.267	0.006	0.164	0.120	0.037	0.019	0.025	0.053
Move-up time, m	2	. 3	2	.3	2	.3	2	. 3
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5

\_\_Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Eastk	Eastbound		oound	Northb	ound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	185	5	120	103	23	14	15	40	
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5	
Utilization, x	0.267	0.006	0.164	0.120	0.037	0.019	0.025	0.053	
Dep. headway, hd	5.19	4.21	4.91	4.20	5.81	4.81	5.89	4.79	
Capacity	685	500	750	858	575	700	750	800	
95% Queue Length	1.1	0.0	0.6	0.4	0.1	0.1	0.1	0.2	
Delay	9.8	6.9	8.6	7.5	8.7	7.6	8.7	7.8	
LOS	A	A	A	A	A	A	A	A	
Approach:									
Delay	9	. 7	8	.1	8	. 3	8	.0	
LOS	P	1	A		A		A		
Intersection Delay	8.7		Inte	rsection	LOS A				

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 7:45 - 8:45 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Existing PM Peak Hour
East/West Street: Newton Street
North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics\_

	Ea	astbou	ind	W	estbou	ind	No	orthb	ound	I S	outhb	ound
	l L	Т	R	L	T	R	L	T	R	L	T	R
Volume	153	118	12	15	142	15	116	18	2	137	16	150

% Thrus Left Lane

	East	bound	West	bound	North	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	171	12	147	15	34	2	53	150
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes		2	-	2		2	2	2
Opposing-Lanes		2		2		2	2	2
Conflicting-lanes		2		2	- 3	2	2	2
Geometry group		5		5	-03	5	1	5
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Heady	wav Adjustment Worksheet
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	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	171	12	147	15	34	2	53	150
Left-Turn	53	0	5	0	16	0	37	0
Right-Turn	0	12	0	15	0	2	0	150
Prop. Left-Turns	0.3	0.0	0.0	0.0	0.5	0.0	0.7	0.0
	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl	e0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

		. 7				.7		. 7
hHV-adj	1	.7	1	.7	1	.7	0 0	.7
nadj, computed	0.2	-0.7	0.0	-0.7	0.2	-0.7	0.3	-0.7
Wor	ksheet	4 - Depa	arture H	leadway	and Serv	ice Time	e	
	Eastb	ound	Westb	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	171	12		15	34	2	53	150
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.15	0.01	0.13	0.01	0.03	0.00	0.05	0.13
hd, final value	5.41	4.56	5.30	4.58	5.84	4.90	5.77	4.73
x, final value	0.257	0.015	0.216	0.019	0.055	0.003	0.085	0.197
Move-up time, m			2	. 3	2	.3	2	.3
Service Time	3.1	2.3	3.0	2.3	3.5	2.6	3.5	2.4
****		5 - Capa		ound	Northb		Southb	
	L1			0 01101				ound
	TIT	L2	L1	L2	L1	L2	L1	L2
Flow Rate		L2 12		L2 15		L2 2	L1	L2
	171		147		34	2	L1	L2 150
Service Time	171 3.1	12 2.3	147 3.0	15	34 3.5	2 2.6	L1 53 3.5	L2 150 2.4
Service Time Utilization, x	171 3.1 0.257	12 2.3	147 3.0 0.216	15 2.3 0.019 4.58	34 3.5 0.055 5.84	2 2.6 0.003 4.90	53 3.5 0.085 5.77	150 2.4 0.197 4.73
Service Time Jtilization, x Dep. headway, hd	171 3.1 0.257 5.41	12 2.3 0.015 4.56	147 3.0 0.216 5.30	15 2.3 0.019 4.58	34 3.5 0.055 5.84	2 2.6 0.003	53 3.5 0.085 5.77	150 2.4 0.197 4.73
Service Time Utilization, x Dep. headway, hd Capacity	171 3.1 0.257 5.41 658	12 2.3 0.015 4.56	147 3.0 0.216 5.30 668	15 2.3 0.019 4.58 750	34 3.5 0.055 5.84 567	2 2.6 0.003 4.90	53 3.5 0.085 5.77 589	150 2.4 0.197 4.73 750 0.7
Service Time Jtilization, x Dep. headway, hd Capacity 95% Queue Length	171 3.1 0.257 5.41 658 1.0	12 2.3 0.015 4.56 600	147 3.0 0.216 5.30 668 0.8	15 2.3 0.019 4.58 750	34 3.5 0.055 5.84 567 0.2	2 2.6 0.003 4.90 0	53 3.5 0.085 5.77 589	L2 150 2.4 0.197 4.73 750
Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length	171 3.1 0.257 5.41 658 1.0	12 2.3 0.015 4.56 600 0.0	147 3.0 0.216 5.30 668 0.8	15 2.3 0.019 4.58 750 0.1	34 3.5 0.055 5.84 567 0.2	2 2.6 0.003 4.90 0	53 3.5 0.085 5.77 589 0.3	150 2.4 0.197 4.73 750 0.7
Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach:	171 3.1 0.257 5.41 658 1.0 10.0-	12 2.3 0.015 4.56 600 0.0 7.3 A	147 3.0 0.216 5.30 668 0.8 9.5	15 2.3 0.019 4.58 750 0.1 7.4	34 3.5 0.055 5.84 567 0.2 8.9 A	2 2.6 0.003 4.90 0 0.0 7.6 A	53 3.5 0.085 5.77 589 0.3 9.0 A	150 2.4 0.197 4.73 750 0.7 8.6 A
Capacity	171 3.1 0.257 5.41 658 1.0 10.0- A	12 2.3 0.015 4.56 600 0.0 7.3	147 3.0 0.216 5.30 668 0.8 9.5 A	15 2.3 0.019 4.58 750 0.1 7.4	34 3.5 0.055 5.84 567 0.2 8.9 A	2 2.6 0.003 4.90 0 0.0 7.6	53 3.5 0.085 5.77 589 0.3 9.0 A	150 2.4 0.19 4.73 750 0.7 8.6 A

Intersection LOS A

A

LOS

Intersection Delay 9.2

A

WALL STATE					1 02					ion Inf	o rmoti			14741	R U
General Inforn	nation							_	ntersect		_	Л		JĮĻ	
Agency		KHR Associates				0/4/00	10	_	Duration,		0.25				
Analyst					is Date	8/1/20	116	_	Area Typ	е	Other				+
Jurisdiction		Torrance California		Time F	_	2010		_	PHF	Daniani	0.90	20	-		2
Urban Street		Pacific Coast Highw	ay	-	is Year		0 . !! -	_	Analysis		1> 7:	30	- T		
Intersection		Calle Mayor		File Na	ame	18-PC	H-Calle	Мауо	E+P AN	/I.xus			- 4	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	121 6
Project Descrip	tion		-				45 7 7		11 (5)(3)	200	-//		-	man mentre	E(d)
Demand Inform	nation				EB		The K	WB			NB		1	SB	
Approach Move				L	Т	R	L	T	R	L	T	R	L	T	F
Demand ( v ), v			****	118	208	167	94	236	160	145	788	32	176	941	29
Bernana (V),	OT IT	AND DESCRIPTION OF	THE R		186			4	10 70				PER	130	
Signal Informa	ation				-		- 5	<u> </u>	. 216	2	ù l	_		R	人
Cycle, s	90.0	Reference Phase	2		20	$\exists$		7		15	17				S.
Offset, s	0	Reference Point	End	Green	5.6	1.0	25.4	7.0	1.1	33.9			<u> </u>		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	0.0	4.0	4.0	0.0	4.0		1	7	1	K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
A PARTY				70	4			A SI	4.085		1581	Hall S		TEL 7"	
Timer Results	WAL.			EBI	- 2	EBT	WB		WBT	NB	L	NBT	SBI	-	SBT
Assigned Phas	е			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	1.1	_	3.0	1.1	-	3.0
Phase Duration	1, S			10.6	_	30.5	9.6		29.4	11.0	_	37.9	12.1		39.0
Change Period	, ( Y+R	c), S		4.0		4.0	4.0		4.0	4.0	_	4.0	4.0		4.0
Max Allow Hea	ax Allow Headway ( MAH ), s					0.0	3.0		0.0	3.0		3.0	3.0		3.0
Queue Clearan	ce Time	(gs), s		6.7			5.8			6.9	_	35.9	7.9		37.0
Green Extension	n Time	( g e ), s		0.1		0.0	0.1		0.0	0.2	_	0.0	0.2		0.0
Phase Call Pro	bability			0.96		T.Y.	0.93	3	Ter"	0.98		1.00	0.99		1.00
Max Out Proba	bility			0.00			0.00		7	0.00		1.00	0.00	)	1.00
Movement Gro	un Per	ulte	THE STATE OF		EB			WB	Name of		NB	11		SB	
Approach Move		uits		L	T	R	L	Т	R	L	Т	R	L	T	F
Assigned Move			5 TO 3	5	2	12	1	6	16	3	8	18	7	4	1-
Adjusted Flow	-	\ veh/h		131	220	197	104	231	209	161	876	36	196	1046	33
		ow Rate ( s ), veh/h/l	n	1740	1827	1557	1740	1827	1579	1774	1863	1609	1774	1863	15
	_			4.7	8.7	9.2	3.8	9.4	9.8	4.9	33.9	1.3	5.9	35.0	14
Queue Service		e Time ( g c ), s		4.7	8.7	9.2	3.8	9.4	9.8	4.9	33.9	1.3	5.9	35.0	14
Green Ratio (	-	e fille (gc), s		0.36	0.29	0.29	0.34	0.28	0.28	0.45	0.38	0.38	0.47	0.39	0.3
Capacity ( c ),				369	537	458	349	516	446	217	701	606	240	725	61
Volume-to-Cap	-	atio ( Y )		0.356	0.409	0.430	0.300	0.448		0.742	1.249	0.059	0.815	1.443	0.5
		/In ( 50 th percentile)		46.3	99.6	88.7	37.1	108.6	-	49	970.1	11	59.8	1432.7	_
		eh/In (50 th percenti		1.8	3.9	3.5	1.4	4.2	3.9	1.9	37.6	0.4	2.3	55.5	5.
CONTRACTOR AND ADDRESS OF THE PARTY OF THE P		RQ) (50 th percent		0.15	0.33	0.31	0.12	0.36	0.33	0.24	4.78	0.06	0.20	4.70	0.4
Uniform Delay				20.8	25.5	25.7	21.2	26.5	26.7	21.1	28.1	17.9	20.8	27.5	21
Incremental De				0.2	2.3	2.9	0.2	2.8	3.5	1.9	123.5	0.0	2.6	206.9	0.
Initial Queue D				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
Control Delay		THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW		21.0	27.8	28.6	21.4	29.3	30.2	23.0	151.6	17.9	23.4	234.4	21
Level of Service				C	C	C	C	C	C	C	F	В	C	F	0
Approach Dela	_			26.5		С	28.		C	127.		F	163.		F
Intersection Dela	-			20.0		_	3.4						F		-
intersection De	ay, S/VE	FIT / LOS	313		C- L-	TOP IS		300	100		611	See N	Daniel	1	
Multimodal Re	esults				EB	11 0	The same	WB			NB			SB	
AND RESIDENCE OF THE PARTY OF T		/LOS		2.4		В	2.4		В	2.8		С	2.8		С
. Jacobilan LO	edestrian LOS Score / LOS					Α	0.9		A	2.3		В	3.1	_	С

		HCS 2	010 S	ignali	zed l	nters	ection	Res	sults S	umm	ary		- 1to		
O			400	- 10	M.	等情報		0.50	Intersec	tion Inf	ormatio	on		ነተኘተተ	J.4
General Inform	nation	KUD Associates						_	Duration		0.25	JII		717	
Agency		KHR Associates		Analys	io Doto	0/1/20	116	$\overline{}$	Area Typ		Other		4		2
Analyst		T				8/1/20	110	$\rightarrow$	PHF	e	0.90		4 → + + + + + + + + + + + + + + + + + +		<u>→</u>
Jurisdiction		Torrance California	747.5	Time F		2046		$\rightarrow$		Dariad	1> 7:	20	- 4 -x		~
Urban Street		Pacific Coast Highw	vay	-	sis Year	_	LL Calle		Analysis		177.	30	3		
Intersection		Calle Mayor		File Na	ame	18-PC	H-Calle	wayo	or E+P PI	vi.xus		_		1 1	14 0
Project Descrip	tion	Electron of the second		1 315		0.000	- 2 76	0.85				100		Date Date of	Colle
Demand Inform	nation				EB			W	В		NB			SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand (v), v	eh/h		1911	118	237	225	56	14	6 133	190	1029	49	172	940	84
PIES PRO	3								9	1.00	S. Land				
Signal Informa	_				2	_2	. 71		2	all's			7	~	人
Cycle, s	90.0	Reference Phase	2		- E	3	= 1	1	5 5	7 8	7	4	<b>Q</b> 2	3	4
Offset, s	0	Reference Point	End	Green		1.9	25.4	8.0	0.7	33.3					
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0		4.0				1	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8
Timer Results				EBI		EBT	WB		WBT	NBI		NBT	SB		SBT
Assigned Phase	e			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	1.1		3.0	1.1		3.0
Phase Duration	S			10.6	3	31.3	8.7		29.4	12.7	,	38.0	12.0	0	37.3
	ange Period, ( Y+R c ), s					4.0	4.0	-	4.0	4.0		4.0	4.0		4.0
	ange Period, ( <i>Y+R c</i> ), s x Allow Headway ( <i>MAH</i> ), s					0.0	3.0	_	0.0	3.0	_	2.9	3.0		2.9
Queue Clearan				3.0 6.7			4.2	_		8.5	_	36.0	7.9		35.3
Green Extension				0.1		0.0	0.0	_	0.0	0.2	_	0.0	0.2		0.0
Phase Call Prol	-	(90),0	95.3	0.96	3		0.79	_		0.99	_	1.00	0.99	9	1.00
Max Out Proba				0.00	_		0.00			0.01	_	1.00	0.00	)	1.00
Wax Out 1 Toba	Silly Silly	19/		10 10 10	No.	1 13			1000					10	18.70
Movement Gro	up Res	ults	2011		EB			WB			NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	ment	ald makes	1	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow I	Rate ( v	), veh/h		131	263	250	62	162	148	211	1143	54	191	1044	93
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	n	1740	1827	1543	1740	1827	7 1543	1774	1863	1609	1774	1863	1576
Queue Service	Time (	g s ), S		4.7	10.6	12.1	2.2	6.3	6.8	6.5	34.0	2.0	5.9	33.3	3.6
Cycle Queue C				4.7	10.6	12.1	2.2	6.3	6.8	6.5	34.0	2.0	5.9	33.3	3.6
Green Ratio (g				0.36	0.30	0.30	0.34	0.28	0.28	0.47	0.38	0.38	0.46	0.37	0.37
Capacity (c), v	_	New page 18 and 18		424	554	468	299	516	436	251	703	607	238	689	583
Volume-to-Cap		atio (X)		0.309	0.475	0.534	0.208	0.31	4 0.339	0.841	1.626	0.090	0.803	1.515	0.160
		/In (50 th percentile)		46.2	121.6	117.5	21.9	71.9	65.1	69.3	1803	17	58.9	1525.4	30.3
		eh/ln (50 th percent		1.8	4.7	4.7	0.9	2.8	2.6	2.7	69.9	0.7	2.3	59.1	1.2
		RQ) (50 th percent	The second	0.15	0.41	0.40	0.07	0.24	0.22	0.34	8.88	0.09	0.19	5.01	0.10
Uniform Delay	The second named in			20.5	25.5	26.1	21.5	25.4	25.6	20.7	28.0	18.1	20.9	28.3	19.0
Incremental De				0.2	2.9	4.3	0.1	1.6	2.1	5.0	288.4	0.0	2.4	239.1	0.0
Initial Queue De				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (				20.6	28.4	30.4	21.6	27.0		25.7	316.4	18.1	23.3	267.5	19.0
Level of Service	e (LOS)			С	С	С	С	С	С	С	F	В	С	F	В
Approach Delay	_			27.6	3	С	26.4	4	С	261.	3	F	214.	9	F
Intersection De	lay, s/ve	eh / LOS				18	1.5	1100000					F		
		Mile Street L.				UEA B	100	14/15	wy I		ND	Below		CD	
Multimodal Re	_				EB	D	2.4	WB		2.0	NB	0	2.0	SB	_
Pedestrian LOS	_			2.4		В	2.4		В	2.8	_	С	2.8		С
Bicycle LOS So	core / L	JS		1.0	-	Α	0.8		Α	2.8		С	2.7		В

2019 Existing Plus Ambient Growth Conditions Highway Capacity Method

		HCS	S7 Sig	gnaliz	zed I	nters	ectio	Res	ults S	umma	iry				
General Inform	nation		1	1000	4				Lutana	and and	0000	Alexander of the second	- 4	N H MA	Liebstot
Agency	ilation	KHR Associates							-	ection I			_		
Analyst		NASSOCIALES		Anali	unia D	oto   0/4	10040		Duratio		0.2				R.
Jurisdiction		Torrance California		_	ysis D Perio		/2016		Area T	ype	Oth				<b>‡</b>
Urban Street			_	_	_	_	C		-	to Deste	0.9	-	<b>—</b>  ≝=:	W+ 3	÷
Intersection		Pacific Coast High		-	ysis Ye	_		. 41		is Perio	d  1>	7:30			× 2
Project Descrip	tion	Hawthorne Bouleva	ard	File	Vame	11-1-	Сн-на	wtnorne	Amb Af	VI.xus				។។ † ↑ ។ ទា ក ទា	1 1
Demand Inform	nation	la l	35	ALC:			100				7717		- 25		
Approach Move				-	E	-		-	/B		N	-		SE	-
				L	1				T F	_			_	T	R
Demand (v), v	en/n			270	10-	41 26	57 1	45 10	70 24	6 28	7   13	51 55	18	5 74	308
Signal Informa	tion			1			7	R	7	- Alex		17/6/2	/15// AAN	Carlot Control	
Cycle, s	120.0	Reference Phase	2	1	1	03		=	2	2		/		~	4
Offset, s	0	Reference Point	End			3				11	17	1	Z 3	3	4
Uncoordinated	No	Simult. Gap E/W	On		n 7.5	0.7	49						_	N. Take	
Force Mode	Fixed	Simult. Gap N/S	On	Yellov	w 4.0 0.0	0.0						1	6	7	7
The Wife of		to the second	Teta		4 3		THE REAL PROPERTY.	1 3 3 3			EST	1 4 18	1300		
Timer Results				EB	BL	EBT	V	/BL	WBT	NE	3L	NBT	SE	3L	SBT
Assigned Phase	Э			5		2		1	6	3		8	7		4
Case Number				2.0	)	3.0	2	.0	3.0	2.	0	3.0	2.	0	3.0
Phase Duration					2	58.5	1	1.5	53.8	16	.5	37.1	12	.8	33.5
Change Period,	ge Period, ( Y+R c), s					4.0	4	.0	4.0	4.	0	4.0	4.0	0	4.0
Max Allow Head	Allow Headway ( <i>MAH</i> ), s					0.0	3	.0	0.0	3.0	0	3.0	3.0	)	3.0
Queue Clearand	ce Time	(gs), s		12.	0		7	.4		12.	3	35.1	8.6	3	25.4
Green Extension	n Time (	(ge), s		0.3	3	0.0	C	.2	0.0	0.3	3	0.0	0.2	2	2.8
Phase Call Prob	ability			1.0	0		0.	99		1.0	0	1.00	1.0	0	1.00
Max Out Probab	oility			0.30	6		0.	00		0.5	1	1.00	0.0	1	0.89
Movement Gre	un Boo	ulto						VA/II		<b>GENERAL</b>	110	7/1/2			ENTER
Movement Gro Approach Move	-	uits		-	EB	In	-	WE	-	-	NB	T =	-	SB	
Assigned Mover	_			-	T	R	L	T	R	L	T	R	L	T	R
Adjusted Flow R		\ voh/h		5	2	12	1	6	16	3	8	18	7	4	14
		Market and the second s	_	284	1096	-	153	_	_	302	1422	58	195	780	324
Queue Service		w Rate (s), veh/h/lr	1	1689	1658	-	_	-	-	1730	1698	1608	1730	1698	1579
Cycle Queue Cl				10.0	21.6	-	_	23.2	-	10.3	33.1	3.2	6.6	16.4	23.4
Green Ratio ( g/	THE RESIDENCE OF THE PARTY OF T	e fille (gc), s		10.0	21.6	-		23.2	-	10.3	33.1	3.2	6.6	16.4	23.4
Capacity $(c)$ , ve				0.10	0.45	_	-	-		0.10	0.28	0.28	0.07	0.25	0.25
Volume-to-Capa	and the same of the same of	tio ( V )		344 0.826	0.48	-	211	2063	-	362	1407	444	255	1251	388
	_	In (50 th percentile)		119.8	236.4		_	_	_	-	1.010	0.130	0.763	0.624	0.836
		h/ln ( 50 th percentil	0)		-	-	_	-		_	426.6	31	73.2	170.6	261.7
THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	-	RQ) (50 th percenti		4.6	9.1	6.9	2.3	9.8	6.6	4.8	16.8	1.2	2.9	6.7	10.3
Uniform Delay (	-	The same of the sa	ile)	0.40	0.79	0.60	0.20	-	-	0.61	2.13	0.16	0.24	0.57	0.87
Incremental Delay	_			54.9	30.4	28.6	56.5	-	_	52.7	43.4	32.6	54.5	40.3	43.0
				7.3	0.7	1.5	1.8	1.0	1.7	8.3	26.6	0.0	1.8	0.7	13.9
Initial Queue De	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	SALES AND ADDRESS OF THE PARTY.	0		62.2	31.1	30.1	58.2	-	32.8	61.0	70.0	32.7	56.3	41.1	56.9
Level of Service		100		E 26.2	С	C	E	C	C	E	F	С	E	D	E
Approach Delay,	-			36.3	,	D	36	.0	D	67.3	5	Е	47.3		D
ntersection Dela	ay, s/ver	17 LUS		4	9	-	7.5		-	Take a		W-97-35	D	The same	
Multimodal Res	ults	Alexandria de la companya della companya de la companya della comp			EB			WB			NB	استاله	4	CD	187/1970
								VVD			IND			SB	
Pedestrian LOS	Score /	LOS		3.5		C	3.	5	C	3.5		C	3.5		C

		HCS	S7 Sig	gnaliz	ed In	terse	ection	Res	ults S	umma	ary				
0		1000000	Mile.							The Miles			2110	043	
General Inform	nation	T							-	ection I		-		7 4 7 4	
Agency		KHR Associates							Durati	on, h	0.2	5		] 2 + +	, ly ly
Analyst				Analy	ysis Da	te 8/1/	2016		Area 7	ype	Oth	ner	45		
Jurisdiction		Torrance California	_	-	Period	_			PHF		0.9	0	4	w∳	
Urban Street		Pacific Coast High		Analy	sis Ye	_	-		-	is Perio	d 1>	7:30			1,
Intersection		Hawthorne Bouleva	ard	File N	Name	1-P	CH-Hav	vthorne	Amb Pl	M.xus				ነ ጎ ጎ ተ ተ	1 7
Project Descrip	otion	MINISTER STATE OF THE STATE OF												1414	711
Demand Inform	mation			7	EB		E STATE OF	V	VB		N	R	5065E	SE	
Approach Move	ement			L	T	F		-	T F	? L	1	and the last of th	L	T	
Demand (v), v	-			224	114	_	_	_	02 22	_	_		_	_	R 0 383
	TO STORY				75.55				William.	THE OLD			30-	1 123	0 303
Signal Informa	ation							5-	512	7 7	, V		A demande	11 84	
Cycle, s	120.0	Reference Phase	2		1		=		2		4.2	_	→	1	4
Offset, s	0	Reference Point	End	Green	1 9.6	1.3	51.	1 14	.3 1.	7 26		1,0	2	3	2000
Uncoordinated	No	Simult. Gap E/W	On	Yellov		0.0	4.0	4.0				7	4		1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
Timer Results	E IL Y		40	ED		EDT	100		MADT	NAME OF THE OWNER, OWNE				11	
				EB	L	EBT	-	BL	WBT	NE	_	NBT	SE		SBT
Assigned Phase Case Number	9			2.0	-	2	1		6	3	-	8	7		4
	se Duration, s					3.0	2.		3.0	2.	-	3.0	2.0	_	3.0
THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW						56.4	13	_	55.1	18	-	30.0	20.		31.7
	ange Period, ( <i>Y+R c</i> ), s x Allow Headway ( <i>MAH</i> ), s					4.0	4.		4.0	4.0	_	4.0	4.0		4.0
				3.0	_	0.0	3.	_	0.0	3.0	_	3.0	3.0	_	3.0
Queue Clearand	the same of the same of	State of the same		10.6			9.	-		14.	_	24.9	16.	6	29.7
Green Extensio	MICHIGAN CO.	( <i>g</i> e ), S		0.3	_	0.0	0.	_	0.0	0.2	_	0.9	0.0	_	0.0
Phase Call Prob	_			1.00			1.0	_		1.0	_	1.00	1.0	-	1.00
Max Out Probab	ollity	A STATE OF THE STA	10000	0.08	3	5 7	0.0	)1	-	1.0	0	1.00	1.0	0	1.00
Movement Gro	up Res	ults	Mark Control		EB		_	WB	BERGE SE	7	NB		1	SB	Dave
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	TP
Assigned Mover	-			5	2	12	1	6	16	3	8	18	7	4	R
Adjusted Flow F	-	), veh/h		249	1271	384	212	1113	-	356	997	79	427	1367	14
THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER, THE PERSON NAMED IN COLUM	-	w Rate (s), veh/h/lr	1	1702	1671	1608	-	_	-	1730	1698	1608	1730	1698	-
Queue Service	THE RESERVE AND ADDRESS.	the first control of the control of		8.6	22.9	21.2		19.7	-	12.1	22.9	4.8	14.6	27.7	1581
Cycle Queue Cl	_			8.6	22.9	21.2	7.3	19.7		12.1	22.9	4.8	14.6	27.7	27.7
Green Ratio ( g/	AND REAL PROPERTY.	(30),0		0.09	0.44	0.44	0.08	0.43	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	0.12	0.22	0.22	0.13	0.23	0.23
Capacity ( c ), ve	-			308	2191	702	272	2137	-	412	1104	348	461	1176	365
Volume-to-Capa	-	tio (X)		0.807	0.580	0.547	-	-	and the latest designation of the latest des	_	0.903	-	0.925	1.162	1.166
The same of the sa	_	n (50 th percentile)		97.1	228.8	207	81	196.4	_	149	262.8	-	195.7	513.8	524.6
	and the latest designation of the latest des	h/ln (50 th percentile	e)	3.8	8.9	8.3	3.1	7.6	4.8	5.9	10.3	1.9	7.7	20.2	20.7
Queue Storage	Ratio (	RQ) (50 th percentil	le)	0.32	0.76	0.71	0.27	0.65	-	0.75	1.31	0.24	0.65	1.71	1.75
Uniform Delay (	d 1 ), s/	veh		53.5	25.5	25.0	54.2	25.4	23.3	51.9	45.8	38.7	51.4	46.1	46.1
ncremental Dela	ay ( d 2 )	), s/veh		4.0	1.1	3.1	1.9	0.9	1.5	13.1	10.1	0.1	24.2	82.5	100.4
nitial Queue De	<b>lay ( d</b> з	), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	-	h		57.5	26.6	28.1	56.0	26.3	24.8	65.0	55.9	38.8	75.6	128.7	146.6
evel of Service				E	C	С	E	С	С	E	E	D	Е	F	F
Approach Delay,	-			30.9		С	30.	1	С	57.2	2	E	121.9	9	F
ntersection Dela	ay, s/veł	n/LOS		-		6	4.4						E		
Multimodal Res	ulte			44.2	EB		7	WB		-	ND	4		*	
Pedestrian LOS	-	LOS		3.5		С	3.5	_	С	2.5	NB	0	0.5	SB	
Bicycle LOS Sco	_			1.5	-	В	1.4	_	A	3.5		C	3.5	-	С
,		•		1.0		D	1.4		А	1.3		Α	1.7		В

## **HCS7 Signalized Intersection Results Summary General Information** 14141111 Intersection Information J J J L Agency 0.25 Duration, h Analyst Analysis Date 8/4/2016 Area Type Other Jurisdiction Time Period PHF 0.90 **Urban Street** Hawthorne Boulevard Analysis Year 2016 Analysis Period 1>7:00 244th Street Intersection File Name 2-Hawthorne-244th Amb AM.xus **Project Description Demand Information** EB WB NB SB Approach Movement L T R L Т R L T R L T R Demand (v), veh/h 0 24 4 0 59 52 4 1612 39 1064 Signal Information Cycle, s 45.0 Reference Phase 2 Offset, s 0 Reference Point End Green 21.0 16.0 0.0 0.0 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 0.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S 0.0 0.0 On Red 0.0 0.0 0.0 0.0 **Timer Results** EBL **EBT** WBL WBT **NBL** NBT SBL SBT Assigned Phase 2 6 8 4 Case Number 8.0 8.0 6.0 6.0 Phase Duration, s 25.0 25.0 20.0 20.0 Change Period, (Y+Rc), s 9.0 9.0 4.0 4.0 Max Allow Headway (MAH), s 0.0 0.0 3.2 3.2 Queue Clearance Time (gs), s 17.7 18.0 Green Extension Time (ge), s 0.0 0.0 0.0 0.0 Phase Call Probability 1.00 1.00 Max Out Probability 1.00 1.00 **Movement Group Results** EB WB NB SB Approach Movement L T R L T R L R L R **Assigned Movement** 5 2 12 1 6 16 7 3 8 4 Adjusted Flow Rate (v), veh/h 0 0 4 1791 43 1182 Adjusted Saturation Flow Rate (s), veh/h/ln 0 0 482 1698 268 1698 Queue Service Time (gs), s 0.0 0.0 0.4 15.7 0.3 8.8 Cycle Queue Clearance Time (gc), s 0.0 0.0 9.1 15.7 16.0 8.8 Green Ratio (g/C) 0.36 0.36 0.36 0.36 Capacity (c), veh/h 237 1812 162 1812 Volume-to-Capacity Ratio (X) 0.000 0.000 0.019 0.989 0.268 0.653 Back of Queue (Q), ft/ln (50 th percentile) 0 0 0.8 193.9 10.5 67.1 Back of Queue (Q), veh/ln (50 th percentile) 0.0 0.0 0.0 7.6 0.4 2.6 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.00 0.01 0.97 0.11 0.34 Uniform Delay ( d 1 ), s/veh 16.0 14.4 22.5 12.2 Incremental Delay ( d 2), s/veh 0.0 0.0 0.0 18.4 0.3 0.7 Initial Queue Delay (d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 16.0 32.8 22.8 12.8 Level of Service (LOS) В C C В Approach Delay, s/veh / LOS 9.6 A 10.8 В 32.8 C 13.2 В Intersection Delay, s/veh / LOS 24.1 C **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 3.2 C 3.2 C 2.1 B 2.1 B 0.5 0.7 Bicycle LOS Score / LOS A A 1.5 Α 1.2 A

The second	1000	AND HELD NEW TO	LAN.	THE STA		ersec			Barrie	13131	VANIES V		101/19	1.5.5	(IS)
General Inform	nation						and the same of	Na Section Confession	Interse	ction In	format	ion		र व राक	1 1 4 1
Agency					-			_	Duratio	-	0.25			111	Ļ
Analyst				Analy	sis Dat	e 8/4/20	16		Area Ty	-	Othe				
Jurisdiction				_	Period				PHF		0.90			w.fe	
Urban Street		Hawthorne Bouleva	ard	Analy	sis Yea	2016	-		Analysi	s Period	-		7 4 7		
Intersection		244th Street		File N	THE RESERVE OF THE PARTY OF THE	_	thorne		Amb Pl					K 4 4	
Project Descrip	tion		4111444											ነጻነቀነ	7 7 7
Demand Infor	nation	State of the state		O DESIGNATION OF THE PERSON OF	EB		1	WE	3	STREET, STREET	NE	3	DEPOSITE OF	SB	
Approach Move	ement			L	T	R	L	T	R	L	T	F	R L	T	F
Demand (v), v	eh/h			0	61	22	0	58		31	126	_	75	_	_
Signal Informa	tion		34,00	100	DOM	Marie Const		S. Maria		The state of the s		Market I			304
Cycle, s	45.0	Reference Phase	2	1	7	ii lis							7		7
Offset, s	0	Reference Point	End		-3	Ti"					1	1	<b>3</b> 2	3)	
Uncoordinated	No	Simult. Gap E/W	On	Green		16.0	0.0	0.0	0.0				4		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow Red	0.0	0.0	0.0	0.0	0.0			5	6	7	K
			N. S.				To Y	No. 1				41.60			
Timer Results				EBI	-	EBT	WB	L	WBT	NB	L	NBT	SE	BL	SBT
Assigned Phase	9					2			6			8			4
Case Number						8.0			8.0			6.0			6.0
Phase Duration	-					25.0			25.0			20.0			20.0
Change Period,		Name and Address of the Owner State of the Owner of the O				9.0			9.0			4.0			4.0
	Allow Headway ( <i>MAH</i> ), s					0.0			0.0			3.3			3.3
Queue Clearan	The second second	CONTRACTOR OF STREET										18.0			18.0
Green Extensio		(ge), s				0.0			0.0			0.0			0.0
Phase Call Prob	-											1.00			1.00
Max Out Probal	oility	of a Martin of the Au							11 27 1			1.00			1.00
Movement Gro	up Res	ults	NAME OF TAXABLE PARTY.	in the last	EB	Address	A ALA	WB			NB	ad S	S 15 4 16	SB	
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8	- '	7	4	11
Adjusted Flow F		), veh/h			0			0	10	34	1408		83	1793	-
Control of the last of the las	The same of the same of	w Rate (s), veh/h/lr	1		0			0		268	1698		388	1698	
Queue Service	-	THE RESERVE OF THE PARTY OF THE			0.0			0.0		0.2	11.1		4.9	15.8	
Cycle Queue CI		The state of the s			0.0			0.0		16.0	11.1		16.0	15.8	-
Green Ratio ( g/	-	(0 //								0.36	0.36		0.36	0.36	-
Capacity ( c ), v										161	1812		203	1812	
Volume-to-Capa	recommendation	tio(X)			0.000			0.000		0.213	0.777		0.411	0.990	
	_	n (50 th percentile)			0			0		8.3	89.7		20.2	195.3	
	-	h/ln (50 th percentil	e)		0.0			0.0		0.3	3.5		0.8	7.7	
OF REAL PROPERTY AND ADDRESS OF THE PARTY.	-	RQ) (50 th percenti			0.00			0.00		0.08	0.45		0.20	0.98	
gucuc Otorauc	THE RESERVE AND ADDRESS.	AND RESIDENCE OF THE PARTY OF T	-							22.5	12.9		21.2	14.4	
THE RESIDENCE OF THE PARTY OF T	_	The Contract of the Contract o			0.0			0.0		0.2	2.0		0.5	18.7	
Jniform Delay (		AND DESCRIPTION OF THE PARTY OF			0.0			0.0		0.0	0.0		0.0	0.0	
Jniform Delay ( ncremental Del	lay ( a 3									22.7	14.9		21.7	33.1	
Jniform Delay ( ncremental Del nitial Queue De	-	h								C	В		C	C	
Uniform Delay ( ncremental Del nitial Queue De Control Delay (	d), s/ve	h							_		-				
Uniform Delay ( Incremental Del Initial Queue De Control Delay ( Level of Service	d), s/ve (LOS)			10.3		В	10.8		В	15.1		В	32 6		C
Uniform Delay ( ncremental Del nitial Queue De Control Delay ( Level of Service Approach Delay	d), s/ve (LOS) , s/veh /	LOS		10.3		B 24.	10.8 1		В	15.1		В	32.6 C		С
Uniform Delay ( Incremental Del Initial Queue De Control Delay ( Level of Service Approach Delay Intersection Delay	d), s/ve (LOS) , s/veh / ay, s/veh	LOS		10.3	A SOLUTION OF THE PARTY OF THE		-		В			В		halles L	С
Uniform Delay ( Incremental Del nitial Queue De Control Delay ( Level of Service Approach Delay	d), s/ve (LOS) , s/veh / ay, s/veh	LOS n/LOS		10.3	EB		-	WB	С			В		SB	В

ALL DANGERS	active.											ul f	17-15	NAME OF THE PERSON OF THE PERS	1918
General Inform	nation							10110	Interse	ection I	nforma	tion	The state of the s	1474	
Agency									Duratio	n, h	0.25	5		11	Ļ
Analyst				Analy	sis Da	te 8/4/2	2016		Area Ty		Oth				
Jurisdiction				_	Period	_			PHF	/	0.97			wŤ	
Urban Street		Hawthorne Bouleva	ard	Analy	sis Yea	ar 2016	3		Analysi	is Period	_				
Intersection		Newton Street		File N		-	awthorne	e-Newt		-				K A A	
Project Descrip	tion					12								1114	747
Demand Inform	mation		ANN A	F. BU	EB	CI (IIVa)	8,7,1	W	IR	11/11/20	NE		The state of	CD.	30
Approach Move	-			L	T	I R		T		L	T	_		SB	
Demand (v), v				23	76			_	_	_	_		37	T 102	_
A VANCOUS PROPERTY.	Land M					MEG		TO SERVICE OF			101	ALL A	31	102	
Signal Informa	-				3		2					10111			
Cycle, s	46.4	Reference Phase	2		3	5	5		1				<b>↔</b>		1
Offset, s	0	Reference Point	End	Green	9.1	2.3	2.0	21.	.0 0.0	0.0	)	15.1	M 2	3	1723
Uncoordinated	Yes	Simult. Gap E/W	On	Yellov	v 4.0	4.0	0.0	4.0		0.0			<b>—</b>		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	la i
Timer Results	To day	confine with the left	O CONTO	EB	Sumber of the last	EBT	WE	SI I	WBT	NE	SI T	NBT	SE	ALC: N	CD
Assigned Phase	9	-			-	2	VVL		6	3		8	7		SB
Case Number					+	6.0			5.0	2.0		4.0	2.0	_	4
	S					13.1	-		13.1	8.4			_		4.0
					-	4.0		-	4.0	4.0	-	27.0	6.3		25.0
	nge Period, ( Y+R c), s Allow Headway ( <i>MAH</i> ), s					3.2	-		3.2	3.		4.0	4.0		4.0
Queue Clearan					-	5.8			8.9	-	_	3.0	3.1		3.0
Green Extensio	and the local division in which the	THE RESERVE OF THE PERSON NAMED IN				0.5	-		0.2	4.5		13.4	2.9		12.8
Phase Call Prob	-	(98),3				1.00	-	-	1.00	0.1		8.0	0.0	_	8.2
Max Out Probat	_					0.59	1		1.00	0.7	_	1.00	0.3		0.28
HA DINGERS	4150		1441		14 (15)		11.	1		3.0		436/005	0.0		0.20
Movement Gro	THE RESERVE OF THE PARTY.	ults			EB			WB			NB			SB	
Approach Move				L	Т	R	L	T	R	L	Т	R	L	T	F
Assigned Mover				5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate (v)	), veh/h		24	162		87	118	109	101	1666		38	1061	
Adjusted Satura	tion Flo	w Rate ( s ), veh/h/lr	1	1295	1739		1244	1900	1610	1810	1698		1810	1781	
Queue Service	_	CONTRACTOR OF THE PARTY OF THE		0.7	3.8		3.1	2.5	2.7	2.5	11.4		0.9	10.8	
Cycle Queue Cl	earance	Time ( g c ), s		3.2	3.8		6.9	2.5	2.7	2.5	11.4		0.9	10.8	
Green Ratio ( g/	(C)			0.20	0.20		0.20	0.20	0.20	0.09	0.50		0.05	0.45	
Capacity ( c ), ve	eh/h			340	339		295	371	314	171	2527		91	1610	
Volume-to-Capa	city Rat	tio (X)		0.070	0.477		0.293	0.317	0.348	0.592	0.659		0.418	0.659	
Back of Queue (	(Q), ft/l	n (50 th percentile)		4.9	33.3		19.8	23.2	21.8	24.4	72.1		9.6	77	
Back of Queue (	(Q), ve	h/ln (50 th percentil	e)	0.2	1.3		0.8	0.9	0.9	1.0	2.8		0.4	3.0	
Queue Storage	Ratio (	RQ) (50 th percenti	le)	0.05	0.33		0.20	0.23	0.22	0.24	0.36		0.10	0.38	
Jniform Delay (	d 1), s/	veh		17.4	16.6		19.6	16.0	16.1	20.2	8.8		21.4	9.9	
ncremental Dela	ay ( d 2 )	), s/veh		0.0	0.4		0.2	0.2	0.2	1.2	0.1		1.1	0.2	
nitial Queue De	lay ( d 3	), s/veh		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	d), s/ve	h		17.4	17.0		19.8	16.2	16.4	21.4	8.9		22.5	10.1	
evel of Service				В	В		В	В	В	С	A		C	В	
Approach Delay,	-	LOS		17.0		В	17.3		В	9.6	-	Α	10.5		В
ntersection Dela							1.0						В		
	Maria.		La Julia		New Y	Waller To	ALC:		1017					SEN SE	4-1
Mary Springer	Itimodal Results				EB			WB		1	NB			OD	
<b>Multimodal Res</b> Pedestrian LOS		100		2.9	I	С	3.2	-	С	2.4	-	В	2.2	SB	В

	3550/6	HCS	S7 Sig	gnaliz	zed li	ntei	rse	ction	Resu	ılts S	umma	ary	Management	dia setting	21.5	55100
Conoral Inform	Man bit	11/14/19 19 19 19 19 19 19 19 19 19 19 19 19 1			N 365 V	i la col			I WAY			() 對()		NAME OF		
General Infor	mation										ection I		_		1 4 Y 4	1 4 7
Agency				-		_				Duratio		0.2	5	2		+ 4
Analyst				_	ysis D	_	8/4/2	2016		Area T	уре	Oth	-	4		
Jurisdiction				_	Perio	-				PHF		0.97		# -V		E .
Urban Street		Hawthorne Bouleva	ard	_	ysis Ye	$\overline{}$	2016			_	is Perio		7:00	7		
Intersection		Newton Street		File	Name	- (3	3-Ha	wthorn	e-Newt	on Amb	PM.xus				5 ተ	† [
Project Descrip	otion	TO THE VALUE OF THE PARTY OF TH	Series Se	ner silve	TO STATE OF										1414	MAG
Demand Infor	mation		- Lai	35/00/01	EI	В	to the same	No.	W	B		N	R	The state of	SE	
Approach Mov	ement			L	Т	-	R	L	_	-	L		-	R L	T	F
Demand (v), v	veh/h			16	53	_	109		_					50	_	
TELEVISION OF	100			OF SHIP	AFIN	1110	1				ENGA		NO.		700	
Signal Informa	1				2	2	6					7		War to		
Cycle, s	49.5	Reference Phase	2		=	E	15	5	1	1				-4	1	1
Offset, s	0	Reference Point	End	Gree	n 10.0	)	3.0	1.4	23.	0 0.0	0.0	)	1	2	3	
Uncoordinated		Simult. Gap E/W	On	Yello			4.0	0.0	4.0				1100	<b>&gt;</b>		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0	the second second			5	6	7	
Times Beauty	Mark	Was Name of Street, St			TO S		Z.	No Treat	Single.		100			13		mar in
Timer Results Assigned Phase	•			EE	3L	EB	_	WE	BL	WBT	NE		NBT	SE		SBT
Case Number	е			-	-	2		-	_	6	3		8	7		4
					-	6.0	_			5.0	2.		4.0	2.		4.0
Phase Duration	ge Period, ( Y+R c), s			-		14.	-	-	_	14.0	8.		28.4	7.		27.0
The second second second	The state of the s				-	4.0				4.0	4.0		4.0	4.0	_	4.0
	Allow Headway ( <i>MAH</i> ), s ue Clearance Time ( <i>g</i> <sub>s</sub> ), s			-	_	3.3	_	_		3.3	3.	_	3.0	3.	_	3.0
AND RESIDENCE OF THE PARTY OF T	-	The state of the s			-	6.3		-		12.0	4.6		16.5	3.4	4	14.5
Green Extensio	AND DESCRIPTION OF THE PARTY.	( g e ), S				0.5	_	_	_	0.0	0.	_	7.8	0.1		8.5
Phase Call Prob	-				-	1.0	-			1.00	0.7		1.00	0.5	_	1.00
Max Out Probal	ollity	MV TO THE STATE OF			1000	0.8	2	TO 25 10 VI	NAME OF TAXABLE PARTY.	1.00	0.0	0	0.46	0.0	0	0.40
Movement Gro	up Res	ults			EB		15/100	The second	WB		The same	NB	N. A.	513/4	SB	-
Approach Move	ment			L	Т	T	R	L	T	R	L	T	R		T	R
Assigned Move	ment			5	2	1	12	1	6	16	3	8		7	4	+ '`
Adjusted Flow F	Rate (v)	), veh/h		16	167			203	58	100	99	1305		52	1636	-
Adjusted Satura	tion Flo	w Rate (s), veh/h/ln	1	1367	1695			1238	1900	1610	1810	1781		1810	1698	+
Queue Service	Time (g	s), S		0.5	4.3			5.7	1.2	2.6	2.6	14.5		1.4	12.5	-
Cycle Queue CI	earance	Time ( g c ), s		1.7	4.3			10.0	1.2	2.6	2.6	14.5		1.4	12.5	+
Green Ratio ( g/	(C)			0.20	0.20			0.20	0.20	0.20	0.09	0.49		0.06	0.46	+
Capacity ( c ), v	eh/h			388	343			288	384	326	163	1758		112	2369	
/olume-to-Capa	city Rat	io (X)		0.043	0.487			0.706	0.150	-	0.606	0.742		0.462	0.691	-
Back of Queue (	(Q), ft/I	n (50 th percentile)		3.5	37.3			67	11.8	21.3	26.1	105.8		13.9	87.8	
Back of Queue (	(Q), ve	h/ln (50 th percentile	e)	0.1	1.5			2.7	0.5	0.9	1.0	4.2		0.6	3.5	-
AND RESIDENCE AND PARTY AND RESIDENCE AND PARTY AND PARTY AND PARTY.	A CONTRACTOR OF THE PARTY.	RQ) (50 th percentil		0.03	0.37			0.67	0.12	0.21	0.26	0.53		0.14	0.44	
Jniform Delay (		THE RESIDENCE OF THE PARTY OF T		17.0	17.5	T		22.7	16.2	16.8	21.7	10.0		22.4	10.4	
ncremental Dela	ay ( d 2 )	, s/veh		0.0	0.4			6.6	0.1	0.2	1.4	0.8		1.1	0.2	
nitial Queue De	lay ( d з	), s/veh		0.0	0.0			0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	d), s/vel	n		17.0	17.9			29.3	16.3	17.0	23.0	10.8		23.5	10.7	
evel of Service	(LOS)			В	В			С	В	В	С	В		C	В	
pproach Delay,	s/veh /	LOS		17.8		В		23.8		С	11.7		В	11.0	_	В
ntersection Dela	ay, s/veh	/LOS					12.	.9						В		
		NEW TOTAL STATE	- 3.30	Town		Bally		14 /2	A TRUE	1/3/3			Dy Jalle	Valle		
Multimodal Res	THE RESERVE OF THE PERSON NAMED IN				EB				WB			NB			SB	
edestrian LOS	-			3.2		С		2.9		С	2.4		В	2.2		В
Bicycle LOS Sco	ore / LOS	5		0.8		Α		1.1		Α	1.6		В	1.4		Α

### HCS7 Signalized Intersection Results Summary 141411 Intersection Information **General Information** 4117 0.25 Duration, h Agency Other Analysis Date 9/25/2018 Area Type Analyst PHF 0.90 Time Period Jurisdiction 2018 Analysis Period 1> 7:00 Analysis Year **Urban Street** Hawthorne Boulevard File Name 4-Hawthorne-Via Valmonte Amb AM R.xus Via Valmonte Intersection <u>ጎ ተ ተ ተ</u> ሰ **Project Description** NB SB EB **WB Demand Information** T R L T R L T R L T R L Approach Movement 47 1597 37 0 241 68 1 0 1 3 1180 0 Demand (v), veh/h Щ. Signal Information 2 Cycle, s 90.0 Reference Phase Offset, s 0 Reference Point End Green 58.8 0.3 0.0 0.0 0.0 18.9 Simult. Gap E/W On Uncoordinated No 0.0 0.0 Yellow 4.0 4.0 4.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 **NBL** SBL **EBL EBT** WBL **WBT NBT** SBT **Timer Results** 8 2 6 4 Assigned Phase 12.0 6.0 Case Number 12.0 5.0 62.8 4.3 62.8 22.9 Phase Duration, s 4.0 4.0 4.0 Change Period, (Y+Rc), s 4.0 0.0 0.0 3.2 3.1 Max Allow Headway (MAH), s 2.1 18.5 Queue Clearance Time (gs), s 0.0 0.0 0.0 0.4 Green Extension Time (ge), s 1.00 0.05 Phase Call Probability 0.03 0.00 Max Out Probability NB SB EB WB **Movement Group Results** T R L T R Approach Movement L T R L T R L 3 5 2 12 1 6 16 7 4 14 8 18 Assigned Movement 3 0 1 1 52 1774 41 1311 0 Adjusted Flow Rate (v), veh/h 0 1810 1610 426 1725 1610 273 1900 0 Adjusted Saturation Flow Rate (s), veh/h/ln 0.1 5.7 16.3 8.0 0.6 9.3 0.0 0.0 0.1 Queue Service Time (gs), s 0.0 0.0 0.1 0.1 15.0 16.3 0.8 16.9 9.3 Cycle Queue Clearance Time (gc), s 0.65 0.65 0.00 0.00 0.65 0.65 0.65 Green Ratio (g/C) Capacity (c), veh/h 7 6 314 3381 1052 209 3724 0.170 0.190 0.166 0.525 0.039 0.016 0.352 0.000 0.000 Volume-to-Capacity Ratio (X) 0 0.8 0.8 14.6 129.9 6.4 1.1 81.5 0 Back of Queue (Q), ft/In (50 th percentile) 0.0 0.0 0.0 0.6 5.2 0.3 0.0 3.3 0.0 Back of Queue (Q), veh/ln (50 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Queue Storage Ratio (RQ) (50 th percentile) 44.7 44.7 10.4 8.2 5.6 12.7 7.0 Uniform Delay (d1), s/veh 1.1 0.1 0.1 0.3 0.0 0.0 4.5 5.7 0.6 Incremental Delay (d2), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Queue Delay (d3), s/veh 49.2 50.4 11.6 8.8 5.6 12.8 7.3 Control Delay (d), s/veh D D В Α A В A Level of Service (LOS) 49.8 8.8 A 7.3 46.1 D D A Approach Delay, s/veh / LOS B 11.9 Intersection Delay, s/veh / LOS

C

A

EB

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SB

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В

В

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1.5

**Multimodal Results** 

Pedestrian LOS Score / LOS

Bicycle LOS Score / LOS

### **General Information** 1414717 Intersection Information 4114 Agency Duration, h 0.25 Analyst Analysis Date 9/25/2018 Area Type Other Jurisdiction Time Period PHF 0.90 **Urban Street** Hawthorne Boulevard Analysis Year 2018 1> 7:00 Analysis Period Intersection Via Valmonte File Name 4-Hawthorne-Via Valmonte Amb PM R.xus **Project Description Demand Information** EB WB NB SB T T Approach Movement L R L T R L R L T R 0 152 64 14 Demand (v), veh/h 3 21 64 1223 19 17 1910 0 Signal Information 1 Cycle, s 90.0 Reference Phase 2 0 Offset, s Reference Point End Green 60.1 14.0 0.0 3.9 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results** EBL **EBT** WBL WBT NBL **NBT** SBL SBT **Assigned Phase** 4 8 2 6 Case Number 12.0 12.0 5.0 6.0 Phase Duration, s 18.0 7.9 64.1 64.1 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 3.3 3.1 0.0 0.0 Queue Clearance Time (gs), s 13.7 3.3 Green Extension Time (ge), s 0.4 0.1 0.0 0.0 Phase Call Probability 1.00 0.65 Max Out Probability 0.00 0.00 **Movement Group Results** EB **WB** NB SB Approach Movement L R L R L T T R L T R Assigned Movement 7 4 14 3 18 5 2 12 16 1 6 Adjusted Flow Rate (v), veh/h 0 19 23 71 1359 21 19 2122 0 0 1825 1610 Adjusted Saturation Flow Rate (s), veh/h/ln 194 1725 1610 407 1900 0 Queue Service Time (gs), s 0.0 0.9 1.3 27.6 10.6 0.4 2.0 17.7 0.0 Cycle Queue Clearance Time (gc), s 0.0 0.9 1.3 45.3 10.6 0.4 12.6 17.7 0.0 Green Ratio (g/C) 0.04 0.04 0.67 0.67 0.67 0.67 0.67 Capacity (c), veh/h 79 70 171 3456 1075 304 3806 Volume-to-Capacity Ratio (X) 0.000 0.238 0.415 0.333 0.393 0.020 0.062 0.558 0.000 Back of Queue (Q), ft/ln (50 th percentile) 0 10.2 12.8 37.1 82.3 3 4.9 151.1 0 0.0 Back of Queue (Q), veh/ln (50 th percentile) 0.4 0.5 1.5 3.3 0.1 0.2 6.0 0.0 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Uniform Delay (d1), s/veh 41.6 41.8 19.9 6.7 5.0 9.6 7.9 0.0 Incremental Delay (d2), s/veh 0.6 1.0 7.3 0.3 0.0 0.4 0.6 0.0 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 42.2 42.8 27.2 7.1 5.1 10.0 8.5 Level of Service (LOS) D D C Α Α Α 40.0 Approach Delay, s/veh / LOS D 42.5 D 8.0 A 8.5 A Intersection Delay, s/veh / LOS 10.7 В WB **Multimodal Results** EB NB SB C Pedestrian LOS Score / LOS 3.4 3.3 C 2.2 В 2.5 C 0.9 Α A Bicycle LOS Score / LOS 0.5 1.3 A 1.7 В

HCS7 Signalized Intersection Results Summary

		HCS	7 Sig	ınalize	ed Int	erse	ction	Resu	Its Su	mma	ry				
	-11/40	A NEW YORK					STEROIG	V 4 100			1201		Y		STATE OF THE PARTY
General Inforn	nation								Interse			14 7 42			
Agency									Duration		0.25	_	2	***	*
Analyst					sis Date	e 8/4/2	2016		Area Ty	ре	Othe	_	-6		~
Jurisdiction					Period			_	PHF		0.92		-€€-	w.f.e	-
Urban Street Hawthorne Boulevard					sis Year	-			Analysis			:00	7		
Intersection		Rolling Hills Road		File N	ame	5-Ha	wthorne	-Rollin	g Hills A	mb AM.	xus			ጎ ተ	
Project Descrip	tion				en e	2000								1814	a Pa
Demand Inform	nation	The second second			EB			W	В	The same	NB			SB	
Approach Move				L	T	I R	L	T		I	T	R	L	T	R
Demand ( v ), veh/h				0	2	0	88	_	-	0	136		282	_	
	TO THE PARTY OF	67 4 5			STATE OF THE PARTY.	DEVAN	AND DE						202	020	Water to the same of the same
Signal Informa	tion				_ 5	4	0	N			181		E Will		
Cycle, s	60.0	Reference Phase	2			7			1				4		1
Offset, s	0	Reference Point	End	Green	11 3	0.0	7.5	29.	3 0.0	0.0			Y 2	1 4	4
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN	0.0			7	1	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	la.	5	6	7	8
Timer Results				EBI	DATE:	EBT	WE	u T	WBT	NB	- 13%	NBT	SB		SBT
Assigned Phase	2			LDI	-	2	VVL	,L	6	3	-	8	7		4
Case Number	3				-	8.0	-	-	5.0	2.0	-	4.0	_		
	•					15.3	-	-	15.3	-	-	-	2.0		4.0
Phase Duration	-	١.,		-	-	-	-			0.0	_	33.3	11.5 4.0		44.7
Change Period,	-	and the same of th		-	-	4.0	-	-	4.0	4.0	_				
Max Allow Head	THE RESERVE OF THE PERSON NAMED IN	THE RESIDENCE OF THE PARTY OF T		-	+	0.0	1		0.0 0.0		-	3.0	3.1		3.0
Queue Clearand		and a submission of the submis			+	0.0	-	-	0.0	0.0	_	23.8	7.0	_	8.5
Green Extension		( g e ), s		-	+	0.0	-	-	0.0	0.0	-	5.4	0.5	_	8.3
Phase Call Prob	The second liverage of		-	-	-		-	-		-	-	1.00	0.9		1.00
Max Out Probat	ollity	military and the	1000		No. of the	100		7000	633			0.41	0.0		0.02
Movement Gro	up Res	ults			EB	COS BOOK	T	WB			NB	A PARTY COM		SB	
Approach Move	ment			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Mover	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h			0		96	2	471	0	1478		307	897	
Adjusted Satura	tion Flo	w Rate (s), veh/h/lr	1		0		1437	1900	1610	1810	1781		1757	1781	
Queue Service		The second secon			0.0		3.5	0.1	11.3	0.0	21.8		5.0	6.5	
Cycle Queue Cl	earance	e Time (gc), s			0.0		3.5	0.1	11.3	0.0	21.8		5.0	6.5	
Green Ratio (g/	/C)						0.19	0.19	0.31		0.49		0.12	0.68	
Capacity ( c ), v	eh/h						388	357	503	3	1737		438	2418	
Volume-to-Capa	acity Ra	tio (X)			0.000		0.246	0.006	0.936	0.000	0.851		0.700	0.371	
Back of Queue (	(Q), ft/	In (50 th percentile)			0		30.8	0.6	233.1	0	191.7		49.4	34.5	
Account to the second s		eh/In (50 th percentil	e)		0.0		1.2	0.0	9.3	0.0	7.5		2.0	1.4	
THE RESERVE AND ADDRESS OF THE PARTY OF THE	-	RQ) (50 th percenti			0.00		0.77	0.01	4.66	0.00	0.96		0.25	0.17	
Uniform Delay (		Married World Company of the Publisher Street Company of the P					21.3	19.8	20.0	0.0	13.5		25.2	4.1	
Incremental Delay ( d 2 ), s/veh					0.0		1.5	0.0	27.0	0.0	2.8		0.8	0.0	
Initial Queue De	NAME AND ADDRESS OF TAXABLE PARTY.	MINISTER OF THE PARTY OF THE PA			0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	on a laboratory many						22.8	19.8	47.0	0.0	16.2		26.0	4.2	
Level of Service	- SALES AND ADDRESS OF THE PARTY OF THE PART						С	В	D		В		С	Α	
Approach Delay	_	/ LOS		19.8		В	42.9	9	D	16.2		В	9.7		Α
Intersection Dela	Name and Address of the Owner, where	the Control of the Co				1	8.5	- Andrew					В		
(systyle )	10 m2	May Land		11-	530			-	34111	Manual L		1918 TH	1	0	
Multimodal Res	-				EB			WB			NB			SB	
Pedestrian LOS	-	ACCORDING TO THE RESIDENCE OF THE PARTY OF T		2.8		С	2.9	_	С	2.8		С	2.0	-	В
Bicycle LOS Sco	ore / LC	S		0.5		Α	1.4		Α	1.7		В	1.5		Α

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Agency										Duratio		0.2				LL
Analyst					Analysis Date 8/4/2016						ype	_	her	4		
Jurisdiction					Period	_	1120	-		PHF	ype	0.9			- "	7.
Urban Street Hawthorne Boulevard					ysis Ye	_	016				is Perio	_	7:00			
Intersection		Rolling Hills Road		-	Name	_		thorn	a_Rollin		Amb PM		7.00			
Project Descrip	tion	9		11.110	tunio		Tiaw	tilotti	3-1\OIIII	ig rillis /	AIIID FIV	i.xus			<u>ነ</u> ተ	1
Demand Inform	mation		in a	1	EE	3		POIN	W	'B			NB		PLAN	n dia
Approach Move	ement			L	T	T	R	L	1	_		_		R L	SE	
Demand ( v ), veh/h				0	3		1	88	_	_			033	R L 43	-	-
			2.3	DI AV									100	43	8   132	21
Signal Informa						_	50	11	101				11.10	(Shirt	The same	
Cycle, s	60.0	Reference Phase	2				7			4				4	1	
Offset, s	0	Reference Point	End	Gree	_	0.	0	9.9	23.	6 0.0	0.0	)	1	2		3
Uncoordinated	No	Simult. Gap E/W	On		w 4.0	4.		4.0	4.0				JULY .	<del>-</del>	L	4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.		0.0	0.0				5	6	7	
Timer Results	THE SAME			EE	BL I	EBT	- 1	WE	RI T	WBT	NE	31	NBT	01	DI T	
Assigned Phase	9				-	2	+	VVL	-	6	3	_		SE		SE
Case Number						8.0	+		-	5.0	2.0		8	7		4
Phase Duration,	S				-	18.5	-		-	18.5	_		4.0	2.		4.0
Change Period,		:) s			-	4.0	-		-	_	0.0		27.6	13.	-	41.
Max Allow Headway ( <i>MAH</i> ), s					+	0.0	-		-	4.0	4.0	_	4.0	4.0		4.0
Queue Clearance Time ( g s ), s					-	0.0	+		-	0.0	0.0	<b>'</b>	3.0	3.	-	3.0
Green Extension Time (ge), s				-	-	0.0	+		+	0.0	0.0	+	17.1	9.2		15.
Phase Call Probability					-	0.0	+		-	0.0	0.0	-	6.5	0.7	-	8.0
Max Out Probab	-				-		+	-	-		-	-	1.00	1.0		1.00
1		Contract of				J.				900	1		0.25	0.0	1	0.04
Movement Grou	_	ults			EB				WB			NB		T	SB	On Day
Approach Mover				L	Т	R		L	T	R	L	T	R	L	T	T
Assigned Moven				5	2	12		1	6	16	3	8		7	4	
Adjusted Flow R					0			89	0	336	0	1043		442	1340	1
		w Rate ( $s$ ), veh/h/lr	1		0		1	1435	1900	1610	1810	1781		1757	1781	-
Queue Service T					0.0			3.0	0.0	9.4	0.0	15.1		7.2	13.6	1
Cycle Queue Cle		Time ( $g_c$ ), s			0.0			3.1	0.0	9.4	0.0	15.1		7.2	13.6	
Green Ratio ( g/t	_							0.24	0.24	0.41		0.39		0.16	0.62	1
Capacity ( c ), ve							1	465	461	656	3	1398		579	2223	
/olume-to-Capac					0.000		0	.191	0.000	0.513	0.000	0.746		0.763	0.603	-
		n (50 th percentile)			0		2	25.5	0	84.8	0	134.5	-	70.1	86.8	1
		n/ln ( 50 th percentile			0.0			1.0	0.0	3.4	0.0	5.3		2.8	3.4	
Queue Storage Ratio ( RQ ) ( 50 th percentile)			e)		0.00		C	0.64	0.00	1.70	0.00	0.67		0.35	0.43	
	_						1	18.4	0.0	13.3	0.0	15.7		23.9	6.8	
Iniform Delay (	-	THE RESERVE THE PARTY OF THE PA			0.0		(	0.9	0.0	2.9	0.0	0.6		0.8	0.1	
Iniform Delay ( d ncremental Dela	ay ( d з	No. of Concession, Name of			0.0		(	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Iniform Delay ( on Incremental Dela Initial Queue Dela		)					1	9.3	0.0	16.2	0.0	16.3		24.7	6.9	
Iniform Delay ( d ncremental Dela nitial Queue Dela control Delay ( d		Level of Service (LOS)						В		В		В		C	A	
Uniform Delay ( on cremental Dela nitial Queue Dela control Delay ( d evel of Service (	(LOS)		Approach Delay, s/veh / LOS					16.8		В	16.3		В	11.3		В
Iniform Delay ( oncremental Delanitial Queue Delanitial Queue Delanitial Queue Delay ( develor Service (pproach Delay,	(LOS) s/veh /	THE RESIDENCE OF THE PARTY OF T		17.3		В	_									_
Uniform Delay ( on cremental Dela nitial Queue Dela control Delay ( d evel of Service (	(LOS) s/veh /	THE RESIDENCE OF THE PARTY OF T		17.3		_	13.6							В		
Iniform Delay ( of necremental Delay initial Queue Delay ( of develor of Service ( pproach Delay, atersection Delay	(LOS) s/veh / y, s/veh	THE RESIDENCE OF THE PARTY OF T		17.3	1000	_	13.6				The same			В		
Iniform Delay ( oncremental Delanitial Queue Delanitial Queue Delanitial Queue Delay ( develor Service (pproach Delay,	(LOS) s/veh / y, s/veh	/LOS		17.3	EB	_	13.6	2.9	WB	С	2.8	NB	С	B 2.0	SB	

# **HCS7 Signalized Intersection Results Summary** General Information 1474111 Intersection Information Agency Duration, h 0.25 Analyst Analysis Date 8/4/2016 Other Area Type Jurisdiction Time Period PHF 0.88 **Urban Street** Whiffletree Lane Analysis Year 2016 Analysis Period 1> 7:00 Intersection Rolling Hills Road File Name 6-Rolling Hills-Whiffletree Amb AM.xus **Project Description Demand Information** EB WB NB SB Approach Movement L Т R T R L T R L L T R Demand (v), veh/h 337 0 0 0 498 0 0 46 21 0 14 3 Signal Information Cycle, s 45.0 Reference Phase 2 Offset, s 0 Reference Point End Green 28.0 1.3 3.7 0.0 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 0.0 4.0 4.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 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 6 8 Case Number 8.0 8.0 12.0 12.0 Phase Duration, s 32.0 32.0 7.7 5.3 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 Max Allow Headway ( MAH ), s 0.0 0.0 3.1 3.1 Queue Clearance Time (gs), s 3.9 2.5 Green Extension Time ( g e ), s 0.0 0.0 0.1 0.0 Phase Call Probability 0.61 0.21 Max Out Probability 0.00 0.00 **Movement Group Results** EB WB NB SB Approach Movement L R L T R R L T R Assigned Movement 2 5 12 6 16 3 1 8 18 7 4 14 Adjusted Flow Rate (v), veh/h 0 0 0 0 0 0 Adjusted Saturation Flow Rate (s), veh/h/ln 0 0 0 0 0 0 Queue Service Time ( $g_s$ ), s 0.0 0.0 0.0 0.0 0.0 0.0 Cycle Queue Clearance Time ( g c ), s 0.0 0.0 0.0 0.0 0.0 0.0 Green Ratio (g/C) Capacity (c), veh/h Volume-to-Capacity Ratio (X) 0.000 0.000 0.000 0.000 0.000 0.000 Back of Queue (Q), ft/ln (50 th percentile) 0 0 0 0 0 0 Back of Queue (Q), veh/ln (50 th percentile) 0.0 0.0 0.0 0.0 0.0 0.0 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 Uniform Delay ( d 1 ), s/veh 0.0 0.0 Incremental Delay ( d 2 ), s/veh 0.0 0.0 0.0 0.0 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh Level of Service (LOS) Approach Delay, s/veh / LOS 3.7 4.0 20.9 Α A C 23.1 C Intersection Delay, s/veh / LOS 5.5 A **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 2.0 В 2.0 В 2.7 C 2.7 C Bicycle LOS Score / LOS 8.0 A 1.0 A 0.6 A 0.5

5 00/0 20/0 10 20/0 20/0 20/0		HCS	7 Sig	nalize	ed Int	erse	ction	Res	ults S	umm	ary						
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General Information											Informa		147411				
Agency						_			Durati	_	0.2	_		1	*		
Analyst					sis Date	e  8/4/2	2016		Area 7	уре	Oth		4	4			
Jurisdiction					Period	-			PHF		0.9	-	4	W.	***	+	
Urban Street Whiffletree Lane					sis Year		_	_		sis Peri		7:00	4				
Intersection		Rolling Hills Road		File N	ame	6-Ro	lling Hill	s-Whi	ffletree	Amb Pl	M.xus				*		
Project Descrip	tion				A 171	VIII CONTROL					III SENSIO		-	Ŋ	1 1 4 7	111	
Demand Infor	mation		15 mail	1	EB	and the	CHECK CO.	V	/B	DECEMBER 1	N	В			SB		
Approach Movement				L	T	R	L	1	TF	3	LIT		R	L	T	R	
Demand (v), v	eh/h			0	518	0	0	39	96 (		0 1		15	0	16	6	
	410		9.763	W. Salan		OF LOOK	No. of the	250		THE REAL PROPERTY.	Charle .			No.			
Signal Informa	tion				- 5									1 3	Titon		
Cycle, s	45.0	Reference Phase	2		<b>₩</b> 8	51	12				18		4		7	T	
Offset, s	0	Reference Point	End	Green	29.6	1.5	1.9	0.0	0.	0 0	.0	1	7	2	3		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0			.0		<b>+</b>	000	14	<b>E</b> 1	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0			.0	5		6	7		
Timer Results				EDI		CDT	1 VA/D		VA/DT	14500		NIDT		OPI			
				EBL	-	EBT	WB	_	WBT	-	IBL	NBT	-	SBL	-	SBT	
Assigned Phase	8			-	-	2	-	-	6	+		8	_			4	
Case Number				-		8.0	-	-	8.0	-	-	12.0	_			12.0	
Phase Duration	-	\ -			-	33.6	₽	-	33.6		-	5.9				5.5	
Change Period,	-				-	4.0	-	+	0.0		_	4.0				4.0	
Max Allow Headway ( MAH ), s					-	0.0	-	0		-	_	3.2				3.1	
Queue Clearance Time ( g s ), s					-							2.8				2.6	
Green Extension Time ( g e ), s					_	0.0	-	_	0.0	-		0.0	_			0.0	
Phase Call Prob	THE PERSON NAMED IN				_			-		-		0.32				0.24	
Max Out Probab	oility		Service Control									0.00				0.00	
Movement Gro	un Ros	ulte			EB		1	WB		The same	NB	1			CD		
Approach Move		uito		LI	T	R	L	T	R	L	T	R			SB		
Assigned Move	NAME OF TAXABLE PARTY.			5	2	12	1	6	16	3	8	18	-	-		R	
Adjusted Flow F		) veh/h		0	-	0	0	- 0	0	- 3	0	10	- /	-	4	14	
		w Rate ( s ), veh/h/lr		0		0	0		0	+	1	+	-	-	0	-	
Queue Service	THE RESERVE OF THE PERSON NAMED IN		<u>'</u>	0.0		0.0	0.0		0.0	+-	0	-	-	-	0		
Cycle Queue Cl				0.0		0.0	0.0	-	-	+	0.0	+	-	+	0.0	_	
Green Ratio ( g/	The second second	e fille (gc), s	-	0.0		0.0	0.0		0.0	-	0.0	+-	-	+	0.0	-	
Capacity ( c ), v	THE RESERVE OF THE PERSON NAMED IN							_	+-	+	-	+	-	+			
Volume-to-Capa	-	tio ( V)	-	0.000		0.000	0.000		0.000	-	10,000	-	+	-	0.000		
	-								0.000	-	0.000	-	-	-10	0.000		
		In (50 th percentile) h/In (50 th percentile	2)	0.0		0.0	0.0		0	-	0	+-	-	+	0		
THE STREET STREET, STR	THE RESERVE OF THE PERSON NAMED IN	RQ) (50 th percentil	-	0.00		0.00	0.00	-	0.0	-	0.0	-	-	+	0.0		
Jniform Delay (		CONTRACTOR OF THE PARTY OF THE	(C)	0.00		0.00	0.00	-	0.00	1-	0.00	-	-	-	0.00	-	
ncremental Del	_			0.0		0.0	0.0		0.0	-	0.0	-	-	+	0.0		
nitial Queue De	-	the state of the s	-	0.0	-	0.0	0.0	-	-	-	0.0	-	-	+	0.0		
Control Delay (	Name and Address of the Owner, where	THE RESIDENCE THE PARTY OF THE		0.0	-	0.0	0.0		0.0	-	0.0	-	-	+	0.0		
evel of Service	-	11			-				-	-	-	-	-	+	-		
Approach Delay		1100		3.2		Α	3.1		^		1	_	+-			_	
ntersection Delay		THE RESERVE THE PARTY OF THE PA		3.2		-	.2		Α	22	.4	С		22.9		С	
intersection Dela	ay, S/Vel	17 LUS	1777-1-7		110000	4	20000			Char	Marie Tale	2910	Α	-/**	ST.		
Multimedal Results				Strate (	EB	10/2 3		WB		No. of Lot	NR	8 12			SR	film.	
Multimodal Results						В	2.0		_	-	NB 2.7 C			SB			
the same of the sa	-	LOS	Pedestrian LOS Score / LOS					- 1	В	1 2	7 I	C		2.7		C	

		HCS7	Sig	ınaliz	ed In	terse	ction	Res	ults	Sur	nma	ry					
General Inform	otion			rection	HVS			100	Land		Alam In		100		ulutara.	minute.	
-	ation									Intersection Information							
Agency				TA. I	20.40		-	ration		0.25		20					
Analyst			_	ysis Da	_	2016		PH	а Тур	e		Other		9	2		
Jurisdiction			-	Period							0.90	_		w. f. s	-		
Urban Street Fallenleaf Drive				_	sis Yea	_					Period		7:00				
Intersection		Rolling Hills Road		File N	Name	7-Rc	lling Hi	ls-Fall	enlea	af Amb	x.MA c	cus		_	· *		
Project Descripti	ion		The same	100	-23		F 187	- 100	Fin	Gr.	1407		117 mm 80		1814	YRA	
Demand Inform	ation				EB	- ALE		V	VB	4000	T	NE	3		SB		
Approach Movement				L	T	R	L		T	R	L	T	R	L	T	R	
Demand (v), ve	eh/h			30	320	0	11	4	40	0	0	46	0	0	61	0	
AND THE WAR	1950			Barrier.	1 5/4						1			66,10	1000	10 300	
Signal Informat				1		HAI						110		nesta VI			
	45.0	Reference Phase	2	-	=3	5	2					100		₹ ,	and a	*12	
Offset, s	0		End	Green	n 26.7	3.4	2.8	0.	0	0.0	0.0			K			
Uncoordinated	No	THE RESIDENCE OF THE PARTY OF T	On	-	v 4.0	4.0	4.0	0.		0.0	0.0			-		W	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0		5	6	7		
Timer Results			NW L	EB		EBT	W	21	VVE	OT I	NE		NBT	SI		CDT	
Assigned Phase				LD		2	VVI	DL	6		INE	DL	8	31	DL	SBT 4	
Case Number				-	-	6.0	1		6.0	-		-	12.0	+	-	12.0	
Phase Duration,	S					30.7	1	-		30.7		-	6.8			7.4	
Change Period, (	-	10				4.0	-	-	4.0	_	_		4.0				
Max Allow Heady	THE RESERVE TO SHARE	NAME AND ADDRESS OF TAXABLE PARTY.	-			0.0	1			0.0		+	3.0				
Queue Clearance		The second secon	-	-	-	0.0	-			0.0		+	3.2				
The State of Committee of the State of Committee of Commi	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN		-			0.0	-	-	0.0			+	0.1	+			
THE RESERVE AND ADDRESS OF THE PARTY OF THE	Green Extension Time ( g e ), s  Phase Call Probability			-	-	0.0	-	-	0.0		****	-	0.47	+	-	0.1	
Max Out Probabi				-	-		-	-				-	0.00	+	-	0.00	
Max Gat 1 Tobabi		10	The same	1000			SIVE"	11 6	40 - 10	H-100	E 4 1	Contract of the last	0.00	A Charles	1	0.00	
<b>Movement Grou</b>	p Res	ults			EB			WE	3			NB		T	SB		
Approach Movem	nent			L	T	R	L	T		R	L	T	R	L	T	R	
Assigned Movem	ent			5	2	12	1	6		16	3	8	18	7	4	14	
Adjusted Flow Ra	ate (v	), veh/h		33	356	0	12	489		0		0			0		
Adjusted Saturati	ion Flo	w Rate ( s ), veh/h/ln		922	1900	0	1042	190	0	0		0			0		
Queue Service T	ime ( g	/s), S		0.8	1.9	0.0	0.2	2.7	0	0.0		0.0			0.0		
Cycle Queue Cle	-	Time ( g c ), s		3.5	1.9	0.0	2.1	2.7	_	0.0		0.0			0.0		
Green Ratio (g/C	2)			0.59	0.59		0.59	0.59									
Capacity ( c ), ve	h/h			652	2258		735	2258	8								
Volume-to-Capac	city Rat	tio (X)		0.051	0.157	0.000	0.017	0.21	7 0.0	000		0.000			0.000		
		n (50 th percentile)		3	10.8	0	1	15.5	_	0		0			0		
Back of Queue (Q), veh/ln (50 th percentile)		_	0.1	0.4	0.0	0.0	0.6	-	0.0		0.0			0.0			
THE RESIDENCE OF THE PARTY OF T	-	RQ) (50 th percentile)		0.03	0.05	0.00	0.01	0.08	_	.00		0.00			0.00		
Uniform Delay ( c	-	CONTRACTOR OF THE PARTY OF THE	-	5.1	4.1	0.0	4.6	4.3	_					-			
Incremental Dela	-		-	0.1	0.1	0.0	0.0	0.2	-	0.0		0.0			0.0		
Initial Queue Dela	STATE OF THE PERSON NAMED IN	And of the Party o		0.0	0.0	0.0	0.0	0.0	10	0.0		0.0		-	0.0		
Control Delay ( d	_	n		5.2	4.2		4.6	4.5	+	-	-		-	-			
Level of Service (	-	1.00		A 4 3	A	^	A	A		-	04.5			- 00			
Approach Delay, Intersection Delay	THE RESERVE OF THE PERSON NAMED IN	And the second section is a second section of the second section of the second section is a second section of the section of the second section of the section of the second section of the		4.3		Α 6	4.5		Α	-	21.2		С	20.8	5	С	
mersection Delay	y, sivel	I LOS	Name of Street		AN TRUE	0	10/933	ch n-			TOTAL PRO	277/16		A	0.5		
Multimodal Resu	ults		-	N. Congression	EB	10-10-1		WB	-	T	The Late	NB			SB		
Pedestrian LOS S	-	LOS		2.0		В	2.0		В		2.8	-	С	2.8	-	С	
Bicycle LOS Scor	re / LO	S		0.8		Α	0.9		Α		0.6		Α	0.6		A	

		HCS	7 Sig	gnaliz	ed In	terse	ction	Resu	Its Su	ımma	ary				
W/ 1 = 149A3		The Symplest			140	28011	7:1	85						- mina	May 150
General Inform	nation										nformat	tion		1474	
Agency							-		Duratio	n, h	0.25	5	12		
Analyst				-	sis Da		2016		Area Ty	ре	Othe	er	4		A
Jurisdiction				Time	Period				PHF		0.96	3	*	. "	+
Urban Street Fallenleaf Drive				Analy	sis Yea	ar 2016	3		Analysis	s Perio	d 1> 7	7:00	7		
Intersection		Rolling Hills Road		File N	Name	7-Ro	lling Hil	ls-Falle	nleaf An	nb PM.:	xus				
Project Descrip	tion	STATE WATER STATE		607										1818	MAG
Demand Inform	mation		2001 0	1	EB			W	В	100	NE	3	Shedan	SE	3
Approach Move	ement			L	T	R	L	T	R	L	-		R L	-	R
Demand ( v ), veh/h			36	446	-	21	_		0		_	_	_	_	
	College Call		MATE	<b>MANAGE</b>		Second N	THE ST	REAL OF THE PERSON NAMED IN	1000		ALC: NO		LAW SHAPE		
Signal Informa	ation											Wh.	. 11.0	WIT I	
Cycle, s	45.0	Reference Phase	2		<b>→</b>	R	12				100			10000	4
Offset, s	0	Reference Point	End	Green	28.6	2.7	1.7	0.0	0.0	0.0		1	2		
Uncoordinated	No	Simult. Gap E/W	On	Yellov		4.0	4.0	0.0	Contraction of the Parket Name	The Personal Property lies and the last of		1 / 1	1		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	The second second	0.0		5	6	7	Y
Timer Results	CONTRACT OF			ED		EBT	WE	01	\A/DT	NIC	TB TOTAL	NDT		DI DI	CDT
Assigned Phase				EBL			VVE	3L	WBT	NE	3L	NBT	5	BL	SBT
Case Number	Ð					6.0	-	-	6	-	-	8	+	-	4
	_						-	-		6.0		12.0	-	-	12.0 6.7
Phase Duration	-	\ -	-			32.6	-		32.6			5.7		-	
Change Period,	AND RESIDENCE AND RESIDENCE			-	-	4.0			4.0		-	4.0			
Max Allow Head	District Street, Stree	The second secon		-	+	0.0	0		0.0		_	3.0			
Queue Clearan		CONTRACTOR OF STREET,		-	-	0.0	-	-					-		
Green Extensio	AND RESIDENCE OF THE PARTY OF T	( g e ), S				0.0	-		0.0			0.0		_	0.1
Phase Call Prob	Department of the last			_	-		-	-		-		0.28	1	_	0.46
Max Out Probat	oility		-		-	-	_	THE REAL PROPERTY.	1000	NATION OF	100000	0.00			0.00
Movement Gro	un Res	ults			EB		-	WB	4.1	13/3/2	NB		- Proces	SB	
Approach Move	Applement of the last	uito			T	R	L	T	R	L	T	R	1	T	T R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	the same of the same of	) veh/h		38	465	0	22	418	0	3	0	10	+	0	14
The second second second second	CONTRACTOR OF THE PARTY OF THE	w Rate ( s ), veh/h/lr		984	1900	0	943	1900	-	-	0	-	+		-
Queue Service		the state of the s	_	0.7	2.3	0.0	0.4	2.0	0.0	-	0.0	-	+-	0.0	-
Cycle Queue Cl			-	2.8	2.3	0.0	2.7	2.0	0.0		0.0	-	-		-
Green Ratio ( g/		5 Time ( g c ), 5	_	0.64	0.64	0.0	0.64	0.64	0.0	-	0.0	-	-	0.0	-
Capacity ( c ), v	-			740	2414		711	2414	-	-	-	-	+	-	
Volume-to-Capa	Marketon Commencer	tio ( X )	-	0.051	0.192	0.000	0.031	0.173	-	-	0.000	-	-	0.000	-
and the latest and th		In (50 th percentile)		2.6	11.2	0.000	1.6	9.9	0.000	-	0.000	-	-	0.000	-
		eh/ln (50 th percentile)	2)	0.1	0.4	0.0	0.1	0.4	0.0	-	-		+	0	-
CHARLES AND ADDRESS OF THE PARTY OF THE PART	and the second second second	RQ) (50 th percentil		0.03	0.06	0.00	0.02	0.4	0.00		0.00	-	+-	0.0	-
Jniform Delay (		The second secon	(3)	3.9	3.4	0.00	4.0	3.4	0.00	-	0.00		-	0.00	-
ncremental Del	MOTOR STATE OF	And the last of th		0.1	0.2	0.0	0.1	0.2	0.0	-	0.0		-	100	-
ALL REAL PROPERTY AND ADDRESS OF THE PARTY.	-			-	0.2	0.0		-	-	-	0.0		-	0.0	-
nitial Queue De		CONTRACTOR OF THE PARTY OF THE		0.0		0.0	0.0	0.0	0.0	-	0.0		-	0.0	
Control Delay (	the same of the sa	ALI		4.1 A	3.6		4.1	3.5				-	-	-	-
evel of Service	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	11.00		A	A	^	A 2.5	A	^	- 00	1	_	-	0 1	
Approach Delay				3.6		A	3.5		Α	22.4	4	С	21.	3	С
ntersection Dela	ay, s/vel	117 LUS				4	.9	1850	THE ME	Winds S	TO FORM	NE DE TON	A	1000	
Multimodal Res	sults				EB	- 54		WB		100	NB		NA LAL	SB	1
Pedestrian LOS	-	LOS		2.0		В	2.0	_	В	2.8	-	С	2.8		С
Bicycle LOS Sco	-			0.9		Α	0.9	-	Α	0.5		A	0.6	-	A

### **HCS7 Signalized Intersection Results Summary General Information** Intersection Information 1474111 1111 Agency KHR Associates Duration, h 0.25 Analyst Analysis Date 8/1/2016 Area Type Other Jurisdiction Torrance California Time Period PHF 0.88 **Urban Street** Crenshaw Boulevard Analysis Year 2016 Analysis Period 1> 7:30 Intersection Rolling Hills Road File Name 8-Rolling Hills-Crenshaw Amb AM.xus **Project Description Demand Information** EB WB NB SB Approach Movement L T R L T R L T R L T R Demand (v), veh/h 146 147 60 23 180 200 117 1339 1023 157 Signal Information Cycle, s 120.0 Reference Phase 2 Offset, s 0 Reference Point End Green 3.5 5.8 48.7 8.5 2.3 31.2 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 4.0 0.0 4.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results EBL EBT** WBL WBT NBL NBT SBL SBT Assigned Phase 5 2 6 3 7 4 Case Number 2.0 3.0 2.0 3.0 1.1 4.0 1.1 4.0 Phase Duration, s 17.3 62.5 7.5 52.7 12.5 35.2 14.8 37.5 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 3.0 0.0 3.0 0.0 3.0 2.9 3.0 2.9 Queue Clearance Time (gs), s 13.3 3.8 8.5 33.2 10.7 27.6 Green Extension Time (ge), s 0.1 0.0 0.0 0.0 0.1 0.0 0.1 3.9 Phase Call Probability 1.00 0.58 1.00 0.99 1.00 1.00 Max Out Probability 1.00 0.00 0.00 1.00 0.08 0.73 **Movement Group Results** EB WB NB SB Approach Movement L Т R L T R T L R L T R Assigned Movement 5 2 12 1 6 16 3. 8 7 4 Adjusted Flow Rate (v), veh/h 166 167 68 26 205 227 133 1522 178 1163 Adjusted Saturation Flow Rate (s), veh/h/ln 1739 1826 1608 1739 1826 1607 1781 1698 1781 1698 Queue Service Time (gs), s 11.3 7.9 3.5 10.6 1.8 13.7 6.5 31.2 8.7 25.6 Cycle Queue Clearance Time (gc), s 11.3 7.9 3.5 1.8 10.6 13.7 6.5 31.2 8.7 25.6 Green Ratio (g/C) 0.11 0.49 0.49 0.03 0.41 0.41 0.33 0.26 0.35 0.28 Capacity (c), veh/h 193 891 784 51 741 652 210 1326 220 1422 Volume-to-Capacity Ratio (X) 0.858 0.188 0.087 0.517 0.276 0.349 0.634 1.148 0.812 0.817 Back of Queue (Q), ft/ln (50 th percentile) 158.4 90.9 33.2 21.2 128 143.7 70 556.4 103.9 273.1 Back of Queue (Q), veh/ln (50 th percentile) 6.1 3.5 1.3 0.8 4.9 5.7 2.8 21.9 4.1 10.8 Queue Storage Ratio (RQ) (50 th percentile) 0.53 0.30 0.12 0.07 0.43 0.50 0.35 2.78 0.35 0.91 Uniform Delay (d1), s/veh 54.6 23.4 21.9 58.0 29.9 31.0 32.6 44.4 32.1 40.4 Incremental Delay ( d 2 ), s/veh 20.3 0.5 0.2 3.0 0.9 1.5 1.2 75.8 8.4 3.6 Initial Queue Delay (d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 75.0 23.9 22.2 61.0 30.8 32.5 33.8 120.2 40.6 44.0 Level of Service (LOS) E C C Ε C C C F D D Approach Delay, s/veh / LOS 44.7 D 33.4 C 113.2 F 43.5 D Intersection Delay, s/veh / LOS 72.4 E **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 3.3 C 3.3 C 2.5 В 2.4 В Bicycle LOS Score / LOS 1.1 Α 1.2 A 1.4 A 1.2 Α

### **HCS7 Signalized Intersection Results Summary General Information** Intersection Information 141411 1114 Agency KHR Associates Duration, h 0.25 Analyst Analysis Date 8/1/2016 Area Type Other Jurisdiction Torrance California Time Period PHF 0.97 **Urban Street** Crenshaw Boulevard Analysis Year | 2016 Analysis Period 1>7:30 Intersection Rolling Hills Road File Name 8-Rolling Hills-Crenshaw Amb PM.xus **Project Description Demand Information** EB WB NB SB Approach Movement T L Т R L R L T R L T R Demand (v), veh/h 163 285 42 217 88 164 101 1007 274 1022 Signal Information Cycle, s 120.0 Reference Phase 2 Offset, s 0 Reference Point End Green 4.6 4.9 48.5 7.2 4.8 26.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 4.0 4.0 4.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results** EBL **EBT** WBL WBT NBL NBT SBL SBT **Assigned Phase** 5 2 1 6 3 8 7 4 Case Number 2.0 3.0 2.0 3.0 1.1 4.0 1.1 4.0 Phase Duration, s 17.5 61.4 8.6 52.5 11.2 30.0 20.0 38.8 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 3.0 0.0 3.0 0.0 3.0 2.9 3.0 2.9 Queue Clearance Time (gs), s 13.5 5.0 7.4 26.1 16.3 24.2 Green Extension Time (ge), s 0.1 0.0 0.0 0.0 0.1 0.0 0.0 4.5 Phase Call Probability 1.00 0.76 0.97 1.00 1.00 1.00 Max Out Probability 1.00 0.00 0.00 1.00 1.00 0.27 **Movement Group Results** EB WB NB SB Approach Movement R L T L T R L T R L T R Assigned Movement 5 2 12 1 6 16 3 8 7 4 Adjusted Flow Rate (v), veh/h 168 294 91 43 224 169 104 1038 282 1054 Adjusted Saturation Flow Rate (s), veh/h/ln 1739 1826 1608 1739 1826 1607 1781 1698 1781 1698 Queue Service Time ( g s ), s 11.5 14.7 4.8 3.0 11.7 9.9 5.4 24.1 14.3 22.2 Cycle Queue Clearance Time (gc), s 11.5 14.7 4.8 3.0 11.7 9.9 5.4 24.1 14.3 22.2 Green Ratio (g/C) 0.11 0.48 0.48 0.04 0.40 0.40 0.28 0.22 0.37 0.29 Capacity (c), veh/h 195 874 769 66 738 650 214 1104 306 1476 Volume-to-Capacity Ratio (X) 0.860 0.336 0.118 0.652 0.303 0.260 0.485 0.940 0.922 0.714 Back of Queue (Q), ft/ln (50 th percentile) 161.5 180.4 45.8 35.3 142.3 101.2 58.6 286.9 217.2 231.2 Back of Queue (Q), veh/ln (50 th percentile) 6.2 6.9 1.8 1.4 5.5 4.0 2.3 11.3 8.6 9.1 Queue Storage Ratio (RQ) (50 th percentile) 0.54 0.60 0.16 0.12 0.47 0.35 0.29 1.43 0.72 0.77 Uniform Delay (d1), s/veh 54.6 26.3 22.9 57.7 30.4 29.7 34.5 46.2 31.8 38.2 Incremental Delay ( d 2 ), s/veh 21.0 1.0 0.3 4.0 1.1 1.0 0.6 14.8 31.4 1.4 Initial Queue Delay (d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 75.6 Control Delay (d), s/veh 27.4 23.3 61.7 31.4 30.7 35.2 61.0 63.3 39.6 Level of Service (LOS) Ε C C E C C D E E D Approach Delay, s/veh / LOS 41.3 D 34.2 C 58.7 E 44.6 D Intersection Delay, s/veh / LOS 47.4 D Multimodal Results EB WB NB SB Pedestrian LOS Score / LOS C 3.3 3.3 C 2.5 В 2.4 В Bicycle LOS Score / LOS 1.4 A 1.2 A 1.1 A 1.2 A

松司 他	PINT TO	The World Control	(	gnaliz	100	(Selv	1500		75 S		147	17 35 3	E TIET	Sugar	1150	-	100
General Inform	nation							W. Sulla		Inte	erse	ction Ir	nforma	tion	9.32	기세기사	11 14 14
Agency		KHR Associates								-	ation		0.25				
Analyst				Analy	ysis D	ate	8/1/20	016		-	а Ту		Oth		4		
Jurisdiction		Torrance California		-	Perio	_				PHI					÷	n	
Urban Street		Pacific Coast High	way	Analy	ysis Y	ear	2016			Analysis Period			0.95				
Intersection		Crenshaw Bouleva		File N	_	_	-	H-Cren	shaw /			-			200		
Project Descrip	tion															1114	717
Demand Inform	mation			-	F	В	7/15	Topic .	V	/R	-	THE REAL PROPERTY.	NE		100	SB	
Approach Move	_			L	-	Г	R	L		гТ	R	1	T	-	₹ L	T	
Demand (v), v	a feet and the second			166	95	_	- 11	650		_	-11	58	_		_	-	_
TO A STATE OF THE	15/A/A	V.C -	- 11	100				030	0 10	30	-	30	100	40	130	632	in a
Signal Informa	ition				T								S 1	San San			
Cycle, s	120.0	Reference Phase	2	1	1	2	2		<b>:</b>	2	4/3	2	4.7	-		1	1
Offset, s	0	Reference Point	End	Cross			0.4	40.0			0.5	-		1	2	La Company	
Uncoordinated	No	Simult. Gap E/W	On	Green			6.1 4.0	46.0	5.3		3.5 0.0	33. 4.0			-		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0		0.0	0.0		5.	6	7	
Timor Descrite	1,11												1 (N	mo (E)		Localis .	
Timer Results				EB	L	_	ВТ	WE	3L	WE	BT	NB		NBT	SE	-	SB
Assigned Phase	9			5	_	_	2	1		6		3	_	8	7		4
Case Number				1.1	-	-	.0	1.1	-	4.0	_	2.0		3.0	1.	_	4.0
Phase Duration	-			10.	_	_	0.0	20.	-	60.	-	9.3	_	37.1	12.	8	40.
Change Period,	_	The same of the sa		4.0	-	-	.0	4.0		4.0	)	4.0	_	4.0	4.0	)	4.0
Max Allow Head	ALC: UNKNOWN WATER			3.0	-	0	.0	3.0	_	0.0	)	3.0		3.0	3.0	)	3.0
Queue Clearand	THE RESERVE AND ADDRESS OF THE PARTY OF THE			5.7	_			17.				6.1		35.1	8.8	3	14.5
Green Extension	THE RESIDENCE OF THE PARTY OF T	(ge), s		0.2		0	.0	0.0		0.0	)	0.0		0.0	0.1		6.2
Phase Call Prob	-			1.00	0			1.0	0			0.87	7	1.00	0.9	9	1.00
Max Out Probab	oility			0.00				1.00	0			0.00	0	1.00	0.0	1	0.07
Movement Gro	up Res	ults			EB				WB	12	-		NB	34		SB	
Approach Move	and the latest designation of the latest des			L	T	T	R	L	T		R	L	T	R	1	_	T .
Assigned Mover	THE RESERVE OF THE PERSON NAMED IN			5	2	+	-	1	6	+-	-	3	8	18	L	T	F
Adjusted Flow R		) veh/h		175	100	7	-	684	2059	+	$\dashv$	61	1057	-	7	4	+
		w Rate ( s ), veh/h/lr		1689	1738	-				-	-		-	513	145	665	+
Queue Service	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	THE PARTY AND ADDRESS OF THE PARTY AND ADDRESS		3.7	32.1			1689 15.5	1658 47.3	-	-	1781	1698	1608	-	1698	-
Cycle Queue Cle	-		-	3.7	32.1	_		-	_	-	-	4.1	22.7	33.1	6.8	12.5	+
Green Ratio ( g/	Charles and Charle	inne ( g c ), s		0.43	0.38			15.5	47.3	+		4.1	22.7	33.1	6.8	12.5	-
Capacity ( c ), ve	THE RESERVE OF THE PERSON NAMED IN			311	133	_		0.53	0.47	-	-	0.04	0.28	0.28	0.36	0.31	-
/olume-to-Capa		io ( X )		0.562	0.75	-	-	698	_	-	-	79	1407	444	237	1557	-
THE RESERVE OF THE PARTY OF THE	THE RESERVE OF THE PERSON	n (50 th percentile)		38	384		-	0.980	0.886	-	-	0.774	0.751	1.154	-	0.427	-
		h/ln (50 th percentile)	2/	1.5	14.8	-	-	237.9	-	-	-	48.7	238.9	599.9	72.5	127.3	-
CONTRACTOR OF THE PARTY OF THE		RQ) (50 th percentil		0.13	1.28	-	-	9.2	20.7	-	-	1.9	9.4	24.0	2.9	5.0	-
Jniform Delay (	The second second	CONTRACTOR OF THE PARTY OF THE	0)	29.2	39.5	-	-	0.79	1.79	-	-	0.24	1.19	3.05	0.24	0.42	_
ncremental Delay		*****		0.6	-	-	-	30.2	38.3	+	-	56.7	39.7	43.4	29.9	33.3	_
nitial Queue Del	THE RESERVE AND ADDRESS OF THE PARTY OF THE	the beautiful to the same of t		0.0	4.1	_	-	29.0	5.5	-	-	5.9	2.1	92.2	1.0	0.1	_
Control Delay (	STATE OF TAXABLE PARTY.	NAME OF TAXABLE PARTY.		29.8	0.0	-		0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	
evel of Service	-		-	C C	43.6 D	+	-	59.2 E	43.8 D	-	-	62.7	41.7	135.7	30.9	33.3	-
approach Delay,	-	IOS	-		-	D	-		_	-	-	E 72.0	D	F	C	С	
ntersection Delay,	-			41.5		D		47.6		D	-	72.0		Е	32.9		С
Menaection Dela	y, Siver	17 200	1,00	CALL STREET			50.	2	100			1100	- 100	-	D	1000	2000
	- 3 th		-		EB			-	WB		7	C 300	NB		الحفارات	SB	1
fultimodal Res	ults				LD												
Multimodal Res Pedestrian LOS	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner,	LOS		3.4	I	С	1	3.3	T	С	1	3.1	1	С	3.3	J	С

### **HCS7 Signalized Intersection Results Summary General Information** Intersection Information 1 4 4 4 4 4 4 4 0.25 Agency KHR Associates Duration, h Analyst Analysis Date 8/1/2016 Area Type Other Jurisdiction Time Period PHF Torrance California 0.94 **Urban Street** Pacific Coast Highway Analysis Year 2016 Analysis Period 1>7:30 Crenshaw Boulevard 9-PCH-Crenshaw Amb PM.xus Intersection File Name **Project Description** 14444 **Demand Information** EB WB NB SB Approach Movement L T R T R T R L L R T Demand (v), veh/h 172 1272 472 1453 74 703 454 329 1096 Signal Information Lis 120.0 Cycle, s Reference Phase 2 Offset, s 0 Reference Point End Green 6.1 5.4 46.5 6.8 5.2 26.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 4.0 4.0 4.0 Force Mode Fixed Simult. Gap N/S Red 0.0 0.0 0.0 0.0 0.0 0.0 On **Timer Results EBL EBT** WBL WBT **NBL NBT** SBL SBT Assigned Phase 5 2 1 6 3 8 7 2.0 Case Number 1.1 4.0 1.1 4.0 3.0 1.1 4.0 59.9 Phase Duration, s 10.1 50.5 19.5 10.8 30.0 20.0 39.2 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway ( MAH ), s 3.0 0.0 3.0 0.0 3.0 3.0 3.0 3.0 7.2 Queue Clearance Time (gs), s 5.9 15.4 28.0 18.0 27.2 Green Extension Time ( g e ), s 0.3 0.0 0.1 0.0 0.1 0.0 0.0 4.3 Phase Call Probability 1.00 1.00 0.93 1.00 1.00 1.00 Max Out Probability 0.00 1.00 0.00 1.00 1.00 0.54 **Movement Group Results** EB WB NB SB T T R Approach Movement L R L L T R L T R Assigned Movement 5 2 6 3 18 1 8 7 4 Adjusted Flow Rate (v), veh/h 183 1353 502 1546 79 748 483 350 1166 Adjusted Saturation Flow Rate (s), veh/h/ln 1689 1738 1689 1658 1781 1698 1608 1781 1698 Queue Service Time ( g s ), s 3.9 46.5 13.4 32.4 5.2 16.2 26.0 16.0 25.2 Cycle Queue Clearance Time (gc), s 3.9 46.5 13.4 32.4 5.2 16.2 26.0 16.0 25.2 0.44 0.39 0.53 0.47 0.06 0.22 0.22 Green Ratio (g/C) 0.37 0.29 Capacity (c), veh/h 409 1348 556 2317 100 1104 348 356 1496 Volume-to-Capacity Ratio (X) 0.448 1.004 0.904 0.667 0.784 0.677 1.386 0.779 0.983 Back of Queue (Q), ft/ln (50 th percentile) 39.1 651.9 231.5 357.2 61.8 170.7 712.1 301.7 264.2 Back of Queue (Q), veh/ln (50 th percentile) 1.5 25.1 8.9 13.7 2.4 6.7 28.5 11.9 10.4 Queue Storage Ratio (RQ) (50 th percentile) 0.13 0.77 0.85 2.17 1.19 0.31 3.62 1.01 0.88 Uniform Delay ( d 1 ), s/veh 24.1 44.5 38.9 33.3 55.9 43.2 47.0 34.8 38.8 0.3 25.5 17.0 1.5 Incremental Delay ( d 2 ), s/veh 5.0 1.4 190.7 43.0 2.5 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 55.9 Control Delay (d), s/veh 24.4 70.0 34.8 60.9 44.5 237.7 41.3 77.7 Level of Service (LOS) C F E C E D F E D Approach Delay, s/veh / LOS 40.0 64.5 E D 116.8 49.7 D Intersection Delay, s/veh / LOS 63.9 E **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS C C 3.4 3.3 C 3.1 3.3 C В Bicycle LOS Score / LOS 1.8 В 1.6 1.2 A 1.3

T STORY TO STORY		HCS	7 Sig	naliz	ed I	nte	ersec	tion	Res	ults	s Su	mma	ry			190	
General Inform	nation		-Un-		2.93					Line	torpoo	tion In	format	ion	Silver	即和基本	risiul
	nauon	KHR Associates				_							0.25		_		
Agency Analyst		Krik Associates		Analy	roio D	oto	8/1/20	116		-	uration	_	Othe	_	- 2		
Jurisdiction		Torrance California	_	Time		_	0/1/20	010		Ph	геа Тур	be	0.78		-6	w].	2
Urban Street						_	2016		_	-		Doring	_	_	-4	.1.	
Intersection		Pacific Coast High	vay	Analy	_	ear	-	DLI Vint	- 14-		_	Period	-	:30	5		
Project Descrip	tion	Vista Montana		File N	vame	_	10-20	CH-Vist	a ivioi	itan	a Amb	Alvi.xu	S		_	1814	SI PRINCI
Project Descrip	uon	CONTRACTOR OF STREET	7/1		250		10101	730	* **	11	1 7	69 RS	200	100	-4/9/10	Halra.	HILLIAN
Demand Inform	nation	2 - 1/10-			E	В			٧	VB			NE	3		SB	
Approach Move	ement			L	1	Γ	R	L	T	Т	R	L	T	R	L	T	R
Demand (v), v	eh/h			48	11	54		66	1	543		154	1 14	8 122	2 287	116	194
AN ENGLIS			No. 1											Will.		To the	WALL T
Signal Informa	THE RESERVE OF THE PARTY OF THE	I = 1		-	1			= ,7	-	2	211	0 2		_	1000	K	
Cycle, s	120.0	Reference Phase	2	-		R	K	-		5			17	1	4 2		4
Offset, s	0	Reference Point	End	Green	1 5.2		0.4	67.7	8.		1.7	16.	0		AUX.	N DEL	
Uncoordinated	No	Simult. Gap E/W	On	Yellov	_	_	0.0	4.0	4.		4.0	4.0		/	V	1	D
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.	0	0.0	0.0		5	6	7	a
Timer Results				EB		F	ВТ	WB		١٨	VBT	NB		NBT	SB		SBT
Assigned Phase	9			5	-	-	2	1	-	_	6	3	-	8	7	-	4
Case Number				1.1		_	1.0	1.1			1.0	2.0		4.0	2.0		3.0
Phase Duration	S			9.2	_	_	1.7	9.6	_		2.1	12.	_	20.0	18.		25.7
Change Period,	A DE PERSONAL PROPERTY.	c) s		4.0	-	-	1.0	4.0	$\rightarrow$	_	1.0	4.0	_	4.0	4.0	-	4.0
Max Allow Head	-			3.0	-	_	0.0	3.0	$\rightarrow$	_	0.0	3.0		3.1	3.0		3.1
Queue Clearan	-			3.7	-			4.4	-	_	7.0	8.7	_	14.0	14.	_	20.4
Green Extensio		STATE OF THE PARTY		0.1	_	0	0.0	0.1	-	0	0.0	0.2	-	1.3	0.2	-	1.3
Phase Call Prob		(90),0		0.87	_	_		0.94	_	_		1.00	_	1.00	1.00		1.00
Max Out Probab				0.00	0			0.00				0.0	_	0.01	1.00	_	0.01
AND THE PARTY OF	Tem	April 10 Land	Vers	To the	1	1					16	TEAT		- 1//		ENE	W. Com
Movement Gro	-	ults			EB	3			W	3			NB			SB	
Approach Move	-			L	Т	1	R	L	Т		R	L	T	R	L	T	R
Assigned Move	_			5	2			1	6			3	8	18	7	4	14
Adjusted Flow F				62	147	9		85	197	8		197	181	165	368	149	249
		ow Rate ( $s$ ), veh/h/li	1	1739	-	-		1739	173	-		1730	1870	1594	1730	1781	1577
Queue Service				1.7	44.5	_		2.4	68.	_		6.7	11.2	12.0	12.5	4.3	18.4
Cycle Queue Cl	the same of the sa	e Time ( <i>g c</i> ), s		1.7	44.5	_	_	2.4	68.	_		6.7	11.2	12.0	12.5	4.3	18.4
Green Ratio (g/	_			0.61	0.56	-		0.61	0.5	_		0.07	0.13	0.13	0.12	0.18	0.18
Capacity (c), v	CONTRACTOR OF THE PARTY.			136	196	-		209	197	_	_	258	249	212	423	645	286
Volume-to-Capa	-			0.453	0.75	_		0.405	1.00	_	_	0.766	0.729	-	0.869	0.231	0.871
The second secon	-	In (50 th percentile)	-\	25.6	514.	-	-	26.8	906	_	-	74.2	132	119.8	155.8	46.9	194.2
THE RESIDENCE OF THE PARTY OF T		eh/In ( 50 th percentil RQ ) ( 50 th percenti	_	0.17	19.8	-	-	0.22	34.8	_	-	2.9 0.49	5.2 0.66	4.8 0.61	6.1	1.8	7.6
Uniform Delay (			ie)	29.1	30.2	-		20.8	37.3	-	-	54.5	49.9	50.3	1.04 51.7	0.26 42.0	0.97 47.8
Incremental Del	_	NAME OF TAXABLE PARTY.		0.9	2.8	_		0.5	20.9	_		1.8	1.5	2.3	14.3	0.1	8.0
Initial Queue De	ACCRECATE VALUE OF THE PARTY OF			0.0	0.0	-		0.0	0.0	-		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	-			30.0	32.9	_		21.3	58.2	-		56.3	51.5	52.6	66.0	42.1	55.8
Level of Service	AND DESCRIPTION OF THE PARTY NAMED IN			С	С	1		С	F	1		E	D	D	E	D	E
Approach Delay	-	LOS		32.8	-	(	2	56.7	T	E		53.6	-	D	58.0	-	E
Intersection Del	and the same of the same of	Anna and property of the contract of the contr					49	_							D		
100 100 100			- 11.0	VMO.	- 1000		1100		1		- 3		200				
Multimodal Res				0	EB	-			WE	_			NB			SB	
Pedestrian LOS	-	the state of the s		2.9	_	(	_	3.0	_	(	-	2.9	manuscript and property of	С	2.9		С
Bicycle LOS Sco	ore / LO	S		1.8		E	3	2.2		E	3	0.9		Α	1.1		Α

### **HCS7 Signalized Intersection Results Summary General Information** Intersection Information 14 2 4 1 4 1 Agency KHR Associates Duration, h 0.25 Analyst Analysis Date 8/1/2016 Area Type Other Jurisdiction Torrance California Time Period PHF 0.98 **Urban Street** Pacific Coast Highway Analysis Year 2016 Analysis Period 1>7:30 Intersection Vista Montana File Name 10-PCH-Vista Montana Amb PM.xus **Project Description** THIEFTER **Demand Information** EB WB NB SB Approach Movement L R T R L Т R L T R Demand (v), veh/h 60 1296 192 1375 117 202 149 359 211 98 Signal Information 11 Л Cycle, s 120.0 Reference Phase Offset, s Reference Point End Green | 5.2 2.7 65.8 6.1 4.5 15.6 Uncoordinated No Simult. Gap E/W On Yellow 4.0 0.0 4.0 4.0 4.0 4.0 Force Mode Simult. Gap N/S Fixed On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results EBL EBT** WBL WBT **NBL NBT** SBL SBT Assigned Phase 5 2 1 6 3 8 7 4 Case Number 1.1 4.0 1.1 4.0 2.0 4.0 2.0 3.0 Phase Duration, s 9.2 69.8 12.0 72.6 10.1 19.6 18.6 28.1 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway ( MAH ), s 3.0 0.0 3.0 0.0 3.0 3.1 3.0 3.1 Queue Clearance Time (gs), s 3.8 6.1 7.7 14.4 14.5 8.5 Green Extension Time (ge), s 0.1 0.0 0.3 0.0 0.1 1.2 0.2 1.3 Phase Call Probability 0.87 1.00 0.98 1.00 1.00 1.00 Max Out Probability 0.00 0.00 0.00 0.01 1.00 0.00 **Movement Group Results** EB WB NB SB Approach Movement L T R L T R L T R L Assigned Movement 5 2 6 3 8 18 7 4 14 Adjusted Flow Rate (v), veh/h 61 1322 196 1403 119 187 171 366 215 100 Adjusted Saturation Flow Rate ( s ), veh/h/ln 1739 1738 1739 1738 1730 1870 1609 1730 1781 1578 Queue Service Time ( g s ), s 1.8 38.8 5.7 41.0 4.1 11.6 12.4 12.5 6.2 6.5 Cycle Queue Clearance Time (gc), s 1.8 38.8 5.7 41.0 4.1 11.6 12.4 12.5 6.2 6.5 Green Ratio (g/C) 0.59 0.55 0.62 0.57 0.05 0.13 0.13 0.12 0.20 0.20 Capacity (c), veh/h 215 1907 267 1987 176 243 209 422 716 317 Volume-to-Capacity Ratio (X) 0.284 0.693 0.735 0.706 0.679 0.772 0.818 0.315 0.868 0.301 Back of Queue (Q), ft/In (50 th percentile) 17.2 446.8 79.6 471.4 45.2 138.1 125.9 154.7 67.3 63 Back of Queue (Q), veh/ln (50 th percentile) 0.7 17.2 3.1 18.1 1.8 5.4 5.0 6.1 2.6 2.5 Queue Storage Ratio (RQ) (50 th percentile) 0.11 1.49 0.66 1.89 0.30 0.69 0.64 1.03 0.37 0.31 Uniform Delay ( d 1 ), s/veh 18.7 29.5 22.5 28.6 56.0 50.5 50.8 51.7 40.8 40.9 Incremental Delay ( d 2), s/veh 0.3 2.1 1.5 2.1 1.7 2.0 3.0 14.1 0.1 0.2 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay ( d ), s/veh 19.0 31.6 24.0 30.8 57.7 52.5 53.8 65.8 40.9 41.1 Level of Service (LOS) В C C C E D D E D Approach Delay, s/veh / LOS 31.0 C 29.9 C 54.3 D 54.3 D Intersection Delay, s/veh / LOS 37.1 D **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 2.9 C 3.0 C 2.9 C 2.9 C Bicycle LOS Score / LOS 1.6 В 1.8 0.9 Α 1.0

HCS+: Unsignalized Intersections Release 5.6

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.:

KHR Associates

Date Performed:

8/4/2016

Analysis Time Period: 8:00 - 9:00 A.M.

Intersection:

Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient AM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbou	ind	I W	estbou	ind	I No	orthbo	ound	I S	outhbo	ound	- 1
	L	T	R	L	T	R	l L	T	R	L	T	R	Î
Volume	10	211	0	10	206	0	- 13	499	41		271	0	

% Thrus Left Lane

	Eastb	ound	Westh	oound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	211		206		13	499	271	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1		1	91		2	1	
Opposing-Lanes	1		1			1	2	
Conflicting-lanes	2		2			1	1	
Geometry group	2		2	911		5	4	а
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

1	Eastbound	Westh	ound	North	bound	South	bound
- 1	L1 L2	L1	L2	L1	L2	L1	L2
Flow Rates:							
Total in Lane 21	1	206		13	499	271	
Left-Turn 0		0		13	0	0	
Right-Turn 0		0		0	0	0	
Prop. Left-Turns 0.	. 0	0.0		1.0	0.0	0.0	
Prop. Right-Turns 0.	. 0	0.0		0.0	0.0	0.0	
Prop. Heavy VehicleO.	. 0	0.0		0.0	0.0	0.0	
Geometry Group	2	2			5	272	4 a
Adjustments Exhibit 1	7-33:						
hLT-adj	0.2	0	.2		0.5		0.2

hRT-adj	-0.6	-0.6	-	0.7	-0.6
hHV-adj	1.7	1.7		1.7	1.7
hadj, computed	0.0	0.0	0.5	0.0	0.0

\_Worksheet 4 - Departure Headway and Service Time\_

	East!	bound	West	bound	Northb	oound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate	211		206		13	499	271		
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.19		0.18		0.01	0.44	0.24		
hd, final value	7.08		7.10		7.09	6.58	6.72		
x, final value	0.415		0.406		0.026	0.913	0.506		
Move-up time, m		2.0		2.0	2	.3	2	2.0	
Service Time	5.1		5.1		4.8	4.3	4.7		

\_Worksheet 5 - Capacity and Level of Service\_

	Eastbound	Westbound	Northb	ound	Southbound
	L1 L2	L1 L2	L1	L2	L1 L2
Flow Rate	211	206	13	499	271
Service Time	5.1	5.1	4.8	4.3	4.7
Utilization, x	0.415	0.406	0.026	0.913	0.506
Dep. headway, hd	7.08	7.10	7.09	6.58	6.72
Capacity	502	502	433	548	531
95% Queue Length	2.1	2.0	0.1	17.9	3.0
Delay	15.1	14.9	10.0-	61.0	16.6
LOS	C	В	A	F	C
Approach:					
Delay	15.1	14.9	5	9.7	16.6
LOS	C	В	F		C
Intersection Delay	34.4	Intersection	n LOS D		

Sub

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 5:00 - 6:00 P.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient PM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	W	estbou	ind	I No	orthbo	und	1 S	outhbo	ound
	L	T	R	1 L	T	R	L	T	R	l L	T	R
Volume	10	23	0	10	189	0	16	389	3.5	-10-	588	0

	Eastb	ound	West	oound	North	bound	South	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	23		189		6	389	588	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1					2	1	
Opposing-Lanes	1					1	2	
Conflicting-lanes	2		2			1	1	
Geometry group	2		2			5	4	а
Duration, T 1.00	hrs.						- 0	-

\_Worksheet 3 - Saturation Headway Adjustment Worksheet

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	23		189		6	389	588	
Left-Turn	0		0		6	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehic	le0.0		0.0		0.0	0.0	0.0	
Geometry Group		2	- 1	2		5		4 a
Adjustments Exhib:	it 17-3:	3:						
hLT-adj	. (	0.2	- 9	0.2		0.5	1 1	0.2

hRT-adj	-0.6	-0.6		0.7	-0.6
hHV-adj	1.7	1.7		1.7	1.7
hadj, computed	0.0	0.0	0.5	0.0	0.0

Worksheet 4 - Departure Headway and Service Time

	Eastbound		West	bound	Northk	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	23		189		6	389	588	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.02		0.17		0.01	0.35	0.52	0.20
hd, final value	7.16		6.54		6.48	5.98	5.40	
x, final value	0.046		0.343		0.011	0.646	0.881	
Move-up time, m		2.0		2.0	2	.3		2.0
Service Time	5.2		4.5		4.2	3.7	3.4	

Worksheet 5 - Capacity and Level of Service

	Eastbound		West	bound	North	oound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	23		189		6	389	588		
Service Time	5.2		4.5		4.2	3.7	3.4		
Utilization, x	0.046		0.343		0.011	0.646	0.881		
Dep. headway, hd	7.16		6.54		6.48	5.98	5.40		
Capacity	460		556		600	598	668		
95% Queue Length	0.1		1.6		0.0	5.2	15.9		
Delay	10.5		12.9		9.3	19.4	42.9		
LOS	В		В		A	C	E		
Approach:									
Delay	1	0.5		12.9	1	9.2	4:	2.9	
LOS	В		I	3	C		E		
Intersection Delay			Inte	ersectio	n LOS D				

### **HCS7 Signalized Intersection Results Summary** General Information Intersection Information 1474116 1111 Agency KHR Associates Duration, h 0.25 Analyst Analysis Date 8/1/2016 Area Type Other Jurisdiction Torrance California Time Period PHF 0.90 **Urban Street** Palos Verdes Dr North Analysis Year 2016 Analysis Period 1>7:30 Intersection Hawthorne Boulevard File Name 12-Hawthorne-PVD Amb AM.xus **Project Description Demand Information** FB WB NB SB Approach Movement L Т R T R L L T R L T R Demand (v), veh/h 32 935 291 129 564 257 187 425 168 340 414 13 Signal Information Cycle, s 120.0 Reference Phase 2 Offset, s 0 Reference Point End Green 4.2 62.7 1.8 13.6 2.4 19.3 Uncoordinated No Simult. Gap E/W On Yellow 4.0 0.0 4.0 4.0 0.0 4.0 Force Mode Fixed Simult. Gap N/S On Red 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 5 6 3 8 7 4 Case Number 1.1 3.0 1.1 3.0 1.1 3.0 2.0 3.0 Phase Duration, s 8.2 66.7 9.9 68.5 17.6 23.3 20.0 25.8 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 3.0 0.0 3.0 0.0 3.0 3.0 3.0 3.0 Queue Clearance Time (gs), s 3.1 4.3 13.5 17.4 18.0 16.6 Green Extension Time (ge), s 0.0 0.0 0.3 0.0 0.1 2.0 0.0 2.2 Phase Call Probability 0.69 0.99 1.00 1.00 1.00 1.00 Max Out Probability 0.00 0.00 1.00 0.13 1.00 0.04 **Movement Group Results** EB WB NB SB Approach Movement R T L Т L R T L R L T R Assigned Movement 5 2 12 1 6 16 3 8 18 7 4 14 Adjusted Flow Rate (v), veh/h 36 1039 323 143 627 286 208 472 187 378 460 14 Adjusted Saturation Flow Rate (s), veh/h/ln 1753 1752 1608 1702 1752 1608 1781 1781 1607 1781 1781 1580 Queue Service Time (gs), s 1.1 24.1 14.4 2.3 12.1 12.0 11.5 15.4 13.2 16.0 14.6 0.9 Cycle Queue Clearance Time (gc), s 1.1 24.1 14.4 2.3 12.1 12.0 11.5 15.4 13.2 16.0 14.6 0.9 Green Ratio (g/C) 0.56 0.52 0.52 0.57 0.54 0.54 0.27 0.16 0.16 0.13 0.18 0.18 Capacity (c), veh/h 451 1831 840 632 1883 864 302 574 259 238 646 287 Volume-to-Capacity Ratio (X) 0.079 0.567 0.385 0.227 0.333 0.330 0.688 0.822 0.720 1.591 0.712 0.050 Back of Queue (Q), ft/ln (50 th percentile) 10.5 243.7 132.6 20.7 120.2 109.1 131 176.6 133.4 653.6 161.7 8.8 Back of Queue (Q), veh/ln (50 th percentile) 0.4 9.4 5.3 0.8 4.7 4.4 5.2 7.0 5.3 25.7 6.4 0.3 Queue Storage Ratio (RQ) (50 th percentile) 0.04 0:81 0.46 0.07 0.40 0.38 0.65 0.88 0.68 2.18 0.54 0.03 Uniform Delay (d1), s/veh 12.7 19.4 17.1 14.3 15.6 15.6 36.8 48.7 47.8 52.0 46.2 40.6 Incremental Delay ( d 2 ), s/veh 0.0 1.3 1.3 0.1 0.5 1.0 3.7 4.0 2.6 284.8 1.1 0.0 Initial Queue Delay (d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 12.7 20.7 18.5 14.3 16.1 16.6

Multimodal Results	E	EB			1	NB	SB		
Pedestrian LOS Score / LOS	2.9	С	2.9	С	3.1	С	3.0	С	
Bicycle LOS Score / LOS	1.6	В	1.4	Α	1.2	Α	1.2	Α	

В

В

В

20.0

C

Level of Service (LOS)

Approach Delay, s/veh / LOS

Intersection Delay, s/veh / LOS

В

56.8

16.0

B

В

В

40.6

D

49.2

52.6

D

50.3

D

D

336.8

F

E

175.5

47.3

D

40.6

D

# **HCS7 Signalized Intersection Results Summary**

General Inform	mation								Interse	ction l	nforma	tion		기세지수			
Agency		KHR Associates							Duratio	n, h	0.25	5		111	4		
Analyst				Analy	ysis Da	te 8/1/2	2016		Area Ty	/ре	Oth	er	<u></u>				
Jurisdiction		Torrance California		Time	Period				PHF		0.90	)					
Urban Street		Palos Verdes Dr N	orth	Analy	sis Ye	ar 2016	3		Analysi	s Perio	d 1> 7	7:30	7				
Intersection		Hawthorne Bouleva	ard	File N	lame	12-H	lawthor	ne-PVD	Amb P					5 + +	*		
Project Descrip	otion													1414	7 1 1 1		
ALLES ALLES	5,00			V. Y	- 多度	Mires and				- 2 1	- 01-	= 11	-	10.00	111		
Demand Infor					EE			W	В		NE	3		SB			
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	F		
Demand ( $v$ ), $v$	/eh/h			24	72	23	7 14	1 10	71 319	9 23	2 35	4 136	3 201	1 405	2		
0: 11.6	1192	A STATE OF THE					215-11		W.			III Fi	- 1	015-05-			
Signal Informa	-	1		-	2		=	4	5 2		1	_					
Cycle, s	120.0	Reference Phase	2	-				E	5 6	171		_	<b>↔</b>		4		
Offset, s	0	Reference Point	End	Green	1 3.5	2.4	63.5	16.			)	Action 6	K				
Uncoordinated	No	Simult. Gap E/W	On	Yellov	v 4.0	0.0	4.0	4.0	4.0	0.0	)	/	7		K		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7			
Market Barrelly						- Section His		-1				THE STATE OF	W 1967	7 171 8 10			
imer Results ssigned Phase				EB	L	EBT	WE	-	WBT	NE		NBT	SE		SBT		
Assigned Phase	ase Number			5		2	1		6	3	_	8	7		4		
						3.0	1.	_	3.0	1.	_	3.0	2.0	)	3.0		
	nase Duration, s				5	67.5	10.	0	70.0	20.	0	22.5	20.	0	22.5		
Change Period		Contract of the Contract of th		4.0	)	4.0	4.0	)	4.0	4.0	)	4.0	4.0	)	4.0		
Max Allow Head	_	THE PARTY OF THE P		3.0		0.0	3.0	)	0.0	3.0		3.0	3.0	)	3.0		
Queue Clearan		THE RESIDENCE OF THE PARTY OF T		2.8			4.4	1		16.5		14.6	16.	9	16.7		
Green Extensio	n Time	(ge), s		0.0		0.0	0.3	3	0.0	0.0		1.9	0.0	)	1.8		
Phase Call Prol	bability			0.59			0.9	9		1.0	0	1.00	1.0	0	1.00		
Max Out Probal	bility			ults		0.0	0		0.0	0		1.0	0	0.03	1.0	0	0.08
all a his out						A Section										N. Albania	
Movement Gro	-	ults			EB	-		WB	,		NB			SB			
Approach Move				L	Т	R	L	T	R	L	Т	R	L	T	R		
Assigned Move	_			5	2	12	1	6	16	3	8	18	7	4	14		
Adjusted Flow F	Rate ( v	), veh/h		27	801	263	157	1190	354	258	393	151	223	450	26		
	-	w Rate ( $s$ ), veh/h/li	1	1753	1752	-	1702	1752	_	1781	1781	1607	1781	1781	1579		
Queue Service				0.8	16.7	11.1	2.4	27.8	15.3	14.5	12.6	10.5	14.9	14.7	1.7		
Cycle Queue Cl	-	e Time ( g c ), s		0.8	16.7	11.1	2.4	27.8	15.3	14.5	12.6	10.5	14.9	14.7	1.7		
Green Ratio ( g	_			0.56	0.53	0.53	0.58	0.55	0.55	0.29	0.15	0.15	0.13	0.15	0.15		
Capacity ( c ), v	_			251	1856	852	811	1927	884	312	549	248	238	549	243		
Volume-to-Capa				0.106	0.432	-	0.193	0.618	-	0.827	0.717	0.610	0.940	0.820	0.108		
	The second second second	In (50 th percentile)		7.9	167.1	100.9	22	276.8	138.3	189.1	140.1	104.3	233.9	167.6	16.4		
the same of the sa	-	h/ln (50 th percentil		0.3	6.5	4.0	0.9	10.7	5.5	7.4	5.5	4.2	9.2	6.6	0.6		
Queue Storage	Ratio (	RQ) (50 th percenti	le)	0.03	0.56	0.35	0.07	0.92	0.48	0.95	0.70	0.53	0.78	0.56	0.05		
Jniform Delay (	NAME OF TAXABLE PARTY.	the state of the s		15.2	17.2	15.9	12.3	18.4	15.6	37.0	48.3	47.4	51.5	49.1	43.6		
ncremental Del	-	OCCUPATION AND ADDRESS OF THE PARTY OF THE P		0.1	0.7	0.9	0.0	1.5	1.4	15.7	0.8	0.9	41.7	3.4	0.1		
nitial Queue De	elay (d3	), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Control Delay (	d), s/ve	h		15.2	17.9	16.8	12.4	19.9	16.9	52.7	49.1	48.3	93.2	52.5	43.7		
evel of Service	(LOS)			В	В	В	В	В	В	D	D	D	F	D	D		
Approach Delay	, s/veh /	LOS		17.6		В	18.6	3	В	50.1		D	65.2		E		
ntersection Dela	ay, s/vel	h/LOS				31	1.8			C							
			- 5		A March	1.00	111		- 0 7	100 90	7.75		000	FULL STO	13		
/lultimodal Res	sults				EB			WB			NB			SB			
edestrian LOS	Score /	LOS		2.9		С	2.9		С	3.1		С	3.0		С		
Ricycle I OS So		_	-				10		D					_			

Bicycle LOS Score / LOS

1.1

1.1

Agency KHR Associates  Duration, h  O.25  Analyst  Analyst  Duration, h  O.25  Analyst  Analyst  Duration, h  O.25  Analyst  Description  Description  Demand Information  EB  WB  NB  Approach Movement  L  T  R  L  T  R  L	SB T R 419 57	
Agency	T R	
Analysis   Analysis   Date   8/1/2016   Area Type   Other	SB T R	
Durisdiction	T R	
Urban Street         Crenshaw Boulevard         Analysis Year         2016         Analysis Period         1> 7:30           Intersection         Palos Verdes Dr North         File Name         13-Crenshaw-PVD Amb AM.xus           Demand Information           Approach Movement         L         T         R         L         T	T R	
Intersection	TR	
Demand Information         EB         WB         NB           Approach Movement         L         T         R	TR	
Demand Information         EB         WB         NB           Approach Movement         L         T         R         L         L         D	T R	
Approach Movement  L T R L T R L T R  Demand (v), veh/h    100 848 468 55 709 291 474 424 102 396	T R	
Approach Movement         L         T         R	TR	
Signal Information         Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         Yellow         4.0         0.0         4.0         4.0         4.0         0.0           Force Mode         Fixed         Simult. Gap N/S         On         Red         0.0 </td <td>-</td>	-	
Signal Information           Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         Yellow         4.0         0.0         4.0         4.0         4.0         0.0           Force Mode         Fixed         Simult. Gap N/S         On         Red         0.0	3 4	
Cycle, s         120.0         Reference Phase         2           Offset, s         0         Reference Point         End           Uncoordinated         No         Simult. Gap E/W         On         Yellow         4.0         0.0         19.3         0.0           Force Mode         Fixed         Simult. Gap N/S         On         Red         0.0 <td< td=""><td>3 4</td></td<>	3 4	
Offset, s         0         Reference Point         End         Green         5.2         0.6         62.9         16.0         19.3         0.0           Uncoordinated         No         Simult. Gap E/W         On         Yellow         4.0         4.0         4.0         4.0         0.0           Force Mode         Fixed         Simult. Gap N/S         On         Red         0.0	3 4	
Uncoordinated No Simult. Gap E/W On Yellow 4.0 0.0 4.0 4.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 6 6		
Force Mode   Fixed   Simult. Gap N/S   On   Red   0.0   0.0   0.0   0.0   0.0   0.0   5   6		
PARTICIPATE TO THE PROPERTY OF THE PARTY OF		
Timer Results EBL EBT WBI WRT NRI NRT SRI	7 8	
	SBT	
Assigned Phase 5 2 1 6 3 8 7	4	
Case Number 1.1 4.0 1.1 4.0 1.1 3.0 2.0	3.0	
Phase Duration, s 9.9 67.5 9.2 66.9 20.0 23.3 20.0	23.3	
Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0	4.0	
Max Allow Headway ( <i>MAH</i> ), s 3.0 0.0 3.0 0.0 3.0 3.0 3.0	3.0	
Queue Clearance Time ( g s ), s 3.7 2.9 18.0 17.4 18.0		
Green Extension Time ( $g_e$ ), s 0.2 0.0 0.1 0.0 0.0 1.9 0.0	1.9	
Phase Call Probability 0.98 0.87 1.00 1.00 1.00	1.00	
Max Out Probability 0.00 0.00 1.00 0.12 1.00	0.11	
Movement Group Results EB WB NB S	3.00	
	B	
Queue Service Time ( g s ), s       1.7       40.3       42.5       0.9       26.6       26.6       16.0       15.4       7.6       16.0       15         Cycle Queue Clearance Time ( g c ), s       1.7       40.3       42.5       0.9       26.6       26.6       16.0       15.4       7.6       16.0       15		
Green Ratio ( g/C ) 0.57 0.53 0.53 0.57 0.52 0.52 0.29 0.16 0.16 0.13 0.1		
Capacity ( c ), veh/h 587 974 858 381 964 868 314 572 258 238 57		
Volume-to-Capacity Ratio ( X ) 0.189 0.787 0.811 0.160 0.606 0.607 1.677 0.823 0.439 1.853 0.8		
Back of Queue ( Q ), ft/ln ( 50 th percentile) 15.9 454.9 418.7 8.8 291.3 257.1 899 176.5 75.2 845.7 173		
Back of Queue (Q), veh/ln (50 th percentile) 0.6 17.6 16.7 0.3 11.3 10.3 35.4 6.9 3.0 33.3 6.		
Queue Storage Ratio ( RQ ) ( 50 th percentile) 0.05 1.52 1.44 0.03 0.97 0.88 4.49 0.88 0.38 2.82 0.5		
Uniform Delay ( d 1 ), s/veh 14.7 22.8 23.3 20.2 19.9 19.9 39.3 48.7 45.5 52.0 48.		
Incremental Delay ( d 2 ), s/veh 0.1 6.4 8.2 0.1 2.8 3.1 318.4 4.0 0.4 399.5 3.0	0.2	
Initial Queue Delay ( <i>d</i> 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	0.0	
Control Delay ( d ), s/veh 14.7 29.2 31.5 20.3 22.7 23.1 357.7 52.7 45.9 451.5 52.	2 44.2	
Level of Service (LOS) B C C C C F D D F D	D	
Approach Delay, s/veh / LOS 29.2 C 22.8 C 196.6 F 233.0	F	
Intersection Delay, s/veh / LOS 107.1		
Multimodal Results EB WB NB SE	3	
Pedestrian LOS Score / LOS 2.9 C 2.9 C 3.0 C 3.0		
Bicycle LOS Score / LOS 1.8 B 1.5 A 1.4 A 1.3	C	

		24			III)	Table I	MATERIAL	THE REAL PROPERTY.		Summ		1 100	110	A THE SECOND	105
General Infor	mation						A PARTY OF	The same	Inter	section	Inform	ation	-	Jalu	क्षाभा
Agency		KHR Associates								tion, h	The same of the last of	25			
Analyst				Ana	alysis D	ate 8/	1/2016			Type	-	ther	4	The Y	
Jurisdiction		Torrance California	1	_	e Perio	_		PHF			0.9			<i>3</i>	
Urban Street		Crenshaw Bouleva	ird	_		ear 20	16				ysis Period 1> 7:30			* "	\$
Intersection		Palos Verdes Dr N	orth	-	Name		-Crensh	aw-PV			ou   12	7.30			
Project Descrip	otion	0.00							D / ((1))	IVI.AUS				) † 68 A	†
Demand Infor	mation	No. of the last of		The same		В			ΛB		- 5	ID.	- Miles	5/19	11.71
Approach Move	ement			L	-	_	R	L		D		VB		S	
Demand (v), v	eh/h			48	-	_		_			_		R 1		
Signal Informa	tion		100		1 550	THE ST					31	00   0	30	30	9
Cycle, s	120.0	Poforonos Phase		-	12		₩.	4	5 R	11	1	Special Special	The same	Major.	
Offset, s	0	Reference Phase	2			8		K.	5	M	1		4	1	4
Uncoordinated	No	Reference Point Simult. Gap E/W	End		en 5.0			.0 1	6.0 1	7.1 0.	0	1	¥ 2		3
Force Mode		THE RESERVE THE PARTY OF THE PA	On		w 4.0	0.0		) 4	0 4	0 0.		1	<b>→</b>		
r orce wode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0 0	0 0.	0	5	6		7
Timer Results						EBT	V	/BL	WBT	N	BL	NDT			IN
Assigned Phase						2		1	6		3	NBT		BL	SB
Case Number	e Number					4.0	_	.1	4.0	1.		8	-	7	4
Phase Duration,	se Duration, s					69.0	_	.9	69.9			3.0	2		3.0
Change Period,	(Y+R c	), s		9.		4.0	-	.0	4.0	20		21.1	20		21.
Max Allow Head	way ( N	MAH), s		3.		0.0		.0	0.0	4.		4.0	4.		4.0
Queue Clearand				_	2.8		_	.9	0.0	3.	_	3.0	3.		3.0
Green Extension				0.	_	0.0		2	0.0	18		15.2	18	_	15.4
Phase Call Prob		<u> </u>		0.8	_	0.0	0.9	_	0.0	0.	_	1.8	0.		1.7
Max Out Probab	ility			_	0.00		0.0			1.0		1.00	1.0		1.00
	-		- 1		TE PER S		0.0	CHEST STATE		1.0	0	0.03		0	0.03
Novement Grou		ults			EB			WE		T	NB	120	10000	SB	-
pproach Mover				L	T	R	L	T	R	L	T	R	L	T	F
ssigned Moven	and the second			5	2	12	1	6	16	3	8	18	7	4	14
djusted Flow R				53	629	571	129	585	536	552	406	72	401	410	60
djusted Saturat	ion Flov	v Rate ( $s$ ), veh/h/ln		1702	1841	1665	1702	1841	1683	1781	1781	1607	1781	1781	157
ueue Service T				8.0	28.5	28.8	1.9	25.2	25.3	16.0	13.2	4.8	16.0	13.4	4.
ycle Queue Cle		Time $(g_c)$ , s		0.8	28.5	28.8	1.9	25.2	25.3	16.0	13.2	4.8	16.0	13.4	4.
reen Ratio ( g/0	,			0.58	0.54	0.54	0.59	0.55	0.55	0.28	0.14	0.14	0.13	0.14	0.1
apacity ( $c$ ), ve	_			579	996	901	564	1011	THE REAL PROPERTY.	312	508	229	238	508	22
olume-to-Capac				0.092	0.631	0.634	0.228	0.579	_	1.772	0.798	0.315	1.689	0.807	
		(50 th percentile)		7.3	310.9	276.8	17.5	271.2	_	988.6	148.5	47.7	725.2	150.7	0.26
		/In (50 th percentile		0.3	12.0	11.1	0.7	10.5	9.7	38.9	5.8	1.9	28.6		40
		Q) (50 th percentile	()	0.02	1.04	0.95	0.06	0.90	0.84	4.94	0.74	0.24	2.42	5.9 0.50	1.6
niform Delay ( a				13.7	19.2	19.2	14.5	17.9	17.9	40.8	49.8	46.2	52.0	49.8	0.13
cremental Dela				0.0	3.0	3.4	0.1	2.4	2.7	360.0	1.7	0.3	327.6		45.8
itial Queue Dela	y (dз)	, s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.2
ontrol Delay ( d	), s/veh			13.7	22.2	22.6	14.5	20.3	20.6	400.9	51.5	46.5	-	0.0	0.0
vel of Service (	LOS)			В	С	С	В	C	C	F	D D	40.5 D	379.6	51.8	46.1
The state of the s				22.0		C	19.8		В	238.5		F	F 202.5	D	D
proach Delay,	, s/veh	A INC. TO SECURE					7.7		-	230.0			202.3		F
proach Delay, s ersection Delay						F 18 (1)	1/14	Part Inti	C P AL	F 37 7 7 5	STOCKE OF		Contract of the Contract of th		
ersection Delay	lts				ED		HE STATE	14.5			*	DI 187	1200	22 110	
				2.9	EB	С	2.9	WB	С	3.0	NB	С	( Links	SB	

	HCS7					nterse	ection	Res	ults S	umma	ary				
General Inform	nation	Cont.			-	-			A COL				3/1	Stistleder	
	nation	IKUD A							-	ection I	_	_	_	가 기계기화	
Agency		KHR Associates		1					Duration		0.2		_		
Analyst		- 0 "		_		ate 8/1/	2016		Area T	уре	Oth		4		*_
Jurisdiction		Torrance California		-	Perio	_	_		PHF		0.90	-	<del>2</del>	w∳ε	<u></u>
Urban Street		Rolling Hills Road		THE OWNER WHEN	ysis Ye	-	_			is Perio	d 1>	7:30	7		
Intersection		Palos Verdes Dr No	orth	File	Vame	14-	Rolling F	Hills-P\	/D Amb	AM.xus			_	ጎ ተ	7
Project Descrip	otion		-			20145	Dec 10		US - TO			400 1400		7 4 1 4	THT.
Demand Inform	mation				EI	3	-	V	VB		NI	В		SB	
Approach Move	ement			L	T	F	L	_	TR	L		_	L	T	R
Demand (v), v	_			30	55			_	30 34	_			_		_
	Tall a	Cally Services			90		100					100	MATERIA		
Signal Informa	_				2		2	7	6						
Cycle, s	90.0	Reference Phase	2					R.	STZ			_	<b>4</b>	1	517
Offset, s	0	Reference Point	End	Gree	n 3.4	3.8	10.	8 26	6.0 26	.0 0.0	)		<u> </u>		4
Uncoordinated	No	Simult. Gap E/W	On		w 4.0	4.0	4.0	4.				/	7		STA
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0.0	0.0	)	5	6	7	8
Timer Results	mer Results				BL	EBT	W	RI I	WBT	NE	21	NBT	C		ODT
	ssigned Phase					2	1	-	6	INI	DL	8	SE	DL	SBT
	ase Number				1	3.0	1.	_	3.0	-		9.0	-	-	4
	nase Duration, s				-	14.8	15	_	22.6	-	-	30.0	-	-	10.0
Change Period,	_	-\ c		7.4	_	4.0	4.	_	4.0	+-	-	4.0	+-		30.0
Max Allow Head				3.0	_	0.0	3.		0.0	-	-	3.0	+		4.0
Queue Clearan				3.5	_	0.0	11	_	0.0	+	-	28.0	-	-	2.9
Green Extensio	-	THE RESERVE OF THE PARTY OF THE		0.0	_	0.0		2	0.0	-	-	0.0	-		28.0
Phase Call Prob	_	(9 6), 3		0.0		0.0	1.0	_	0.0				+	-	0.0
Max Out Probat				0.00			0.1			-	_	1.00			1.00
				2	11/100						THE REAL PROPERTY.			1000	1.00
Movement Gro		ults			EB			WE	_		NB			SB	
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	THE RESERVE AND ADDRESS OF THE PARTY OF THE	CONTRACTOR OF THE PARTY OF THE		33	61	58	212	67	38	70	959	237	32	1020	
THE RESERVE AND ADDRESS OF THE PARTY OF THE		w Rate ( $s$ ), veh/h/lr	1	1753	1841	-	_	-	_	1781	1870	1607	1781	1865	
Queue Service		Name and Address of the Owner, where the Owner, which is the Owner, whi		1.5	2.7	3.0	9.1	2.7	_	2.6	26.0	11.1	1.2	26.0	
Cycle Queue Cl		e Time $(g_c)$ , s		1.5	2.7	3.0	9.1	2.7	1.7	2.6	26.0	11.1	1.2	26.0	
Green Ratio ( g/				0.16	0.12	_	-	0.21	_	0.29	0.29	0.29	0.29	0.29	
Capacity (c), v	-	4:- ( V)	_	304	221	192	417	381		515	540	464	515	539	
Volume-to-Capa				0.110	0.277	_		-	_	0.136	-	0.510	0.063	1.893	
back of Queue (	( Q ), IUI	In (50 th percentile)		15.4	34.9	32.9	92.9	31.7	17.3	26.4	1631.	99.9	11.9	1827.6	
Back of Queue (	(Q), ve	h/ln (50 th percentile	e)	0.6	1.4	1.3	3.6	1.2	0.7	1.0	64.2	4.0	0.5	72.0	
Queue Storage	Ratio (	RQ) (50 th percenti	le)	0.05	0.12	0.11	0.31	0.11	0.06	0.13	8.16	0.51	0.04	6.09	
Uniform Delay (	d1), s/	veh		32.5	36.0	36.2	27.7	29.4	29.0	23.7	32.0	26.7	23.2	32.0	
Incremental Dela	ay ( d 2	), s/veh		0.1	3.1	4.0	0.4	1.0	0.7	0.0	356.1	0.4	0.0	408.6	
Initial Queue De	lay (d 3	), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	_	h		32.6	39.1	40.2	28.0	30.4	29.7	23.7	388.1	27.1	23.2	440.6	
Level of Service				С	D	D	С	С	С	С	F	С	С	F	
Approach Delay				38.1		D	28.	7	С	300.	4	F	427.	9	F
ntersection Dela	ay, s/vel	h/LOS				30	03.3						F		
Multime adal D	Gilla Carl	(Indiana)		-		1 1	A STATE	VA/E	Land 1	Marin B	PALO		TI S	A.Sa	
Multimodal Res		1.00		0.5	EB	P	0.0	WB	P	0.5	NB			SB	
			_	2.5 0.7	_	В	2.3	_	В	2.5	_	В	2.4		В
Dicycle LUS SC	estrian LOS Score / LOS cle LOS Score / LOS					Α	1.0		Α	2.6		С	2.2		В

		7 Sig	ynaliz	ed l	nte	rsec	ction	Res	sulf	ts Su	ımma	ry					
		-W- M-								THE WHAT IS NOT THE						- 3.6	C. C. C.
General Infor	mation									lr.	nterse	ction Ir	ıforma	tion		1474	
Agency		KHR Associates									Duration	n, h	0.25	5	2	*	
Analyst				Analy	ysis Da	ate	8/1/2	:016		A	Area Ty	ре	Oth	er	4		
Jurisdiction		Torrance California		Time	Perio	d		PHF				0.90	)	<b>4</b> →	W.	+	
Urban Street		Rolling Hills Road		Analy	ysis Ye	ear	2016			A	nalysis	s Period	d 1> 7	7:30	7		
Intersection		Palos Verdes Dr No	orth	File N	Name		14-R	olling H	ills-P	VD	VD Amb PM.xus					5.1	7
Project Descrip	otion															1114	7147
Demand Infor	mation		- Water	The state of the s	EI	B				WB	- all	-	NE	2		SB	
Approach Mov				L	T	-	R	L	T	T	R	L	T	-	L	T	R
Demand (v),	-		-	22	48	-	80	_	7	57	26	_	_	_	_	693	_
Bernana ( v );	CHITT				4		00	037		31	20	34	04	0 223	) 3	093	1
Signal Informa	ation			The same of the sa			6		R.	Щ							100
Cycle, s	90.0	Reference Phase	2	7	2	6	6	7-3	£	EA	OT.		18	_	4	1	4
Offset, s	0	Reference Point	End		0.7	_	0.0	3	-	7				11 11	Y	3	
Uncoordinated	No	Simult. Gap E/W	On		n 2.7 w 4.0		9.3	6.0 4.0		26.0 I.0	26.0 4.0			7	4		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0		0.0	0.0			5	6	7	Y
Times Day 1	imer Results					Total Control		1.0			AFT				V 100		polices.
200000000000000000000000000000000000000	ssigned Phase				3L	_	ВТ	WB	3L		WBT	NB	iL	NBT	SE	3L	SBT
THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	ase Number					2		1		_	6	-		8		_	4
					1	3.		1.1	_	-	3.0		_	9.0			10.0
	nase Duration, s				7	10	-	20.0	-	_	23.3	_	_	30.0	-	$\rightarrow$	30.0
Change Period				4.0	_	4.	_	4.0	-	_	4.0		_	4.0			4.0
Max Allow Hea	-			3.0	_	0.	0	3.0	-	(	0.0	_	_	3.0	-		2.9
Queue Clearan	-	The second secon		3.1	_			18.0						28.0			28.0
Green Extension	-	( g e ), s		0.0	_	0.0		0.0	-	(	0.0		_	0.0			0.0
Phase Call Pro				0.46				1.00	_					1.00			1.00
Max Out Proba	bility	191705 6	No.	0.00	0	E.E.	E S	1.00	)			Children or the Control of the Contr	A	1.00	-	Cyman Company	1.00
Movement Gro	up Res	ults			EB				W	/B			NB			SB	
Approach Move	ement			L	T		R	L	T	T	R	L	T	R	L	T	R
Assigned Move	ment			5	2		12	1	6		16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		24	53		89	730	63	3	29	38	940	250	6	782	
Adjusted Satura	ation Flo	w Rate (s), veh/h/ln	1	1753	1841	1 1	586	1753	184	41	1603	1781	1870	1607	1781	1865	
Queue Service	Time ( g	7 s ), S		1.1	2.5		5.0	16.0	2.5	5	1.3	1.4	26.0	11.8	0.2	26.0	
Cycle Queue C	learance	e Time ( g c ), s		1.1	2.5		5.0	16.0	2.5	5	1.3	1.4	26.0	11.8	0.2	26.0	
Green Ratio ( g	/C)			0.10	0.07	0	0.07	0.27	0.2	1	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity ( c ), v	-			221	123	_	106	443	39	_	343	515	540	464	515	539	
Volume-to-Capa	-	tio (X)		0.110	0.435	_	.841	1.647	0.16	_	0.084	0.073	1.740	0.538	0.011	1.452	
		In (50 th percentile)		12.3	37.5	_	34.8	1000.	29.	$\rightarrow$	13	14	1572.	107.4	2	1085.1	
Back of Queue	(Q), ve	eh/In ( 50 th percentile	e)	0.5	1.5	+	3.4	7 38.8	1.1	1	0.5	0.6	61.9	4.3	0.1	42.7	
		RQ) (50 th percentil		0.04	0.12	-	).29	3.34	0.1	-	0.04	0.07	7.86	0.55	0.01	3.62	
Uniform Delay (	-		,	37.2	40.4	-	11.5	33.5	28.	-	28.3	23.2	32.0	26.9	22.8	32.0	
Incremental Del				0.1	10.8	_	2.0	301.1	0.9	_	0.5	0.0	340.5	0.7	0.0	213.5	
Initial Queue De	elay (da	), s/veh		0.0	0.0	C	0.0	0.0	0.0	)	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	d), s/ve	h		37.3	51.2	9	3.6	334.6	29.	7	28.8	23.3	372.5	27.6	22.8	245.5	
Level of Service	(LOS)			D	D	T	F	F	С	_	С	С	F	С	С	F	
Approach Delay		LOS		71.8	3	E		300.4	4		F	291.	5	F	244.		F
ntersection Del	-						269	9.3							F		
Multimodal Bar	eulte.	The state of the s			EB		411		WE	R			NID	25		000	
Multimodal Results				2.5		В	_	-	_	_			NB			SB	
Dadactrian I OC	destrian LOS Score / LOS cycle LOS Score / LOS						pa.	2.3		,	В	2.5		В	2.4		В

AMB

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.:

KHR Associates

Date Performed:

11/15/17

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient AM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

\_Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound Southbound R L T R L T L T 10 0 175 0 140 357 96 Volume 10 1134 283

% Thrus Left Lane

	Eastbound		West	bound	Northb	ound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration			L	R	TR		L	T	
PHF			1.00	1.00	1.00		1.00	1.00	
Flow Rate			75	140	453		134	283	
% Heavy Veh			0	0	0		0	0	
No. Lanes			2	2	1		2	2	
Opposing-Lanes			(	)	2		10		
Conflicting-lanes			2	2	2		2	2	
Geometry group				1	3	b		5	
Duration, T 1.00	hrs.								

Worksheet 3 - Saturation Headway Adjustment Worksheet

Eastbound	West	bound	North	bound	South	bound
L1 L2	L1	L2	L1	L2	L1	L2
Flow Rates:						
Total in Lane	75	140	453		134	283
Left-Turn	75	0	0		134	0
Right-Turn	0	140	96		0	0
Prop. Left-Turns	1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns	0.0	1.0	0.2		0.0	0.0
Prop. Heavy Vehicle	0.0	0.0	0.0		0.0	0.0
Geometry Group		1	14	3b		5
Adjustments Exhibit 17-33:						
hLT-adj		0.2		0.2		0.5

hRT-adj		0.6	-0.6	-	-0.7
hHV-adj		1.7	1.7		1.7
hadj, computed	0.2	-0.6	-0.1	0.5	0.0

Worksheet	4	-	Departure	Headway	and	Service	Time	

	East	oound	Westh	ound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			75	140	453		134	283
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.07	0.12	0.40		0.12	0.25
hd, final value			6.21	5.40	5.31		6.13	5.63
x, final value			0.129	0.210	0.669		0.228	0.442
Move-up time, m			2	.0	2	2.0	2	. 3
Service Time			4.2	3.4	3.3		3.8	3.3

## \_Worksheet 5 - Capacity and Level of Service\_\_

	East	oound	Westh	oound	Northbound	South	nound
	L1	L2	L1	L2	L1 L2	L1	L2
Flow Rate					453	134	283
Service Time			4.2	3.4	3.3	3.8	3.3
Utilization, x			0.129	0.210	0.669	0.228	0.442
Dep. headway, hd			6.21	5.40	5.31	6.13	5.63
Capacity			577	667	676	583	643
95% Queue Length			0.4	0.8	5.8	0.9	2.3
Delay			10.1	9.8	18.9	10.6	12.8
LOS			В	A	C	В	В
Approach:							
Delay			9	. 9	18.9	1	2.1
LOS		P		C	В		
Intersection Delay 14.5		Inte	rsection	n LOS B			

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.:

KHR Associates

Date Performed:

11/15/17

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient PM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound Westbound | Northbound Southbound R | L T R L T R | L T 10 Volume 0 161 337 61 310 10 47 190 337 0 % Thrus Left Lane

	Eastb	Eastbound		bound	Northb	ound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	T
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			61	61	357		90	337
% Heavy Veh			0	0	0		200	33/
No. Lanes				2	1		0	>
Opposing-Lanes			(	)	2		1	Ĩ
Conflicting-lanes			2	2	2		5	
Geometry group			3	Ú	3	b	5	
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet\_

	Eastb	ound	West	bound	North	bound	South	bound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rates:									
Total in Lane			61	61	357		90	337	
Left-Turn			61	0	0		90	0	
Right-Turn			0	61	47		0	0	
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0	
Prop. Right-Turns			0.0	1.0	0.1		0.0	0.0	
Prop. Heavy Vehicle	е		0.0	0.0	0.0		0.0	0.0	
Geometry Group Adjustments Exhibit	t 17-33	:		1	3	3b		5	
hLT-adj				0.2	(	0.2		0.5	

hRT-adj -0.6 -0.6 -0.7 hHV-adj 1.7 1.7 hadj, computed 0.2 -0.6 -0.1 0.5 0.0

Worksheet	4	_	Denarture	Headway	and	Service	Time
MOTYPHEEL	4	_	Departure	neadway	allu	SELVICE	TIME

	East	bound	Westh	ound	North	bound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate			61	61	357		90	337	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial			0.05	0.05	0.32		0.08	0.30	
hd, final value			5.93	5.12	5.06		5.69	5.18	
x, final value			0.100	0.087	0.502		0.142	0.485	
Move-up time, m			2	. 0	2	2.0	2	2.3	
Service Time			3.9	3.1	3.1		3.4	2.9	

### \_\_Worksheet 5 - Capacity and Level of Service\_\_\_

Easth	oound	Westh	ound	Northbound	South	oound
L1	L2	L1	L2	L1 L2	L1	L2
Flow Rate		61	61	357	90	337
Service Time		3.9	3.1	3.1	3.4	2.9
Utilization, x		0.100	0.087	0.502	0.142	0.485
Dep. headway, hd		5.93	5.12	5.06	5.69	5.18
Capacity		610	678	714	643	688
95% Queue Length		0.3	0.3	3.0	0.5	2.8
Delay		9.6	8.6	13.1	9.3	12.7
LOS		A	A	В	A	В
Approach:						
Delay		9	.1	13.1	1	2.0
LOS		A		В	E	3
Intersection Delay 12.1		Inte	rsection	n LOS B		

July

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient AM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	astbou	ind	W	estbou	ind	No	orthbo	und	I Se	outhb	ound	1
	L	T	R	L	T	R	L	T	R	L	Т	R	ĺ
Volume	179	142	77	142	186	144	-   72	179	19	61	94	34	-

Westbound Eastbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 Configuration LTR LTR LTR L TR PHF 1.00 1.00 1.00 1.00 1.00 Flow Rate 298 372 270 61 128 % Heavy Veh 0 0 0 0 0 No. Lanes 1 1 1 Opposing-Lanes 2 1 1 1 Conflicting-lanes 2 1 1 Geometry group 2 4a Duration, T 1.00 hrs.

Worksheet	3 -	Saturation	Headway	Adjustment	Worksheet
-----------	-----	------------	---------	------------	-----------

	Eastb	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	298		372		270		61	128
Left-Turn	79		42		72		61	0
Right-Turn	77		144		19		0	0 34
Prop. Left-Turns	0.3		0.1		0.3		1.0	0.0
Prop. Right-Turns	0.3		0.4		0.1		0.0	0.3
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	0.0
Geometry Group	2			2		4a		5
Adjustments Exhibi	t 17-33	:						
hLT-adj		. 2		0.2	(	0.2		0.5

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.1	-0.2	0.0	0.5 -0.2

F. 7								E Trans	
work	sneet	4	-	Departure	Headway	and	Service	Time	

	East	oound	West	bound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	298		372		270		61	128
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.26		0.33		0.24		0.05	0.11
hd, final value	6.10		5.85		6.53		7.66	6.96
x, final value	0.505		0.605		0.490		0.130	0.248
Move-up time, m	2	2.0	2	2.0		2.0	2	. 3
Service Time	4.1		3.9		4.5		5.4	4.7

\_\_Worksheet 5 - Capacity and Level of Service\_\_

	East	bound	West	bound	North:	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	298		372		270		61	128
Service Time	4.1		3.9		4.5		5.4	4.7
Utilization, x	0.505		0.605		0.490		0.130	0.248
Dep. headway, hd	6.10		5.85		6.53		7.66	6.96
Capacity	596		620		551		469	512
95% Queue Length	3.0		4.4		2.8		0.4	1.0
Delay	15.3		17.7		15.8		11.5	11.9
LOS	C		C		C		В	В
Approach:								
Delay	- 3	15.3		17.7		15.8	1	1.8
LOS	(		(	3	(	3	В	
Intersection Delay	15.6		Inte	ersectio	on LOS C			

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Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 4:00 - 5:00 P.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient PM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	stbo	and	1 W	estbo	und	No	orthbo	und	I S	outhbo	und	- 1
	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	140	73	10	137	70	211	$-\frac{1}{10}$	148	15	164	165	53	

Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 LTR Configuration LTR LTR L TR PHF 1.00 1.00 1.00 1.00 1.00 Flow Rate 123 318 173 64 218 % Heavy Veh 0 0 No. Lanes 1 1 1 Opposing-Lanes 2 1 1 1 Conflicting-lanes 2 1 1 Geometry group 2 4a 5 Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	East	oound	West	oound	North	oound	South	bound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rates:									
Total in Lane	123		318		173		64	218	
Left-Turn	40		37		10		64	0	
Right-Turn	10		211		15		0	53	
Prop. Left-Turns	0.3		0.1		0.1		1.0	0.0	
Prop. Right-Turns	0.1		0.7		0.1		0.0	0.2	
Prop. Heavy Vehicl	e0.0		0.0		0.0		0.0	0.0	
Geometry Group	2	2	2	2		1a		5	
Adjustments Exhibi	t 17-33	3:							
hLT-adj	(	).2	(	0.2	(	0.2		0.5	

16

hRT-adj -0.6 -0.6 -0.6 -0.7 hHV-adj 1.7 1.7 1.7 1.7 hadj, computed 0.0 -0.4 -0.0 0.5 -0.2

\_Worksheet 4 - Departure Headway and Service Time\_\_\_\_\_

	East	oound	West	bound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	123		318		173		64	218
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.28		0.15		0.06	0.19
hd, final value	5.72		5.01		5.65		6.47	5.79
x, final value	0.195		0.443		0.272		0.115	0.351
Move-up time, m	2	2.0	2	2.0	2	2.0	2	. 3
Service Time	3.7		3.0		3.7		4.2	3.5

\_\_Worksheet 5 - Capacity and Level of Service\_\_\_\_\_

Eastl	oound	West	bound	North:	bound	Southk	ound	
L1	L2	L1	L2	L1	L2	L1	L2	
123		318		173		64	218	
3.7		3.0		3.7		4.2		
0.195		0.443		0.272				
5.72		5.01		5.65		6.47	2010 - 712	
615		723		641		582		
0.7		2.4		1.1		0.4		
10.1		12.0		10.8		10.0+		
В		В		В		В		
							7	
1	0.1	1	12.0	1	10.8	1	1.2	
E	3	F	3	I	3			
y 11.3		Inte	ersectio	n LOS B		-		
	L1  123 3.7 0.195 5.72 615 0.7 10.1 B	123 3.7 0.195 5.72 615 0.7 10.1 B	L1 L2 L1  123 318 3.7 3.0 0.195 0.443 5.72 5.01 615 723 0.7 2.4 10.1 12.0 B  10.1 B	L1 L2 L1 L2  123 318 3.7 3.0 0.195 0.443 5.72 5.01 615 723 0.7 2.4 10.1 12.0 B  10.1 12.0 B	L1 L2 L1 L2 L1  123 318 173 3.7 3.0 3.7 0.195 0.443 0.272 5.72 5.01 5.65 615 723 641 0.7 2.4 1.1 10.1 12.0 10.8 B B B	L1     L2     L1     L2     L1     L2       123     318     173       3.7     3.0     3.7       0.195     0.443     0.272       5.72     5.01     5.65       615     723     641       0.7     2.4     1.1       10.1     12.0     10.8       B     B     B	L1       L2       L1       L2       L1       L2       L1         123       318       173       64         3.7       3.0       3.7       4.2         0.195       0.443       0.272       0.115         5.72       5.01       5.65       6.47         615       723       641       582         0.7       2.4       1.1       0.4         10.1       12.0       10.8       10.0+         B       B       B       B	L1       L2       L1       L2       L1       L2       L1       L2         123       318       173       64       218         3.7       3.0       3.7       4.2       3.5         0.195       0.443       0.272       0.115       0.351         5.72       5.01       5.65       6.47       5.79         615       723       641       582       623         0.7       2.4       1.1       0.4       1.6         10.1       12.0       10.8       10.0+       11.6         B       B       B       B       B       B

AMB

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient AM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

\_Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound Westbound | Northbound | Southbound L T R L T R 1 L T R L T R 13 1106 79 115 103 114 9 14 112 3 % Thrus Left Lane

Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 Configuration LT R LT R LT R LT PHF 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Flow Rate 185 5 118 103 23 14 15 41 % Heavy Veh 0 0 0 0 0 0 No. Lanes 2 2 2 Opposing-Lanes 2 2 2 2 Conflicting-lanes 2 2 2 2 Geometry group 5 5 Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	185	5	118	103	23	14	15	41
Left-Turn	106	0	3	0	14	0	12	0
Right-Turn	0	5	0	103	0	14	0	41
Prop. Left-Turns	0.6	0.0	0.0	0.0	0.6	0.0	0.8	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl	.e0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

.

hRT-adj		0.7		0.7		0.7		.7
hHV-adj		1.7		1.7		1.7		. 7
hadj, computed	0.3	-0.7	0.0	-0.7	0.3	-0.7	0.4	-0.7
Wor	ksheet	4 - Dep	arture H	leadway .	and Serv	vice Tim	e	
	Eastk	oound	Westk	oound	Northk	oound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	185	5	118	103	23	14	15	41
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.16	0.00	0.10	0.09	0.02	0.01	0.01	0.04
hd, final value	5.20	4.21	4.91	4.20	5.81	4.81	5.89	4.79
x, final value	0.267	0.006	0.161	0.120	0.037	0.019	0.025	0.055
Move-up time, m	2	2.3	2	.3	2	2.3	2	.3
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5
Wor		5 - Capa		d Level	of Serv		Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	185	5	118	103	23	14	15	41
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5
Utilization, x	0.267	0.006	0.161	0.120	0.037	0.019	0.025	0.055
Dep. headway, hd		4.21	4.91	4.20	5.81	4.81	5.89	4.79
Capacity	685	500	738	858	575	700	750	820
95% Queue Length		0.0		0.4	0.1	0.1	0.1	0.2
Delay	9.8	6.9	8.6	7.5	8.7	7.6	8.7	7.8
Delay								

A

8.1

A

A

Intersection LOS A

Intersection Delay 8.7

A A

9.7

A

LOS

Approach:

Delay

LOS

A

8.3

A

A

A

8.0

A

A

AMB

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Ambient PM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

\_Worksheet 2 - Volume Adjustments and Site Characteristics\_

	l Ea	astbou	ind	We	estbou	ind	1 No	orthbo	ound	I S	outhb	ound
	1 L	T	R	L	T	R	L	T	R	L	T	R
Volume	154	118	12	15	145	15	116	18	2	138	16	153

% Thrus Left Lane

	East	oound	West	bound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	172	12	150	15	34	2	54	153
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes	2	2		2		2	2	2
Opposing-Lanes	2	2		2	2	2	2	2
Conflicting-lanes	2	2	2	2	2	2	2	2
Geometry group	ŗ	5		5	1	5	5	5
Duration, T 1.00	hrs.							

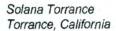
\_Worksheet 3 - Saturation Headway Adjustment Worksheet

nbound
L2
153
0
153
0.0
1.0
0.0
5
0.5

hRT-adj hHV-adj		0.7 1.7		0.7 1.7		0.7		0.7
hadj, computed				-0.7		1.7	0.4	1.7
naaj, compacea	0.2	0.7	0.0	-0.7	0.2	-0.7	0.4	-0.7
Wos	rksheet	4 - Dep	arture	Headway	and Ser	vice Tim	ie	
		oound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	172		150	15	34	2	54	153
hd, initial value				3.20		3.20	3.20	3.20
x, initial	0.15	0.01	0.13	0.01	0.03	0.00	0.05	0.14
hd, final value	5.43	4.57	5.31	4.60	5.86	4 92	5 79	4.74
x, final value	0.259	0.015	0.221	0.019	0.055	0.003	0.087	0.201
Move-up time, m	2	2.3	2	2.3	2	2.3	2	2.3
	3.1	2.3	3.0			2.6		2.4
wor				nd Level	of Serv	rice	·	
wor	Easth	ound	Westk	oound	Northb	ound	Southb	oound
wor							Southb	oound L2
Flow Rate	Easth	oound L2	Westk	oound	Northb	ound		L2
Flow Rate Service Time	Easth L1 172 3.1	12 2.3	Westk L1	bound L2	Northb L1	bound L2	L1	L2 153
Flow Rate Service Time Utilization, x	Easth L1 172 3.1 0.259	12 2.3	Westk L1 150	oound L2	Northb L1 34 3.6	2 2.6	L1 54	L2 153 2.4
Flow Rate Service Time Utilization, x Dep. headway, hd	Easth L1 172 3.1 0.259 5.43	12 2.3	Westk L1 150 3.0	15 2.3	Northb L1 34 3.6 0.055	2 2.6	L1 54 3.5	L2 153
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity	Eastk L1 172 3.1 0.259 5.43 662	12 2.3 0.015 4.57 600	Westk L1 150 3.0 0.221	15 2.3 0.019 4.60	Northb L1 34 3.6 0.055	2 2.6 0.003	L1 54 3.5 0.087	L2 153 2.4 0.201
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length	Eastk L1 172 3.1 0.259 5.43 662 1.0	12 2.3 0.015 4.57 600 0.0	Westk L1 150 3.0 0.221 5.31 682 0.9	15 2.3 0.019 4.60 750 0.1	Northb L1 34 3.6 0.055 5.86 567	2 2.6 0.003 4.92	L1 54 3.5 0.087 5.79 600	L2 153 2.4 0.201 4.74 765
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay	Eastk L1 172 3.1 0.259 5.43 662 1.0	12 2.3 0.015 4.57	Westk L1 150 3.0 0.221 5.31 682 0.9	15 2.3 0.019 4.60 750 0.1	Northb L1 34 3.6 0.055 5.86 567	2 2.6 0.003 4.92 0	L1 54 3.5 0.087 5.79 600	L2 153 2.4 0.201 4.74 765
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS	Eastk L1 172 3.1 0.259 5.43 662 1.0	12 2.3 0.015 4.57 600 0.0	Westk L1 150 3.0 0.221 5.31 682 0.9	15 2.3 0.019 4.60 750 0.1	Northb L1 34 3.6 0.055 5.86 567 0.2	2 2.6 0.003 4.92 0	L1 54 3.5 0.087 5.79 600 0.3	L2 153 2.4 0.201 4.74 765 0.8
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach:	Easth L1 172 3.1 0.259 5.43 662 1.0 10.0+ B	12 2.3 0.015 4.57 600 0.0 7.3 A	Westk L1 150 3.0 0.221 5.31 682 0.9 9.5	15 2.3 0.019 4.60 750 0.1 7.4	Northk L1 34 3.6 0.055 5.86 567 0.2 8.9	2 2.6 0.003 4.92 0 0.0 7.6	L1 54 3.5 0.087 5.79 600 0.3 9.0	L2 153 2.4 0.201 4.74 765 0.8 8.6
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach: Delay	Easth L1 172 3.1 0.259 5.43 662 1.0 10.0+ B	12 2.3 0.015 4.57 600 0.0 7.3	Westk L1 150 3.0 0.221 5.31 682 0.9 9.5 A	15 2.3 0.019 4.60 750 0.1 7.4	Northk L1 34 3.6 0.055 5.86 567 0.2 8.9 A	2 2.6 0.003 4.92 0 0.0 7.6	L1 54 3.5 0.087 5.79 600 0.3 9.0 A	L2 153 2.4 0.201 4.74 765 0.8 8.6
Flow Rate Service Time Utilization, x Dep. headway, hd Capacity 95% Queue Length Delay LOS Approach:	Eastk L1 172 3.1 0.259 5.43 662 1.0 10.0+ B	12 2.3 0.015 4.57 600 0.0 7.3 A	Westk L1 150 3.0 0.221 5.31 682 0.9 9.5 A	15 2.3 0.019 4.60 750 0.1 7.4 A	Northk L1 34 3.6 0.055 5.86 567 0.2 8.9 A	2 2.6 0.003 4.92 0 0.0 7.6 A	L1 54 3.5 0.087 5.79 600 0.3 9.0 A	L2 153 2.4 0.201 4.74 765 0.8 8.6 A

		HCS	7 Sig	gnaliz	ed I	nters	sec	ction	Res	sul	ts Su	mma	ry	15 77 73	1012			
General Infor	mation	No. of the second	100	-				-11,0	1.14		Intorco	ction Ir	forma	tion	di Gri	JANA	TEU	
	mation	KHR Associates					_			-		-	-	-				
Agency		KHR Associates		Anali	inia D	-4-  0/	14.10	010		-	Duratio	_	0.25	-	4			
Analyst Jurisdiction		Torrance California		-	Perio	ate 8/	1/2	016		_	Area Type Other PHF 0.90						<u></u>	
Urban Street				_		_	240			$\rightarrow$	_	D .	0.90		<u>=</u>	3 W 1	-	
		Pacific Coast High	vay	-	Analysis Year 2016 Analysis Period 1> 7:30  File Name 18-PCH-Calle Mayor Amb AM.xus													
Intersection		Calle Mayor		File	vame	18	3-P(	CH-Call	е Ма	ayo	r Amb A	M.xus			_	ጎ ተ		
Project Descrip	otion			25		-					-	-				1414	7 1 7	
Demand Infor	mation				E	В				WB			NE	3		SB	400	
Approach Mov	ement			L	T	-	R	L	T	Т	R	L	Т	R	L	T	R	
Demand (v), v	-			120	21	_	170	96		234	_	148	3 80	_	_	_	_	
god of															R.M.	1075		
Signal Informa	ation				2	2	7		-	1		s 21	in let			Harry Control	1	
Cycle, s	90.0	Reference Phase	2				3	<b>  (4)</b>	ķ	5		75	17	_	4	1	517	
Offset, s	0	Reference Point	End	Green	n 5.6	1.	1	25.4	7	7.1	1.2	33.			-		3	
Uncoordinated	No	Simult. Gap E/W	On		v 4.0	0.		4.0		1.0	0.0	4.0		/	<b>→</b>		SÎZ	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.	0	0.0	C	0.0	0.0	0.0		6	6	7	8	
AND THE REAL PROPERTY.								14.00						Secon				
Timer Results				EB		EBT		WB	BL_		WBT	NB	_	NBT	SE		SBT	
Assigned Phase			5	_	2	_	1			6	3	_	8	7		4		
Case Number				1.1		4.0		1.1	_		4.0	1.1	_	3.0	1.1	-	3.0	
Phase Duration, s						30.4	_	9.6		29.4		11.	_	37.8	12.	_	38.9	
Change Period				4.0	_	4.0		4.0			4.0	4.0	_	4.0	4.0		4.0	
Max Allow Hea				3.0	_	0.0		3.0	_		0.0	3.0	_	3.0	3.0		3.0	
Queue Clearan		THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW		6.8	_			5.8	-			7.0	_	35.7	8.		36.9	
Green Extension		( g e ), s		0.1	_	0.0	_	0.1	_	_	0.0	0.2	_	0.0	0.2	_	0.0	
Phase Call Pro				0.9	_			0.93	_			0.9		1.00	0.9	_	1.00	
Max Out Proba	bility	Section 1	-	0.0	0			0.00	)		-	0.0	0	1.00	0.0	1	1.00	
Movement Gro	up Res	ults			EB				V	/B		The same of	NB	-		SB		
Approach Move				L	Т	R		L	T	_	R	L	T	R	L	T	R	
Assigned Move	_			5	2	12	-	1	6	_	16	3	8	18	7	4	14	
Adjusted Flow F	-	), veh/h		133	223	-	-	107	23	_	209	164	893	37	200	1067	339	
	_	w Rate (s), veh/h/lr	1	1753	184	-	_	1753	184	-	1587	1781	1870	1609	1781	1870	1583	
Queue Service	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			4.8	8.8	_	-	3.8	9.	-	9.8	5.0	33.7	1.3	6.1	34.9	15.0	
Cycle Queue C				4.8	8.8	9.3	$\overline{}$	3.8	9.	_	9.8	5.0	33.7	1.3	6.1	34.9	15.0	
Green Ratio ( g		(3 - ), -		0.36	0.29	_	_	0.34	0.2		0.28	0.45	0.38	0.38	0.47	0.39	0.39	
Capacity (c), v	_			372	541	_	_	349	51	-	448	220	701	603	243	726	614	
Volume-to-Capa	_	tio (X)		0.359	0.412	_	-	0.305	0.4	-	0.467	0.748	1.274	0.061	0.822	1.470	0.552	
		In (50 th percentile)		47.2	101.3	_	-	38	10	_	97.4	49.3	1007.	11.4	60.7	-	131.3	
Back of Queue	(Q). ve	h/ln ( 50 th percentile	e)	1.8	3.9	3.6	6	1.5	4.:	2	3.9	1.9	39.7	0.5	2.4	58.0	5.2	
	-	RQ) (50 th percenti	_	0.16	0.34	_	$\overline{}$	0.13	0.3	_	0.33	0.25	5.04	0.06	0.20	4.91	0.44	
Uniform Delay (	-			20.8	25.5	_	-	21.3	26	-	26.7	21.1	28.1	18.0	20.8	27.5	21.5	
Incremental Del	lay ( d 2	), s/veh		0.2	2.3	2.9	9	0.2	2.8	8	3.5	1.9	134.2	0.0	2.9	219.0	0.6	
Initial Queue De	elay (da	), s/veh		0.0	0.0	0.0	0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	d), s/ve	h		21.0	27.8	28.	7	21.4	29.	.3	30.2	23.1	162.3	18.0	23.6	246.5	22.1	
Level of Service	(LOS)			С	С	С		С	С		С	С	F	В	С	F	С	
Approach Delay	, s/veh /	LOS		26.5	5	С		28.1			С	136.	5	F	171.	4	F	
Intersection Del	ay, s/vel	h/LOS					119	9.6							F			
Multimodel De	Willes				ED			1000	101	D	Marie 1		ND		-			
<b>Multimodal Re</b> Pedestrian LOS	-	1108		2.4	EB	В		2.4	W	0	В	2.0	NB	0	0.0	SB		
Bicycle LOS Sc				0.9	$\rightarrow$	A		0.9	-	-	_	2.8		С	2.8	-	С	
PICACIG FOS 20	ole / LO	J		0.9		A		0.9			Α	2.3		В	3.1		C	

	нся	7 Sig	gnaliz	ed In	terse	ction	Res	ults S	umma	ry				
Consult				3/1/-	- 12/4	a The state of	W .							1741
General Information								-	ection I		-			1 11 1
Agency	KHR Associates		1		-			Durati		0.2	-			
Analyst			-	ysis Da		2016		Area T	уре	Oth		A		
Jurisdiction	Torrance California									0.90	)	₩ ₩	w E	<b>+</b>
Urban Street	Pacific Coast High	way	Analy	sis Ye	ar 2016	3		Analys	is Period	d 1>7	7:30	7		
Intersection	Calle Mayor		File N	Name	18-P	CH-Cal	le Ma	yor Amb	PM.xus				5 f	
Project Description										-			1414	THE
Demand Information			-	EB			1	NB	-1500	NI	2		SB	
Approach Movement			L	T	R	L		T F	L	_	-		T	ID
Demand (v), veh/h			120	236	_	_	, 1	44 13	_		_		_	R
Bernand (V), Venin		1000	120	230	230	31		44 13	19	4 103	50   50	173	959	86
Signal Information				T	T		R.	6						
Cycle, s 90.0	Reference Phase	2	1	1	Z = 3	7	200	5		17	_	4	1	4
Offset, s 0	Reference Point	End		10	10	3			111 1		7	<b>Y</b> 2	3	4
Uncoordinated No	Simult. Gap E/W	On	Greer Yellov		0.0	25.4 4.0	4 8					4		
Force Mode Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.				5	6	7	Y
	SONDER						- 30	3.518					1 770	- (M)
Timer Results			EB	L	EBT	WE	3L	WBT	NE	3L	NBT	SE	3L	SBT
Assigned Phase			5		2	1		6	3		8	7		4
Case Number			1.1		4.0	1.1	1	4.0	1.	1	3.0	1.	1	3.0
Phase Duration, s					31.2	8.8	3	29.4	12.	8	37.9	12.		37.2
Change Period, (Y+Rc	), s		4.0 4.0		4.0	4.0		4.0	4.0	_	4.0	4.0		4.0
Max Allow Headway ( M	The same of the sa		3.0		0.0	3.0	_	0.0	3.0	_	2.9	3.0	_	2.9
Queue Clearance Time			6.8	_	0.0	4.2	_	0.0	8.6	_			_	35.2
Green Extension Time (			0.1	_	0.0	0.1		0.0	0.2		0.0	0.2		0.0
Phase Call Probability	9 0 ), 3		0.96	_	0.0	0.7	_	0.0	1.0	_	1.00	0.9		
Max Out Probability			0.00			0.0			0.0	_	1.00			1.00
Wax Out 1 Tobability			0.00		Maria	0.0		100	0.0		1.00	0.0	U	1.00
Movement Group Resu	ults			EB			W	В	7	NB			SB	
Approach Movement			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Movement			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate ( v )	veh/h		133	262	256	63	160	-	216	1167	56	194	1066	96
Adjusted Saturation Flow		1	1753	1841	1555	1753	184		_	1870	1609	1781	1870	1582
Queue Service Time ( g	Name and Address of the Owner, where the Owner, which is the Owner,		4.8	10.4	12.3	2.2	6.2		6.6	33.9	2.0	6.0	33.2	3.7
Cycle Queue Clearance			4.8	10.4	12.3	2.2	6.2		6.6	33.9	2.0	6.0	33.2	3.7
Green Ratio (g/C)	Time ( g c ), c		0.36	0.30	0.30	0.33	0.2		0.47	0.38	0.38	0.46	0.37	
Capacity (c), veh/h			425	557	471	298	519	_	254	704	605	241	-	0.37
Volume-to-Capacity Rati	io ( X )		0.314	0.470	0.543	0.213	0.30			1.658	0.092		690	583
Back of Queue (Q), ft/lr			47.1	120.7	120.6	22.4	70.	_	71.2	1846.	17.4	0.808	1.545	0.164
back of Queue ( Q ), Itili	i ( 50 til percentile)		47.1	120.7	120.0	22.4	70.	00.8	71.2	1	17.4	59.2	1568.4	31.8
Back of Queue (Q), veh	n/ln (50 th percentile	e)	1.8	4.7	4.8	0.9	2.7	2.7	2.8	72.7	0.7	2.3	61.7	1.3
Queue Storage Ratio ( F	The state of the s		0.16	0.40	0.42	0.07	0.24	_	0.36	9.23	0.09	0.20	5.23	0.11
Uniform Delay ( d 1 ), s/v			20.5	25.5	26.2	21.6	25.4		20.7	28.1	18.1	20.9	28.4	19.1
Incremental Delay ( d 2 ), s/veh			0.2	2.8	4.4	0.1	1.5		5.8	302.3	0.0	2.5	252.6	0.0
Initial Queue Delay ( d 3 ), s/veh		0.0	0.0	0.0	0.0	0.0	_	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh			20.7	28.3	30.6	21.7	26.9	_	26.5	330.3	18.2	23.4	281.0	19.1
Level of Service (LOS)			C	C	C	C	C	C	C	F	В	C	F	B
Approach Delay, s/veh /	LOS		27.7	_	С	26.4		C	272.		F	225.		F
Intersection Delay, s/veh						0.1			212.			F 220.	<u> </u>	
Swall Late Manager	CIVIL STATE OF THE				10	A SEC	. YEL			555 4	DF = 11			
Multimodal Results				EB			WE			NB			SB	
Pedestrian LOS Score /	LOS		2.4		В	2.4	T	В	2.8	_	С	2.8		С
Bicycle LOS Score / LOS	2		1.0		Α	0.8	_	Α	2.9	_	С	2.7		C



2019 Ambient Growth Plus Project Conditions Highway Capacity Method

	A 100 K	HCS 2	010 \$	Signal	ized	Inters	ectio	n Re	esults	Summ	ary		F - 17	165000	100000
General Inforn	nation		-575-	A STATE OF THE PARTY OF THE PAR	- 101-	And the said		- 3-5	Interse	ction In	format	ion		月桂基基	
Agency	iduoii	KHR Associates							Duratio		0.25			1111	LL
Analyst		TH II Y IOCCOIDEC		Analy	sis Dat	e 8/1/2	016		Area Ty		- 3-		L		
Jurisdiction		Torrance California		-	Period	0/1/2	.010		PHF	pc	Othe 0.95		włe		
Urban Street		Pacific Coast Highw		111111		r 2016			_	s Period	_		_==		7
Intersection		Hawthorne Bouleva		_	Analysis Year   2016   Analysis Period   1> 7:30   File Name   1-PCH-Hawthorne Proj AM.xus									**	
Project Descrip	tion	Trawthorne bodieve	ai u	1 lie iv	arric	11-1-0	i i-i iawi	1101116	T TOJ AW	.Aus	-		-		
1 Toject Descrip	tion .	OCCUPATION OF	18.37	75.41	2150	(F) (F)	2331	3 56	1000	P. 11/2	15	100	-	Brat .	
Demand Inform	nation				EB			V	VB		NE	3		SB	
Approach Move	ement			L	T	R	L	1	T R	L	T	R	L	T	R
Demand (v), v	eh/h			270	104	1 270	147	7 10	70 24	297	138	2 62	185	748	308
					West.			303		196.68	WES			19 10	
Signal Informa					2	2		=	5	2					1
Cycle, s	120.0	Reference Phase	2	-	-	R	==		5 0	38	17	_	V	1.	*
Offset, s	0	Reference Point	End	Green	7.6	0.7	49.7	8.			1		K		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.	0 4.0	4.0		/	-	1	t
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0.0	0.0		5	Ġ.	7	8
Timer Results		4435		EBI		EBT	WE	3L	WBT	NB		NBT	SB	L. PAGE	SBT
Assigned Phase	9			5		2	1		6	3		8	7	_	4
Case Number				2.0		3.0	2.0	)	3.0	2.0	1	3.0	2.0	-	3.0
Phase Duration	S					58.4	-	11.6		16.9	-	37.1	12.		33.1
Change Period,	-	c). s		4.0 4.0		_	-	11.6 53.7 4.0 4.0		4.0	_	4.0	4.0	_	4.0
Max Allow Head		The second secon		3.0	_	0.0	3.0	-	0.0	3.0	3.0		3.0		3.0
Queue Clearand		ACCRECATE THE PARTY OF THE PART		12.1	_	0.0	7.5	_	0.0	12.7	_	35.1			25.6
Green Extension	-	and the second second second second		0.2	_	0.0	0.2	-	0.0	0.2	-	0.0			2.5
Phase Call Prob	mention and a second	(3-71-		1.00	_		0.9	-		1.00	_	1.00	1.00	_	1.00
Max Out Probab				0.39			0.0	0		0.75	5	1.00	0.0	_	0.95
made grate	SID 9			213	E LEWI		1	1983	3 3 3 7		1 2		1		- 201
Movement Gro	up Res	ults			EB			WE	3		NB			SB	
Approach Move	-			L	Т	R	L	Т	R	L	T	R	L	Т	R
Assigned Mover	AND DESCRIPTION OF THE PERSON			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		284	1096	284	155	1126	3 259	313	1455	65	195	787	324
Adjusted Satura	tion Flo	ow Rate ( $s$ ), veh/h/lr	n	1673	1643	1531	-	164	and the later later later	1723	1691	1577	1723	1691	1573
Queue Service				10.1	21.9	17.7	5.5	23.4	-	10.7	33.1	3.8	6.7	16.7	23.6
Cycle Queue Cl	Printers Street, Street, or other Designation of the Contract	e Time ( <i>g c</i> ), s		10.1	21.9	17.7	5.5	23.4	-	10.7	33.1	3.8	6.7	16.7	23.6
Green Ratio ( g/	-			0.10	0.45	0.45	0.06	0.41	-	0.11	0.28	0.28	0.07	0.24	0.24
Capacity ( c ), v				343	2234	694	213	204	-	371	1401	435	255	1229	381
Volume-to-Capa	Name and Address of the Owner, where			0.828	0.491	0.410	0.728	0.55	-	0.842	1.039	0.150	0.764	0.641	0.851
		In (50 th percentile)	- \	120.2	237.2	185.1	61.1	256	-	129.6	462	36.5	74.9	177.9	273.9
the second secon	A STATE OF THE PARTY OF THE PAR	eh/ln (50 th percentil	The second second	4.6	9.1	7.1	2.3	9.8	THE RESERVE OF THE PERSON.	5.0	17.8	1.4	2.9	6.8	10.5
Queue Storage Ratio ( RQ ) ( 50 th percentile)				0.40	0.79	0.62	0.20	0.85	-	0.63	2.26	0.18	0.24	0.58	0.89
Uniform Delay ( d 1 ), s/veh				54.8 7.6	0.8	1.8	1.8	1.1	31.4	52.5 9.4	43.4	32.8	54.5	40.8	43.4
Incremental Delay ( d 2 ), s/veh Initial Queue Delay ( d 3 ), s/veh				-	0.0	0.0	0.0	0.0	_	-	34.7	0.1	1.8	0.9	15.9
Control Delay (	-	and the second		0.0 62.5	31.3	30.9	58.2	35.0	The state of the local division in which the local division in the	0.0 61.9	0.0 78.2	0.0 32.9	0.0 56.3	0.0	0.0
Level of Service		711		62.5 E	C C	C	56.2 E	D	C 33.4	61.9 E	70.2 F	C C	56.3 E	41.7 D	59.3 E
Approach Delay		/1.0S		36.5	_	D	37.1	-	D	73.8	-	E	48.2	_	D
Intersection Delay	NAME OF TAXABLE PARTY.			50.0			9.8			7 0.0			D 40.2		-
		Colored to American			1		1839	15	100	W. 1952	15-7/18				- 17
Multimodal Res	sults		- 1		EB			WB			NB			SB	
Pedestrian LOS	Score	LOS		3.5		С	3.5		С	3.5		С	3.5		С
Bicycle LOS Sco	ore / LO	S		1.4		Α	1.3		Α	1.5		Α	1.2		Α

		HCS 2	010 \$	Signal	lized	Inter	sectio	n Re	sults	Sumn	nary				
			1000			108		3 77			THE R	33 3	1011	123	S. Des
General Inform	nation								Interse	ction Ir	format	tion		1414	
Agency		KHR Associates							Duratio	n, h	0.25	5		1111	1,1
Analyst				Analy	sis Da	te 8/1/2	2016		Area Type Other						
Jurisdiction		Torrance California		_	Period	_			PHF		0.90		w į	-	
Urban Street		Pacific Coast Highw	vay	Analy	nalysis Year 2016 Analysis Period 1> 5:00								7		5
Intersection		Hawthorne Bouleva		File N	-	_		thorne	Proj PM				-	5544	4.8
Project Descrip	tion										-			7114	717
Demand Infor	mation		-12		EB			W	/D		NIT.			0.0	100
Approach Move				L	T	R		7		-	NE		-	SB	_
	-				_	-	L 10	-		_	T	_	_	T	R
Demand (v), v	ven/m		10000	227	113	7 35	5 19	5 10	02   22	1 326	915	5 74	384	1 124	6 383
Signal Informa	ation			T	T			R.	5 21	121					
Cycle, s	120.0	Reference Phase	2	1	2		-	<b>+</b>	2 24	2 24	1.21			1	4
Offset, s	0	Reference Point	End		0.0		-3	,		-	17		A	3	
Uncoordinated	-	Simult. Gap E/W	On	Green		0.0	50.8	4.0				2	1		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
Times B.		Section 1		TIES!		-0.83						100			
Timer Results				EB		EBT	WE	_	WBT	NE	_	NBT	SE	-	SBT
Assigned Phase				5		2	1		6	3		8	7		4
Case Number				2.0	-	3.0	2.0	_	3.0	2.0	)	3.0	2.0	0	3.0
Phase Duration				15.2 5		56.1	13.	9	54.8	18.	6	30.0	20.	0	31.4
Change Period,	-	The second secon		The second second		4.0	4.0	0	4.0	4.0	)	4.0	4.0	0	4.0
Max Allow Head		Contract of the Contract of th		3.0		0.0	3.0	3.0 0.0		3.0	)	3.0	3.0	)	3.0
Queue Clearan	ce Time	(gs), s		10.9	9		9.7	7		14.	4	25.6	16.	7	29.4
Green Extensio	n Time	(ge), s		0.3		0.0	0.2	2	0.0	0.2	2	0.4	0.0	)	0.0
Phase Call Prob	pability			1.00			1.0	0		1.0	0	1.00		0	1.00
Max Out Probal	oility			0.11			0.0	2		1.0	0	1.00	1.0	0	1.00
Movement Gro	un Res	ulte			EB			WB			NB	19 11	PERMIS	SB	
Approach Move		uito		L	T	R	L	T	R	L	T	R	L	Т	T D
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	-	R
Adjusted Flow F	-	) voh/h		252	1263	394	217	1113		362		82	-	4	14
Contract of the last of the la	the state of the state of	ow Rate ( s ), veh/h/lr	,	1673	1643	1531	1673	1643	-		1017	-	427	1384	426
Queue Service			_	8.9	26.4	26.5		-	-		1691	1576	1723	1691	1572
Cycle Queue Cl		NAME AND ADDRESS OF THE OWNER, WHEN PERSON WAS ADDRESS.		8.9	26.4	26.5	7.7	22.9	-	12.4	23.6	5.2	14.7	27.4	27.4
Green Ratio ( $g_i$		e fille (gc), s		_	-	-	-	-	_	12.4	23.6	5.2	14.7	27.4	27.4
Capacity ( c ), v	-			0.09	0.43	0.43	0.08	0.42	-	0.12	0.22	0.22	0.13	0.23	0.23
Volume-to-Capa		tio ( X )		_		0.593		0.533	-	418	1099	342	459	1161	360
The second secon	-	In (50 th percentile)		0.809	0.590 287.8	282.4	0.784 85.8	249.7	-	0.867	0.925	0.241	0.929	1.193	1.183
	NAME AND ADDRESS OF THE OWNER, OR OTHER DESIGNATION OF THE OWNER, OR OTHER DESIGNATION OF THE OWNER,	eh/ln (50 th percentile)	9)	4.0	11.1	10.9	3.3	9.6	6.2	156.4	282.1	51.2	201.5	555.8	547.2
THE RESERVE OF THE PARTY OF THE	STREET, SQUARE, SQUARE	CONTRACTOR OF THE PARTY OF THE		0.34	0.96	0.94	0.29	0.83	0.54	6.0	10.8	2.0	7.8	21.4	21.0
Queue Storage Ratio ( RQ ) ( 50 th percentile)			10)	-	33.5	33.5	55.6	-	-	0.76	1.38	0.25	0.66	1.81	1.78
Uniform Delay ( d 1 ), s/veh		55.2 4.6	1.2	3.9	1.9	33.0	30.4	51.8	46.0	38.8	51.4	46.3	46.3		
Incremental Delay ( d 2 ), s/veh Initial Queue Delay ( d 3 ), s/veh		-	0.0	0.0		1.0	1.7	13.9	12.6	0.1	25.0	95.5	107.3		
	NAME OF TAXABLE PARTY.	THE RESERVE OF THE PARTY OF THE		0.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	AND DESCRIPTION OF THE PARTY OF	11		59.9	34.7	37.4	57.5	34.0	32.1	65.7	58.7	39.0	76.4	141.8	153.6
Level of Service	CONTRACTOR OF THE PARTY OF THE	11.00		E 20.6	С	D	E 26.0	C	C	E	E	D	E 404	F	F
Approach Delay ntersection Delay	-	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUM	-	38.6		D 7	36.9	9	D	59.3		Е	131.	0	F
mersection Del	ay, s/vel	117 LU3			- 1	-	1.4	8505		-	Sal St	NI TOTAL SE	E	4 6 6	THE REAL PROPERTY.
Multimodal Res	sults				EB			WB		-	NB	Self-	The state of the s	SB	0 191 6
Pedestrian LOS	-	LOS		3.5	T	С	3.5		С	3.5		С	3.5		С
Bicycle LOS Sco	and the second second			1.5		A	1.4	_	A	1.3		A	1.7	The same of the sa	A

Miles a Tibe		HCS 2	4	1313	3 1/3	1965	144		1 19 18	P (7)		r in	1 2		EK!	
General Inform	nation		1 100			the state of			Interse	ction In	formati	on		14141		
Agency	iation							_	Duration		0.25	-		111		
Analyst				Analys	is Date	e 8/4/20	116		Area Ty		r	- A				
Jurisdiction				Time F	_	0/4/20	710		PHF	pe	Othe 0.90		-	w+e		
Urban Street		Hawthorne Bouleva	ard	-	sis Year	r 2016				s Period	1> 7:	00				
			aru	File Na			vthorne		-		127.	00	-			
Intersection Project Descrip	tion	244th Street		File Na	anne	Z-nav	viriorne	-244011	r IUJ AIV	i.xus			_	111		
Project Descrip	uon		1900.	15 a 17 a	100	The said	2131-111	303	Di.	ILL C		77.31			13	
Demand Inform	nation				EB			WB	3		NB	)		SB		
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	T	T	
Demand (v), v	eh/h			0	24	4	0	58	52	4	1665	5	39	1076		
	103								2 - 41	9.						
Signal Informa	THE RESERVE OF THE PERSON NAMED IN				7 4							15			-	
Cycle, s	45.0	Reference Phase	2	-	F3 "	24							<b>♦</b>	3		
Offset, s	0	Reference Point	End	Green	21.0	16.0	0.0	0.0	0.0				5			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0				Y		K	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7		
Times Design	Spice S.			EDI	WEIGH.	EDT	IAID	2 19-1	MPT	NID	38131	NPT	SB	1	CD.	
Timer Results	2			EBL	-	EBT 2	WB	_	WBT 6	NB	_	NBT 8	28	_	SB1	
Assigned Phase	8					8.0			8.0			6.0			6.0	
Case Number					-	25.0	-	-	25.0	-		-	-	-	20.0	
Phase Duration		1 -		-	9.0		-	9.0	-	-	20.0					
Change Period	THE RESERVE TO SHARE				-		-	-	_	-	-		-	-	4.0	
Max Allow Head	Name and Address of the Owner, where				-	0.0		-	0.0	-		3.2	-	-	3.2	
Queue Clearan	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			-	-	0.0		-	0.0		-	0.0	-	-	18.0	
Green Extension	_	( g e ), s		-	-	0.0	-		0.0	-		1.00	-	_	1.00	
Phase Call Pro	the name of the local division in the local			-	-	-	-	-		-		1.00	-	-	_	
Max Out Proba	DIIITY	MIRES DIRECTOR	16,100			ET 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	15/6/40	U.S.	17.	-		1.00	STATE OF THE PARTY.	STEEL OF	1.00	
Movement Gro	up Res	ults			EB			WB			NB	Calculation (		SB		
Approach Move	_			L	Т	R	L	T	R	L	T	R	L	T	F	
Assigned Move	-			5	2	12	1	6	16	3	8		7	4		
Adjusted Flow F		), veh/h			0			0		4	1850		43	1196		
		ow Rate (s), veh/h/l	n		0			0		476	1691		253	1691		
Queue Service	-	Control of the Contro			0.0			0.0		0.4	16.0		0.0	8.9		
Cycle Queue C		THE RESIDENCE OF THE PARTY OF T			0.0			0.0		9.3	16.0		16.0	8.9		
Green Ratio ( g	Control of the last									0.36	0.36		0.36	0.36		
Capacity ( c ), v	NAME OF TAXABLE PARTY.									235	1804		160	1804		
Volume-to-Cap	-	tio (X)			0.000			0.000		0.019	1.025		0.271	0.663		
NAME OF TAXABLE PARTY.	NAME AND ADDRESS OF TAXABLE	In (50 th percentile)			0			0		0.9	231.9		10.5	67.3		
	-	eh/In (50 th percenti	-		0.0			0.0		0.0	9.3		0.4	2.7		
AND DESCRIPTION OF THE PERSON NAMED IN	NAME OF TAXABLE PARTY.	RQ) (50 th percent	-		0.00			0.00		0.01	1.18		0.11	0.34		
Uniform Delay	THE R. LEWIS CO., LANSING									16.1	14.5		22.5	12.2		
Incremental De	CONTRACTOR OF THE PERSONS NAMED IN				0.0			0.0		0.0	27.9		0.3	0.7		
Initial Queue De	_	and the second state of th			0.0			0.0		0.0	0.0		0.0	0.0		
Control Delay (	and the second	A SECTION AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN CO								16.2	42.4		22.8	13.0		
Level of Service	NAME OF TAXABLE PARTY.									В	F		С	В		
Approach Delay, s/veh / LOS			9.6		Α	10.8	3	В	42.4		D	13.3	3	В		
Approach Dela	Commence Springer					29	.8						C			
the same of the sa	Thorsession Boldy, Swott / Edd															
Intersection De			att. Park				1000	and the same	2000	Transport of the Park			-			
Intersection De  Multimodal Re	sults			3.2	EB	С	3.2	WB	С	2.1	NB	В	2.1	SB	В	

		HCS 2	010 S	ignal	ized l	nters	ectio	n Res	sults	Sumn	nary				
General Inform	nation		23/4/					Male	Intorco	ction In	format	ion	100	7424	UI. II.
	nation	1	_					_		-	0.25	-		111	Ļ
Agency				Analy	aia Date	0/4/20	146		Duratio		Othe	- 4			
Analyst		-			-	8/4/20	010	Area Type				-	*		
Jurisdiction		Haydhama Daylaya		-	Time Period         PHF         0.90           Analysis Year         2016         Analysis Period         1> 7:00								0 0	7	
Urban Street		Hawthorne Bouleva	ard			_	41			_	1> /	:00	-		
Intersection	Cala	244th Street		File N	ame	2-Haw	vtnorne	-244th	Proj Pi	ı.xus			_	ጎተተ	1
Project Descrip	tion			100		F 25 17		- 200		Che b	STATE OF	-65		1 4 1 4 7	DATE:
Demand Inform	nation				EB			WE	3		NB	acatemate.		SB	
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v	eh/h			0	60	22	0	58	52	31	129	7	75	1646	3
		4. Tales 11. 2. 12. 12. 12. 12. 12. 12. 12. 12.	40.78		- 35 - 1		1000		No. of the last						
Signal Informa	_	1		-	7 4	- Us									1
Cycle, s	45.0	Reference Phase	2	1	3 "	31				- 1		-	<b>♦</b>	3	4.
Offset, s	0	Reference Point	End	Green	21.0	16.0	0.0	0.0	0.0	0.0			K		
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0				7		V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7.	107
Timer Results	3			EBI		EBT	WE	21	WBT	NB		NBT	SB		SBT
Assigned Phase	2			LDI		2	VVL	,,,	6	IND	_	8	36		4
Case Number				_		8.0			8.0	-		6.0	+	-	6.0
Phase Duration	c			-		25.0		-	25.0	1	-	20.0	-		20.0
Change Period,	_	- \ 0		-		9.0	-	-	9.0		-	4.0	-	_	4.0
Max Allow Head	and the last of th			-	-	0.0		-	0.0		-	3.3	-	-	
THE RESERVE AND ADDRESS OF THE PARTY OF THE	STATE OF THE PARTY OF			-		0.0		-	0.0	-	-	-	+	_	3.3
Queue Clearan	-			-	-	0.0		-	0.0	-	-	18.0	1	-	18.0
Green Extensio	-	( g e ), S		-		0.0		-	0.0	-	+	0.0	-		0.0
Phase Call Prob	and the same of th			-	-			-			+	1.00	-		1.00
Max Out Probat	ollity		11/1/10		Williams.		10000	10000	7.5	No. of Concession, Name of Street, or other Persons, Name of Street, Name of S		1.00	1	NA WALL	1.00
Movement Gro	up Res	ults			EB			WB			NB			SB	
Approach Move	ment			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F		), veh/h			0			0		34	1441		83	1829	
CONTRACTOR OF THE PARTY OF THE		ow Rate (s), veh/h/li	n		0			0		259	1691		376	1691	
Queue Service	CONTRACTOR OF THE PARTY OF THE	the first terms of the second			0.0			0.0		0.0	11.5		4.5	16.0	
Cycle Queue CI	-	Manager of the second s			0.0			0.0		16.0	11.5		16.0	16.0	
Green Ratio ( g/	-	, ,								0.36	0.36		0.36	0.36	
Capacity ( c ), v	and the same of th									160	1804		198	1804	
Volume-to-Capa	annual male and the	tio (X)			0.000			0.000		0.215	-		0.422	1.014	
A REAL PROPERTY AND ADDRESS OF THE PARTY AND A	-	In (50 th percentile)			0			0		8.3	92.9		20.2	218.2	
The second secon	Name and Address of the Owner, where	eh/In (50 th percentil			0.0			0.0		0.3	3.7		0.8	8.7	
CONTRACTOR CONTRACTOR CONTRACTOR	Name and Address of the Owner, where	RQ) (50 th percent	Section 1988		0.00			0.00		0.08	0.47		0.20	1.11	
Uniform Delay (		and the second s	-							22.5	13.1		21.5	14.5	
Incremental Del	_				0.0			0.0		0.2	2.4		0.5	24.6	
Initial Queue De	NAME AND ADDRESS OF	Account the second			0.0			0.0		0.0	0.0		0.0	0.0	
Control Delay (	AND DESCRIPTION OF THE PERSON NAMED IN									22.7	15.5		22.0	39.1	
Level of Service	-									С	В		C	F	
Approach Delay	Name and Address of the Owner, where	/LOS		10.3		В	10.8	3	В	15.7		В	38.4		D
Intersection Del	and the contract of the contra					27.							C		
Carried Car	200		13 508	D. Fred	20			130	M-17		10.76	8 300			
Multimodal Res	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	/LOS		3.2		С	3.2		С	2.1		В	2.1		В
Bicycle LOS Sco	ore / LC	S		0.6		A	0.7		A	1.3		Α	1.5		Α

	1		17	1	A TOWN	The Party	ectio	1	212	111		127				
General Inform	nation			15					Interse	ction In		14九年				
Agency									Duration	n, h	0.25			11	4	
Analyst				Analy	sis Date	8/4/2	016	$\rightarrow$	Area Ty		Othe		A			
Jurisdiction				Time Period				PHF			0.97			w te		
Urban Street		Hawthorne Bouleva	ard							Period	1> 7	:00	7			
Intersection		Newton Street		File N	-	_	wthorne							511	+	
Project Descrip	tion			1		1-10								ጎጓ፣ቀን	100	
					The	ila i	5-15					200		Mary Co.	- Mich	
Demand Inform	-				EB	1 0	-	WE		-	NB	_		SB	-	
Approach Move	-			L	T	R	L	T	_	L 105	T	R	_	T		
Demand ( v ), v	en/h			22	77	84	89	114	4 106	105	166	8	37	104	-	
Signal Informa	tion		LINE SHA		5						TO.			3.0		
Cycle, s	47.7	Reference Phase	2	1	3 5		SI		T .				<b>◆</b>	1	1	
Offset, s	0	Reference Point	End			24	- 11			0.0		1	Y 2	3		
Uncoordinated	Yes	Simult. Gap E/W	On	Green Yellow	and the second second	4.0	0.0	4.0		0.0			<del>-</del>			
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7		
				- 200			1 14									
Timer Results					-	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT	
Assigned Phase						2		-	6	3	_	8	7		4	
Case Number					_	6.0			5.0	2.0	_	4.0	2.0		4.0	
Phase Duration					_	13.5		13.5		8.6	_	27.8	6.4	_	25.6	
Change Period,	PROPERTY AND ADDRESS OF THE PARTY AND ADDRESS	THE RESERVE OF THE PARTY OF THE				4.0			4.0	4.0		4.0	4.0	-	4.0	
Max Allow Head		AND DESCRIPTION OF THE PARTY OF			-	3.2	-	_	3.2 3.1		_	3.0	3.1	_	3.0	
Queue Clearand	-	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, which is th			_	6.0	-		9.4	4.7	_	14.2	3.0	-	13.3	
Green Extension	THE RESERVE OF THE PERSON NAMED IN	( g e ), s		_		0.5	-		0.1	0.1	_	8.1	0.0		8.3	
Phase Call Prob			_	-	-	1.00			1.00	0.76	-	1.00	0.40		1.00	
Max Out Probab	ollity		3			0.66	- Company		1.00	0.00		0.34	0.00		0.32	
Movement Gro	up Res	ults			EB			WB			NB	N. Yellow		SB	200000	
Approach Move	STREET, SQUARE,			L	Т	R	L	Т	R	L	T	R	L	T	F	
Assigned Mover	THE RESERVE OF THE PERSON NAMED IN			5	2	12	1	6	16	3	8		7	4		
Adjusted Flow F		), veh/h		23	166		92	118	109	108	1720		38	1073		
CONTRACTOR OF THE PARTY OF THE	-	w Rate (s), veh/h/li	n	1295	1737		1239	_	-	1810	-		1810	1773		
Queue Service	_			0.7	4.0		3.4	2.5	2.8	2.7	12.2		1.0	11.3		
Cycle Queue Cl				3.2	4.0		7.4	2.5	2.8	2.7	12.2		1.0	11.3	1	
Green Ratio ( g/	SALES AND ADDRESS OF THE PARTY	(3 - // -		0.20	0.20		0.20	0.20	0.20	0.10	0.50		0.05	0.45		
Capacity ( c ), v	_			341	346		293	378	320	174	2534		91	1609		
Volume-to-Capa	And in case of the last	tio (X)		0.067	0.480		0.313	0.311	-	0.623	0.678		0.421	0.667		
the second secon		In (50 th percentile)		4.8	35.4		21.8	24	22.5	27.2	77.8		10	80.4		
Back of Queue	(Q), ve	eh/In ( 50 th percentil	le)	0.2	1.4		0.9	1.0	0.9	1.1	3.1		0.4	3.2		
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.05	0.35		0.22	0.24	0.22	0.27	0.40		0.10	0.41		
Uniform Delay ( d 1 ), s/veh				17.7	16.9		20.2	16.3	16.4	20.7	9.0		22.0	10.2		
Incremental Delay ( d 2 ), s/veh				0.0	0.4		0.2	0.2	0.2	1.4	0.2		1.2	0.2		
nitial Queue Delay ( d ₃ ), s/veh				0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0		
Control Delay ( d ), s/veh				17.7	17.3		20.4	16.5	16.7	22.1	9.3		23.2	10.4		
evel of Service (LOS)				В	В	_	С	В	В	С	A		С	В		
Approach Delay	and the same of the same of	THE RESERVE OF THE PARTY OF THE		17.4		В	17.7		В	10.0		В	10.8	3	В	
ntersection Dela	ay, s/ve	h/LOS	10000			11	1.4	N 2 30				Contraction of the last	В			
Multimodal Res	ulte	A Company	- July		EB	1500	State C	WB	No. of Lot	No.	NB	1000	SB			
Pedestrian LOS	-	IIOS		2.9		С	3.2		С	2.4		В	2.2			
COESTIBLI LOS	2.9		A	1.0	_	A	1.5	_	A	1.4		В				

		HCS 2	010 5	Signal	lized	Inters	sectio	n Res	sults	Summ	ary	777	25 22 7		
General Inform	nation		JE . J	1 2 2 3	100	Part of		A STATE OF	Interse	ction In	format	ion	2,03	الما الما الما	111
Agency	lation	1						_	Duration		0.25			111	
Analyst				Analy	sis Dat	e 8/4/2	2016		Area Ty		Othe		- 2		
Jurisdiction				_	Period	0/4/2	2010	_	PHF	pc	0.97			wfe	K.
Urban Street		Hawthorne Bouleys	ard	-	sis Yea	r 2016	3		Analysis	Period	1> 7				¥
Intersection			aiu	File N		_	wthorne	-	-	_	11-1	.00	-		
Project Descrip	tion	Newton Street		T lie iv	anie	3-116	avvuioiiie	-INGWIC	ni rioj r	WI.AUS			- 1	7414	
Troject Bescrip	HAR		100		1	The said	1898 1	1	17/30	BEOLE			15 110	TO THE	TOTAL .
Demand Inform	nation				EB			WE	3		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	eh/h			16	53	111	1 212	2 56	97	113	129	5	50	1619	9
	formation  50.5 Reference Phase  0 Reference Point  nated Yes Simult. Gap E/W  ode Fixed Simult. Gap N/S  esults  Phase  mber  uration, s								16454	Wat L			TO THE	3-56	
Signal Informa		5.4			3 5	= 7		1						~	
Cycle, s			2	-	3	3	5		T				<b>♦</b> 2	3	*
Offset, s	-		End	Commission of the last of the	10.0	3.1	1.7	23.6		0.0	1	A SA	5		
Uncoordinated	reet Hawthorne Boulevard on Newton Street  Information  Movement  (v), veh/h  formation  50.5 Reference Phase  0 Reference Point  nated Yes Simult. Gap E/W  de Fixed Simult. Gap N/S  sults  Phase  nber  ration, s  reriod, (Y+Rc), s  y Headway (MAH), s  earance Time (gs), s  tension Time (ge), s  II Probability  Probability  At Group Results  Movement  Movement  Movement  Flow Rate (v), veh/h  Saturation Flow Rate (s), veh/h/In  ervice Time (gs), s  eue Clearance Time (gc), s  tio (g/C)	On	Yellov	-	4.0	0.0	4.0	0.0	0.0	- 1		Y	1	1	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		- 6	6	7	
Timer Results	1000			EB		EBT	WE	RI	WBT	NB		NBT	SB	RI I	SBT
Assigned Phase	9				-	2	1111	-	6	3		8	7		4
Case Number						6.0			5.0	2.0		4.0	2.0		4.0
	e Duration, s					14.0			14.0	8.8	-	29.4	7.	the same of the same of	27.6
_	e Duration, s nge Period, ( Y+R ▷), s					4.0			4.0	4.0		4.0	4.0	_	4.0
THE RESERVE AND ADDRESS OF THE PARTY OF THE	THE RESERVE TO SHARE				_	3.3			3.3	3.1		3.0	3.1		3.0
THE RESERVE THE PARTY OF THE PA						6.5	1		12.0	5.1		17.1	3.4	_	15.2
AND RESIDENCE OF THE PARTY OF T		Control of the Contro				0.5			0.0	0.1		7.8	0.1	_	8.5
Phase Call Prob		(3-7)-				1.00			1.00	0.80		1.00	0.5	-	1.00
Max Out Probat	magazine into misconomic magazine.					0.91			1.00	0.00		0.50	0.0	-	0.43
A STATE OF THE STA			9 - 58	R. I. F.	MILE	9	Mary 3	dis	- 100		1916 35	1314			
	and the same of	ults			EB			WB			NB			SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	Т	R
Assigned Move				5	2	12	1	6	16	3	8		7	4	
-	A Designation of the last of t	THE RESIDENCE OF THE PERSON NAMED IN		16	169		219	58	100	116	1335		52	1669	
THE RESERVE OF THE PARTY OF THE	month of the second		n	1367	1694		1235	1900	-	1810	1773		1810	-	-
Commence of the Association Commence of the Co				0.5	4.5		5.5	1.3	2.7	3.1	15.1		1.4	13.2	-
THE RESERVE AND ADDRESS OF THE PARTY OF		e Time ( g c ), s		1.8	4.5		10.0	1.3	2.7	3.1	15.1		1.4	13.2	-
Green Ratio ( g/	ER-THIRD CO.			0.20	0.20		0.20	0.20	0.20	0.10	0.50		0.06	0.47	
Capacity ( c ), v	meson consultation			379	336		277	376	319	173	1784		111	2377	
the same of the sa	THE RESERVE AND ADDRESS.	and the same of th		0.044	0.504		0.788	0.153	No. of Concession, Name of Street, or other Desires, Name of Street, Name of S	0.673	0.749		0.465	0.702	
and the second second second second second second		THE RESERVE OF THE PARTY OF THE		3.6	39.3		84.4	12.3	22.1	31.8	108.9		14.2	91.8	-
and the local division in the local division	THE RESIDENCE PROPERTY.	THE RESIDENCE OF THE PARTY OF T	_	0.1	1.6 0.39	-	0.84	0.5	0.9	1.3 0.32	4.4 0.55		0.6	3.7 0.47	-
	manufacture (bright print)		ile)	17.5	18.0	-	23.5	16.7	17.3	22.1	10.0		22.9	10.6	-
NAME AND ADDRESS OF TAXABLE PARTY.				0.0	0.5		12.9	0.1	0.2	1.7	1.0		1.1	0.3	
Initial Queue De	CONTRACTOR OF THE PARTY.	THE RESERVE OF THE PERSON NAMED IN		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
	-	Contract the second contract to the second		17.5	18.5		36.5	16.8	17.5	23.8	11.0		24.0	10.9	-
	-	,11		В	В		D	В	В	C	В		C	В	-
THE RESIDENCE OF THE PARTY OF T	and the latest designation of the latest des	/LOS		18.4	_	В	28.4	_	С	12.0		В	11.3	_	В
				10.		AND DESCRIPTION OF THE PERSON NAMED IN	3.7			12.0			В		
	Series N		1. (2)	The Wall		N. S.		3 (88)		1917	Pro Al	3.00		77912	10.4
Multimodal Res	Delay ( d ), s/veh Service (LOS) ch Delay, s/veh / LOS tion Delay, s/veh / LOS  odal Results tan LOS Score / LOS				EB			WB			NB			SB	
Pedestrian LOS	Score	LOS		3.2		С	2.9		С	2.4		В	2.2		В
Bicycle LOS Sco	ore / LC	S		0.8		Α	1.1		Α	1.7		Α	1.4		Α

		HCS 2	010 5	Signal	lized	Int	ters	ection	ı Re	esul	ts S	Sumn	nary				
									11-11				Time			1111	
General Inforn	nation					_				-			format		_	1474	
Agency		-		1						-	ation		0.25				A de
Analyst		-		-	sis Da	-	9/25/2	2018		_	а Тур	oe	Othe				
Jurisdiction				-	Period	-	2010			PHF			0.90	_		w+e	*
Urban Street		Hawthorne Bouleva	ard	_	sis Ye	_	2018			_	-	Period	-	:00			
Intersection		Via Valmonte		File N	lame		1-Hav	vthorne-	·Via \	/almo	nte l	Proj AM	l.xus		_	ጎተተ	1
Project Descrip	tion	ATTIES TO STATE OF THE STATE OF					384 Y	177 S. 10	1000	22000	200	SELECTION OF THE PERSON		Sell a Solid	-	1414	THE STATE OF THE S
Demand Inform	nation	NAME OF TAXABLE PARTY.	- And		EE	3		1000	V	VB		7	NE		and the same of	SB	
Approach Move	ement			L	T	T	R	L	-	T	R	L	T	R	L	T	R
Demand (v), v				0	29	-	72	0	+	1	1	46	_	_		1203	-
DAR HAVE SEE		A CANADA IN ST	100	-				OF S	136		(L. 19)	1 1 50 5	To Self.	200	100		
Signal Informa	tion				JI.		2 5	_							64.0		
Cycle, s	90.0	Reference Phase	2		R	-	₹è								Y		-
Offset, s	0	Reference Point	End	Green	1 55.8		21.9	0.3	0.	0	0.0	0.0			1 2	3	N N
Uncoordinated	No	Simult. Gap E/W	On	Yellov	The second second	_	4.0	4.0	0.		0.0	0.0	Contract of the last of the la		1		<b>→</b>
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	(	0.0	0.0	0.		0.0	0.0		5	6	7	
Timer Results	and the			EB		EB	)T	WBI		WE	O.T.	NID	SEE.	NDT	C		CDT
				ED	_	4	_	VVDI	-	8	-	NB	L	NBT	SE	L	SBT
Assigned Phase Case Number	nber uration, s Period, ( Y+R c), s			-	+		_	-	-	_	-	-	-	2	+	_	6
	Duration, s			-	-	10.			-	12.	-	-	-	5.0	-		6.0
Name and Address of the Owner, where the Owner, where	e Duration, s ge Period, ( Y+R c ), s			-	-	25.			+	4.3	-	-	-	59.8	-		59.8
THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.				-	-	4.0	-		-	4.0	-	-	-	4.0		-	4.0
THE RESERVE OF THE PARTY OF THE				-	-	3.	_	_	+	3.2	_	-	-	0.0	-	-	0.0
Queue Clearand	-			-	-	21.	_	-	+	2.1		-	-	0.0	-	-	
Green Extensio		( g e ), s		-	-	0.4	_	-	+	0.0	_	-	-	0.0	-	_	0.0
Phase Call Prob	and the same of the same of		-	-	-	1.0	_		+	0.0	_	-	-		-	-	
Max Out Probab	Jility		1255.00	0.0532	-	0.3	9	Turne all	-	0.0	U	No. of Concession, Name of Street, or other Persons, Name of Street, or ot	100 Sept.	1000	-		S3/1103/4
Movement Gro	up Res	sults			EB		NEW COLUMN		WE	3		-	NB	3220100	T	SB	
Approach Move	_			L	Т	T	R	L	Т		R	L	T	R	L	T	R
Assigned Move	the Real Property lies, the Park Street, Stree			7	4	-	14	3	8	_	18	5	2	12	1	6	16
Adjusted Flow F	and the latest and th	), veh/h		0	409	+		0		_	1	51	1779	41	3	1337	0
THE RESIDENCE OF THE PARTY OF T	_	ow Rate (s), veh/h/li	n	1810	1835			0		_	310	416	1725	1610	-	1900	0
Queue Service		THE RESIDENCE OF THE PARTY OF T	-	0.0	19.5	$\rightarrow$		0.0		_	).1	6.3	17.9	0.9	0.6	10.5	0.0
Cycle Queue CI		Particular Control Con		0.0	19.5	-		0.0		-	0.1	16.8	17.9	0.9	18.6	10.5	0.0
Green Ratio ( g/		· · · · · · · · · · · · · · · · · · ·		0.24	0.24			0.0		-	.00	0.62	0.62	0.62	0.62	0.62	0.0
Capacity ( c ), v	and the latest terminal termin			441	447	-				-	6	289	3207	998	194	3532	
Volume-to-Capa		tio (X)		0.000	0.915	_		0.000		_	190	0.177	0.555	0.041	0.017	0.378	0.000
AND REAL PROPERTY AND REAL PRO	the second second	In (50 th percentile)		0	261.5	-		0		_	0.8	16.3	149.7	7.3	1.2	95.7	0.000
and the last of th	THE RESERVE AND ADDRESS.	eh/In (50 th percentil	le)	0.0	10.5	-		0.0		-	0.0	0.7	6.0	0.3	0.0	3.8	0.0
the state of the s	or Real Property lies and the last	RQ) (50 th percenti	Marine Street	0.00	0.00			0.00		-	.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (			,	0.0	33.1	-				-	4.7	12.7	9.9	6.7	15.3	8.5	5.00
Incremental Del	_			0.0	17.3	-		0.0		_	5.7	1.3	0.7	0.1	0.2	0.3	0.0
Initial Queue De	_			0.0	0.0			0.0		-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	the state of the s			0.0	50.4					$\rightarrow$	0.4	14.0	10.6	6.8	15.5	8.8	
Level of Service	THE RESERVE OF THE PERSON NAMED IN				D	T				1	D	В	В	Α	В	Α	
Approach Delay	The Real Property lies, the Parket of the Pa	/LOS		50.4		D		49.6		D		10.6	_	В	8.8	_	A
Intersection Del	and the same of the same of	and the second s					14	.5							В		
		The State of the	The St		70		TE	KAII		1		(B. 18	-03 15		2000	Neithern Control	51 7
Multimodal Res					EB				WE				NB			SB	
Pedestrian LOS	_	and the last term of th		3.4	-	С	-	3.3		C		2.2	-	В	2.7	-	В
Bicycle LOS Sco	ore / LC	S		1.2		Α		0.5		Α		1.5		Α	1.2		Α

DE STOR	87F	HCS 2				500										1000	WE 3/2
General Inform	nation								inge of	Inter	sec	tion In	format	ion		بالمالية ل	
Agency										Dura	_		0.25	_	-	411	,
Analyst				Analy	sis Dat	e 9/2	25/20	18		Area	_		Othe		- A		
Jurisdiction				_	Period					PHF	. ) [		0.90		<b>=</b>	wļe	
Urban Street		Hawthorne Bouleva	rd		sis Yea	r 20	18			-	/sis	Period	_		4		
Intersection		Via Valmonte		File N		_		orne-	Via \	-	_	Proj PM	THE RESERVE TO A PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	.00	7	RAL	
Project Descrip	tion			1		1	10111			· aiiiii		10,111				1114	THY
		West and the			. (	TO BE	BALE		-	100					39		my si
Demand Inform					EB	-			_	VB	_	-	NE	_		SB	-
Approach Move	-			L	T	-	R	L	-	T	R	L	Т	R	_	T	R
Demand (v), v	en/n	TO PARELL - PAREL	I De Sales	0	185	(	64	0	Towns.	16	20	64	121	6 18	16	1973	3 0
Signal Informa	tion				JI.		R		T .					LE COS II			History
Cycle, s	90.0	Reference Phase	2	1		-3	=								V		
Offset, s	0	Reference Point	End		71		-	0.0	-				- 30	1	2	3	Z
Uncoordinated	No	Simult. Gap E/W	On	Green	_	15		3.8 4.0	0.		0.0	0.0	-		人		4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0		0.0	0.		0.0	0.0		5	6	7	
			3.5	MA	100	9184			17	373		W.		133			TOWN.
Timer Results				EB	L	EBT	-	WBL	-	WBT		NB	L	NBT	SB	L	SBT
Assigned Phase	9			-		4	-	_	+	8	_			2	-	_	6
Case Number				_	-	10.0	-		+	12.0			-	5.0	-		6.0
	se Duration, s nge Period, ( Y+R c ), s				_	19.7	-		-	7.8	_		_	62.5	-		62.5
STREET, STREET				-	-	4.0	-		-	4.0	_		-	4.0	-		4.0
CONTRACTOR OF THE PARTY OF THE	low Headway ( MAH ), s Clearance Time ( g s ), s			-	-	3.1	-		+	3.2	_		-	0.0	-	-	0.0
THE RESIDENCE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER, AND	THE RESERVE AND ADDRESS OF THE PERSON.			-	-	15.3	-		-	3.2	-				-	-	
Green Extensio		( g e ), s		-	-	0.4	+		+	0.1	_		-	0.0	-	_	0.0
Phase Call Prob	-			-	-	1.00	-		+	0.63	-		-		-	-	
Max Out Probab	ollity	No. of the last of				0.00		10: 10	CONTRACT OF THE PARTY.	0.00			NAME OF TAXABLE PARTY.			Name of Street	
Movement Gro	up Res	ults			EB				VVE	3			NB		1	SB	No.
Approach Move	ment			L	Т	R		L	Т	R		L	Т	R	L	T	R
Assigned Mover	ment			7	4	14		3	8	18	3	5	2	12	1	6	16
Adjusted Flow F	Rate ( v	), veh/h		0	277			0		22	2	71	1351	20	18	2192	0
Adjusted Satura	tion Flo	w Rate (s), veh/h/lr	1	1810	1816			0		161	10	181	1725	1610	410	1900	0
Queue Service	Time ( g	7 s ), S		0.0	13.3		(	0.0		1.2	2	33.2	11.1	0.4	1.9	19.7	0.0
Cycle Queue Cl	earance	e Time ( g c ), s		0.0	13.3		(	0.0		1.2	2	52.9	11.1	0.4	13.1	19.7	0.0
Green Ratio ( g/	(C)			0.17	0.17					0.0	4	0.65	0.65	0.65	0.65	0.65	
Capacity ( c ), ve	eh/h			316	317					68	3	158	3363	1046	296	3704	
Volume-to-Capa	city Ra	tio (X)		0.000	0.872		0.	.000		0.32	27	0.450	0.402	0.019	0.060	0.592	0.000
Back of Queue (	(Q), ft/	In (50 th percentile)		0	153.2			0		12.	2	42.5	89.1	3.1	4.9	174	0
Back of Queue (	(Q), ve	eh/In ( 50 th percentile	e)	0.0	6.1		(	0.0		0.5	5	1.7	3.6	0.1	0.2	7.0	0.0
THE RESIDENCE OF THE PARTY OF THE PARTY.	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	RQ) (50 th percenti	le)	0.00	0.00		0	.00		0.0	0	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (	No. of Concession, Name of Street, or other Designation, Name of Street, or other Designation, Name of Street,	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON		0.0	36.2					41.		24.0	7.5	5.6	10.6	9.0	
Incremental Dela		ACCUSED OF THE PARTY OF THE PAR		0.0	4.7		-	0.0		1.0	-	9.0	0.4	0.0	0.4	0.7	0.0
Initial Queue De		the second second second second		0.0	0.0		(	0.0		0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (		eh		0.0	40.8					42.	-	33.0	7.8	5.6	11.0	9.7	
Level of Service					D	_	-	10	-	D	1	С	Α	Α	В	Α	
Approach Delay	-			40.8		D	10.0	42.6		D	-	9.0		Α	9.7		Α
Intersection Dela	ay, s/ve	n / LOS				1 36	12.0	100	-66	-		450	3 3 3		В		2 9 6 8
Multimodal Res	ction Delay, s/veh / LOS				EB	5,35		1.5.5	WB			W. TOP	NB	1. 5.	State of State of	SB	134
	odal Results ian LOS Score / LOS			3.4		С	1	3.3	T	С	+	2.2	140	В	2.7	J	В
redesilian LUS							- 1			_	- 11			-			

		HCS 2	010 8	Signal	ized l	Inters	sectio	n Res	sul <b>t</b> s :	Sumn	nary				
Ganaral Info	nation		A. E.		A PART	To be	Part III		Interse	otion I-	formati	VEN E	12 h	才有此本。	MAIN.
	nation	1						-	-			ion	-		
Agency		-		1.		101110	2010	_	Duration		0.25				
Analyst	_			-	sis Date	8/4/2	2016		Area Ty	pe	Othe	er	A		
Jurisdiction				-	Period	2016		-	PHF		0.92	00	_ <del>*</del>	wie	
Urban Street	eet Hawthorne Bouleva  Information  Movement  O Reference Phase  O Reference Point  Interest Simult. Gap E/W  Interest Simult. Gap N/S  Interest Sim	ard		sis Yea	_			Analysis		_	:00				
Intersection	Information  Infor		File N	ame	5-Ha	wthorne	-Rolling	g Hills P	roj AM.	KUS			5 † †	1	
Project Descrip	tion		10000		ALTON		er cres	20.525		3 99		N. Harris	NAME OF TAXABLE PARTY.	11141	TAY.
Demand Inform	Information  Itreet Hawthorne Boulevation Rolling Hills Road Description  Information Info	183		EB			WE	3		NB		T	SB		
Approach Move	Information  Infor		L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), v	Information  Infor		0	2	0	88	1	435	-	136	-	287	-	_	
The sales	ENE	TERRITOR IN	3.5				STYNN.		Wit I	1000	NE SE			TO TO	THE SEL
Signal Informa	tion				- 5	1	a Us	RJ					THE PERSON		RES
Cycle, s	60.0	Reference Phase	2		<b>H</b>	3			T				<b>4</b>		1
Offset, s	0	Reference Point	End	Green	11.1	0.0	7.6	29.4	4 0.0	0.0				1	4
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0		0.0			<del>-</del>	1	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	the same of the sa	0.0		5	6	7	8
	200		4					200					VEC.	4-1-1	
Timer Results				EBI	-	EBT	WB	SL	WBT	NB		NBT	SB		SBT
Assigned Phase	Phase  The ration, s  The reriod, (Y+Rc), s  The reriod, (MAH), s  The reriod (gs), s				2	-	_	6	3		8	7		4	
Case Number						8.0			5.0	2.0	-	4.0	2.0	-	4.0
Phase Duration	-					15.1			15.1	0.0		33.4	11.	_	44.9
THE RESERVE AND ADDRESS OF THE PARTY AND	THE RESERVE TO THE PERSON NAMED IN	CONTRACTOR OF THE PARTY OF THE				4.0			4.0	4.0	-	4.0	4.0	-	4.0
the last term of the la						0.0			0.0	0.0	-	3.0	3.1		3.0
PRINCIPLE OF THE PRINCI	I Phase mber uration, s Period, ( Y+R c), s W Headway ( MAH ), s learance Time ( g s ), s ktension Time ( g e ), s all Probability Probability  nt Group Results Movement										24.0	7.1		8.5	
THE RESERVE AND ADDRESS OF THE PARTY OF THE	BOOK OF THE PARTY	(ge), s				0.0			0.0	0.0		5.4	0.5	5	8.4
Phase Call Prob	ability											1.00	0.9	9	1.00
Max Out Probab	oility											0.43	0.0	1	0.02
Mayamant Con	un Dan	MENANT RELIA			EB	-24	1000	WB		Party.	NB	1/11/12		CD	
The Part of the Control of the Contr		uits		-		D	-	_	T p	-	_	D	-	SB	I 5
THE RESERVE OF THE PARTY OF THE				L	T	R	L	T 6	16	L	T	R	L	T	R
		\ah/h		5	2	12	1			3	8		7	4	-
PARTY NAMED IN COLUMN 2 IN COL	the same of the sa	A SECURITY OF SHARE SHAR			0		96	1	473	0	1480		312	907	-
A STATE OF THE OWNER,			n		0	-	1437	1900	The Real Property lies, the Parket of the Pa	1810	1773		1757	1773	
	and the last of th				0.0		3.5	0.0	11.1	0.0	22.0		5.1	6.5	-
	and the same of th	e Time ( g c ), s			0.0		3.5	0.0	11.1	0.0	22.0		5.1	6.5	
and the same of th							0.18	0.18	0.31	2	0.49		0.13	0.68	-
The second secon	-	tin ( )()			0.000		384	350	500	3	1735		444	2420	
THE RESIDENCE OF THE PARTY OF T					0.000	_	0.249	0.003	0.945	0.000	0.853		0.703	0.375	
NAME AND ADDRESS OF THE OWNER, WHEN PERSON AND ADDRESS OF THE PERSON A	and the latest designation of the latest des		-		0.0		1.2	0.0	9.6	0.0	7.6		50.2	33.7 1.3	
THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON NAME	CONTRACTOR OF THE PARTY OF THE	CONTRACTOR	-		0.00		0.77	0.01	4.79	0.00	0.96	-	0.25	0.17	
THE RESIDENCE OF THE PARTY OF T	-		iic)		0.00		21.4	20.0	20.2	0.0	13.4	-	25.1	4.1	-
the same of the sa	_				0.0		1.6	0.0	28.7	0.0	2.9		0.8	0.0	
THE RESERVE AND ADDRESS OF THE PARTY OF THE	THE RESERVE OF THE PERSON NAMED IN				0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
The second secon	and the latest designation of the latest des	CONTRACTOR OF THE PARTY OF THE			5.5		23.0	20.0	48.8	0.0	16.3		25.9	4.1	
NAME AND ADDRESS OF THE OWNER, WHEN PERSON AND PARTY OF THE OWNER,	d Phase umber Duration, s Period, ( Y+R c ), s Dw Headway ( MAH ), s Clearance Time ( g s ), s Extension Time ( g e ), s Call Probability It Probability  ent Group Results Ith Movement Id Flow Rate ( v ), veh/h Id Saturation Flow Rate ( s ), veh/h/ Gervice Time ( g s ), s Leue Clearance Time ( g c ), s Latio ( g/C )  y ( c ), veh/h Ito-Capacity Ratio ( X ) Queue ( Q ), ft/ln ( 50 th percent Storage Ratio ( RQ ) ( 50 th percent Clearance Time ( g c ), s/veh Leue Delay ( d 1 ), s/veh Delay ( d 1 ), s/veh Delay ( d 1 ), s/veh Service (LOS) Ith Delay, s/veh / LOS					C	В	D	5.5	В		C	Α. Ι		
the first of the same of the s		/LOS		20.0		С	44.4	-	D	16.3		В	9.7	_	Α
CONTRACTOR OF THE PARTY OF THE	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, which	CONTRACTOR OF THE PARTY OF THE					8.7					-	B		
	ch Movement d ( v ), veh/h  formation  60.0 Reference Phase 0 Reference Point linated No Simult. Gap E/W ode Fixed Simult. Gap N/S  esults d Phase Imber Formation, s Period, ( Y+R c ), s w Headway ( MAH ), s Clearance Time ( g s ), s xtension Time ( g e ), s full Probability Probability  ent Group Results h Movement d Movement I Flow Rate ( v ), veh/h I Saturation Flow Rate ( s ), veh/h/ Gervice Time ( g s ), s useue Clearance Time ( g c ), s atio ( g/C ) full ( c ), veh/h to-Capacity Ratio ( X ) Queue ( Q ), ft/ln ( 50 th percentile Queue ( Q ), veh/ln ( 50 th percentile Clause ( Q ), veh/ln ( 50 t			Medic	3.08					A ST	18.70	100	0138	3 France	1000
Multimodal Res	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	/ LOS		2.8		С	2.9		С	2.8		С	2.0		В
Bicycle LOS Sco	ore / LC	S		0.5		Α	1.4		Α	1.7		Α	1.5		Α

		HCS 2	010 5	Signal	ized I	nters	sectio	n Res	sults	Sumn	nary			- 1 m	
General Inform	nation		-	inch All		1			Interse	ction In	formati	ior	الماليونة	المالية ال	146
	nation	1						_			_		- 1		
Agency				Analy	sis Date	DIAID	016	$\overline{}$	Duration		0.25				
Analyst				-		8   8/4/2	2016	_	Area Ty PHF	pe	Othe 0.99	_		1	K.
Jurisdiction		Handhama Davida		_	Period	2040				D	_	-		0	-
Urban Street		Hawthorne Bouleva	ard		sis Year				Analysis			.00			
Intersection		Rolling Hills Road		File N	ame	5-На	wthorne	-Rolling	g HIIIS P	roj PM.	KUS		_	ጎ ተ	
Project Descrip	tion		19235		Day 1	2 1 1 2	Section 1					C-150		1 4 1 4 1	FF
Demand Inform	nation	Man Town			EB			WE	3		NB		10000	SB	- sulenta
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	R
Demand (v), v	-			0	3	1	88	3	339		104		440	-	
Bemana (V), V	CIVII		55	Name of Street			- 00		000	COLUMN TO SERVICE	104	2000.7	E-140	133	No. of Lot
Signal Informa	tion			T	R		2 16	R J			F				
Cycle, s	60.0	Reference Phase	2		3 2	7		1	T				4	1	1
Offset, s	0	Reference Point	End	Green	1/1/3	0.0	9.9	23.8	8 0.0	0.0			Y 2	1 4	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	0.0	0.0			<del>-</del>	(L	+
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
				TA THE						100					
Timer Results				EBI	L	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9					2			6	3		8	7		4
Case Number						8.0			5.0	2.0		4.0	2.0	)	4.0
Phase Duration						18.3			18.3	0.0	)	27.8	13.	9	41.7
Change Period,	ge Period, ( Y+R c ), s					4.0			4.0	4.0		4.0	4.0	)	4.0
Max Allow Head	e Period, ( Y+R c ), s llow Headway ( <i>MAH</i> ), s					0.0			0.0	0.0		3.0	3.1		3.0
Queue Clearand	ce Time	e (gs), s										17.3	9.2		15.7
Green Extensio	n Time	(ge), s				0.0			0.0	0.0		6.5	0.7		8.1
Phase Call Prob	pability											1.00	1.00	0	1.00
Max Out Probab	oility											0.26	0.0	7	0.05
EW. F		the transfer	1 1					1					Que de		3018
Movement Gro	_	ults			EB	_	-	WB		-	NB		-	SB	1 -
Approach Move	and the same of the same of			L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F					0		89	3	342	0	1052	-	444	1351	-
-	and the same of th	w Rate (s), veh/h/lr	n		0		1435	1900	-	1810	1773		1757	1773	
Queue Service					0.0		3.0	0.1	9.7	0.0	15.3	_	7.2	13.7	-
Cycle Queue CI	MARKET THE RESIDENCE OF THE	e Time ( <i>g c</i> ), s			0.0		3.1	0.1	9.7	0.0	15.3	_	7.2	13.7	-
Green Ratio ( g/				-			0.24	0.24	0.40		0.40		0.17	0.63	-
Capacity (c), v							460	453	651	3	1404	_	582	2227	
Volume-to-Capa	A TANAMAT OF THE PARTY OF	AND REAL PROPERTY OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSO			0.000		0.193	0.007	0.526	0.000			0.764	0.606	-
and the second second second	_	In (50 th percentile)			0		25.7	0.8	87.8	0	133.3		70.3	85.2	
CONTRACTOR DESCRIPTION OF THE PARTY OF THE P	ACCRECATE OF	eh/In (50 th percentil	*****		0.0		1.0	0.0	3.5	0.0	5.3		2.8	3.4	-
the second second second second	THE RESERVE OF THE PERSON NAMED IN	RQ) (50 th percenti	tile)		0.00		0.64	0.02	1.76	0.00	0.68		0.35	0.43	-
Uniform Delay (	_			-	0.0		18.6	17.4	13.5	0.0	15.6		23.9	6.7	_
Incremental Del				-	0.0		0.9	0.0	3.0	0.0	0.7		0.8	0.1	
Initial Queue De	the second second second	NAME OF REPORT OF THE PARTY OF			0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	-
Control Delay (	the state of the s	en					19.6	17.4	16.6	0.0	16.2		24.7	6.8	-
Level of Service		/1.00		47.5		D	B	В	В	100	В	-	C	Α	
Approach Delay	-	The second secon	_	17.5		В	17.2		В	16.2		В	11.2		В
Intersection Dela	ay, s/ve	n / LOS	# 195XS	05000	4/8 3/8	1;	3.6	1	(01/01/	-		0,1	В		
												and the same		0711	THE SE
Multimodal Bar	ulte			Name and Address of the Owner, where the Owner, which is the Owner, which is the Owner, where the Owner, which is the Owner	FR			M/R			ND			CD	
Multimodal Res	_	/1.08		2.8	EB	С	2.9	WB	С	2.8	NB	С	2.0	SB	В

		HCS 2	010 8	Signali	ized l	nters	ectio	n Re	sult	ts S	umn	nary		dia and		
General Inform	nation	The state of the s							Into	react	ion Ir	format	ion		مارية ار	TEU
	iation	1							-					_		
Agency				I A L -	:- D-4	101410	040		-	ation,		0.25				
Analyst					sis Date	8/4/2	016		-	Тур	e	Othe	_		4	
Jurisdiction		140.00		Time F		0040			PHF			0.88	_		*	•
Urban Street		Whiffletree Lane		-	sis Year	_			_		Period		:00			
Intersection		Rolling Hills Road		File Na	ame	6-Ro	lling Hills	s-VVhi	ffletre	e Pro	j AM.	xus				
Project Descrip	tion												The same of		1414	7777
Demand Inform	nation		10.00	THE PERSON NAMED IN	EB		1	V	/B	200-	1	NE	3	-	SI	3
Approach Move				L	T	R	L	-	Г	R	L	T	-	2	LT	
Demand (v), v	-			0	338	0	0	49		0	0	45	_	_	0 14	
	Aformation  45.0 Reference Phase  0 Reference Point  nated No Simult. Gap E/W  ode Fixed Simult. Gap N/S  esults  Phase  mber	03,31		1000	12000		Was	I Ess				39/	6 314	27325		
Signal Informa	tion				- 5	111										1
Cycle, s	45.0	Reference Phase	2		<b>≓</b> *	17	7							-		47
Offset, s	0	Reference Point	End	Green	28 1	1.3	3.6	0.0	)	0.0	0.0		1	7	2	3
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0		0.0	0.0			<b>&gt;</b>		V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	-	0.0	0.0		5	- 6		Y
Time on December	"E Jack			EDI	3	EDT	1A/D		MD		NIC		NDT			-
Timer Results	Phase aber ration, s eriod, ( Y+R c ), s		EBL	-	EBT	WB	_	WB	-	NE	SL	NBT	-	SBL	SBT	
Assigned Phase	9			-	-	2	-	+	6	-		+	8	+	-	4
Case Number				-	CONTRACTOR OF THE PARTY OF	8.0	-	-	8.0	-		-	12.0	-	-	12.0
Phase Duration	-			-	_	32.1	-	-	32.1	$\rightarrow$		-	7.6	+	-	5.3
THE RESERVE THE PERSON NAMED IN					-	4.0		-	4.0	-		-	4.0	-	-	4.0
STATE OF THE PARTY	THE RESIDENCE OF THE PARTY.	The second secon			_	0.0	_	-	0.0			_	3.1	+		3.1
	The same of the sa	The state of the s			-		-	-					3.8	-		2.5
Green Extensio		( g e ), s				0.0		_	0.0				0.1	-		0.0
Phase Call Prob	-							-					0.60	-		0.21
Max Out Probat	oility		e de la constante de la consta		CALL SHIP				DESCRIPTION OF THE PARTY OF THE				0.00			0.00
Movement Gro	un Pos	ulte	10 8		EB	1010		WB		STORY.	N/AC	NB	1000	903770	SB	
Approach Move	THE RESERVE AND ADDRESS OF THE PARTY OF THE	uito		L	T	R	L	T		2	L	T	R	L	T	R
Assigned Mover				5	2	12	1	6	_	6	3	8	18	7	4	14
Adjusted Flow F	and the second distribution of the second	) voh/h		0	-	0	0	0	-	0	<u> </u>	0	10	+	0	14
		ow Rate ( s ), veh/h/lr	,	0	_	0	0		-	0		0		+		+
Queue Service		The second secon	-	0.0		0.0	0.0		0.	-		0.0	-	+	0.0	-
Cycle Queue Cl		THE RESERVE THE PERSON NAMED IN COLUMN 2 I		0.0		0.0	0.0	-	0.	-		0.0		+	0.0	+
Green Ratio ( g/		5 Time ( g c ), 5	_	0.0	_	0.0	0.0		- 0.	.0		0.0		-	0.0	-
Capacity (c), v	The same of the sa								-	-			-	+	-	+
Volume-to-Capa		tio (X)		0.000		0.000	0.000		0.0	000		0.000		-	0.000	
NAME AND ADDRESS OF TAXABLE PARTY.	SET-MANUFACTURE.	In (50 th percentile)		0.000		0	0.000		0.0	-	_	0.000		+	0.000	-
A STATE OF THE PARTY OF THE PAR	-	eh/In (50 th percentil	-	0.0		0.0	0.0		0.	-		0.0	-	-	0.0	+
the state of the s	Constitution of the local division in the	RQ) (50 th percenti	_	0.00		0.00	0.00		0.0	-		0.00		-	0.00	-
Uniform Delay (		THE RESIDENCE OF THE PARTY OF T	iic)	0.00	-	0.00	0.00	-	0.0			0.00		+-	0.00	+
Incremental Del				0.0		0.0	0.0		0.	0		0.0		+	0.0	+
Initial Queue De	THE RESERVE AND ADDRESS OF THE PARTY.	A STATE OF THE PARTY OF THE PAR		0.0	-	0.0	0.0		0.	-		0.0	-	+	0.0	-
Control Delay (	AND RESIDENCE OF THE PERSON NAMED IN	THE PERSON NAMED IN COLUMN 2 I		0.0		0.0	0.0		U.			0.0		-	0.0	+-
Level of Service		// ·							-	-				1	-	-
Approach Delay	THE RESERVE OF THE PARTY OF THE	/IOS		3.7		A	4.0	T	A	-	21.0		С	25	3.1	С
Intersection Delay	and the last of th	and the second s		3.1		5.			-	+	21.0		0	A	J. I	U
The section being	ay, 5/40		-	F 20 3	15/8	3	Sell to	180	P. 34	199	300	194	100		1000	
Multimodal Res	sults				EB		District Co.	WB				NB		1	SB	
Pedestrian LOS		LOS		2.0		В	2.0		В		2.7	-	В	2	.7	В
Bicycle LOS Sco				0.8		Α	1.0		A		0.6	_	Α	-	.5	Α

		HCS 2	010 S	Signal	ized I	nters	ectio	n Re	sul	ts S	umn	nary				
Company Uniform					10/10/11				Inte		ion In	formati			1444	1041
General Inform	nation	1							-	_			on	_	*	
Agency				1.		01410	040	_	-	ration,	-	0.25				
Analyst				-		e 8/4/2	016		_	а Тур	е	Othe	r		wie	*
Jurisdiction		140.00		Time F		0040			PH		D	0.98	00		w te	*
Urban Street		Whiffletree Lane			sis Year	_	-		-	_	Period	_	00	- 5		
Intersection		Rolling Hills Road		File Na	ame	6-Rol	lling Hills	s-VVhi	ffletre	ee Pro	j PM.x	cus			*	
Project Descrip	tion		N. Commission			- TA	- 201		S . 1	-	100		314	-	hares	- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-
Demand Inform	nation		and a		EB	Sink in		V	VB	250	GENTE	NB			SB	
Approach Move	_			L	Т	R	L	_	T	R	L	T	F	2 L	_	R
Demand (v), v	-			0	519	0	0	-	00	0	0	18	1			6
	STATE OF	SUNDER SELECTION			-	170		THE REAL PROPERTY.	ME	0.51	Page 1	TO SEL	1 120	CE S		1300
Signal Informa	tion				_ 5	111							4 3		THE STATE	
Cycle, s	45.0	Reference Phase	2		<b>H</b>	51	7							<b>+</b>		512
Offset, s	0	Reference Point	End	Green	29.5	1.5	2.1	0.0	0	0.0	0.0			<b>X</b>		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0	-	0.0	0.0		311	<b>&gt;</b>		KŤ
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0	0.0	0.0		5	6	7	Y
										15.15						
Timer Results				EBL	-	EBT	WB	L	WE	-	NB	L	NBT	S	BL	SBT
Assigned Phase	9			_	-	2	-	-	6				8	-		4
Case Number						8.0		-	8.0	-		_	12.0	-		12.0
Phase Duration	-		-			33.5		_	33.				6.1	_		5.5
Change Period,	-					4.0			4.0				4.0	-		4.0
Max Allow Head	-					0.0		_	0.0	0			3.2			3.1
Queue Clearan	Marie and State of the Control of th	AND DESCRIPTION OF THE PARTY OF											2.9			2.6
Green Extensio	and the same of th	( g e ), s				0.0			0.0	0			0.0			0.0
Phase Call Prob	pability												0.34			0.24
Max Out Probat	oility												0.00			0.00
Management Con	un Das		245		EB			WE		SAM	- 34	NB			SB	
Movement Gro	-	Suits		L	T	R	L	T	-	R	L	Т	R		T	I D
Approach Move	THE RESERVE OF THE PERSON NAMED IN			5	2	12	1	6	$\rightarrow$	16	3	8	18	7	4	R
Assigned Move	_	\ah/h		0		0	0	0	+	0	3	0	10	-	-	14
Adjusted Flow F		Name and Address of the Owner o		0		0	0	-	+	0	-	0	-	+	0	-
	NAME AND DESCRIPTION OF THE PERSON OF THE PE	ow Rate (s), veh/h/lr	1	0.0		0.0	0.0		-	0.0		0.0	-	+	0.0	-
Queue Service		Make the second second second second		-		-	_	_	-	-	-	_	-	+-		-
Cycle Queue Cl	NAME AND ADDRESS OF TAXABLE PARTY.	e Time ( g c ), s		0.0		0.0	0.0		-	0.0	_	0.0	-	+	0.0	-
Green Ratio (g/	-								+	-			-	+-	-	-
Capacity (c), v	Barrier Branch	tin ( )( )		0.000		0.000	0.000		0	000		0.000		+	0.000	-
Volume-to-Capa	NAME OF TAXABLE PARTY.	AND REAL PROPERTY AND ADDRESS OF THE PARTY AND		0.000		0.000	0.000		-	000		0.000	-	-	0.000	-
Name and Address of the Owner, where the Owner, where the	the same of the same of	In (50 th percentile)	-			0			-	_		0		-	0	-
		eh/ln (50 th percentil	the same of the same of	0.0		0.0	0.0		_	0.0		0.0		+	0.0	-
	Married Workshop	RQ) (50 th percenti	ile)	0.00		0.00	0.00	_	0	.00		0.00		-	0.00	-
Uniform Delay (		The second secon		0.0		0.0	0.0		-	20		0.0		+-	100	-
Incremental Del	THE RESERVE OF THE PERSON NAMED IN	and the same of th		0.0		0.0	0.0		-	0.0		0.0		-	0.0	-
Initial Queue De	STREET, SQUARE, SQUARE	AND THE RESERVE OF THE PARTY OF		0.0		0.0	0.0	1	+	0.0	-	0.0		-	0.0	-
Control Delay (	Married Street, or other Designation of the					-			+	-				-	-	-
Level of Service	NAME AND ADDRESS OF TAXABLE PARTY.	and the state of t		2.2	-	Λ	3.1	-	^	-	22.5		C	20	0 1	
Approach Delay	the same of the sa	Part of the second		3.3		A	1		Α	-	22.2		С	22	.9	С
Intersection Del	ay, s/ve	en / LOS	200	750		4	.3	* '0				- 74 - 1		A	C 1/2 K	999
Multimodal Res	sulte				EB			WB	3	200		NB	36318		SB	
Pedestrian LOS	-	/LOS		2.0	T	В	2.0	T	В		2.7		В	2.	-	В
Bicycle LOS Sc	-	COMPANY OF THE PARK OF THE PAR		0.9		A	0.8	1	A	-	0.5	_	A	0.	_	A

					100		11/1/2			JER !		Seal and	5		1500
General Inform	ation								Interse	_	_	the same of the same of		147年	1 10 1
Agency									Duration	n, h	0.25	5	9 1	4	
Analyst				Analy	sis Dat	e 8/4/2	016		Area Ty	ре	Oth	er	4		
Jurisdiction				Time	Period				PHF		0.90	)	3	w∳e	
Urban Street		Fallenleaf Drive		Analy	sis Yea	r 2016			Analysis	Perio	d 1> 7	:00			
Intersection		Rolling Hills Road		File N	ame	7-Ro	ling Hill	s-Falle	nleaf Pro	j AM.×	cus			*	
Project Descrip	tion													1414	rter
Demand Inform	nation			755	EB			WE	2	Tellow.	NE			SB	NO.
Approach Move				L	T	R	L	T	R		1	_	R L	T	F
Demand ( v ), v	_			30	324	0	11	44:	_	0	-	_	0 0	_	1
Demand (V), V	CII/II		1 - 4/16	30	324	0		44			4/			00	BESS.
Signal Informa	tion									T	H	-01-1	( o		
Cycle, s	45.0	Reference Phase	2	1	<b>⇒</b> '		7						→		P
Offset, s	0	Reference Point	End	Grace	26.7	31		0.0	0.0	0.0	1		<b>Y</b> 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		3.4	2.9 4.0	0.0	0.0	0.0		300	-		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6		
(BEALVA)													E DEC		N.
Timer Results	nase er tion, s		EBI	_	EBT	WB	L	WBT	NI	BL	NBT	SI	3L	SBT	
Assigned Phase	)					2		-	6		-	8	-		4
Case Number					-	6.0		-	6.0	-	_	12.0			12.0
Phase Duration	Duration, s ge Period, ( Y+R c ), s				_	30.7		-	30.7	_	-	6.9	_		7.4
The second second	-	THE RESERVE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.			-	4.0		-	4.0	-	-	4.0	-	-	4.0
	_			_	-	0.0		-	0.0	-		3.0	-	-	3.0
Queue Clearand	-	AND RESIDENCE OF THE PARTY OF T						-		_		3.2		-	3.5
Green Extension		(ge), s				0.0			0.0			0.1			0.1
Phase Call Prob											_	0.48			0.57
Max Out Probab	oility							-	7 (2.7)	Lorenza	THE REAL PROPERTY.	0.00			0.00
Movement Gro	un Res	ults			EB	ST. SYC	-	WB		SI SIN	NB	1100		SB	
Approach Move	-	unto		L	T	R	L	T	R	L	T	R	L	T	R
Assigned Mover	_			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		) veh/h		33	360	0	12	491	0	-	0	10	-	0	+ 1
	-	w Rate ( s ), veh/h/lr	1	920	1900	0	1038	1900	-	-	0	-	-	0	+
Queue Service				0.8	1.9	0.0	0.2	2.7	0.0		0.0	-	1	0.0	-
Cycle Queue Cl	THE RESERVE AND ADDRESS OF THE PARTY.			3.5	1.9	0.0	2.2	2.7	0.0		0.0		1	0.0	-
Green Ratio ( g/	_	o Time ( y c ), s		0.59	0.59	0.0	0.59	0.59	0.0	-	0.0		-	0.0	-
Capacity ( c ), v				651	2257		732	2257		-	-				+
Volume-to-Capa		tio ( X )		0.051	0.159	0.000	0.017	0.218	0.000	-	0.000	-		0.000	-
The second secon	-	In (50 th percentile)		3	10.9	0.000	. 1	15.5	0.000		0.000	-	-	0.000	-
		eh/ln (50 th percentil	9)	0.1	0.4	0.0	0.0	0.6	0.0		0.0		-	0.0	-
THE RESERVE OF THE PARTY OF THE		RQ) (50 th percenti		0.03	0.4	0.00	0.01	0.08	0.00	-	0.00		-	0.00	-
Jniform Delay (	_		10/	5.1	4.1	0.00	4.6	4.3	0.00	-	0.00		1	0.00	-
ncremental Del		CONTRACTOR OF THE PARTY OF THE		0.1	0.2	0.0	0.0	0.2	0.0	-	0.0			0.0	-
nitial Queue De		Contract of the Contract of th		0.0	0.0	0.0	0.0	0.0	0.0	-	0.0		-	0.0	-
Control Delay (	-	Wild and the second		5.2	4.2	0.0	4.6	4.5	0.0	-	0.0	-		0.0	-
evel of Service		711		5.2 A	4.2 A		4.0 A	4.5 A		-	-		-		-
Approach Delay		/108		4.3	7	A	4.5	_	Α	21.	2	С	20.	0	С
ntersection Delay	-	AND DESCRIPTION OF THE PARTY OF		4.5		-	.4		И	21.	4	0	A 20.	J	C
mersection Del	ay, sive	117 203			The same	5 10 20		S Sept	7500			WE IS	_	AL PLANT	51 87 B
Multimodal Res	ults	Size State Balling State	10		EB	-		WB		-	NB		1	SB	21,8
WILLIIIIOUAI RES				-	_	_		_	_	-	the same of the same of		-	-	
Pedestrian LOS	Score	LOS		2.0		В	2.0		В	2.8	3	C	2.8	3	C

		HCS 2	010 8	Signa	lized	Inters	ectio	n Res	sults S	Sumn	nary				
				-	R. T. P.		702	Mark S					May.	TATE	Z.V.
General Inform	nation	1						-	Intersed				_	中下中下	
Agency				1		Terror			Duration		0.25		-		
Analyst					sis Dat	e  8/4/2	016		Area Ty	oe	Othe				
Jurisdiction				-	Period	_			PHF		0.96		_ \$	w†e	
Urban Street		Fallenleaf Drive		Analy	sis Yea	_	-	-	Analysis	The same of the same of		:00	7		
Intersection		Rolling Hills Road		File N	lame	7-Ro	lling Hill	s-Falle	nleaf Pro	j PM.x	us			*	
Project Descrip	tion		014 5 74				Paris I	- 100						<b>শবাৰণ</b>	777
Demand Inform	mation				EB		1	WE	3		NE	3		SB	2000
Approach Move	ement			L	T	R	L	T	R	L	T	R	L	T	
Demand (v), v	/eh/h			36	448	0	21	40	7 0	0	25	0	0	46	
Signal Informa	tion														
Cycle, s	45.0 Reference Phase  0 Reference Point nated No Simult. Gap E/W de Fixed Simult. Gap N/S  sults  Phase nber	2	1			- 1		1						4	
Offset, s	45.0 Reference Phase  0 Reference Point  ated No Simult. Gap E/W  de Fixed Simult. Gap N/S  sults  Phase ber  ration, s  eriod, ( Y+R c ), s	End		-3	31	7					55.1	<b>A</b> 5	3		
Uncoordinated	rmation  45.0 Reference Phase  0 Reference Point  ted No Simult. Gap E/W  Fixed Simult. Gap N/S   ults  hase  fer  tion, s  friod, (Y+Rc), s  Headway (MAH), s  france Time (gs), s  Probability	On		28.6	2.7	1.7	0.0	0.0	0.0	The second second		_			
	rmation  45.0 Reference Phase  0 Reference Point  ed No Simult. Gap E/W  Fixed Simult. Gap N/S  Its  asse  er  ion, s od, (Y+Rc), s eadway (MAH), s rance Time (gs), s sion Time (ge), s  Probability	-	Yellov	_	4.0	4.0	0.0	0.0	0.0	-	200				
Force Mode	rixea	Simult, Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	Res M	5	6	7	
Timer Results				EB	L	EBT	WE	BL	WBT	NE	BL	NBT	SE	3L	SBT
Assigned Phase	е					2			6			8			4
Case Number						6.0			6.0			12.0			12.0
Phase Duration	, S					32.6			32.6			5.7			6.7
Change Period,	(Y+R	c), S				4.0			4.0			4.0			4.0
Max Allow Head	dway ( /	<i>MAH</i> ), s				0.0			0.0			3.0			3.0
Queue Clearan	ce Time	(gs), s										2.6			3.1
Green Extensio	n Time	(ge), s				0.0			0.0			0.0			0.1
Phase Call Prob	pability											0.28			0.45
Max Out Probal	bility											0.00			0.00
Movement Gro	up Res	ults			EB			WB			NB	111,119		SB	
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	F
Assigned Move	and the latest terminal termin			5	2	12	1	6	16	3	8	18	7	4	1.
Adjusted Flow F		) veh/h		38	467	0	22	424	0		0	10	-	0	-
The second secon		ow Rate (s), veh/h/lr	n	979	1900	0	941	1900	0		0			0	-
Queue Service	Mary Street, Square, S	The second secon		0.7	2.3	0.0	0.4	2.1	0.0		0.0			0.0	-
Cycle Queue Cl		The second secon		2.8	2.3	0.0	2.8	2.1	0.0		0.0			0.0	-
Green Ratio ( $g_i$	-	, iiio ( g o ), 3		0.64	0.64	0.0	0.64	0.64	0.0	_	0.0		-	0.0	-
Capacity ( c ), v				737	2417		710	2417							-
/olume-to-Capa	and the second	tio (X)		0.051	0.193	0.000	0.031	0.175	0.000		0.000			0.000	
AND DESCRIPTION OF THE PERSON NAMED IN	Name and Address of the Owner, where	In (50 th percentile)		2.6	11.1	0.000	1.6	9.9	0.000		0.000			0.000	-
Name of the Owner, where the Park of the Owner, where the Owner, which is	or desired to the owner of the last	eh/In (50 th percentil		0.1	0.4	0.0	0.1	0.4	0.0		0.0			0.0	-
Personal Control of the Control of t	AND DESCRIPTIONS OF THE PERSON NAMED IN	RQ) (50 th percenti	The second second	0.03	0.06	0.00	0.02	0.05	0.00		0.00			0.00	-
Jniform Delay (		The state of the s	/	3.9	3.4	1.50	4.0	3.4			5.00			0.00	
ncremental Del				0.1	0.2	0.0	0.1	0.2	0.0		0.0			0.0	
nitial Queue De	CATALOGIC CONTRACTOR	The second secon		0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (	and the second	Control of the Contro		4.1	3.6		4.1	3.5							
evel of Service	_			Α	Α		Α	Α							
Approach Delay	Name and Address of the Owner, where the Owner, which the	/LOS		3.6		Α	3.5	-	Α	22.4	1	С	21.4	1	C
ntersection Del						4	.9						A		
Aultim - d-1 D	The same		and the	7.00	FD	2.2.		MD	419	STS	ND	3 3/2		00	586
Multimodal Res		/1.00		2.0	EB	D	20	WB	_	0.0	NB	0		SB	_
Pedestrian LOS	- Auto-Control Control			2.0	-	В	2.0	_	В	2.8	-	C	2.8	_	C
Bicycle LOS Sc	ore / LC	05		0.9		Α	0.9		A	0.5		Α	0.6		Α

		HCS 2	010 \$	Signal	ized	Inters	sectio	n Re	sults	Sumn	nary	(CONT.)			
General Inform	nation		233						Interco	ction In	format	ion	10/15	يا ما يارمه	L. I. I.
Agency	ilation	KHD Associates							Duratio		0.25	-	_	111	L
Analyst		IN IN Associates		Analy	eie Dat	te 8/1/2	016		Area Ty		Othe				
Jurisdiction		Torrance California		-	Period	0/1/2	.010	-	PHF	pe	0.88	_		wl.	~
Urban Street		100000000000000000000000000000000000000		-	sis Yea	r 2016		-		Doring	_				-
Intersection			Iu	-		_		la Cran	Analysi	-		.30			
	diam	Rolling Hills Road		File N	ame	8-R0	iling Hill	is-Crer	shaw Pr	OJ AIVI.X	us			711	1
Project Descrip	tion	VICTOR STORES		189 10	FINE B	-				1000		Sec. 311.5		1 Sub-Hea	marajn.
Demand Inform	Rolling Hills Road Pescription  Information  Movement  V), veh/h  Formation  120.0 Reference Phase  0 Reference Point  Patent No Simult. Gap E/W  District Group Results  Movement  (y), s  Headway (MAH), s  Person Time (ge), s  Il Probability  Probability  Probability  It Group Results  Movement  Movement  Movement  Flow Rate (v), veh/h  Paturation Flow Rate (s), veh/h/l  Proce Time (ge), s  Paturation Flow Rate (s), veh/h/l  Proce Time (ge), s  Person Results  Movement  Movement  Flow Rate (v), veh/h  Paturation Flow Rate (s), veh/h/l  Proce Time (ge), s  Person Results  Movement  Flow Rate (v), veh/h  Proce Time (ge), s  Person Rate (v), veh/h  Proce Time (ge), s  Person Rate (v), veh/h  Proce Time (ge), s  Person Rate (v), veh/h/l  Proce Time (ge), s  Person Rate (v), s  Pe		1	EB			W	В		NE	3	-	SB		
Approach Move	MAR Associates  Torrance Californi  Bet Crenshaw Boulev  In Rolling Hills Road  In Rolling		L	T	R	L	T	_	L	T	F	L	T	R	
Demand (v), v	Rolling Hills Road  Rollin		148	145	_	22	_	-	_	-		157	_		
Domana ( v ); v	Rolling Hills Road Pescription  Information  Movement  Information  Movement  Information  Infor	( of the same	110		02			200		104		101	102		
Signal Informa	tion				T		T	<b>R</b> _	C I						K. LUKE
Cycle, s	120.0	Reference Phase	2		~		<b>→</b>	-			1		-	1	4
Offset, s	KHR Associates	End	Green	24	6.2	48.4	0.6	2.2		0.000	- 1	2	3	4	
Uncoordinated	KHR Associates  Torrance Californi et Crenshaw Boulev Rolling Hills Road scription  In Rolling Hills Road In Rolling Hills Rolling I	On	Yellow		4.0	4.0	8.6	-			7	4		ĸţ	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	- Contract to			5	6	7	0
		THE WALL	STILL	41	TO AL		11 1901		THE .		4 17		and the same	2.15	10 TO 10
Timer Results				EBI	L	EBT	WE	3L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	e Fixed Simult. Gap N/S  ults  hase  per ation, s  riod, (Y+Rc), s  Headway (MAH), s  arance Time (gs), s  Probability		5		2	1		6	3		8	7		4	
Case Number				2.0		3.0	2.0		3.0	1.1		4.0	1.1	1	4.0
Phase Duration	, S			17.6	3	62.6	7.4	1	52.4	12.0	3	35.2	14.	8	37.4
Change Period,	(Y+R	c), S		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	dway ( /	<i>MAH</i> ), s		3.0		0.0	3.0	)	0.0	3.0		2.9	3.0		2.9
Queue Clearand	ce Time	(gs), s		13.6	3		3.7	7		8.6		33.2	10.	7	27.8
Green Extensio	n Time	(ge), s		0.1		0.0	0.0		0.0	0.1		0.0	0.1		3.7
Phase Call Prob	ability			1.00			0.5	7		0.99	9	1.00	1.0	0	1.00
Max Out Probab	oility			1.00	)		0.0	0		0.00		1.00	0.0	8	0.75
		DECEMBER 1			Fig	1				<b>BISTA</b>	E 15 W	100	100		STEEN TO
THE RESERVE OF THE PARTY OF THE	CONTRACTOR OF THE PARTY OF	ults			EB			WB			NB			SB	
Approach Move	_			L	Т	R	L	T	R	L	Т	R	L	T	R
Assigned Mover	ALUCIO DE CONTRACTO			5	2	12	1	6	16	3	8		7	4	
THE RESERVE AND ADDRESS OF THE PARTY OF THE		Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, w		168	165	70	25	206	227	134	1523		178	1165	
			n	1723	1810	1608	1723	1810	-	1774	1691		1774	1691	
-				11.6	7.8	3.7	1.7	10.8	13.7	6.6	31.2		8.7	25.8	
	and the same of th	e Time ( g c ), s		11.6	7.8	3.7	1.7	10.8	13.7	6.6	31.2		8.7	25.8	
Green Ratio ( g/	and the last of th			0.11	0.49	0.49	0.03	0.40	0.40	0.33	0.26		0.35	0.28	
Capacity ( c ), v				195	884	786	49	730	648	209	1318		220	1413	
	-	Market Street Company of the Company		0.861	0.186	0.090	0.513	0.282	-	0.641	1.155		0.812	0.825	
and the second second second second	_	the second secon		162.4	89.6	34.4	20.3	129.4	-	72.5	575.9		106.4	281.2	
THE RESERVE OF THE PARTY OF THE	OR OTHER DESIGNATION OF THE PERSON NAMED IN	NAME OF TAXABLE PARTY.	STREET, STREET	6.2	3.4	1.4	0.8	5.0	5.8	2.8	22.2		4.1	10.8	
THE RESERVE AND ADDRESS OF THE PARTY OF THE			le)	0.54	0.30	0.12	0.07	0.43	0.50	0.35	2.81		0.35	0.92	
THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	-	and the second second second second		54.5	23.3	21.9	58.1	30.1	31.2	32.6	44.4		32.1	40.6	
THE RESIDENCE OF THE PARTY OF T	_			21.5	0.5	0.2	3.1	1.0	1.5	1.2	78.8		8.6	3.9	
	-	Name and Address of the Owner o		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (		eh		76.1	23.8	22.2	61.1	31.1	32.7	33.8	123.2		40.7	44.4	
Level of Service				E	С	С	E	С	С	С	F		D	D	
	_	Maria Company		45.3		D	33.5	5	С	115.9		F	43.9		D
Intersection Dela	ay, s/ve	h/LOS				73	3.7						E		
Salle Englis	111111					013		344	10 Jak	Marie Marie	The latest	No.	Se sellar	13 /85	47.30
Multimodal Res					EB	_		WB			NB			SB	
The second second second second second	-			3.3		С	3.3	-	С	2.5		В	2.4	_	В
Bicycle LOS Sco	ore / LO	S		1.2		Α	1.2		Α	1.4		Α	1.2		Α

	0.60	HCS 2	010 5	Signal	ized	Inters	ectio	n Re	sults	Summ	ary				
General Inforn	nation		3 45	- 10		re ent	To all		Interse	ction In	format	ion	MEN'S	المعالمة ال	1.61
Agency	lation	KHR Associates							Duration	_	0.25			111	
Analyst		IN IN ASSOCIACES		Analys	eie Dat	e 8/1/2	016	$\rightarrow$	Area Ty		Othe		- 2		
Jurisdiction		Torrance California			Period	0/1/2	010		PHF	pc	0.97			wie	
Urban Street		Crenshaw Bouleva				r 2016			Analysis	Period					
Intersection		Rolling Hills Road	iu	File N		-		e-Cren	shaw Pr	-	-	.00		1	
Project Descrip	tion	Rolling Fillis Road		T IIC IV	arric	0-110	iii ig i iiii	3-01011	Silaw i i	Oj i Wi.Xi	u3		- '	14141	7 7 7
The state of the s		Telescopies !				10000						14, 478	GME.	Ser Str	
Demand Inform					EB			W	_		NB	_		SB	-
Approach Move	_			L	Т	R	L	Т	_	L	Т	R	L	Т	F
Demand (v), v	eh/h			164	285	89	42	21	7 164	104	100	6	274	1025	5
Signal Informa	tion				No.			R					reas I		
Cycle, s	120.0	Reference Phase	2	1	7 0	3		=	2 1			_		1	7
Offset, s	0	Reference Point	End			=	7	,		15.	1000	1	<b>Y</b> 2	3	4
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		5.1	48.3	7.4		26.			4		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		5	6	>	-
BUCCO	1. 智俊		1	17.5	5 7 4	37.740					105		570		
Timer Results				EBL		EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9			5		2	1		6	3		8	7		4
Case Number				2.0		3.0	2.0		3.0	1.1		4.0	1.1		4.0
Phase Duration						61.4	8.6		52.3	11.4	1	30.0	20.	0	38.6
Change Period,	nge Period, ( Y+R c ), s					4.0	4.0		4.0	4.0		4.0	4.0	1	4.0
	Allow Headway ( MAH ), s			3.0		0.0	3.0		0.0	3.0		2.9	3.0		2.9
Queue Clearand	-			13.6			5.0	_		7.6		26.1	16.	4	24.5
Green Extension	-	( g e ), s		0.1		0.0	0.0	$\rightarrow$	0.0	0.1		0.0	0.0		4.4
Phase Call Prob	_			1.00	-		0.76	_		0.97	_	1.00	1.00	)	1.00
Max Out Probat	oility			1.00			0.00	)	_	0.00		1.00	1.00	)	0.30
Mayamant Cro	un Boo	ulto			EB	100		WB		r	NB		-	CD	
Movement Gro Approach Move	-	uits		L	Т	R	L	T	R	L	Т	R	L	SB	R
Assigned Move				5	2	12	1	6	16	3	8	I N	7	4	
Adjusted Flow F		) voh/h		169	294	92	43	224	169	107	1037	-	282	1057	-
	_		n	1723	1810	1608	1723	1810		1774	1691		1774	1691	-
Queue Service	THE RESERVE AND ADDRESS.	w Rate ( s ), veh/h/li		11.6	14.9	4.8	3.0	11.8	9.9	5.6	24.1		14.4	22.5	-
Cycle Queue Cl		The same of the sa		11.6	14.9	4.8	3.0	11.8	9.9	5.6	24.1		14.4	22.5	-
Green Ratio ( g/		mile ( g c ), s		0.11	0.48	0.48	0.04	0.40	0.40	0.28	0.22		0.37	0.29	-
Capacity ( c ), v				196	866	769	66	729	647	215	1099		305	1461	-
/olume-to-Capa	-	tio (X)		0.862	0.339	0.119	0.658	0.307	-	0.499	0.943		0.926	0.723	
THE RESERVE OF THE PARTY OF THE	THE RESERVE OF THE PERSON NAMED IN	In (50 th percentile)		163.6	180.8	46.4	35.3	143	101.5	61.7	295.1		224.5	239	-
and the latest terminal termin	-	eh/In (50 th percentil		6.3	7.0	1.9	1.4	5.5	4.1	2.4	11.3		8.6	9.2	-
THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	-	RQ) (50 th percent	-	0.55	0.60	0.16	0.12	0.48	0.35	0.30	1.44		0.73	0.78	
Jniform Delay (	-		-	54.5	26.4	23.0	57.7	30.5	29.8	34.5	46.3		31.9	38.4	
ncremental Del	_	and the second s		21.8	1.1	0.3	4.1	1.1	1.0	0.7	15.3		32.5	1.6	
nitial Queue De	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	THE RESIDENCE AND ADDRESS OF THE PERSON NAMED IN	AND RESIDENCE OF THE PARTY OF T		76.4	27.4	23.3	61.8	31.6	30.8	35.2	61.5		64.3	40.0	
evel of Service	_			E	С	С	E	С	С	D	E		Е	D	
Approach Delay	, s/veh	LOS		41.7		D	34.3	3	С	59.1		E	45.1		D
ntersection Dela	ay, s/ve	h/LOS				47	7.8						D		
	3	He see the	2			-	-		37.8	A. Va.		War.	ALL SEL		P JAN
Aultimodal Dog	imodal Results				EB			WB			NB			SB	
	strian LOS Score / LOS			3.3		C	3.3		C	2.5		В	2.4		В

Constitution	SOUR	and the same of the	4	5	THE LOCK	PH LS	45054	A Pall	Int-	-	tion to	Same - "			1414	1 1-1
General Inform	nation								_	_		formati		_		
Agency		KHR Associates				Terro			_	ation,		0.25		_		
Analyst				_	sis Date	8/1/	2016		_	а Тур	е	Othe		-		
Jurisdiction		Torrance California		Time F		-			PHF	_		0.95		_ = =	w+e	
Urban Street		Pacific Coast Highw		_	sis Year		_				Period	1> 7:	:30	-		
Intersection		Crenshaw Boulevar	ď	File N	ame	9-P	CH-Crens	shaw I	Proj /	AM.xu	IS				111	11
Project Descrip	tion						THE STATE		SEE	1000	80.00	-30	12.0	The same of the sa	<u> শ্ৰাপ্</u>	THE
Demand Inforr	nation		2.00		EB	200		W	В			NB			SB	1
Approach Move	ement			L	T	R	L	1	- 1	R	L	T	R	L	T	T
Demand ( v ), v	-			170	964		650	19	57		58	100	6 489	138	637	_
THE NAME OF		-		1000					5 P.		100		Trace I		1985	193
Signal Informa					2				6	N		u .	_			
Cycle, s	120.0	Reference Phase	2		- K				5			17		4	)	
Offset, s	0	Reference Point	End	Green	6.1	6.0	46.0	5.3	3	3.5	33.1	1				
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	4.0	4.0	)	0.0	4.0		1	7	1	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	)	0.0	0.0	ied	5	6	7	
Timer Results				EBL		EBT	WB		WE	RT	NBI	Cut	NBT	SB		SB
Assigned Phase	9			5		2	1	-	6	-	3		8	7	-	4
Case Number				1.1		4.0	1.1		4.0	-	2.0		3.0	1.1		4.0
Phase Duration	c			10.1	-	50.0	20.	-	59.	-	9.3	_	37.1	12.9	_	40.7
Section in contrast of the con	nge Period, ( Y+R c ), s					4.0	4.0	-	4.0		4.0	_	4.0	4.0	_	4.0
the state of the s	nge Period,(Y+R ɛ), s Allow Headway(MAH), s			4.0 3.0		0.0	3.0	-	0.0	-	3.0	_	3.0	3.0	_	3.0
Market Street,	Allow Headway ( <i>MAH</i> ), s le Clearance Time ( <i>g</i> s ), s			5.8		5.0	18.0	_	0.0	-	6.1	_	35.1	8.8	_	14.7
Green Extensio	Charles of the Control of the Control	AND RESIDENCE OF THE PARTY OF T		0.3		0.0	0.0	-	0.0	)	0.0	_	0.0	0.1	-	6.3
Phase Call Prob		(90),0		1.00		5.5	1.00	-	0.0		0.87	_	1.00	0.99	_	1.00
Max Out Probal	-			0.00	_		1.00	-			0.00	_	1.00	0.0	_	0.08
TIAN OULT TODA	Jin'ty		4 7 6	0.00		250	1.00	1750			0.00			0.0	N AND	0.00
Movement Gro	up Res	ults			EB			WB				NB			SB	
Approach Move	ment			L	Т	R	L	T		R	L	T	R	L	Т	F
Assigned Move	ment			5	2		1	6			3	8	18	7	4	
Adjusted Flow F	Rate ( v	), veh/h		179	1015		684	2060	)		61	1059	515	145	671	
Adjusted Satura	ation Flo	w Rate (s), veh/h/lr	1	1673	1723		1673	1643	3		1774	1691	1608	1774	1691	
Queue Service	Time ( g	7 s ), S		3.8	32.8		16.0	47.9			4.1	22.9	33.1	6.8	12.7	
Cycle Queue Cl				3.8	32.8		16.0	47.9			4.1	22.9	33.1	6.8	12.7	
Green Ratio ( g	STATE OF THE PERSON NAMED IN			0.43	0.38		0.53	0.47			0.04	0.28	0.28	0.36	0.31	
Capacity ( c ), v	eh/h			309	1319		686	2298	3		79	1400	444	236	1550	
Volume-to-Capa	acity Ra	tio (X)		0.579	0.769		0.998	0.896	3		0.775	0.756	1.160	0.615	0.433	
Back of Queue	(Q), ft/	In (50 th percentile)		39	389.4		252.8	543.4	1		49.9	245.9	606.2	74.3	131.5	
Back of Queue	(Q), ve	eh/In (50 th percentil	e)	1.5	15.0		9.7	20.9			1.9	9.5	24.2	2.9	5.1	
Queue Storage	Ratio (	RQ) (50 th percent	le)	0.13	1.30		0.84	1.81	1		0.24	1.20	3.08	0.24	0.43	
Jniform Delay (	d 1), s/	veh		29.3	39.8		31.3	38.6			56.7	39.8	43.4	30.0	33.4	
ncremental Del	ay ( d 2	), s/veh		0.6	4.4		33.7	6.0			6.0	2.2	94.4	1.0	0.1	
nitial Queue De	elay (d	3), s/veh	-	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0	
Control Delay (	d), s/ve	eh		30.0	44.1		65.0	44.6			62.7	41.9	137.9	31.0	33.4	
evel of Service	(LOS)			С	D		E	D			Е	D	F	С	С	
Approach Delay	, s/veh	/LOS		42.0		D	49.7	7	D		72.9		E	33.0	)	С
ntersection Del	ay, s/ve	h/LOS					52.1							D		
Charles III	14 16	Philip Spells	1				SKILL	175	17 8 B	No.	SP L	VI IV	10. 30			
	modal Results				EB	С		WB	C			NB			SB	
	trian LOS Score / LOS			3.4			3.3				3.1		C	3.3		C

	1 7	HCS 2	010 8	ignal	ized I	nters	sectio	n Re	sults	Summ	ary	10000		16 15	
General Inform	ation				-			A Salar	Interse	ction In	ormati	ion		اخلالال	
Agency	iation	KHR Associates							Duratio		0.25	-		111	Ļ
Analyst		TT II T A LOCULATED		Analys	sis Date	8/1/2	016		Area Ty		Othe				
Jurisdiction		Torrance California		Time I		1		_	PHF	1	0.94			₩ <sup>†</sup> ε	÷
Urban Street		Pacific Coast Highw	vav	-	sis Year	2016	i .	_		s Period	1> 7		- 4		¥ 4
Intersection		Crenshaw Boulevar		File N		_	H-Crens		-		1	.00		K 4 4 4	7
Project Descript	tion	Orenshaw Bodieval	<u> </u>	T IIC TV	uno	0.0	711 01011	Jilair I	10,111	, and			-	ነጻ፣ቀን	111
			0.5	The same	ED.	4 7		NA /	Luk S	S	AID.			OP	
Demand Inforn					EB			W		-	NB	-	1	SB	1 0
Approach Move	-			L	T	R	L	T		_	T	R	L	T	R
Demand ( v ), v	eh/h		61366	174	1275		473	145	07	74	704	455	329	1113	3 - 2
Signal Informa	tion													-9517	
Cycle, s	120.0	Reference Phase	2	1	2 6	-	Z-3			-	1.7	<u> </u>	4	1	4
Offset, s	0	Reference Point	End		6.0	E 4	46.4	6.0	5.2	26 (		-1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		4.0	46.4	6.8	The second second			7	7		1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
			7			FDT	- CHAIN		VA/DT	N.E.	126	NDT	000		CDT
Timer Results				EBI	-	EBT	WB	)L	WBT	NB	-	NBT	SB	L	SBT
Assigned Phase				5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1	_	4.0	2.0		3.0	1.1	_	4.0
Commence of the Park of the Pa	e Duration, s					50.4	19.	_	59.8	10.8	_	30.0	20.0	-	39.2
The second secon	ge Period, ( Y+R c ), s					4.0	4.0	_	4.0	4.0	_	4.0	4.0	_	4.0
Max Allow Head	-	the state of the s		3.0		0.0	3.0	_	0.0	3.0	-	3.0	3.0	-	3.0
Queue Clearand	STATE OF THE OWNER, OF THE OWNER,			5.9	-	0.0	15.	-	0.0	7.3	-	28.0	18.0	-	27.8
Green Extension	-	( g e ), S		0.3	-	0.0	0.1		0.0	0.1		0.0	0.0	_	4.1
Phase Call Prob	-			1.00	-		1.00	_		0.93	-	1.00	1.00	_	1.00
Max Out Probab	ollity	The state of the s	0.00	-		1.00		71775	0.00		1.00	1.00	Was side	0.59	
Movement Gro	up Res	ults			EB			WB		1	NB	a als		SB	He Ken
Approach Move	-			L	T	R	L	T	R	L	Т	R	L	T	R
Assigned Mover	-			5	2		1	6		3	8	18	7	4	
Adjusted Flow F	Access to the later of the late	), veh/h		185	1356		503	1550		79	749	484	350	1184	
		ow Rate (s), veh/h/li	n	1673	1723		1673	1643		1774	1691	1608	1774	1691	
Queue Service	_			3.9	46.4		13.5	32.9	_	5.3	16.3	26.0	16.0	25.8	
Cycle Queue Cl				3.9	46.4		13.5	32.9	-	5.3	16.3	26.0	16.0	25.8	
Green Ratio ( g/	BERTHAD TO THE		7	0.44	0.39		0.53	0.47	-	0.06	0.22	0.22	0.37	0.29	
Capacity ( c ), v				405	1332		555	2292		100	1099	348	354	1489	
Volume-to-Capa	March Company of the	itio (X)		0.457	1.018		0.906	0.676		0.785	0.681	1.389	0.989	0.795	
	and the same of	In (50 th percentile)		39.8	663.3		232.8	359.5	1	63.3	175.3	715.3	312.6	277.8	
		eh/In (50 th percentil		1.5	25.5		9.0	13.8		2.4	6.7	28.6	12.0	10.7	
AND RESIDENCE AND RESIDENCE AND RESIDENCE	Name and Address of the Owner, where the	RQ) (50 th percent	-	0.13	2.21		0.78	1.20		0.31	0.86	3.63	1.02	0.90	
Uniform Delay (	-			24.3	44.5		38.9	33.5		55.9	43.2	47.0	34.9	39.1	
Incremental Del	the same of the same of			0.3	29.4		17.5	1.6		5.0	1.4	192.0	44.5	2.8	
Initial Queue De	lay (d.	3), s/veh		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Control Delay (	Maria Contract of the Contract	Marine and Court of the Court o		24.6	73.9		56.4	35.1		60.9	44.6	239.0	79.4	41.9	
Level of Service	(LOS)			С	F		E	D		E	D	F	E	D	
Approach Delay	-	/LOS		68.0		Е	40.3	3	D	117.3	3	F	50.5	5	D
Intersection Del	ay, s/ve	h / LOS				6	5.1						E		and the second
Multimodal Res	ulte				EB	Se di	Paris .	WB	10 50	1000	NB	E VEIG		SB	4 86
THE RESERVE AND ADDRESS OF THE PARTY OF THE	-	/1.08		3.4		С	3.3	_	C	3.1	140	С	3.3	-	С
cenesinan i ().	destrian LOS Score / LOS			3.4	_	A	1.6	_	A	1.2	-	A	1.3		0

		HCS 2	010 8	Signal	ized	Inter	sectio	n Re	sul	ts S	umm	ary		1/11 50 6		
Conoral Inform	nation				5.0	11 -	-6,13		Into	reac	tion In	formati	ion		خه نام له اد	LEL
General Inform	nation	LKUD Associates							_					-	111	
Agency		KHR Associates		I Amaka	-i- D-4	- 0/4/	2040			ation	_	0.25		-		
Analyst		T 0 117			sis Dat	e 8/1/2	2016		_	а Тур	oe	Othe			- 1	+
Jurisdiction		Torrance California	-		Period	004			PHF		D	0.78		_ =	, M. L. E.	- 7
Urban Street		Pacific Coast Highv	vay	_	sis Yea				_	_	Period		:30	_		
Intersection		Vista Montana		File N	ame	10-F	PCH-Vist	a Mon	tana	Proj.	AM.xus	3		_	ጎጎተ	7
Project Descrip	tion		1000	393		1000			- 0		100	N 5			1414	r r n
Demand Inform	nation				EB			W	В			NB			SB	
Approach Move	ement			L	T	R	L	I		R	L	T	R	L	T	R
Demand (v), v	THE RESIDENCE OF THE PARTY OF T			48	1156	3	66	15	53		154	151	121	288	116	194
			Sec.	1						111		ST.	28.68	MEA.E		
Signal Informa					1		-	-	2	211	1				K	1
Cycle, s	120.0	Reference Phase	2	-	1 6		C	£ 6	8			10		4	),	
Offset, s	0	Reference Point	End	Green	5.2	0.4	67.6	9.0	)	1.8	16.	0				
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0		4.0	4.0		/	7	1	t
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0	0.0		- 6	6	7	
Timer Results	to a got			EBI		EBT	WE	al I	WB	RT.	NB		NBT	SB		SBT
Assigned Phase	2			5		2	1		6	_	3	-	8	7		4
Case Number				1.1		4.0	_	1.1 4.		-	2.0		4.0	2.0	)	3.0
	se Duration, s			9.2	+	71.6	9.6	_	72.		13.0	-	20.0	18.		25.8
				4.0	-	4.0	4.0	_	4.0	_	4.0	_	4.0	4.0		4.0
the same of the sa	nge Period, ( Y+R c ), s Allow Headway ( MAH ), s			3.0	-	0.0	3.0	_	0.0	-	3.0	_	3.1	3.0		3.1
	_		-	3.8		0.0	4.4	_	0.0		8.7	_	14.1	14.6	_	20.5
Queue Clearan Green Extensio	And in case of the last of the			0.1		0.0	0.1	_	0.0		0.2	_	1.3	0.1		1.3
Phase Call Prob	The second named in column 2 is not a se	( <i>g e</i> ), s		0.87		0.0	0.9	_	0.0		1.00	-	1.00	1.00		1.00
Max Out Probal	_			0.00	-		0.0	_	_	-	0.0	_	0.01	1.00	-	0.01
Max Out Probai	Jility	100		0.00		-	0.0				0.0		0.01	1.00		0.01
Movement Gro	up Res	ults			EB		T	WB				NB			SB	
Approach Move	_	21107		L	T	R	L	T	T	R	L	T	R	L	T	R
Assigned Move				5	2		1	6			3	8	18	7	4	14
Adjusted Flow F	-	), veh/h		62	1482		85	1991			197	183	166	369	149	249
The second second second second	NAME OF TAXABLE PARTY.	ow Rate (s), veh/h/lr	n	1723	-		1723	1723	-		1723	1863	1591	1723	1773	1571
Queue Service		AND DESCRIPTION OF THE PROPERTY OF THE PROPERT		1.8	45.2		2.4	68.0			6.7	11.3	12.1	12.6	4.3	18.5
Cycle Queue Cl				1.8	45.2		2.4	68.0	_		6.7	11.3	12.1	12.6	4.3	18.5
Green Ratio ( g	-	(3 - /1 -		0.61	0.56		0.61	0.57	$\rightarrow$		0.07	0.13	0.13	0.12	0.18	0.18
Capacity ( c ), v	_			135	1941		205	1952	-		258	248	212	424	644	285
Volume-to-Capa	THE RESERVE OF THE PERSON NAMED IN	tio (X)		0.456	_		0.412	1.020	_		0.767	0.736	0.783	0.870	0.231	0.872
	-	In (50 th percentile)		25.6	519.2		27.6	929	-		76	136.4	121	160.3	48	191.4
AND REAL PROPERTY AND ADDRESS OF THE PARTY AND	Name and Address of the Owner, where	eh/In (50 th percentil		1.0	20.0		1.1	35.7	_		2.9	5.2	4.8	6.2	1.8	7.7
THE RESERVE OF THE PARTY OF THE	-	RQ) (50 th percent	en la company	0.17	1.73		0.23	3.72			0.49	0.67	0.61	1.04	0.26	0.97
Uniform Delay (				29.1	30.5		21.3	37.3	_		54.5	50.0	50.3	51.7	41.9	47.7
Incremental Del	Name and Address of the Owner, where			0.9	2.9		0.5	25.5	-		1.8	1.6	2.4	14.6	0.1	8.2
Initial Queue De	-			0.0	0.0		0.0	0.0	-		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	-	AND DESCRIPTION OF THE PERSON		30.0	33.4		21.8	62.8			56.3	51.6	52.7	66.2	42.0	55.9
Level of Service	THE RESERVE OF THE PERSON NAMED IN			C	C		C	F	-		E	D	D	E	D	E
Approach Delay	_	/1.08		33.3		С	61.2		E		53.6		D	58.2		E
Intersection Del	-			30.0			51.1		_		55.0			D 30.2		_
	,vo	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	730.0	0 12 -	12.3		1000	- 50				- 11A	3.00	NO STATE	3 3013	-550
Multimodal Re	sults				EB			WB				NB			SB	
Pedestrian LOS	Score	/ LOS		2.9		С	3.0		C		2.9		С	2.9		С
Bicycle LOS Sc		THE RESERVE AND ADDRESS OF THE PARTY OF THE		1.8		Α	2.2		В		0.9		Α	1.1		Α

		HCS 2	010 S	ignal	lized	Inte	erse	ectio	n Re	sults	Su	ımm	ary				
0.00	The second					11/2	75.		1000	Inte	Water of the last	1100		3.1		وطيلية	Late La
General Inforn	nation	liam .							-			7.77	ormati	on	- 1		The same of the sa
Agency		KHR Associates				1-1				Durati	_		0.25		-		
Analyst				_	sis Dat	e  8/	1/20	16		Area	ype		Othe	r			
Jurisdiction		Torrance California			Period	-			_	PHF			0.98		_ 3	w te	
Urban Street		Pacific Coast High	way		sis Yea	_	_			Analy	_		1> 7:	30			
Intersection		Vista Montana		File N	lame	10	)-PC	H-Vista	a Mont	ana Pi	oj PN	M.xus				<u> ጎጎ</u> ተ	F
Project Descrip	tion	n S S S S S S S S S S S S S S S S S S S	of the co		ALC: N	~	2010	w 50		-97.0	-	2727		10000		ণ ৰ T ৰূপ	THE
Demand Inform	nation				EB				W	В			NB			SB	
Approach Move	ement			L	T		R	L	T		2	L	T	R	L	T	R
Demand (v), v	eh/h			60	1303	3		192	138	31		118	204	149	361	211	98
Signal Informa	tion		The Late	155 111		-	2	The same			L	121					
Cycle, s	120.0	Reference Phase	2	1	~		5	-3 1	F .	2 6	17	24	1.7	_	4	1	4
Offset, s	0	Reference Point	End			1		1	,,		_	1	10	1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Greer		2.		65.5	6.2		-	15.7	_		-		
Force Mode	Fixed	Simult. Gap N/S	On	Yellov Red	0.0	0.		0.0	0.0			0.0		5	6	7	
	ALMA	1957年				200		35/19	110	WE'S					OF THE	olies i	
Timer Results				EB	L	EBT		WB	L	WBT		NBI	-	NBT	SB	L	SBT
Assigned Phase				5		2		1		6	1	3		8	7		4
Case Number				1.1		4.0		1.1		4.0		2.0		4.0	2.0		3.0
Phase Duration	e Duration, s			9.2	2	69.5		12.0	)	72.3	_	10.2	2	19.7	18.	7	28.3
Change Period,	( Y+R	c), S		4.0		4.0		4.0		4.0		4.0		4.0	4.0		4.0
Max Allow Head	dway ( A	<i>ИАН</i> ), s		3.0		0.0		3.0		0.0	3.0			3.1	3.0		3.1
Queue Clearan	ce Time	(gs), s		3.8				7.7				6.1		14.5	14.6	6	8.5
Green Extensio	n Time	(ge), s		0.1		0.0		0.3		0.0		0.1	-	1.2	0.1		1.3
Phase Call Prob	pability			0.8	7			1.00				0.98		1.00	1.00	0	1.00
Max Out Probal	oility			0.0	0	THE REAL PROPERTY.		0.00		S D S C		0.00		0.01	1.00	0	0.00
Movement Gro	up Res	ults			EB	200		- no this	WB		T		NB	3 34		SB	11.4
Approach Move				L	Т	R	2	L	Т	R	+	L	T	R	L	Т	R
Assigned Move				5	2			1	6	1		3	8	18	7	4	14
Adjusted Flow F	or proper name	) veh/h		61	1330			196	1409		1	120	188	172	368	215	100
	-	w Rate (s), veh/h/l	ln.	1723	1723		1	1723	1723	-	-	723	1863	1603	1723	1773	1572
Queue Service	-	The second secon		1.8	39.6			5.7	41.9	_	_	4.1	11.7	12.5	12.6	6.2	6.5
Cycle Queue Cl				1.8	39.6			5.7	41.9	_	-	4.1	11.7	12.5	12.6	6.2	6.5
Green Ratio ( g	-	(3 0 // 0		0.59	0.55			0.62	0.57	-	_	0.05	0.13	0.13	0.12	0.20	0.20
Capacity (c), v	and the same of th			210	1882			261	1962	-	_	177	243	210	423	718	318
Volume-to-Capa		tio (X)		0.291	0.707			0.750	0.718	-	_	.682	0.774		0.870	0.300	0.315
THE RESIDENCE OF THE PARTY OF T	_	In (50 th percentile)		17.3	453.6		7	80.7	477.3	-	_	16.6	142.1	126.6	159.7	68.8	61.9
CONTRACTOR OF STREET	-	eh/In (50 th percenti		0.7	17.4	1	1	3.1	18.4		-	1.8	5.5	5.1	6.1	2.6	2.5
NAME AND ADDRESS OF TAXABLE PARTY.	and the second	RQ) (50 th percent	THE RESERVE OF THE PARTY OF THE	0.12	1.51		1	0.67	1.91	1	_	0.30	0.69	0.64	1.04	0.37	0.31
Uniform Delay (	-	The second liverage and the se	-	19.2	29.9			23.1	29.0		-	56.0	50.4	50.8	51.7	40.6	40.8
Incremental Del	-			0.3	2.3			1.6	2.3		1	1.7	2.0	3.0	14.5	0.1	0.2
Initial Queue De	-	Name and Address of the Owner, where the Party of the Owner, where the Party of the Owner, where the Owner, which is		0.0	0.0		1	0.0	0.0		(	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	-			19.5	32.2		1	24.7	31.3		5	57.7	52.4	53.8	66.2	40.7	41.0
Level of Service	CONTRACTOR STATE	-		В	С		1	С	С		T	E	D	D	E	D	D
Approach Delay		/LOS		31.6	3	C		30.5	,	C		54.2		D	54.5		D
Intersection Del	COLUMN TO SERVICE STATE OF THE PARTY OF THE						37.	6							D		
The state of the s	2000		12/3	N.		80 m	343		1AID				NO	100		FARM	39.50
Iultimodal Results			EB		- 6		WB				NB			SB			
Company of the Compan	-	Pedestrian LOS Score / LOS		2.9		С	-	3.0	_	С	+	2.9	1	С	2.9	-	С

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS\_\_\_\_\_

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 8:00 - 9:00 A.M. Palos Verdes North Intersection:

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project AM Peak Hour East/West Street: Via Valmonte
North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbou	ind	1 W	estbou	ind	No	orthbo	und	S	outhbo	ound
	l L	T	R	1 L	T	R	L	T	R	L	T	R
Volume	10	211	0	-	206	0	113	499	41	1 0	271	0

% Thrus Left Lane

	Easth	ound	Westh	ound	North	bound	South	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	211		206		13	499	271	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1		1			2	1	
Opposing-Lanes	1		1			1	2	
Conflicting-lanes	2	)	2			1	1	
Geometry group	2		2			5	4	a
Duration, T 1.00	hrs.							

	East)	bound	West	bound	North	bound	Sout	hbound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	211		206		13	499	271	
Left-Turn	0		0		13	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group		2		2		5		4a
Adjustments Exhibi	it 17-3:	3:						
hLT-adj		0.2		0.2		0.5		0.2

hRT-adj	-0.6	-0.6	-	0.7	-0.6
hHV-adj	1.7	1.7		1.7	1.7
hadj, computed	0.0	0.0	0.5	0.0	0.0

Worksheet 4 - Departure Headway and Service Time\_\_\_\_

	East	bound	West	bound	Northk	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	211		206		13	499	271	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.19		0.18		0.01	0.44	0.24	
hd, final value	7.08		7.10		7.09	6.58	6.72	
x, final value	0.415		0.406		0.026	0.913	0.506	
Move-up time, m	2	2.0		2.0	2	. 3	2	2.0
Service Time	5.1		5.1		4.8	4.3	4.7	

	Eastbound	Westbound	Northb	ound	Southbound
	L1 L2	L1 L2	L1	L2	L1 L2
Flow Rate	211	206	13	499	271
Service Time	5.1	5.1	4.8	4.3	4.7
Utilization, x	0.415	0.406	0.026	0.913	0.506
Dep. headway, hd	7.08	7.10	7.09	6.58	6.72
Capacity	502	502	433	548	531
95% Queue Length	2.1	2.0	0.1	17.9	3.0
Delay	15.1	14.9	10.0-	61.0	16.6
LOS	C	В	A	F	C
Approach:					
Delay	15.1	14.9	5	9.7	16.6
LOS	C	В	F		C
Intersection Delay	7 34.4	Intersection	LOS D		

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

8/4/2016 Date Performed:

Analysis Time Period: 5:00 - 6:00 P.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project PM Peak Hour East/West Street: Via Valmonte
North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	W	estbou	ind	I N	orthbo	ound	I S	outhbo	ound	1
	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	10	23	0	10	189	0	16	389	38	-10	590	0	

% Thrus Left Lane

	Easth	ound	West	bound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	23		189		6	389	590	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1			1		2	1	
Opposing-Lanes	1			1		1	2	2
Conflicting-lanes	2		13	2		1	1	
Geometry group	2			2		5	4	a
Duration, T 1.00	hrs.							

	Eastbo	and	Westb	ound	North	bound	South	hbound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	23		189		6	389	590	
Left-Turn	0		0		6	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl	e0.0		0.0		0.0	0.0	0.0	
Geometry Group	2		2			5		4a
Adjustments Exhibi	t 17-33:							
hLT-adj	0.2	2	0	. 2		0.5		0.2

hRT-adj	-0.6	-0.6	-0.7	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	0.0	0.5 0	.0 0.0

\_\_Worksheet 4 - Departure Headway and Service Time\_

	East	oound	West	oound	Northk	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	23		189		6	389	590	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.02		0.17		0.01	0.35	0.52	
hd, final value	7.17		6.54		6.49	5.98	5.40	
x, final value	0.046		0.344		0.011	0.646	0.885	
Move-up time, m	1	2.0		2.0	2	2.3	2	2.0
Service Time	5.2		4.5		4.2	3.7	3.4	

Worksheet 5 - Capacity and Level of Service\_\_\_\_\_

	Eastbound	Westbound	Northb	ound	Southbound
	L1 L2	L1 L2	L1	L2	L1 L2
Flow Rate	23	189	6	389	590
Service Time	5.2	4.5	4.2	3.7	3.4
Utilization, x	0.046	0.344	0.011	0.646	0.885
Dep. headway, hd	7.17	6.54	6.49	5.98	5.40
Capacity	460	556	600	598	670
95% Queue Length	0.1	1.6	0.0	5.2	16.2
Delay	10.5	13.0	9.3	19.4	43.8
LOS	В	В	A	C	E
Approach:					
Delay	10.5	13.0	1	9.3	43.8
LOS	В	В	C		E
Intersection Delay	30.2	Intersection	n LOS D		

Consuel Inform	a a dia m	A Committee of					-	Opt of	Intoro	oction I	nforma	tion		إطهاركه ار	l le l
General Inforn	nation	liain .						-		ection I			- 1	TIT	
Agency		KHR Associates		1		0440	040		Durati		0.2	_			
Analyst				-		e 8/1/2	016		Area	ype	Oth				
Jurisdiction		Torrance California		Time I		2010		-	PHF		0.9		- 3	₩†€	
Urban Street		Palos Verdes Dr No		-		r 2016		51.45	_	is Perio	d  1>	7:30	_		
Intersection		Hawthorne Bouleva	ırd	File N	ame	12-Ha	awthorn	e-PVD	Proj A	M.xus				111	1
Project Descrip	tion				257		15.75	(-70)		W 16/2		- 10.3		14147	1.1
Demand Inforr	nation	100			EB			W	В		N	3		SB	
Approach Move	ement			L	T	R	L	T		S [	T	R	L	Т	F
Demand ( v ), v	eh/h			32	935	291	129	56	4 2	8 18	7 42	6 168	346	420	1:
		E James										MANUAL IN			
Signal Informa	Name and Address of the Owner, where	D ( D)	_	-	100	_ 3	≒.,		2 6	17		/		7	1
Cycle, s	120.0	Reference Phase	2	-	L		3	's			10		<b>♦</b> 2	3	
Offset, s	0	Reference Point	End	Green		1.8	62.6	13.			0.5		2		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0	_				7	1	K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.	0 0.	J	5	6	7	
Timer Results	and the same		all la	EBI	Maria Carlo	EBT	WB	L	WBT	N	BL	NBT	SB	L	SBT
Assigned Phase	9			5		2	1		6	_	3	8	7		4
Case Number				1.1		3.0	1.1		3.0	1	1	3.0	2.0		3.0
Phase Duration	S			8.2		66.6	9.9		68.4	_	.6	23.5	20.0	-	25.8
Change Period,		:) s		4.0		4.0	4.0	_	4.0	4	-	4.0	4.0	-	4.0
and the second s	ax Allow Headway ( MAH ), s					0.0	3.0	-	0.0	3	_	3.0	3.0	_	3.0
ueue Clearance Time ( g s ), s				3.0			4.3	_		13	-	17.5	18.0	_	16.9
And in contrast of the local division in the	reen Extension Time ( $g \circ$ ), s					0.0	0.3	_	0.0	0	_	2.0	0.0	_	2.2
	reen Extension Time ( $g \in $ ), s hase Call Probability						0.99	-		1.	_	1.00	1.00	-	1.00
Max Out Probal	and the latest designation of the latest des			0.69			0.00			_	00	0.14	1.00		0.05
				V SIGNA	1	100	10 To 10	C1867		No.					
Movement Gro	up Res	ults			EB			WB			NB			SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate ( v	), veh/h		36	1039	323	143	627	287	208	473	187	384	467	17
Adjusted Satura	ation Flo	w Rate ( s ), veh/h/li	n	1740	1739	1608	1689	1739	160	3 1774	1773	1607	1774	1773	157
Queue Service	Time ( g	7 s ), S		1.1	24.4	14.4	2.3	12.2	12.	11.5	15.5	13.2	16.0	14.9	1.1
Cycle Queue Cl	earance	e Time ( <i>g c</i> ), s		1.1	24.4	14.4	2.3	12.2	12.	11.5	15.5	13.2	16.0	14.9	1.1
Green Ratio ( g.	/C )			0.56	0.52	0.52	0.57	0.54	0.54	0.28	0.16	0.16	0.13	0.18	0.1
Capacity ( c ), v	eh/h			446	1814	839	625	1866	863	299	575	261	237	646	286
Volume-to-Capa	acity Ra	tio (X)		0.080	0.573	0.385	0.229	0.336	-	-	_	-	1.625	0.723	0.05
and the second second second second	-	In (50 th percentile)		10.6	245.7	133.1	20.9	120.7	-	-	-	-	686.6	167.3	10
A REAL PROPERTY AND ADDRESS OF THE PARTY AND A	A STATE OF THE PARTY OF THE PAR	eh/In ( 50 th percentil	A STATE OF THE PARTY OF	0.4	9.5	5.3	0.8	4.7	4.4	_	7.0	5.3	26.6	6.5	0.4
		RQ) (50 th percent	ile)	0.04	0.82	0.46	0.07	0.40	0.38	-	-	0.68	2.25	0.55	0.03
Jniform Delay (	d 1), s/	veh		12.7	19.6	17.2	14.4	15.7	15.7	_	-	-	52.0	46.2	40.6
ncremental Del	ay ( d 2	), s/veh		0.0	1.3	1.3	0.1	0.5	1.0	4.0	4.1	2.5	299.9	1.3	0.0
nitial Queue De	al Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	eh		12.8	20.9	18.5	14.5	16.2	16.7	40.8	-	50.2	351.9	47.5	40.6
evel of Service	(LOS)			В	С	В	В	В	В	D	D	D	F	D	D
Approach Delay	, s/veh	/LOS		20.1		С	16.1	1	В	49	.3	D	182.	3	F
ntersection Del	ay, s/ve	h/LOS				58	3.7		-		No. of Street Street		E		
Multima ed al D	100		Sind	-	EB			WB		1000	NID	Siles		SB	
Multimodal Re	-	/1.00		20	EB	C	20	-		2	NB		20	_	0
edestrian LOS Score / LOS				2.9		С	2.9		C	3.	1	C	3.0		C

		HCS 2	010 5	Signa	lized	Inters	ectio	n Re	sults	Sumn	ary				
12000									IAI	137	XII.		The second	510	7 7 3
General Inform	nation								Interse	ction In				111	la la
Agency		KHR Associates							Duration	n, h	0.25		2	* * * *	
Analyst				Analy	sis Dat	e 8/1/2	016		Area Ty	ре	Othe	er	4		¥
Jurisdiction		Torrance California		Time	Period				PHF		0.90		1	wis	= =
Urban Street		Palos Verdes Dr No	orth	Analy	sis Yea	r 2016			Analysis	Period	1>7	:30	7		
Intersection		Hawthorne Bouleva	ard	File N	lame	12-H	awthorn	e-PVD	Proj PM	1.xus				5 † †	7
Project Descrip	tion													ነ ላ ነ ቀ ነ	147
Demand Inform	mation	N S	10.00	-	EB			W	В		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	and the latest terms of th			25	721	237	141	107	1 321	232	358	136	202	411	24
Contract of the second			1 10	1000			19215	75					Bell.		
Signal Informa	parameter .	In ( n)		-	2		<b>=</b> ,	-	2			_	7	-	1
Cycle, s	120.0	Reference Phase	2		6		3	12	1 5	10		1	<b>♦</b> 2	3	4
Offset, s	0	Reference Point	End	Green	3.6	2.3	63.3	16.				200	S		
Uncoordinated	No	Simult. Gap E/W	On	Yellov	_	0.0	4.0	4.0	_	0.0				1	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	В
Timer Results	-		A	EB	-	EBT	WE	EL .	WBT	NB	- Day	NBT	SB		SBT
Assigned Phase	Δ			5	-	2	1	,_	6	3	_	8	7	_	4
Case Number				1.1		3.0	1.1		3.0	1.1		3.0	2.0		3.0
Phase Duration	S			7.6	_	67.3	10.	_	69.6	20.	-	22.8	20.	-	22.8
Change Period		c). S		4.0	_	4.0	4.0	_	4.0	4.0	_	4.0	4.0	_	4.0
NAME AND ADDRESS OF THE OWNER, WHEN PERSON	Allow Headway ( MAH ), s			3.0	-	0.0	3.0	_	0.0	3.0	-	3.0	3.0	_	3.0
and the second second second	eue Clearance Time ( g s ), s			2.9	_		4.5			16.		14.8	17.		17.0
The second division is not a second				0.0	_	0.0	0.3	_	0.0	0.0		2.0	0.0	_	1.8
A THE REAL PROPERTY AND ADDRESS OF THE PARTY A	n Extension Time ( g e ), s e Call Probability			0.6	_		0.9	_		1.00	-	1.00	1.00	_	1.00
Max Out Probal	-			0.0	_		0.0			1.00	-	0.04	1.00	_	0.09
		PERCENT STATE			300	W. C.				03/-		1 3	150	2.00	
Movement Gro	and the same of the same of	sults		-	EB			WB		-	NB			SB	
Approach Move	-			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	-	T-11		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	_	A STATE OF THE PARTY OF THE PAR		28	801	263	157	1190	357	258	398	151	224	457	27
AND DESCRIPTION OF THE PERSON NAMED IN	and the same of th	ow Rate (s), veh/h/l	n	1740	1739	1608	1689	1739	-	1774	1773	1607	1774	1773	1573
Queue Service	_			0.9	17.0	11.1	2.5	28.3	15.5	14.5	12.8	10.5	15.1	15.0	1.7
Cycle Queue C	MARKET BALLET	e Time ( g c ), s		0.9	17.0	0.53	2.5 0.58	28.3	15.5	14.5	12.8	10.5	15.1	15.0	1.7
Green Ratio (g.	-			0.56	0.53	848	800	1902	-	311	0.16 555	0.16	0.13	0.16 555	0.16
Capacity (c), v		tio (V)		0.112	0.437	0.311	0.196	0.626	and the latest designation in which the	0.830	0.717	0.601	0.949	0.823	0.108
THE RESERVE TO SHARE THE PARTY OF THE PARTY	ACCORDING TO SERVICE	In (50 th percentile)		8.3	168.6	101.7	22.2	280.2	THE REAL PROPERTY.	192.3	143.7	103.9	242.3	173.4	16.8
AND DESCRIPTION OF THE PARTY OF	Name and Address of the Owner, where	eh/In (50 th percenti		0.3	6.5	4.1	0.9	10.9	5.6	7.5	5.6	4.2	9.4	6.7	0.7
	Actor Division in the last	RQ) (50 th percent	The same of the same of	0.03	0.56	0.35	0.07	0.93	0.48	0.95	0.71	0.53	0.80	0.57	0.06
Uniform Delay (		AND RESIDENCE OF THE PARTY OF T	/	15.4	17.4	16.0	12.5	18.7	15.8	36.8	48.1	47.1	51.6	49.0	43.4
Incremental Del	_			0.1	0.8	1.0	0.0	1.6	1.4	16.1	0.9	0.9	44.0	3.7	0.1
Initial Queue De				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (				15.5	18.2	17.0	12.6	20.3	17.2	52.9	49.0	48.0	95.6	52.7	43.5
Level of Service	STATE OF TAXABLE PARTY.			В	В	В	В	С	В	D	D	D	F	D	D
Approach Delay				17.8	3	В	18.9	9	В	50.1		D	65.9		E
Intersection Del	ay, s/ve	h / LOS				32	2.2						С		
					T.		1000	VA/ID			WHI.	10-30		De Act	
Multimodal Re		/1.00			EB	0	200	WB			NB	0		SB	
Pedestrian LOS	-	NAME OF TAXABLE PARTY.		2.9	_	C	2.9	-	C	3.1		C	3.0	_	C
Bicycle LOS Sc	ore / LC	72		1.4		Α	1.9		Α	1.2		Α	1.1		A

		HCS 2	010 S	ignal	ized	Inters	ectio	n Res	sults	Summ	ary				
STATE OF THE	4	Last Carlow James	A Tilak			10, 99	730						1886		
General Inform	nation									ction In			_	الجهارية لا	
Agency		KHR Associates							Duratio	n, h	0.25		-	- WV	*
Analyst				Analy	sis Dat	e 8/1/2	016		Area Ty	ре	Othe				
Jurisdiction		Torrance California		Time	Period				PHF		0.90		3	wie	
Urban Street		Crenshaw Bouleva	rd	Analy	sis Yea	r 2016			Analysis	Period	1>7	30	7		*
Intersection		Palos Verdes Dr No	orth	File N	ame	13-Cı	enshaw	-PVD	Proj AM	xus				ጎተተ	7
Project Descrip	tion									PAI COM	e la company		_	শ্ৰ ক্ৰণ	TE T
Demand Inform	nation		-000,00		EB		711	W	3		NB	00000		SB	
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	T	R
Demand (v), v				100	850	_	55	71		_	425		-	-	5
Domaila ( v ); v				100							1000			1000	
Signal Informa	tion					1 2		_	y U		1-4		-		1
Cycle, s	120.0	Reference Phase	2		- 6		₩ 1	K		10	1	_	<b>4</b>		<b>1</b>
Offset, s	0	Reference Point	End	Green	52	0.6	62.8	16.					X	1 3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	0.0	4.0	4.0	The second liverage and the se	0.0		1	<b>→</b>		N
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		-5	6	7	
West State				-		EDT	145		MADE	ALID.		NDT	0.0		
Timer Results				EBI	-	EBT	WB	L	WBT	NB	_	NBT	SB	L	SBT
Assigned Phase	9			5	-	2	1	-	6	3	-	8	7		4
Case Number				1.1	-	4.0	1.1	_	4.0	1.1	_	3.0	2.0	_	3.0
Phase Duration				9.9	-	67.4	9.2	-	66.8	20.0	-	23.4	20.0		23.4
Change Period,				3.0	-	4.0	4.0	_	4.0	4.0	_	4.0	4.0	-	4.0
The second second second second	ax Allow Headway ( MAH ), s					0.0	3.0	_	0.0	3.0	-	3.0	3.0		3.0
Committee of the later of the l	ueue Clearance Time ( g s ), s			3.7	-		3.0	_		18.0	-	17.5	18.0	-	17.3
THE RESIDENCE OF THE PARTY OF T	een Extension Time ( g e ), s			0.2	-	0.0	0.1	_	0.0	0.0	_	1.9	0.0		1.9
	ase Call Probability			0.98			0.87	_		1.00	-	1.00	1.00		1.00
Max Out Probal	oility			0.00	)		0.00	)		1.00	)	0.13	1.00	)	0.12
Mayamant Cra	un Doo	ulto.			EB			WB		-	NB			SB	1
Movement Gro	_	uits		1	Т	R	L	T	R	L	Т	R	L	T	D
Approach Move					_	12		6	16	3	_	18	1	-	R
Assigned Move		\			2 767	697	61	585	527	527	8 472	113	7	4 468	14
Adjusted Flow F	_	THE RESERVE OF THE PARTY OF THE		111		-	_	_	_			-		-	63
THE RESIDENCE OF THE PARTY OF T		w Rate (s), veh/h/l	n	1689	1827	1609	1689	1827	1644	1774	1773	1607	1774	1773	157
Queue Service	-			1.7	41.0	43.3	1.0	26.9	27.0	16.0	15.5	7.6	16.0	15.3	4.2
Cycle Queue Cl	-	e Time ( g c ), s		1.7	41.0	43.3	1.0	26.9	27.0	16.0	15.5	7.6	16.0	15.3	4.2
Green Ratio ( g	-			0.57	0.53	0.53	0.57	0.52	0.52	0.29	0.16	0.16	0.13	0.16	0.16
Capacity ( c ), v	ASSESSMENT OF THE PERSON NAMED IN	tio ( V )		580	965	850	374	956	860	313	573	260	237	573	254
Volume-to-Capa		STATE OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.		0.192	0.795	0.820	0.163	0.612	-	1.685 915.7	0.825	0.437	1.860	0.817	0.24
_		In (50 th percentile)	_	16	461.8	425.1	8.8	294.1 11.4	259.3	35.5	179.8	75.1	861.1	177.3	40.5
	-	eh/ln (50 th percenti	CHARLES CO.	0.6	17.9	17.0 1.46	0.3	-	THE RESERVE OF THE PERSON NAMED IN	Name and Address of the Owner, where	7.0	3.0	33.4	6.9	1.6
The second second second second		RQ) (50 th percent	iie)	0.05	1.54	-	0.03	0.98	0.89	4.51	0.89	0.38	2.83	0.58	0.14
Uniform Delay (				14.8	23.0	23.5	20.6	20.1	20.1	39.2	48.7	45.4	52.0	48.6	44.0
ncremental Del	-			0.1	6.7	8.7	0.1	2.9	3.3	321.8	4.1	0.4	402.9	3.8	0.2
nitial Queue De	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	Name and Address of the Owner, where	en		14.9	29.7	32.2	20.6	23.0	23.3	361.0	52.8	45.8	454.9	52.4	44.1
Level of Service	_	/1.00	_	B	С	С	C	С	С	F	D	D	F	D	D
Approach Delay	ACCRECATE VALUE OF			29.8		C 10	23.0		С	198.	J	F	234.	2	F
Intersection Del	ay, s/ve	n / LOS				10	8.0		(F) (F)				F		
Multimodal Re	eulte		1		EB			WB	1000		NB	L) Factor	11071	SB	1 3
	-	/109		2.9		С	2.9		C	3.0	140	С	3.0	JB	С
redestrian LOS	edestrian LOS Score / LOS			2.9		A	1.5	_	A	3.0		U	3.0		U

		HCS 2	010 \$	Signa	lized	Inters	ectio	n Re	sults	Sumn	nary				
Company	(2) A				1	100		200				Na Pille	100 -	المهارية ال	SIRA
General Inform	nation	IKUD A						-	Interse				_	404	
Agency		KHR Associates				01110	240	_	Duratio		0.25				
Analyst		T 0.1%		_	_	te 8/1/2	.016	_	Area Ty	ре	Othe			y	
Jurisdiction		Torrance California		_	Period	_		_	PHF		0.90		_3 ⇒	₩Ĵŧ	1
Urban Street		Crenshaw Bouleva		_	sis Yea	-	_		Analysi		1>7	:30	_ 5		
Intersection Project Descrip	tion	Palos Verdes Dr No	orth	File N	lame	13-C	renshav	v-PVD	Proj PM	.xus			-	111	
Project Descrip	TION	1 45 1 1 1 1 1			128	1	Sili							TO THE	T. P.
Demand Inform	mation				EB			W	3		NE	3		SB	
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	Т	R
Demand (v), v	eh/h			48	781	300	116	76	2 249	497	7 368	65	361	370	54
Signal Informa	tion						5								
Cycle, s	120.0	Reference Phase	2	-	~	4	<b>≓</b> ₹	<b>;</b>				/	7	1	4
Offset, s	0	Reference Point	End				7			10		4	Z 5	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		0.9	64.9	The second second second	STATE OF THE PERSON NAMED IN				4		
Force Mode	Fixed	Simult. Gap N/S	On	Yellov	v 4.0 0.0	0.0	0.0	4.0 0.0	0.0			5	6	>	Ψ
				1000	27/03	TO PROTE	WEIL		THE STATE OF		AND P	7-11-		19	277
Timer Results				EB	L	EBT	WE	3L	WBT	NB	BL	NBT	SB	L	SBT
Assigned Phase	е			5	-	2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	1.1	1	3.0	2.0		3.0
Phase Duration	, S			9.0	)	68.9	9.9	)	69.8	20.	0	21.2	20.	0	21.2
Change Period,	(Y+R	c ), S		4.0		4.0	4.0	)	4.0	4.0	)	4.0	4.0		4.0
Max Allow Head	dway ( /	<i>MAH</i> ), s		3.0	)	0.0	3.0	)	0.0	3.0		3.0	3.0	)	3.0
Queue Clearan	ueue Clearance Time ( g s ), s						4.0	)		18.	0	15.4	18.	0	15.5
Green Extensio	een Extension Time ( g e ), s					0.0	0.2	2	0.0	0.0	)	1.8	0.0	)	1.7
Phase Call Prob	ase Call Probability			0.83	3		0.9	9		1.0	0	1.00	1.00	0	1.00
Max Out Probat	bility			0.00	0		0.0	0		1.0	0	0.03	1.00	0	0.04
Movement Gro	un Pos	ulte		-	EB			WB			NB	100		SB	
Approach Move	ASSESSMENT OF THE PARTY OF	uite		L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		) veh/h		53	629	572	129	586	537	552	409	72	401	411	60
The second second second second		w Rate (s), veh/h/li	n	1689	1827	1652	1689	1827	1671	1774	1773	1607	1774	1773	1572
Queue Service		CONTRACTOR OF THE PARTY OF THE		0.8	29.0	29.2	2.0	25.6	25.7	16.0	13.4	4.8	16.0	13.5	4.1
Cycle Queue Cl	STATE OF TAXABLE PARTY.			0.8	29.0	29.2	2.0	25.6	25.7	16.0	13.4	4.8	16.0	13.5	4.1
Green Ratio ( g/	of some of the latest dealers.	· ····· (g · ), ·		0.58	0.54	0.54	0.59	0.55	0.55	0.28	0.14	0.14	0.13	0.14	0.14
Capacity ( c ), v				571	987	893	557	1002	916	311	509	231	237	509	226
Volume-to-Capa	CONTRACTOR OF THE PARTY OF THE	tio (X)		0.093	0.637	0.640	0.231	0.585	-	1.777	0.803	0.313	1.696	0.808	0.266
and the second second	-	In (50 th percentile)		7.3	313.5	- Control of the last of the l	17.6	274.2	-	1006. 5	152.5	47.7	738.7	153.8	39.3
Back of Queue	( Q ), ve	eh/In ( 50 th percentil	e)	0.3	12.2	11.2	0.7	10.6	9.8	39.0	5.9	1.9	28.6	6.0	1.6
		RQ) (50 th percent		0.02	1.04	0.96	0.06	0.91	0.84	4.95	0.75	0.24	2.42	0.50	0.13
Uniform Delay (	-			13.8	19.3	19.4	14.6	18.0	18.0	40.8	49.7	46.1	52.0	49.8	45.8
NAME OF TAXABLE PARTY.	emental Delay ( d 2 ), s/veh			0.0	3.1	3.5	0.1	2.5	2.7	362.6	2.0	0.3	330.6	2.1	0.2
	I Queue Delay ( d ₃ ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (		eh		13.8	22.5	22.9	14.7	20.5	20.8	403.4	51.7	46.4	382.6	51.9	46.0
Level of Service				В	C	С	В	С	С	F	D	D	F	D	D
Approach Delay				22.3	3	С	20.0		С	239.	3	F	203.	6	F
Intersection Del	ay, s/ve	h/LOS				10	8.3		The same				F		
Multimodal Res	ulto	SE MAN EN LAND		FIL	EB	E PERSON	- 4	WB	3.75		NID			CD.	BUT THE
Pedestrian LOS	and the second	/I OS		2.9	CD	С	2.9	-	С	3.0	NB	С	3.0	SB	0
Bicycle LOS Sco	-			1.5	-	A	1.5	-	A	1.3	-	A	1.2	-	C A

General Inforn	nation	The state of the s			-	The same of the sa	1000	State of	Interes	ction In	format	ion	and the second	الما الما الما	1 4 4
_	iation	KUD Associates												中で	
Agency		KHR Associates		Analy	nie Dat	0/4/0	016		Duratio		0.25				
Analyst Jurisdiction		Torrance California		-	sis Date Period	6/1/2	010		Area Ty	pe	Othe			w.e	
				-		2016		-		. Dorina				0	
Urban Street		Rolling Hills Road		_	sis Yea	_	-	II. DV		s Period	1>7	:30			
Intersection	Alaia.	Palos Verdes Dr No	ortri	File N	ame	14-R	olling H	IIS-PV	D Proj Al	vi.xus			_	111	
Project Descrip	tion		SERVE		1 -1	STREET	541			1700	5000	-		14144	T-St. D.
Demand Inforr	nation		-		EB	-5000		W	В	CO COUNT	NE	}	7	SB	
Approach Move	ement			L	Т	R	L	Т	R	L	Т	R	L	T	F
Demand (v), v	Mercanio de la composició de la composic			30	57	52	191	6	_		863				_
	BRU	The Later Lines		ALLIS	CAR	STATE OF	Y/BEG	SAL P	10000	1		E COL	RIVER !	200	
Signal Informa	tion					5		1/2	5						I
Cycle, s	90.0	Reference Phase	2		2			ķ., (2	517		-	-	4	1	\$\$
Offset, s	0	Reference Point	End	Green	3.4	3.9	10.7	26.	0 26.	0 0.0		9 8	K	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	4.0	4.0	4.0	The second second	-		1	7		N
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
A STATE OF	2436			MEST	700			200	1.00	The second	ET LA		-	160	
Timer Results				EBI		EBT	WE	IL	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9			5	-	2	1		6	-		8	-		4
Case Number				1.1	-	3.0	1.1	_	3.0	-		9.0	-		10.0
Phase Duration		1		7.4	_	14.7	15.	-	22.6	-		30.0	-	-	30.0
Change Period,	and the second			4.0	_	4.0	4.0	-	4.0	-		4.0	-		4.0
Max Allow Head	CONTRACTOR OF THE PARTY NAMED IN			3.0	_	0.0	3.0	-	0.0		-	3.0	-		2.9
Queue Clearand	-			3.5 0.0	-	0.0	11.3	_	0.0	-	-	28.0	-		28.0
	reen Extension Time ( g e ), s					0.0	0.2	_	0.0	-		0.0	-		0.0
the state of the s	hase Call Probability						1.0			-	-	1.00	-	_	1.00
Max Out Probab	oility	THE PART AND A STATE OF	B 1 - C	0.00	)	- UKIE	0.1	0			The same of	1.00			1.00
Movement Gro	up Res	sults	the of the		EB	SAIS IS BY	The same	WB		The same	NB	212 4	PERLE	SB	
Approach Move	-			L	T	R	L	T	R	L	T	R	L	T	R
Assigned Mover				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		), veh/h		33	63	58	212	68	38	70	959	237	32	1020	14
		ow Rate (s), veh/h/lr	1	1740	1827	1597	1740	-	-	1774	1863	1607	1774	1858	
Queue Service		The second secon		1.5	2.8	3.0	9.2	2.8	1.7	2.6	26.0	11.1	1.2	26.0	
Cycle Queue Cl				1.5	2.8	3.0	9.2	2.8	1.7	2.6	26.0	11.1	1.2	26.0	
Green Ratio ( g/		, 5 - 11 -		0.16	0.12	0.12	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity ( c ), v				301	218	190	412	378	331	513	538	464	513	537	
Volume-to-Capa		tio (X)		0.111	0.291	0.304	0.515	-	and the same of the same of	0.137	1.782	0.510	0.063	1.900	
ATTEMPORTUNE AND ADDRESS OF THE PARTY OF THE		In (50 th percentile)		15.5	36.4	33	93	32.3	-	26.9	1663	99.9	12.1	1804.5	
Company of the Compan		eh/In (50 th percentil	e)	0.6	1.4	1.3	3.6	1.3	0.7	1.0	64.5	4.0	0.5	72.2	
Committee of the later of the l	STREET, SQUARE, SQUARE,	RQ) (50 th percenti	_	0.05	0.12	0.11	0.31	0.11	0.06	0.13	8.19	0.51	0.04	6.11	
Uniform Delay (				32.6	36.2	36.2	27.7	29.4	29.0	23.7	32.0	26.7	23.2	32.0	
ncremental Del				0.1	3.4	4.1	0.4	1.0	0.7	0.0	359.3	0.4	0.0	412.1	
Married Committee Committe	al Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	rol Delay ( d ), s/veh			32.7	39.5	40.3	28.1	30.4	29.7	23.7	391.3	27.1	23.2	444.1	
AND DESCRIPTION OF THE PERSON	evel of Service (LOS)			С	D	D	С	С	C	С	F	С	С	F	
THE RESIDENCE AND ADDRESS OF THE PARTY OF TH	pproach Delay, s/veh / LOS			38.3		D	28.8	3	С	302.9	9	F	431.	2	F
THE RESERVE OF THE PARTY OF THE	tersection Delay, s/veh / LOS					30	5.4						F		
	Bree !	SALES COM	FILE CO				33/ 5					-	-04 87		1-1-2-7
Multimodal Res	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	/ LOS		2.5		В	2.3		В	2.5		В	2.4		В
Diguala LOC Co	ycle LOS Score / LOS			0.7		Α	1.0		Α	2.6	1	В	2.2		В

General Inform	nation	A pool of the second		111 6		2000	-		Interse	ction In	formati	ion	-	ا خالما ا	J. L
-	nation	KHD Associates						_	Duration		0.25	OII		サ广	
Agency		KHR Associates		Analy	nia Dat	0/1/0	016	$\rightarrow$			_	-			
Analyst		Torronce California		-	sis Dat Period	e 8/1/2	010		Area Ty PHF	pe	Othe 0.90	11		, i.	
Jurisdiction		Torrance California				- 2016		_		Dariad	_	20	-		
Urban Street		Rolling Hills Road	-11-	_	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	r 2016	-III III		Analysis		1> 7:	.30	-		
Intersection	e .	Palos Verdes Dr No	ortn	File N	ame	14-R	olling Hi	IIS-PVL	Proj Pl	vi.xus			-	ነተሰ	
Project Descrip	tion			- 3000	- 75	1000		100	EF IS	State .				12171	E-15
Demand Infor	mation				EB			WE	3	T	NB			SB	
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	T	
Demand (v), v	eh/h			22	49	80	657	59	26	34	846	225	5	693	
		STREET, STREET		11111	170	Walter T					2 5	ZEK.	9/25/	THE STATE OF	1
Signal Informa	_				2	_ 6	<b>\</b>		77		1				人
Cycle, s	90.0	Reference Phase	2		1			1	50				<b>\(\phi\)</b>	3	*
Offset, s	0	Reference Point	End	Green	2.7	9.3	6.0	26.0	26.0	0.0			5		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0				1	7	1	K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
Timer Results				EBI		EBT	WB		WBT	NB	10.18	NBT	SB	L	SB
Assigned Phase	e			5	+	2	1	-	6	1		8		-	4
Case Number				1.1		3.0	1.1		3.0			9.0			10.0
Phase Duration	9			6.7	-	10.0	20.0	_	23.3			30.0		-	30.0
Change Period		c) s		4.0	_	4.0	4.0	_	4.0		$\rightarrow$	4.0			4.0
Max Allow Hea	-	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW		3.0	-	0.0	3.0		0.0		1	3.0		-	2.9
CONTRACTOR DESCRIPTION OF THE PARTY OF THE P	ueue Clearance Time ( g s ), s				_	0.0	18.0	_	0.0		_	28.0			28.0
				0.0	_	0.0	0.0	-	0.0			0.0		-	0.0
Name and Address of the Owner, where the Owner, which is the	reen Extension Time ( g e ), s nase Call Probability			0.46	-	0.0	1.00	_	0.0			1.00			1.00
Max Out Proba				0.00	-		1.00	_			_	1.00			1.00
		Was a sur		REMIN	TO THE	200	1	TEN			1387	No. No.		E AN	1
Movement Gro	up Res	ults			EB			WB			NB			SB	
Approach Move	ement			L	Т	R	L	Т	R	L	T	R	L	Т	F
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	1
Adjusted Flow I	Rate (v	), veh/h		24	54	89	730	66	29	38	940	250	6	782	
Adjusted Satura	ation Flo	ow Rate ( s ), veh/h/lr	1	1740	1827	1586	1740	1827	1603	1774	1863	1447	1774	1857	
Queue Service	Time ( g	gs), S		1.2	2.6	5.0	16.0	2.6	1.3	1.4	26.0	13.4	0.2	26.0	
Cycle Queue C	learance	e Time ( g c ), s		1.2	2.6	5.0	16.0	2.6	1.3	1.4	26.0	13.4	0.2	26.0	
Green Ratio ( g	/C)			0.10	0.07	0.07	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity ( c ), v	/eh/h			220	122	106	439	391	343	513	538	418	513	537	
Volume-to-Cap	acity Ra	tio (X)		0.111	0.447	0.841	1.661	0.168	0.084	0.074	1.747	0.598	0.011	1.458	
Back of Queue	(Q), ft/	In (50 th percentile)		12.3	38.5	84.8	1012.	30.8	13	14.2	1602. 8	112.1	2	1073.4	
Back of Queue	(Q) VE	eh/In ( 50 th percentil	le)	0.5	1.5	3.4	39.2	1.2	0.5	0.6	62.1	4.5	0.1	42.9	-
the second second second second second	_	RQ) (50 th percenti		0.04	0.13	0.29	3.37	0.10	0.04	0.07	7.89	0.57	0.01	3.64	
Uniform Delay	-			37.2	40.4	41.5	33.5	28.8	28.3	23.3	32.0	27.5	22.8	32.0	
ncremental De	ASSESSMENT OF THE PARTY OF THE			0.1	11.4	52.0	307.6	0.9	0.5	0.0	343.7	1.7	0.0	216.2	
nitial Queue De		SHOW MITTHE TO THE PARTY OF THE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	-			37.3	51.8	93.6	341.1	29.8	28.8	23.3	375.7	29.2	22.8	248.2	
_evel of Service	CAPITAL PROPERTY.			D	D	F	F	С	C	С	F	С	С	F	
Approach Delay	THE RESERVE OF THE PERSON NAMED IN	/LOS		71.8	3	E	305.	_	F	294.	3	F	246.	6	F
Intersection De	the same of the same of					-	2.4						F		
	1.053		A. A.					201	M	SECTION SECTION		1966	ERIK.		13
Multimodal Re	Marie Control				EB			WB			NB			SB	_
	edestrian LOS Score / LOS			2.5		В	2.3		В	2.5		В	2.4		В

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/17

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project AM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	and	We	estbo	und	1 N	orthbo	und	1 Sc	outhbo	und	1
	l L	T	R	L	T	R	L	T	R	L	T	R	13
Volume	10	0	0	175	0	140	10	357	96	134	283	0	- 1

% Thrus Left Lane

	Eastk	oound	West	bound	Northb	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	T
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			7.5	140	453		134	283
% Heavy Veh			0	0	0		0	0
No. Lanes				2	1		2	2
Opposing-Lanes				0	2			1
Conflicting-lanes			3	2	2		2	2
Geometry group			13	1	31	b		5
Duration, T 1.00	hrs.							

	Eastb	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			75	140	453		134	283
Left-Turn			75	0	0		134	0
Right-Turn			0	140	96		0	0
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns			0.0	1.0	0.2		0.0	0.0
Prop. Heavy Vehicle			0.0	0.0	0.0		0.0	0.0
Geometry Group				1		3b		5
Adjustments Exhibit	17-33	:						
hLT-adj				0.2		0.2		0.5

hRT-adj -0.6 -0.6 -0.7 hHV-adj 1.7 1.7 hadj, computed 0.2 -0.6 -0.1 0.5 0.0

Worksheet 4 - Departure Headway and Service Time\_\_\_\_\_

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			75	140	453		134	283
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.07	0.12	0.40		0.12	0.25
hd, final value			6.21	5.40	5.31		6.13	5.63
x, final value			0.129	0.210	0.669		0.228	0.442
Move-up time, m			2	. 0	2	2.0	2	.3
Service Time			4.2	3.4	3.3		3.8	3.3

Worksheet 5 - Capacity and Level of Service

Eastbound	West	oound	Northb	ound	Southk	oound
L1 L2	L1	L2	L1	L2	L1	L2
Flow Rate	75	140	453		134	283
Service Time	4.2	3.4	3.3		3.8	3.3
Utilization, x	0.129	0.210	0.669		0.228	0.442
Dep. headway, hd	6.21	5.40	5.31		6.13	5.63
Capacity	577	667	676		583	643
95% Queue Length	0.4	0.8	5.8		0.9	2.3
Delay	10.1	9.8	18.9		10.6	12.8
LOS	В	A	C		В	В
Approach:						
Delay		9.9	18	3.9	1	2.1
LOS	I	A	C		B	3
Intersection Delay 14.5	Inte	ersection	n LOS B			

Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/17

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project PM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	W	estbou	ind	l N	orthbo	ound	1 S	outhbo	ound	1
	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	10	0	0	- 61	337	61	-10	310	47	190	337	0	
% Thrus Le	eft La	ne	0	101	557	01	10	310	3 /	130	551	O	

	East	Eastbound		bound	Northbound	Southbound
	L1	L2	L1	L2	L1 L2	L1 L2
Configuration			L	R	TR	L T
PHF			1.00	1.00	1.00	1.00 1.00
Flow Rate			61	61	357	90 337
% Heavy Veh			0	0	0	0 0
No. Lanes			-	2	1	2
Opposing-Lanes			(	O	2	1
Conflicting-lanes			4	2	2	2
Geometry group				1	3b	5
Duration, T 1.00	hrs.					

Markahaat	2 _	Saturation	Unadrian	Addingtmont	Monlookaat
WOLKSHEEL	-3 -	Salutation	neadway	AUTHSTHEIL	WOLKSHEEL

	Eastbound	Westbound		Northbound		South	bound
	L1 L2	L1	L2	L1	L2	L1	L2
Flow Rates:							
Total in Lane		61	61	357		90	337
Left-Turn		61	0	0		90	0
Right-Turn		0	61	47		0	0
Prop. Left-Turns		1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns		0.0	1.0	0.1		0.0	0.0
Prop. Heavy Vehicle		0.0	0.0	0.0		0.0	0.0
Geometry Group			1		3b		5
Adjustments Exhibit	17-33:						
hLT-adj			0.2	(	0.2		0.5

hRT-adj -0.6 -0.6 -0.7 hHV-adj 1.7 1.7 1.7 hadj, computed 0.2 -0.6 -0.1 0.5 0.0

Worksheet 4 - Departure Headway and	Service '	Time
-------------------------------------	-----------	------

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			61	61	357		90	337
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.05	0.05	0.32		0.08	0.30
hd, final value			5.93	5.12	5.06		5.69	5.18
x, final value			0.100	0.087	0.502		0.142	0.485
Move-up time, m			2	.0	2	2.0	2	.3
Service Time			3.9	3.1	3.1		3.4	2.9

## Worksheet 5 - Capacity and Level of Service

	Eastbound		Westh	oound	North	oound	South	oound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate			61	61	357		90	337	
Service Time			3.9	3.1	3.1		3.4	2.9	
Utilization, x			0.100	0.087	0.502		0.142	0.485	
Dep. headway, hd			5.93	5.12	5.06		5.69	5.18	
Capacity			610	678	714		643	688	
95% Queue Length			0.3	0.3	3.0		0.5	2.8	
Delay			9.6	8.6	13.1		9.3	12.7	
LOS			A	A	В		A	В	
Approach:									
Delay			9	.1	1	3.1	1	2.0	
LOS			A	1	E	3	E	3	
Intersection Delay	12.1		Inte	rsection	n LOS B				

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project AM Peak Hour
East/West Street: Newton Street
North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | Volume | 79 142 77 | 44 186 145 | 72 179 21 | 61 94 34

% Thrus Left Lane

	Eastb	Eastbound		Westbound		oound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	298		375		272		61	128
% Heavy Veh	0		0		0		0	0
No. Lanes	1			1	1	L		2
Opposing-Lanes	1		1		2	2		1
Conflicting-lanes	2		2	2	1			1
Geometry group	2		2	2	4	la		5
Duration, T 1.00	hrs.							

	East	Eastbound		bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	298		375		272		61	128
Left-Turn	79		44		72		61	0
Right-Turn	77		145		21		0	34
The second secon	0.3		0.1		0.3		1.0	0.0
Prop. Right-Turns	0.3		0.4		0.1		0.0	0.3
Prop. Heavy Vehicl			0.0		0.0		0.0	0.0
Geometry Group		2	2	2		4a		5
Adjustments Exhibi	it 17-33	3:						
hLT-adj		0.2	(	0.2		0.2		0.5

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.1	-0.2	0.0	0.5 -0.2

Worksheet 4 - Departure Headway and Service Time\_

	East	oound	West	bound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	298		375		272		61	128
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.26		0.33		0.24		0.05	0.11
hd, final value	6.12		5.87		6.55		7.69	6.98
x, final value	0.506		0.611		0.495		0.130	0.248
Move-up time, m	2	2.0		2.0		2.0	2	.3
Service Time	4.1		3.9		4.5		5.4	4.7

\_\_Worksheet 5 - Capacity and Level of Service\_\_

	Eastbound	Westbound	Northbound	Southbound
	L1 L2	L1 L2	L1 L2	L1 L2
Flow Rate	298	375	272	61 128
Service Time	4.1	3.9	4.5	5.4 4.7
Utilization, x	0.506	0.611	0.495	0.130 0.248
Dep. headway, hd	6.12	5.87	6.55	7.69 6.98
Capacity	584	615	555	469 512
95% Queue Length	3.0	4.5	2.9	0.4 1.0
Delay	15.4	18.0	15.9	11.5 12.0
LOS	C	C	C	ВВ
Approach:				
Delay	15.4	18.0	15.9	11.8
LOS	C	C	C	В
Intersection Delay	15.8	Intersection	on LOS C	

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017 Agency/Co.:

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project PM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics\_

	Ea	astbo	and	We	estbo	und	No	orthbo	und	S	outhbo	ound
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	140	73	10	139	70	213	10	148	17	164	165	53

% Thrus Left Lane

	Eastbound		Westh	Westbound		oound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	123		322		175		64	218
% Heavy Veh	0		0		0		0	0
No. Lanes	1			Ĺ		1	2	2
Opposing-Lanes	1		1	Ĺ	2	2	1	L
Conflicting-lanes	2		2	2		1	- 1	L
Geometry group	2		- 2	2	4	1a	5	5
Duration, T 1.00	hrs.							

	400		44.0 T 19.10 J. T. Jr.			
	East	oound	Westbound	Northbound	South	nbound
	L1	L2	L1 L2	L1 L2	L1	L2
Flow Rates:						
Total in Lane	123		322	175	64	218
Left-Turn	40		39	10	64	0
Right-Turn	10		213	17	0	53
Prop. Left-Turns	0.3		0.1	0.1	1.0	0.0
Prop. Right-Turns	0.1		0.7	0.1	0.0	0.2
Prop. Heavy Vehicl	.e0.0		0.0	0.0	0.0	0.0
Geometry Group		2	2	4a		5
Adjustments Exhibi	t 17-33	3:				
hLT-adj		0.2	0.2	0.2		0.5

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	-0.4	-0.0	0.5 -0.2

\_Worksheet 4 - Departure Headway and Service Time\_

	Eastbound		West	Westbound		bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	123		322		175		64	218
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.29		0.16		0.06	0.19
hd, final value	5.73		5.02		5.66		6.49	5.81
x, final value	0.196		0.449		0.275		0.115	0.352
Move-up time, m	2	2.0		2.0		2.0	2	.3
Service Time	3.7		3.0		3.7		4.2	3.5

Worksheet 5 - Capacity and Level of Service\_\_\_

	Eastbound	Westbound	Northbound	Southbound
	L1 L2	L1 L2	L1 L2	L1 L2
Flow Rate	123	322	175	64 218
Service Time	3.7	3.0	3.7	4.2 3.5
Utilization, x	0.196	0.449	0.275	0.115 0.352
Dep. headway, hd	5.73	5.02	5.66	6.49 5.81
Capacity	615	716	625	533 623
95% Queue Length	0.7	2.4	1.1	0.4 1.6
Delay	10.1	12.1	10.8	10.0+ 11.7
LOS	В	В	В	ВВ
Approach:				
Delay	10.1	12.1	10.8	11.3
LOS	В	В	В	В
Intersection Delay	/ 11.3	Intersection	on LOS B	

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project AM Peak Hour East/West Street: Newton Street
North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | | L T R | L T R | L T R 1106 83 5 |3 | 119 | 103 | 14 | 9

% Thrus Left Lane

	East	Eastbound		Westbound		Northbound		bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	189	5	122	103	23	14	15	41
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes		2	- 3	2		2	2	2
Opposing-Lanes	2	2		2		2	2	2
Conflicting-lanes		2	100	2	2	2	2	2
Geometry group		5	3	5		5	1	5
Duration, T 1.00	hrs.							

	Eastbound		West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	189	5	122	103	23	14	15	41
Left-Turn	106	0	3	0	14	0	12	0
Right-Turn	0	5	0	103	0	14	0	41
Prop. Left-Turns	0.6	0.0	0.0	0.0	0.6	0.0	0.8	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl	e0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

hRT-adj	-	0.7	-	0.7	-	0.7	-	-0.7
hHV-adj		1.7		1.7		1.7		1.7
hadj, computed	0.3	-0.7	0.0	-0.7	0.3	-0.7	0.4	-0.7

Worksheet 4 - Departure Headway and Service Time\_

	Eastb	Eastbound		Westbound		ound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	189	5	122	103	23	14	15	41
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17	0.00	0.11	0.09	0.02	0.01	0.01	0.04
hd, final value	5.20	4.22	4.92	4.20	5.83	4.83	5.91	4.81
x, final value	0.273	0.006	0.167	0.120	0.037	0.019	0.025	0.055
Move-up time, m	2	.3	2	.3	2	. 3	2	.3
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5

Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Eastbound		Westb	ound	Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	189	5	122	103	23	14	15	41	
Service Time	2.9	1.9	2.6	1.9	3.5	2.5	3.6	2.5	
Utilization, x	0.273	0.006	0.167	0.120	0.037	0.019	0.025	0.055	
Dep. headway, hd	5.20	4.22	4.92	4.20	5.83	4.83	5.91	4.81	
Capacity	700	500	718	858	575	700	750	820	
95% Queue Length	1.1	0.0	0.6	0.4	0.1	0.1	0.1	0.2	
Delay	9.8	6.9	8.6	7.5	8.8	7.6	8.8	7.8	
LOS	A	A	A	A	A	A	A	A	
Approach:									
Delay	9.8		8.1		8.3		8.0		
LOS	A		A		A		A		
Intersection Delay	8.7		Inte	rsection	LOS A				

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Project PM Peak Hour
East/West Street: Newton Street
North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics\_\_\_\_\_

	Ea	Eastbound		Westbound			Northbound			Southbound		
	L	T	R	[ L	T	R	IL	T	R	L	T	R
Volume	154	120	12	15	160	15	116	18	2	138	16	153

% Thrus Left Lane

	Eastbound		West	bound	North	oound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	174	12	165	15	34	2	54	153
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes	4	2		2	2	2	2	2
Opposing-Lanes	2	2		2	2	2	4	2
Conflicting-lanes	2	2		2	2	2	2	2
Geometry group		5		5	Į.	5	ī	5
Duration, T 1.00	hrs.							

	Eastbound		Westbound		Northbound		Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rates:									
Total in Lane	174	12	165	15	34	2	54	153	
Left-Turn	54	0	5	0	16	0	38	0	
Right-Turn	0	12	0	15	0	2	0	153	
Prop. Left-Turns	0.3	0.0	0.0	0.0	0.5	0.0	0.7	0.0	
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0	
Prop. Heavy Vehicl	e0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Geometry Group 5		5	5		5		5		
Adjustments Exhibi	t 17-3	3:							
hLT-adj		0.5		0.5		0.5		0.5	

hRT-adj	-	0.7		-0.7	-	0.7	-	-0.7
hHV-adi		1.7		1.7		1.7		1.7
nadj, computed	0.2	-0.7	0.0	-0.7	0.2	-0.7	0.4	-0.7
EV.		1 Don	2 × + 11 × 0	Headway	and car	wico Tim	0	

	Eastb	ound	Westb	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	174	12	165	15	34	2	54	153
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.15	0.01	0.15	0.01	0.03	0.00	0.05	0.14
hd, final value	5.45	4.59	5.32	4.60	5.91	4.97	5.83	4.78
x, final value	0.263	0.015	0.244	0.019	0.056	0.003	0.088	0.203
Move-up time, m	2	. 3	2	.3	2	.3	2	. 3
Service Time	3.1	2.3	3.0	2.3	3.6	2.7	3.5	2.5

 Worksheet	5	-	Capacity	and	Level	of	Service	
					52.5			

	Eastb	ound	Westb	ound	Northb	ound	Southk	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	174	12	165	15	34	2	54	153
Service Time	3.1	2.3	3.0	2.3	3.6	2.7	3.5	2.5
Utilization, x	0.263	0.015	0.244	0.019	0.056	0.003	0.088	0.203
Dep. headway, hd	5.45	4.59	5.32	4.60	5.91	4.97	5.83	4.78
Capacity	669	600	688	750	567	0	600	765
95% Queue Length	1.1	0.0	1.0	0.1	0.2	0.0	0.3	0.8
Delay	10.1	7.4	9.7	7.4	9.0	7.7	9.1	8.7
LOS	В	A	A	A	A	A	A	A
Approach:								
Delay	9	. 9	9	.5	8	. 9	8	. 8
LOS	A		A		A	LT III	A	
Intersection Delay	9.4		Inte	rsection	n LOS A			

A DELIVERY			35,000		82	100	C TILL	The same	Inda wa a a	dian Ind		0.00	-	14141	b. I
General Inform	nation	Lucia I						$\rightarrow$	Intersed			on	-	111	
Agency		KHR Associates		1		To this	210	_	Duration		0.25		-4		
Analyst				-		e 8/1/20	016		Area Typ	ре	Othe	r		w+e	*
Jurisdiction		Torrance California		111111111111111111111111111111111111111	Period			$\rightarrow$	PHF		0.90	00		M+E	-
Urban Street		Pacific Coast Highw	vay	_		r 2016			Analysis		1> 7:	30	-		
Intersection		Calle Mayor		File N	ame	18-P0	CH-Calle	e Mayo	r Proj Al	M.xus				ጎተሰ	
Project Descrip	otion				SIFIE		in the		7	Contract of the	No. of Particular			14144	7 1
Demand Infor	mation		1000		EB	0		WE	3		NB			SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand (v), v				120	212	170	96	24	1 163	148	804	33	180	960	305
Domaira ( 1 );		Sur series	100			7-50	0000					S SIN		3 2 2	
Signal Informa	ation								S 211		9				
Cycle, s	90.0	Reference Phase	2		7	<b>⊣</b> ≅	<b>=</b>				10	-	<b>4</b>		4
Offset, s	0	Reference Point	End	Green	5.6	1.1	25.3	7.1	1.2	33.	11		7	1 3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0		4.0		7	<del>-</del>		ST
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		5	6	7	Y
	ner Results signed Phase se Number ase Duration, s ange Period, ( Y+R c ), s x Allow Headway ( MAH ), s eue Clearance Time ( g s ), s						14/5		MOT	ND		NIDT	CD		ODT
Timer Results	igned Phase se Number se Duration, s singe Period, ( Y+R c ), s c Allow Headway ( MAH ), s			EBI	_	EBT	WB	L	WBT	NB	_	NBT	SB	L	SBT
Assigned Phas	е			5	+	2	1	-	6	3	-	8	7		4
Case Number				1.1	_	4.0	1.1	-	4.0	1.1		3.0	1.1	-	3.0
	-			10.7	_	30.4	9.6	$\rightarrow$	29.3	11.1	-	37.7	12.3	_	38.9
THE RESERVE TO THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	-			4.0	_	4.0	4.0	_	4.0	4.0	_	4.0	4.0	_	4.0
NAME AND ADDRESS OF TAXABLE PARTY.	-			3.0	_	0.0	3.0	_	0.0	3.0	_	3.0	3.0	_	3.0
The second second second second	_			6.8	-		5.9			7.0	_	35.7	8.1		36.9
and the same of th	de la companya della companya della companya de la companya della	(ge), s		0.1	_	0.0	0.1	_	0.0	0.2	_	0.0	0.2	_	0.0
	-			0.96	_		0.93			0.98	_	1.00	0.99		1.00
Max Out Proba	bility		0.25/1	0.00			0.00	)	BIRLING TRUST	0.00		1.00	0.0	1	1.00
Movement Gro	oup Res	ults			EB			WB			NB			SB	
Approach Move	THE RESERVE OF THE PERSON			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow	-	), veh/h		133	224	200	107	236	213	164	893	37	200	1067	339
		ow Rate (s), veh/h/li	n	1740	1827	1557	1740	1827	1579	1774	1863	1609	1774	1863	1576
Queue Service	-			4.8	8.9	9.4	3.9	9.6	10.1	5.0	33.7	1.3	6.1	34.9	15.1
Cycle Queue C	-			4.8	8.9	9.4	3.9	9.6	10.1	5.0	33.7	1.3	6.1	34.9	15.1
Green Ratio (	AND DESCRIPTION OF THE PERSON NAMED IN	, 0 . // -		0.36	0.29	0.29	0.34	0.28	-	0.45	0.37	0.37	0.47	0.39	0.39
Capacity (c),	-			366	537	457	346	514	445	220	698	603	243	722	611
Volume-to-Cap	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	itio (X)		0.365	0.417	0.438	0.309	0.459	-	0.749	1.280	0.061	0.823	1.477	0.555
CONTRACTOR OF CHILD PROPERTY.	NAME OF TAXABLE PARTY.	In (50 th percentile)		47.2	102	90.7	38.1	111.6	-	50.2	1031. 7	11.4	61.8	1507.2	-
Back of Queue	(Q), ve	eh/In ( 50 th percenti	le)	1.8	4.0	3.6	1.5	4.3	4.0	1.9	40.0	0.5	2.4	58.4	5.2
AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED I	the same of the same of the same of	RQ) (50 th percent		0.16	0.34	0.31	0.13	0.37	0.34	0.25	5.08	0.06	0.20	4.95	0.44
Uniform Delay	(d1), s	/veh		20.9	25.6	25.8	21.3	26.7	26.8	21.1	28.1	18.0	20.8	27.6	21.5
Incremental De	Name and Address of the Owner, where the Owner, which is the Own			0.2	2.4	3.0	0.2	2.9	3.7	1.9	136.9	0.0	3.0	222.1	0.7
Initial Queue D	ACCRECATE VALUE OF STREET	and the second s		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	and the last of th			21.1	28.0	28.8	21.5	29.6	30.5	23.1	165.0	18.0	23.8	249.7	22.1
Level of Service	THE RESERVE TO THE PERSON NAMED IN			С	С	С	С	С	C	С	F	В	С	F	С
Approach Dela	THE RESERVE THE PERSON NAMED IN	/LOS		26.6	3	С	28.4	1	C	138.	8	F	173.	5	F
Intersection De	-	the second secon				12	0.9						F		
Multimodal Re	eulte	Ur and the second	er alle	100	EB	2.45%		WB			NB	Be a	No.	SB	
Pedestrian LOS	-	/1 OS		2.4		В	2.4		В	2.8	-	С	2.8	-	С
i cuestilali LU	5 00016	, 200		2.7		A			A	2.3	-	В	3.1	-	С

		HCS 2	010 S	ignal	ized l	nters	ection	n Res	ults S	umm	ary				
					No silve			F4 (- H	Intersed	tion Inf	ormati	on	See left	1474	le la
General Inform	ation	LICUID A						_		-	0.25	OII		) † ľ	
Agency		KHR Associates		T		lau ia	212	_	Duration		_				
Analyst				_		8/1/2	016	_	Area Typ	oe	Othe	r	_	w te	
Jurisdiction		Torrance California		-	Period	-		_	PHF		0.90		_ = =	w+e	*
Urban Street		Pacific Coast Highw	vay	Analy	sis Year	_		_	Analysis		1> 7:	30	7		
Intersection		Calle Mayor		File N	ame	18-P	CH-Calle	Mayo	r Proj Pl	M.xus				ጎተሰ	
Project Descript	tion				CONTRACTOR OF THE PARTY OF THE			all at	100					ነጻ፣ቀዮ	THI
Demand Inforn	nation				EB		SECOND SECOND	WE	3		NB		THE REAL PROPERTY.	SB	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R
Demand ( v ), v	-		-	120	242	230	_	149	136	194	1050	_	175	959	86
Demand (V), V	CHIT	0.00	2015	120				100	THE OWNER OF THE OWNER,			1919	DESCRIPTION OF REAL PROPERTY.	-	
Signal Informa	tion					T							t de la		
Cycle, s	90.0	Reference Phase	2	1	2 6	==3	<u> </u>	7			100	_	4	1	A
Offset, s	0	Reference Point	End	-	1.0	7	3	104			17	1	Y 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		0.0	25.3 4.0	8.1	0.7	4.0		7	<del>}</del>		
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	-6	2	
Force Mode	rixed	Simult. Gap N/S	Oll	Reu	0.0	0.0	0.0	0.0	0.0	10.0	16/10/9		1871581	19.00	1519
Timer Results				EBI	L	EBT	WB	L	WBT	NBI		NBT	SB	L	SBT
Assigned Phase	9			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	1.1		3.0	1.1		3.0
Phase Duration	•			10.7	-	31.2	8.8	-	29.3	12.8		37.9	12.		37.2
	-	\ -			_	4.0	4.0	$\rightarrow$	4.0	4.0	_	4.0	4.0	-	4.0
ACCRECATE OF THE PARTY OF THE P	nge Period, ( Y+R c ), s Allow Headway ( MAH ), s			4.0	_		-	_		3.0	-	2.9	3.0	-	2.9
and the second second second		and the second s		3.0	_	0.0	3.0	_	0.0	_	-		-	-	-
Queue Clearand				6.8			4.3	_		8.6	_	35.8	8.0		35.2
Green Extension	Market Street, Square,	(ge), s		0.1		0.0	0.1	_	0.0	0.2	_	0.0	0.2		0.0
Phase Call Prob	pability			0.96	-		0.79	_		1.00	-	1.00	0.99		1.00
Max Out Probab	oility		-	0.00			0.00			0.01		1.00	0.0	1	1.00
Movement Gro	un Ros	eulte	G.	B100100	EB			WB			NB			SB	H-172
Approach Move		Julio		L	T	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	4	14
		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		133	269	256	63	166	151	216	1167	56	194	1066	96
Adjusted Flow F	_	SHAROOT SHAROOT STATE OF THE PARTY OF THE PA	-		-	-	-		-			1609	1774	-	-
		ow Rate (s), veh/h/l	n	1740	1827	1543	1740	1827	1543	1774	1863	-		1863	157
Queue Service				4.8	10.8	12.5	2.3	6.4	7.0	6.6	33.8	2.0	6.0	33.2	3.7
Cycle Queue Cl		e Time $(gc)$ , s		4.8	10.8	12.5	2.3	6.4	7.0	6.6	33.8	2.0	6.0	33.2	3.7
Green Ratio ( g				0.36	0.30	0.30	0.33	0.28	0.28	0.47	0.38	0.38	0.46	0.37	0.3
Capacity (c), v				421	553	467	295	514	434	254	700	605	240	686	581
Volume-to-Capa	acity Ra	atio (X)		0.317	0.486	Name and Address of the Owner, where	0.215	0.322	-	0.848	1.666	0.092	0.809	1.553	0.16
Back of Queue	(Q), ft	In (50 th percentile)		47.1	125	121.1	22.4	73.6	67	72.4	1883. 8	17.4	60.3	1602.1	31.3
Back of Queue	(Q). ve	eh/In ( 50 th percenti	le)	1.8	4.8	4.8	0.9	2.9	2.7	2.8	73.0	0.7	2.3	62.1	1.3
		RQ) (50 th percent	-	0.16	0.42	0.42	0.07	0.25	0.23	0.36	9.27	0.09	0.20	5.26	0.11
Uniform Delay (	_		/	20.5	25.6	26.2	21.6	25.5	25.8	20.7	28.1	18.1	20.9	28.4	19.1
Incremental Del				0.2	3.0	4.5	0.1	1.7	2.2	5.9	305.9	0.0	2.5	256.0	0.0
and the second second second second				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Queue De	the state of the last of the l			20.7	28.7	30.8	21.8	27.2	27.9	26.6	334.0	18.2	23.4	284.4	19.2
Control Delay (					-	-	-	C C	-	C	554.0 F	B	C C	F	-
Level of Service				C 07.6	С	С	C	_	С	MARK THE PARTY NAMED IN	_			1	В
Approach Delay	_	Principle Service Control		27.9	9	C 10	26.6		С	275.	/	F	228. F	3	F
Intersection Del	ay, s/ve	en / LOS	S = 10	-		19	1.7		The second		2011	1		13 (50 50	100
Multimodal Re	culte	DEFECT OF SE	200		EB	3500	The same	WB			NB	7-15	The same	SB	18 (1)
A THE RESERVE AND ADDRESS OF THE PARTY OF TH	-	/100		2.4	-	В	2.4		В	2.8		С	2.8	The second	С
Pedestrian LOS												~			~

**Cumulative without Project** 

**Highway Capacity Method** 

		HCS 2	010 \$	Signa	lized	Inters	sectio	n Re	sults	Sumn	nary				
General Inform	nation	Market State of the	THE RE				-0.3	de 315	Interes	ction Ir	forma	tion	diales.	Jalua	LEE
Agency	iiatioii	KHR Associates									-		-		
Analyst		KITK ASSOCIATES		Analy	raia Dat	te 8/1/2	0016		Duratio	-	0.25				· ·
Jurisdiction		Torrance California		-	Period	le   6/1/2	2016		Area Ty	/pe	Oth				:
Urban Street		Pacific Coast High		-		2016	,			- Di	0.94			W+E	+
Intersection		Hawthorne Bouleva		-	sis Yea	_		Ale a sus a s	_	s Period	1 > 7	:30	3		F
	tion	nawthorne Bouleva	ard	File N	iame	1-PC	H-Haw	tnorne	C-P AM	xus			_	ንጎተተ	11
Project Descrip	tion				1			CONTRACT.	DE TON				-1	াৰ কি	THI
Demand Inform	nation				EB			WI	В		NE	3		SB	
Approach Move	ement			L	T	R	L	Т	R	L	Т	R	L	T	R
Demand (v), v	eh/h		- 13:	294	104	5 270	14	5 107	75 27	7 293	3 140	7 61	202		-
Harry St.		No. of the last				200					Selection of the select	i de la	unite pro	ES.L.	
Signal Informa	-				2	2		<u>~</u>	2	2		-		1210	1
Cycle, s	_		2		-	R	===	1	1	117	17	_	₹	1	4
Offset, s			End	Green	7.6	1.7	48.7	9.6					K	3	
Uncoordinated	No		On	Yellov	-	4.0	4.0	4.0				/	-		t
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0				7	
Timer Results	Information  Movement  (v), veh/h  formation  120.0 Reference Phase  0 Reference Point  nated No Simult. Gap E/W  de Fixed Simult. Gap N/S  sults  Phase  mber  tration, s  Period, (Y+Rc), s  v Headway (MAH), s  earance Time (gs), s  tension Time (ge), s  all Probability  Probability  Probability  Interview Time (ys), s  tension Time (ys), s			EB		EBT	WE	21	WBT	NID		NDT	0.5		ODT
Assigned Phase				5	_		1	DL		NB	L	NBT	SB R L T CO	SBT	
Case Number	7			_		2	1		6	3		8	SBL 7 2.0 13.6 4.0 3.0 9.3 0.2 1.00 0.01  SB L T 7 4 215 814 7 1723 1691 7.3 17.4 7.3 17.4 7.3 17.4 7.3 17.4 7.3 17.4 7.3 17.4 0.08 0.24 275 1230 0.781 0.662 82.5 185.6 3.2 7.1 0.27 0.60 54.2 41.0 1.8 1.1		4
	•		-	2.0	-	3.0	2.0	-	3.0	2.0		3.0	-	SBL 7 2.0 13.6 4.0 3.0 9.3 0.2 1.00 0.01 SB L T 7 4 215 814 1723 1691 7.3 17.4 275 1230 .781 0.662 32.5 185.6 3.2 7.1 0.27 0.60 54.2 41.0 1.8 1.1 0.0 0.0 56.0 42.1 E D	3.0
	-	\ •		17.3	_	58.4	11.	_	52.7	16.		36.4			33.1
THE RESERVE AND ADDRESS OF THE PARTY OF THE				4.0	-	4.0	4.0		4.0	4.0		4.0	-		4.0
		Manager & Company of the Company of		3.0	_	0.0	3.0	_	0.0	3.0		3.0	-		3.0
				13.1	_	0.0	7.5			12.		34.4	-		27.6
		( g e ), s		0.2	_	0.0	0.2		0.0	0.2	-	0.0	-		1.2
	and the last of th			1.00			0.9			1.0		1.00	1		1.00
Max Out Probat	ollity		-	1.00			0.0	0		0.73	3	1.00	0.0	1	1.00
Movement Gro	up Res	ults			EB		500	WB			NB	000000		SB	TO DESIGNATION OF THE PERSON NAMED IN
Approach Move	ment			L	Т	R	L	T	R	L	Т	R	L	-	R
Assigned Mover	ment	THE PERMIT		5	2	12	1	6	16	3	8	18	-	-	14
Adjusted Flow F	Rate ( v	), veh/h		313	1112	287	154	1144	295	312	1497	65		-	346
Adjusted Satura	tion Flo	w Rate (s), veh/h/lr	1	1673	1643	1531	1673	1643	-	1723	1691	1577	-	-	1573
THE RESIDENCE OF THE PARTY OF T				11.1	22.2	17.9	5.5	24.0	19.3	10.7	32.4	3.8	_		25.6
The second secon				11.1	22.2	17.9	5.5	24.0	19.3	10.7	32.4	3.8	-	-	25.6
Green Ratio ( g/	(C)			0.11	0.45	0.45	0.06	0.41	0.41	0.11	0.27	0.27	-	-	0.24
Capacity ( c ), ve				371	2234	694	212	2001	621	370	1371	426	-	-	381
Volume-to-Capa	city Ra	tio (X)		0.843	0.498	0.414	0.727	0.572	-	0.842	1.092	0.152	-	-	0.907
the same of the sa		In (50 th percentile)		136.1	241.2	187.4	60.9	262.9	-	129	514.1	36.7	-	-	316.4
THE RESERVE THE PERSON NAMED IN		h/ln (50 th percentile	e)	5.2	9.3	7.2	2.3	10.1	7.9	5.0	19.8	1.4			12.2
The second secon	-	RQ) (50 th percentil		0.45	0.80	0.62	0.20	0.88	0.68	0.63	2.51	0.18		1000000	1.03
Uniform Delay (				54.5	30.6	29.2	56.4	34.8	33.1	52.5	43.8	33.3	-	-	44.1
Incremental Dela	-			10.2	0.8	1.8	1.8	1.2	2.6	9.3	53.5	0.1	-	_	24.1
nitial Queue De		the state of the same of the s		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		-	0.0
Control Delay (	_			64.8	31.4	31.0	58.2	36.0	35.6	61.9	97.3	33.4		-	68.3
evel of Service	-			Е	С	С	E	D	D	E	F	-	-	_	E
Approach Delay		LOS		37.4	-	D	38.1	-	D	89.2		F		_	D
ntersection Dela							5.2		_	00.2			E 30.6		
			1	727	300				115	THE STREET	718	200	1911	No.	
Multimodal Res	ults				EB			WB			NB			SB	TIS. II
Pedestrian LOS	Score /	LOS		3.5		С	3.5		C	3.5		С	3.5		С
Bicycle LOS Sco	ore / LO	S		1.4		Α	1.4		A	1.5		Α	1.2		Α

		HCS 2	010 5	Signal	ized	Inters	sectio	n Re	sults	Sumn	nary				
General Inform	antion								Intern	25175		Charles .	330	Table 1	0.200
	lation	IKUD Associates							11111111	ection Ir	1		_	1 4 Y 4	
Agency		KHR Associates		14		1 1044	040	_	Duratio		0.25				
Analyst		Tamana Oalifamia				te 8/1/2	2016		Area T	ype	Othe				<b>:</b>
Jurisdiction		Torrance California	.07.	-	Period	_			PHF		0.90		_===	77 1	-
Urban Street		Pacific Coast Highw		-	sis Ye	$\rightarrow$			_	is Period	1   1> 5	5:00	2		~
Intersection		Hawthorne Bouleva	ard	File N	lame	1-PC	H-Haw	thorne	C-P PN	l.xus				<u> ጎጎተተ</u>	11
Project Descrip	tion	100 100 100 100 100 100 100 100 100 100	3-3		1000			200	- Charle					1414	זאץ
Demand Inform	nation				EB			V	/B		NE	3		SB	
Approach Move	ment			L	T	R	L		T R	L	T	R	L	T	R
Demand (v), v	eh/h	-51-11		254	114	7 355	194	4 9	98 25	4 324	1 94:	3 74	423	_	_
Cianal Informa	dian.													-037	SECOND SECOND
Signal Informa	120.0	Reference Phase	2	4	2	-2		<b>=</b>	7	7 71		-		K	1
Cycle, s			_			3	=3		5		17		Z I	3	
Offset, s Uncoordinated	0 No	Reference Point	End	Green		2.4	49.8				100				
Force Mode	-	Simult. Gap E/W	On	Yellow		0.0	4.0	4.						1	D
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0.0	0.0		- 5	- 6		
Timer Results				EB		EBT	WE	3L	WBT	NE	L	NBT	SE	BL	SBT
Assigned Phase	,			5		2	1		6	3		8	7		4
Case Number			1119	2.0	BILL	3.0	2.0	0	3.0	2.0	)	3.0	2.0	)	3.0
Phase Duration,	s			16.2	2	56.1	13.	.9	53.8	18.	5	30.0	20.	0	31.5
Change Period,	(Y+R	c), s		4.0	E 5 8	4.0	4.0	0	4.0	4.0	)	4.0	4.0		4.0
Max Allow Head	lway ( /	ИАН ), s		3.0		0.0	3.0	0	0.0	3.0	)	3.0	3.0	)	3.0
Queue Clearand	e Time	(gs), s		12.0			9.6	6	177	14.	3	26.5	18.	_	29.5
Green Extension	n Time	(ge), s		0.2		0.0	0.2	2	0.0	0.2		0.0	0.0	)	0.0
Phase Call Prob	ability			1.00	)		1.0	0		1.0	0	1.00	1.0	0	1.00
Max Out Probab	ility			0.37	7		0.0	2		1.0	0	1.00	1.0	0	1.00
Movement Gro	un Poc	ulto			EB	#		WE	e Lane	Pitte	ND		Section 1	0.0	
Approach Move	and the last of th	uita		L	Т	R	L	T	R	L	NB T	R	L	SB	l p
Assigned Mover	-	7		5	2	12	1	6	16	3	8	18	7	4	R
Adjusted Flow R	-	) veh/h		282	1274	394	216	1109		360	1048	82	470	1432	14
Name and Address of the Owner, where the Owner, which is the Owne	and the latest devices the lates	w Rate (s), veh/h/lr	1	1673	1643	1531	1673	1643	-	-	1691	1576	1723		478
Queue Service	THE RESERVE OF THE PERSON NAMED IN	NAME AND ADDRESS OF THE OWNER, WHEN PERSON ADDRESS OF THE OWNER, WHEN PERSON AND ADDRESS OF THE OWNER, WHEN		10.0	26.6	26.5	7.6	23.0	-	12.3	24.5	5.2	16.0	1691 27.5	1572
Cycle Queue Cle	-			10.0	26.6	26.5	7.6	23.0	-	12.3	24.5	5.2	16.0	27.5	27.5
Green Ratio ( g/		7 mio ( g v ), o		0.10	0.43	0.43	0.08	0.41		0.12	0.22	0.22	0.13	0.23	0.23
Capacity ( c ), ve				341	2141	665	275	2044	-	416	1099	342	459	1164	361
Volume-to-Capa		tio (X)		0.827	0.595	-	0.783	-		-	0.953	0.241	1.023	1.231	1.325
The state of the s	-	In (50 th percentile)		119.3	290.6	-	85.4	251.	-	_	302.7	51.2	254	602.2	697.3
	_	h/In (50 th percentil	e)	4.6	11.2	10.9	3.3	9.7	7.4	6.0	11.6	2.0	9.8	23.2	26.8
THE RESERVE OF THE PARTY OF THE		RQ) (50 th percenti	_	0.40	0.97	0.94	0.28	0.84	_	0.76	1.48	0.25	0.83	1.96	2.27
Uniform Delay (				54.9	33.6	33.5	55.7	33.7	-	51.8	46.4	38.8	52.0	46.2	46.2
Incremental Dela				7.4	1.2	3.9	1.9	1.0	2.3	13.7	16.9	0.1	48.0	111.6	164.4
Initial Queue De	_			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	_			62.3	34.8	37.4	57.5	34.8	The state of the local division in the local	65.5	63.3	39.0	100.0	157.8	210.6
Level of Service				Е	С	D	E	С	С	E	E	D	F	F	F
Approach Delay,		LOS		39.3		D	37.7	-	D	62.5	-	E	157.		F
Intersection Dela							1.3					-	F		•
15 15 16 16	153	MARKET STR		7	923	1	-	29	5 11				V' CE		DE ST
Multimodal Res					EB			WB			NB			SB	
Pedestrian LOS				3.5		С	3.5	-	C	3.5		С	3.5		С
Bicycle LOS Sco	re / LO	S		1.6		Α	1.4		A	1.3		Α	1.8		Α

		HCS 2	010 S	Signali	ized I	nterse	ection	n Res	ults \$	Summ	nary	A 2011 A 2			
General Inform	action					Selv)	213		Intorco	ction In	formati	on		기시시하	ILU
	lation	1			-						0.25	OII	_		
Agency				Analys	ia Data	8/4/20	116		Duration Area Ty	-	O.25	_	- 1		
Analyst				Time F	_	0/4/20	110		PHF	pe	0.87	1		wit.	
Jurisdiction		Hay the same Dayley		-		2016		_	_	Dariad	-	.00			
Urban Street		Hawthorne Bouleva	ard	-	sis Year	-	**		NAME AND ADDRESS OF THE OWNER, OR OTHER	s Period	1> 7:	.00			
Intersection		244th Street		File Na	ame	2-Haw	/tnorne-	-244th	C-P AM	.xus			-	111	
Project Descrip	tion			2000	- Table			- 0			- 2 (	E E		1417	HEL
Demand Inform	nation				EB	COSC NAME OF		WE	3		NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	T		R L	T	R
Demand (v), v	eh/h			0	29	8	0	60	57	4	167	1	42	2 108	8
	DAY.		Ship.	1	- 15 - 17		199	A CONTRACTOR OF THE PARTY OF TH		The last					
Signal Informa					7 4	= 15							No. of the		
Cycle, s	45.0	Reference Phase	2		₹ ×	15							-		+
Offset, s	0	Reference Point	End	Green	21.0	16.0	0.0	0.0	0.0	0.0			K		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	0.0	0.0	0.0				7		V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0					
Timer Results				EBL		EBT	WB		WBT	NB		NBT	9	BL	SBT
Assigned Phase	•	4.5.	200	LDL	-	2	VVD	-	6	IVD	_	8	3	DL	4
Case Number						8.0	150 15		8.0			6.0			6.0
The second secon	•				_	25.0			25.0	-		20.0	-		-
Phase Duration	-	\			_	9.0			9.0			4.0			20.0
Change Period,					-	0.0			0.0	-		3.2			4.0
Max Allow Head	THE RESERVE OF THE PERSON NAMED IN			-		0.0			0.0	-		18.0	-		3.2
Queue Clearand						0.0			0.0	-		0.0			18.0
Green Extension		( g e ), S		-		0.0			0.0	-		ripolesies.	-	-	0.0
Phase Call Prob	-		- 79	100						-	-	1.00	-	-	1.00
Max Out Probab	ollity		455						Alexander of the second	-		1.00			1.00
Movement Gro	up Res	sults	I I I		EB	d Shirt		WB			NB			SB	- /
Approach Move	ment			L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	1	7	4	
Adjusted Flow F	the second second	), veh/h			0			0		5	1921		48	1251	
	_	ow Rate (s), veh/h/l	n	5	0	N = D		0		451	1691		236	-	
Queue Service	-				0.0			0.0		0.4	16.0		0.0	9.5	
Cycle Queue CI	_				0.0	565		0.0		9.9	16.0		16.0	_	
Green Ratio ( g/	and the last of th	(0)								0.36	0.36		0.36		
Capacity (c), v	-					VIII TO	200			225	1804		160	-	
Volume-to-Capa	ACCRECATE VALUE OF THE PARTY OF	atio (X)			0.000			0.000		0.020	1.065		0.302	-	-
	and the latest designation of the latest des	/In (50 th percentile)			0			0		0.9	285.6		11.7		
PROFESSION STATEMENT OF THE PROPERTY OF THE PR	Oracle Desired	eh/ln (50 th percenti	Named and Address of the Owner, where the		0.0			0.0		0.0	11.4		0.5	2.9	
and the second second second second second	SCHOOL SECTION AND ADDRESS OF THE PARTY OF T	RQ) (50 th percent	and the same of		0.00			0.00	1	0.01	1.45		0.12	-	
Uniform Delay (	-	and the second s								16.6	14.5		22.5		
Incremental Del					0.0			0.0		0.0	40.8		0.4	1.0	
Initial Queue De	-				0.0			0.0		0.0	0.0		0.0	0.0	
Control Delay (	and the latest designation of the latest des						-			16.6	55.3		22.9		
Level of Service	Name and Address of the Owner, where									В	F		С	В	
Approach Delay	_			9.8		A	10.9		В	55.2	-	E	13		В
Intersection Del	AND DESCRIPTION OF THE PERSON NAMED IN				-	37.							D		
	STATE OF STREET		10 mm	The House Street	15	Y SHE		Labor.	176	Street,	181	10.5			-984
				200	SOLIS	and the same			NAME OF TAXABLE PARTY.	-			-		
Multimodal Res	-			3.2	EB	С	3.2	WB	С	2.1	NB	В	2.	SB	

Conoral Inform	antion	365.00				20		-11	T	Intono	ation In	£			7 4 7 4	TORSIES.
General Inforn	nation					_					ction In			_	4 574	
Agency				T						Duratio	-	0.25	_			
Analyst						te 8	8/4/201	16		Area Ty	ре	Othe		4144		
Jurisdiction				-	Period	-				PHF		0.90	_		₩ Î €	
Urban Street		Hawthorne Bouleva	ard		sis Yea	$\rightarrow$	2016				s Period	1> 7	:00	7		
Intersection		244th Street		File N	ame		2-Hawt	thorne-	-244th	C-P PN	l.xus			_	5 † †	1
Project Descrip	tion		-											-	14141	7 + 7
Demand Inform	nation				EB				WE	3		NB			SB	
Approach Move	ement			L	T	T	R	L	T	R	L	Т	F	R L	T	T
Demand (v), v		N ALL YES		0	65		27	0	62	_	_	131	_	82	_	_
DE LA COMPANIE DE LA		05 g 00 K 5 6 - 11	1 41	A510	NEW YORK	100	ENT!	MARIE	DAMES !	347				A 3 4 8 1	100	230
Signal Informa	tion	Object to the second	- 10			_	J.						12/11/			
Cycle, s	45.0	Reference Phase	2			Ħ	51						5.4	-		D
Offset, s	0	Reference Point	End	Green	21.0	+	16.0	0.0	0.0	0.0	0.0	1	1			
Uncoordinated	No	Simult. Gap E/W	On	Yellow			4.0	0.0	0.0	0.0				<b>&gt;</b>		K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0		0.0	0.0	0.0	0.0			5.	6	7	4
Times Decute				ED		-	DT	VACD		WDT	AUD		NDT			0.00
Timer Results				EB	_	-	ВТ	WB	-	WBT	NB	L	NBT	SI	3L	SB
Assigned Phase	9					2				6			8	-		4
Case Number					-	8.	-			8.0			6.0			6.0
Phase Duration	-	,				25				25.0	-		20.0	-		20.0
	ange Period, ( Y+R c ), s x Allow Headway ( MAH ), s					9.				9.0			4.0		-	4.0
	x Allow Headway ( <i>MAH</i> ), s eue Clearance Time ( <i>g</i> s ), s					0.	.0			0.0	-		3.3	-		3.3
	NAME OF TAXABLE PARTY.			-	-	_							18.0			18.0
Green Extensio	_	( g e ), S			-	0.	0			0.0	-		0.0	-		0.0
Phase Call Prob	-						2111					-	1.00			1.00
Max Out Probab	oility						_						1.00		Table 100	1.00
Movement Gro	up Res	ults			EB				WB		-	NB	115	1	SB	
Approach Move	ment			L	Т	T	R	L	T	R	L	T	R	L	T	F
Assigned Move	ment			5	2		12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h			0	T			0		34	1460		91	1868	
Adjusted Satura	tion Flo	ow Rate (s), veh/h/li	n		0	1	-	260	0		249	1691		369	1691	
Queue Service	CONTRACTOR OF THE PARTY.				0.0	T			0.0		0.0	11.7		4.3	16.0	T
Cycle Queue Cl	COLUMN TWO IS NOT THE OWNER.	AND THE RESERVE AND ADDRESS OF THE PARTY OF			0.0				0.0		16.0	11.7		16.0	16.0	
Green Ratio ( g/	THE RESERVE AND ADDRESS OF	V and a second second				T					0.36	0.36		0.36	0.36	
Capacity ( c ), v									30 1		160	1804		195	1804	
Volume-to-Capa		tio (X)			0.000	T			0.000		0.215			0.467	-	1
CONTRACTOR	THE RESERVE AND ADDRESS OF THE PARTY OF THE	In (50 th percentile)		1	0				0		8.3	95.3	-	22.2	244.4	
		eh/In ( 50 th percentil	The Real Property lies and the Person lies and		0.0				0.0		0.3	3.8		0.9	9.8	
THE RESERVE OF THE PARTY OF THE	THE RESERVE AND ADDRESS OF THE PARTY.	RQ) (50 th percenti	THE REAL PROPERTY.		0.00			THE .	0.00		0.08	0.48		0.22	1.24	
Uniform Delay (	in the party of the last of th	the state of the s				T					22.5	13.1		21.7	14.5	
ncremental Del	-				0.0				0.0		0.2	2.7		0.6	30.9	
nitial Queue De	STATE OF THE PERSON NAMED IN				0.0	T			0.0		0.0	0.0		0.0	0.0	
Control Delay (	-		83 1		THE STATE OF THE S			-10	177		22.7	15.8		22.3	45.4	
	-					1					C	В	-	C	F	
Level of Service	-	/LOS		10.4		В		10.9		В	15.9	-	В	44.		D
Level of Service Approach Delay	No. of Concession, Name of Street, or other Desires.						30.7							C		-
Approach Delay	section Delay, s/veh / LOS			_	and the same	-			and the same	1365	-		19.19	_		20.70
Approach Delay	ay, s/ve	THE LEADS														
Approach Delay					EB				WB			NB		T	SB	

		HCS 2	010 5	Signal	ized	Inte	rs	ectio	n Res	sults	Sumn	nary				
General Inform	nation				2.6					Intoro	ation In	60 mm a4	21.37		1474	N AS D
	nation	1							_	_		format		_	1	
Agency				T		Jar			_	Duratio		0.25				
Analyst					sis Dat	e  8/4	4/2(	J16		Area Ty	ре	Othe	-			~_
Jurisdiction					Period	-			_	PHF		0.97		<del>*</del> *	M+E	7
Urban Street		Hawthorne Bouleva	ard		sis Yea	_	_			Analysis	-	1>7	:00	7		
Intersection	1.7	Newton Street		File N	ame	3-l	Hav	vthorne	-Newto	n C-P A	M.xus				711	1
Project Descrip	tion			1800	-	-	33			1000			-		<u>শিকাক</u>	1 + 1
Demand Inform	nation				EB				WE	3		NB	1		SB	
Approach Move	ement			L	T		R	L	T	R	L	Т	F	R L	T	R
Demand (v), v	eh/h			27	77	8	80	87	114	4 111	103	3 166	6	39	104	9
Signal Informa	tion				1 5					1000		See Alan				
Cycle, s	47.5	Reference Phase	2		1		7		1						7	
Offset, s	0	Reference Point	End		3		9	51		1			- 1	4	3	
Uncoordinated	Yes	Simult. Gap E/W	On	Green		2.		2.1	21.					4	The state of	
Force Mode	Fixed	Simult. Gap N/S	On	Yellow	4.0	0.0		0.0	0.0	0.0	0.0		- 6		7	T.
T OFCC WICK	Tixed	Omitait. Gap 14/0	OII	rica	10.0	10.0		0.0	0.0	0.0	0.0					
Timer Results				EB		EBT		WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	е					2				6	3		8	7		4
Case Number						6.0				5.0	2.0	)	4.0	2.0	)	4.0
Phase Duration						13.3				13.3	8.5	5	27.7	6.5	5	25.7
Change Period,	nge Period, ( Y+R c), s					4.0				4.0	4.0	)	4.0	4.0	)	4.0
Max Allow Head	Allow Headway ( MAH ), s					3.2				3.2	3.1		3.0	3.1		3.0
Queue Clearan	ce Time	(gs), s				5.9				9.2	4.7		14.2	3.0		13.3
Green Extensio	n Time	(ge), s				0.5				0.1	0.1		8.1	0.0		8.3
Phase Call Prob	pability				18	1.00				1.00	0.7	5	1.00	0.4	1	1.00
Max Out Probab	oility					0.62				1.00	0.0	0	0.34	0.0	0	0.32
Movement Gro	un Pas	ulte			EB				WB			NB	- 4/1		SB	
Approach Move	-	uito		L	T	R		L	T	R	L	T	R	L	Т	R
Assigned Move	_			5	2	12	-	1	6	16	3	8	IX	7	4	K
Adjusted Flow F	_	) veh/h		28	162	12	-	90	118	114	106	1718	-	40	1081	
the second second second second second	_	ow Rate ( s ), veh/h/lr	2	1295	1740			1244	1900	1610	1810	1691		_		-
Queue Service		THE RESIDENCE OF THE PARTY OF T		0.9	3.9	-		3.3	2.5	2.9	2.7	12.2		1810	1773	-
Cycle Queue Cl				3.4	3.9	NO.		7.2	2.5	2.9	2.7	12.2		1.0	11.3	-
Green Ratio ( g/		e Time (gc), s		0.20	0.20		-	0.20	0.20	-		-		1.0	11.3	
Capacity (c), v	THE RESERVE OF THE PERSON NAMED IN			337	341			293	372	315	0.10	0.50 2534		0.05	0.46	-
Volume-to-Capa	_	tio ( V )		0.083	0.475			0.306	0.316	-	0.615	0.678			1618	
	-	In (50 th percentile)		5.9	34.4			21.2	24	23.5	26.4	76.8		0.426	0.668 80.2	
	_	eh/In (50 th percentil	e)	0.2	1.4			0.8	1.0	0.9	1.1	3.1		0.4	3.2	
Corple Street Co. St. St. St. St. St. St. St. St. St. St		RQ) (50 th percenti	and the same of the same of	0.06	0.34			0.21	0.24	0.24	0.26	0.39		0.10	0.41	
Uniform Delay (	-			17.8	16.9			20.1	16.4	16.5	20.7	9.0		21.8	10.1	
Incremental Del	-			0.0	0.4			0.2	0.2	0.3	1.3	0.2		1.1	0.2	
Initial Queue De				0.0	0.0			0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	and the same of the same	A STATE OF THE PARTY OF THE PAR	-	17.9	17.3			20.3	16.6	16.8	22.0	9.2		23.0	10.3	
Level of Service				В	В			С	В	В	С	Α		C	В	
Approach Delay	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	/LOS		17.4	-	В		17.7	-	В	10.0		Α	10.7	_	В
Intersection Del	-						11.	-						В		
			1 - 10		1915	3	E.	1949					100	S.Or.	3	
Multimodal Res	-				EB	_			WB			NB			SB	
Pedestrian LOS	-			2.9		С	4	3.2	_	С	2.4		В	2.2		В
Bicycle LOS Sco	ore / LO	S		0.8		Α		1.0		A	1.5		Α	1.4		Α

		HCS 2	010 S	ignal	ized	Inters	ectio	n Res	sults \$	Sumn	nary				
General Inform	nation	1					- 2		Interse	otion In	format	ion	The Sales	1474	E KEE
	nation	1						_					_		Ļ
Agency				Anab	aia Dad	- 10/4/0	040	_	Duration		0.25				
Analyst				_	sis Dat	te 8/4/2	016	_	Area Ty	pe	Othe		) 4 1 to 4 7		~_
Jurisdiction				-	Period	0040			PHF		0.97		100	0 M.4 €	7
Urban Street			ard		sis Yea	_		_	Analysis		1> 7	:00			
Intersection	Hawthorne Boule  Newton Street  In Newton Street	Newton Street		File N	ame	3-Ha	wthorne	-Newto	on C-P P	M.xus				111	
Project Descrip	tion		-				- 1/2	5.155			A 3-75 A		-	ነተነቀነ	711
Demand Inform	nation				EB	The land		WE	3		NB			SB	
Approach Move	ement			L	T	R	L	Т	R	L	Т	R	L	T	R
Demand (v), v	eh/h			21	53	113	203	3 56	102	99	130	3	54	1635	5
Oi-sell-fee	Information  Movement  (v), veh/h  Formation  50.4 Reference Phase 0 Reference Point  nated Yes Simult. Gap E/W  de Fixed Simult. Gap N/S  sults  Phase  hber  ration, s eriod, (Y+Rc), s Headway (MAH), s erance Time (gs), s ension Time (ge), s II Probability  Probability  of Group Results  Movement  Movement		1						ME . E						
-		D. C Divers			.3	= 6		1			3	150	7	~	
Cycle, s	_		2		1	5	51	)	1		50		<b>→</b> 2	3	
Offset, s			End	Green	10.0	3.2	1.3	23.	8 0.0	0.0					
Uncoordinated		NAME AND ADDRESS OF THE OWNER, WHEN PERSONS NAMED IN	On	Yellow	_	4.0	0.0	4.0	0.0	0.0			7		1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7,	8
Timer Results			-	EB		EBT	WE	RI	WBT	NB	1	NBT	SB		SBT
Assigned Phase	9					2	111		6	3		8	7		4
Case Number				128		6.0			5.0	2.0	)	4.0	2.0	_	4.0
Phase Duration	S					14.0			14.0	8.6		29.1	7.2		27.8
	-	c) s				4.0	- Colo		4.0	4.0		4.0	4.0	_	4.0
						3.3			3.3	3.1		3.0	3.1	_	3.0
						6.5	100		12.0	4.7		17.4	3.5		15.2
						0.5			0.0	0.1	-	7.7	0.1	_	8.5
THE RESIDENCE OF THE PARTY OF T	THE RESIDENCE AND ADDRESS OF THE PERSON.	(90),0		75.5		1.00			1.00	0.70		1.00	0.5	_	1.00
Max Out Probat	-					0.93			1.00	0.00	-	0.52	0.0		0.44
A CONTRACT			40.50					1020		150	139/1		100		7
	_	ults		1	EB	BIN	3991	WB		1-11	NB			SB	
Approach Move	_			L	Т	R	L	Т	R	L	Т	R	L	Т	R
Assigned Move			11.15	5	2	12	1	6	16	3	8		7	4	
the same of the sa	_	the state of the s		22	171		209	58	105	102	1343		56	1686	
NAME AND ADDRESS OF TAXABLE PARTY.		AND RESIDENCE OF THE PROPERTY OF THE PERSON	1	1367	1693		1233	1900	1610	1810	1773		1810	1691	
Queue Service				0.7	4.5		5.5	1.3	2.8	2.7	15.4		1.5	13.2	
Cycle Queue Cl	-	e Time ( <i>g c</i> ), s		1.9	4.5		10.0	1.3	2.8	2.7	15.4		1.5	13.2	
Green Ratio ( g/				0.20	0.20		0.20	0.20	0.20	0.09	0.50		0.06	0.47	
Capacity (c), v				380	336		276	377	320	164	1769	11/4	117	2399	
Volume-to-Capa	-	Name and Address of the Owner, where the Party of the Owner, where the Owner, which is the Owner, which i		0.057	0.509		0.757	0.153	The Real Property lies	0.622	0.759	-	0.477	0.703	
		In (50 th percentile)	,	4.7	39.8		76.6	12.2	23.3	27.7	111.9		15.3	91.6	
The same of the sa		eh/In (50 th percentil	-	0.2	1.6		3.1	0.5	0.9	1.1	4.5		0.6	3.7	
the state of the s	STATE OF THE PERSON NAMED IN	RQ) (50 th percent	le)	0.05	0.40		0.77	0.12	0.23	0.28	0.57		0.15	0.47	
Uniform Delay (	_			17.5	18.0		23.5	16.7	17.3	22.1	10.2		22.7	10.5	
Incremental Del	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			0.0	0.5		10.3	0.1	0.2	1.4	1.1		1.1	0.3	
Initial Queue De	-			0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	_	en		17.5	18.5		33.7	16.8	17.5	23.5	11.2	-	23.9	10.8	
Level of Service	in the later of th	/1.00		B	В	P	C	В	В	C 42.4	В	-	C	В	
Approach Delay Intersection Delay				18.4	1	B 13	26.5 3.5		С	12.1		В	11.2		В
intersection Del	ay, s/ve	117 203	978	31 3	98		<i>.</i>				Par.	ALI SE	В		1
Multimodal Res	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	LOS		3.2		С	2.9		C	2.4		В	2.2	_	В
Bicycle LOS Sco	ore / LC	S		0.8	1	Α	1.1		A	1.7		Α	1.4		Α

	25	HCS 2			1	-	100	13	1000	F S PA	PART			No.	7
General Inforn	nation								Intersec	tion Inf	ormatic	on	1	すがやけ	
Agency	lation								Duration,	h	0.25			4111	
Analyst				Analys	is Date	9/25/2	018		Area Typ	_	Other		Ā		
Jurisdiction				Time F		-		_	PHF		0.90		4 - 4	M + €	**
Urban Street		Hawthorne Bouleva	ard		is Year	2018			Analysis	Period	1> 7:0	00			
Intersection		Via Valmonte		File Na	-		thorne-\	_	Imonte C	_				5 + + +	7
Project Descrip	tion	via vaimonto		1.110 110		1							8	4147	11
STATE OF STATE					EB			WE			NB			SB	200
Demand Inform				L	T	R	L	T	R	L	T	R	L	T	R
Approach Move				0	303	68	0	0	1	46	1646	_	3	1203	_
Demand (v), v	en/n		1000	U	303	00			THE	40	1040			1200	
Signal Informa	tion	THE REAL PROPERTY.			1	1 2		T							
Cycle, s	90.0	Reference Phase	2		T 17	1							Y		-
Offset, s	0	Reference Point	End	Green		22.0	0.2	0.0	0.0	0.0					K
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0	0.0	0.0	-	1			7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
							216			MINI					12.0
Timer Results				EBI		EBT	WBL	-	WBT	NB	-	NBT	SBI	-	SBT
Assigned Phas	е					4		-	8		_	2			6
Case Number					_	10.0			12.0			5.0			6.0
Phase Duration	se Duration, s nge Period, ( Y+R c ), s				_	26.0	-		4.2	-	_	59.8	-		59.8
	No. in contrast of	THE RESERVE OF THE PARTY OF THE			-	4.0			4.0	-		4.0	-	-	4.0
Max Allow Hea	-				_	3.1	-		3.4	-	_	0.0	_		0.0
Queue Clearan	A STATE OF THE PARTY OF T	Control of the Contro			-	21.6		4	2.1		-	0.0			0.0
Green Extension	ery contrate to the	( g e ), s			_	0.4	_		0.0			0.0	-		0.0
Phase Call Pro	-				-	1.00	-		0.03						
Max Out Proba	bility					0.42			0.00				-		1 mm
Movement Gro	oup Res	sults	10,1		EB			WB			NB			SB	
Approach Move	-			L	T	R	L	Т	R	L	T	R	L	Т	R
Assigned Move		No. of the last of		7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow	and the later of t	), veh/h		0	412		0		1	51	1829	41	3	1337	0
Name and Address of the Owner, where the Owner, which is the Owne		ow Rate (s), veh/h/	In	1810	1839		0		1610	416	1725	1610	259	1900	0
Queue Service	CALLS SHOW THE REAL PROPERTY.			0.0	19.6		0.0		0.1	6.3	18.7	0.9	0.7	10.5	0.0
NAME AND ADDRESS OF TAXABLE PARTY.	-	e Time (gc), s		0.0	19.6		0.0		0.1	16.8	18.7	0.9	19.4	10.5	0.0
Green Ratio (	A SHAPP OF THE PARTY.			0.24	0.24				0.00	0.62	0.62	0.62	0.62	0.62	
Capacity (c),				443	450				3	289	3209	998	187	3535	
Volume-to-Cap		atio (X)		0.000	0.916		0.000		0.373	0.177	0.570	0.041	0.018	0.378	0.00
	CARL STREET, SQUARE, S	/In (50 th percentile	)	0	264.2	4	0		1.2	16.2	155.8	7.3	1.2	95.4	0
The second secon		eh/ln (50 th percent		0.0	10.6		0.0		0.0	0.6	6.2	0.3	0.0	3.8	0.0
the second secon		RQ) (50 th percen		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay	and the latest and th			0.0	33.1				44.9	12.6	10.0	6.7	15.7	8.5	
Incremental De	-			0.0	17.5		0.0		26.4	1.3	0.7	0.1	0.2	0.3	0.0
Initial Queue D	THE RESERVE AND ADDRESS OF THE PARTY OF THE			0.0	0.0		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay	-			0.0	50.6			74-7	71.2	14.0	10.8	6.7	15.9	8.8	
Level of Service	AND REAL PROPERTY.				D				E	В	В	Α	В	Α	
Approach Dela	AND DESCRIPTION OF THE PERSON NAMED IN			50.6	3	D	71.2		E	10.8	3	В	8.8		Α
	-	Control of the Contro				14	1.5						В		
Intersection De										St. Co.					50 3
We want	ا والحلب				ED			IAID			NID			CD	
Intersection De Multimodal Re Pedestrian LO	Name and Address of the Owner, where			3.4	EB	С	3.3	WB	С	2.2	NB	В	2.7	SB	В

		HCS 2	010 8	Signal	ized	Inter	sectio	n Re	sults	Sumn	nary	14-000			
General Inform	nation	San Maria							Interco	ction In	format	ion	Harris .	1세 114	i kiti
	nation	1											-	111	
Agency				LAzak	aia Da	1- 0/05	10040		Duratio		0.25				
Analyst Jurisdiction				_		te 9/25	0/2018		Area Ty	pe	Othe		4 7 4		4
Urban Street		Houstbarns Daylous	and .	-	Period	_	0		PHF	- Davis	0.90		******	44.	*
Intersection		Hawthorne Bouleva	ard		sis Yea	_		10-1	Analysis			:00	- 3		
	dia	Via Valmonte		File N	ame	4-H	awtnorne	-via v	/almonte	C-P PIV	.xus		_	711	1
Project Descrip	tion	AND THE RESERVE TO SERVE THE PARTY OF THE PA	5, 450	FE 182				- 1	16 1 5	N TO	-				
Demand Inform	nation				EB			٧	VB		NE	3		SB	
Approach Move	ement			L	Т	R	L	1	TR	L	Т	R	L	T	R
Demand (v), v				0	190	-	_	1	6 20	64	124	_	16	1969	_
Botta est		Section 2	11/1	1	S. SEL	FIE			ALC: US					No. of Lot	1200
Signal Informa			3 3		717	2	2								
Cycle, s	90.0	Reference Phase	2		R	7	6					Marie Co	Y		-
Offset, s	0	Reference Point	End	Green	58.4		3 3.8	0.	0 0.0	0.0					K
Uncoordinated	No	Simult. Gap E/W	On	Yellow	- Interested	4.0	4.0	0.		0.0		2	<b>1</b>	1000	7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0.0	0.0		5	6	7	
Timer Results				EB		EBT	WB		WBT	NB		NBT	SB		SBT
Assigned Phase	Δ			LU		4	VVL		8	INL		2	36	L	6
Case Number	366	Section 1				10.0			12.0			5.0			6.0
Phase Duration	9					19.8	-	-	7.8	-		62.4	1		62.4
Change Period,	_	a) c				4.0	0 50		4.0			4.0			4.0
Max Allow Head						3.1	1	-	3.2			0.0			0.0
Queue Clearan	CONTRACTOR OF THE PARTY OF	Bradist Andrew Street,	-		-12	15.4	0.00		3.2			0.0			0.0
Green Extensio						0.4		-	0.1			0.0	-		0.0
Phase Call Prob	-	(3-7)	-			1.00		-0	0.63	-				516	0.0
Max Out Probat	-				1	0.00			0.00						
				1	-		BLEE	138			75.50	5	100	100	
Movement Gro	the same of the same of	ults		101	EB		9	WE	3		NB			SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	-	Highlight III		7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow F		AND RESIDENCE OF THE PARTY OF T		0	279		0		22	71	1383	20	18	2188	0
	-	ow Rate ( $s$ ), veh/h/li	n	1810	1820		0		1610	182	1725	1610	398	1900	0
Queue Service				0.0	13.4		0.0		1.2	33.0	11.5	0.4	2.0	19.7	0.0
Cycle Queue Cl	_	e Time ( g c ), s		0.0	13.4		0.0		1.2	52.7	11.5	0.4	13.6	19.7	0.0
Green Ratio ( g	_			0.18	0.18				0.04	0.65	0.65	0.65	0.65	0.65	
Capacity ( c ), v				318	320				68	158	3359	1045	287	3699	
Volume-to-Capa	_			0.000	0.872	-	0.000		0.327	0.450	0.412	-	0.062	0.591	0.000
CONTRACTOR OF STREET		In (50 th percentile)		0	154.6		0		12.2	42.4	91.9	3.1	4.9	173.6	0
THE RESERVE OF THE PERSON NAMED IN		eh/In (50 th percentil		0.0	6.2		0.0		0.5	1.7	3.7	0.1	0.2	6.9	0.0
Control of the Contro	the state of the s	RQ) (50 th percent	ile)	0.00	0.00	-	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (		-		0.0	36.1		0.0		41.9	24.0	7.6	5.6	10.8	9.0	0.0
Incremental Del Initial Queue De	-			0.0	4.8 0.0		0.0		0.0	9.0	0.4	0.0	0.4	0.7	0.0
The state of the s							0.0				0.0	0.0	0.0	0.0	0.0
Control Delay ( Level of Service		311		0.0	40.9 D	-		-	42.9 D	33.0 C	7.9 A	5.7	11.2	9.7	
Approach Delay	-	/10S		40.9	-	D	42.6		D	9.1	A	A	9.7	Α	Λ
Intersection Del	-			40.8		_	2.0		J	9.1		- Table	9.7 B		Α
A STATE OF THE STA	,ve	NEED TO BE SU		925	1163		10000		Seren	-	- 018		BL W.	THE PERSON	PAGE !
Multimodal Res	sults				EB			WE			NB			SB	
Pedestrian LOS	Score	LOS		3.4		С	3.3		C	2.2		В	2.7		В
Bicycle LOS Sco	ore / LC	S		0.9		Α	0.5		A	1.3		Α	1.7	_	Α

		HCS 2	010 S	ignal	ized l	Inters	sectio	n Re	sults	Sumn	nary				
				res to								1 -	THE PARTY	of or other	The state of the s
General Inform	nation								Interse		1		_		
Agency				1		Tax		_	Duratio	-	0.25		_		
Analyst	-			-	sis Date	e  8/4/2	2016		Area Ty	ре	Othe		) 4 1 4 4 4 4 4 4		~_
Jurisdiction				-	Period	-			PHF		0.92		***	W ₹ E	
Urban Street		Hawthorne Bouleva	ard	-	sis Yea	_			Analysis		_	:00	7.		· ·
Intersection		Rolling Hills Road		File N	ame	5-Ha	wthorne	-Rollin	g Hills C	-P AM.	kus			11	
Project Descrip	tion							CONTRACT OF			15-50			ጎላ ነቀ።	7+7
Demand Inform	nation				EB			W	В		NE	3		SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	eh/h			0	2	0	88	2	438	3 0	140	3	285	843	
Signal Informa	tion	PROFESSION NAMED IN								100					
Cycle, s	60.0	Reference Phase	2	1		= 2	a b	6 1					7	~	
Offset, s	0	Reference Point	End		-3	5			1				4	3	
Uncoordinated			-	Green		0.0	7.5	30.	and the second second					II	To the
	No	Simult. Gap E/W	On	Yellow	-	4.0	4.0	4.0	-	- Service or o				7	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0				1	8
Timer Results		ple distribution		EBI		EBT	WE	BL	WBT	NE	L	NBT	SB	L	SBT
Assigned Phase	Э		4			2			6	3		8	7		4
Case Number						8.0	15.0		5.0	2.0	)	4.0	2.0	)	4.0
Phase Duration	, s					14.5			14.5	0.0	)	34.0	11.	5	45.5
Change Period,	(Y+R	c), s				4.0			4.0	4.0	)	4.0	4.0	)	4.0
Max Allow Head	dway ( /	<i>MAH</i> ), s				0.0			0.0	0.0	)	3.0	3.1		3.0
Queue Clearan	ce Time	(gs), s				JUNC B						24.6	7.1		8.4
Green Extensio	n Time	(ge), s				0.0			0.0	0.0	)	5.3	0.5	-	8.8
Phase Call Prob			711	-			6.86	1				1.00	0.9	_	1.00
Max Out Probab	oility			-								0.48	0.0	0	0.02
Movement Gro	un Pos	ulte			EB			WB		Page 1	NB		NAME OF	SB	
Approach Move	THE RESERVE AND PARTY AND PERSONS ASSESSMENT	uito		L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8	I.	7	4	K
Adjusted Flow F		\ veh/h	-		0	12	96	2	476	0	1525		310	916	
The second second second second	-	ow Rate ( s ), veh/h/li	n		0	1000	1437	1900	-	1810	1773		1757	1773	
Queue Service	-		-		0.0		3.5	0.1	10.5	0.0	22.6		5.1	6.4	
Cycle Queue Cl		Martini de la companya del la companya de la compan			0.0		3.6	0.1	10.5	0.0	22.6		5.1	6.4	
Green Ratio ( g	and the last own division in which the	5 Time ( g c ), 5			0.0		0.17	0.17	0.30	0.0	0.50	-	0.13	0.69	
Capacity ( c ), v	_					107	370	332	484	3	1772		441	2454	
Volume-to-Capa	-	tio ( X )	-		0.000		0.259	0.007	-	0.000	0.861		0.702	0.373	
The second liverage and the se	-	In (50 th percentile)			0		31.6	0.7	269.4	0.000	195		-	-	
	The second name of the second	eh/ln (50 th percentile)			0.0		1.3	0.0	10.8	0.0	7.8		49.8	31.5	
Contraction of the Contract of	Name and Address of the Owner, where the	RQ) (50 th percent	-		0.00		0.79	0.01	5.39	0.00	0.99		0.25	0.16	
Uniform Delay (	the same of the sa		110)		0.00		21.9	20.5	20.8	0.0	13.2		25.2	3.8	
Incremental Del					0.0		1.7	0.0	37.2	0.0	3.2		0.8	0.0	
Initial Queue De					0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	AND DESCRIPTION OF THE PERSON NAMED IN						23.6	20.5	58.1	0.0	16.4		25.9	3.9	
Level of Service							C	C	E	5.0	В		C	A	
Approach Delay		LOS		20.5		С	52.2	_	D	16.4		В	9.4	7	Α
Intersection Del	NAME AND ADDRESS OF TAXABLE PARTY.						0.0			10.			C		71
	NE SE	LANCE OF THE	3/10	- Plan			-	1.71		THE ST	17/6	e State	A-1-15	0.5%	
Multimodal Res	and the second				EB			WB			NB			SB	
Pedestrian LOS				2.8	-	С	2.9	-	С	2.8		С	2.0		В
Bicycle LOS Sco	ore / LC	S		0.5		Α	1.4		A	1.7		Α	1.5		Α

	100 100 2	HCS 2	010 S	ignal	lized l	nters	sectio	n Res	sults	Sumn	nary				
General Inform	ation					1	-	T	Interse	ction In	format	ion	2706	147年	L PIU
Agency	lation							_	Duration		0.25			TIT	Ļ
Analyst				Analy	sis Date	8/4/	2016	_	Area Ty		Othe				
Jurisdiction				_	Period	5 0/4/2	2010		PHF	pe	0.99		1 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4	w‡r	×_
Urban Street		Houthorno Boulova	rd	-	sis Yea	r 2016	2	_	Analysis	Dorind	_				-
Intersection			iiu	File N					_			.00			
Project Descrip	tion	Rolling Hills Road		Trile iv	lame	р-па	wthorne	-Rolling	y milis C	-P PIVI.)	us			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7 + 1
		I SON THE		-	1313		9500		TY/C		11/10/20		1980		
			11-		EB	-	-	WE	_		NB	-	-	SB	
				L	T	R	L	T	_	L	T	R		T	R
Demand (V), V	en/n	Name and Address of the		0	3	1	88	0	338	3 0	106	4	445	138	
Signal Informa	ach Movement ach Movement and (v), veh/h  Information  s 60.0 Reference Phase s 0 Reference Point ardinated No Simult. Gap E/W  Mode Fixed Simult. Gap N/S  Results and Phase Number Duration, s and Period, (Y+Rc), s llow Headway (MAH), s ard Clearance Time (ge), s  Call Probability					1	R IL	R J							
Cycle, s	st ction  Street Hawthorne Bouleval Rolling Hills Road  Information  I				-7 2	2			1				4	1	1
Offset, s	Information  s 60.0 Reference Phase s 0 Reference Point rdinated No Simult. Gap E/W Mode Fixed Simult. Gap N/S  Results ed Phase Number Duration, s e Period, (Y+Rc), s low Headway (MAH), s Clearance Time (gs), s Extension Time (ge), s Call Probability ut Probability  nent Group Results ach Movement				1 13.8	0.0	10.0	24.:	2 00	0.0		1	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	10.0	4.0		0.0	-	1311	<del>-</del>	L	+
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		5	ā,		
Timer Results				EB		EBT	WE		WBT	NB		NDT	CD		ODT
A 1922 CO. L. S.				ED	-	2	VVE	DL	6	3	L	NBT 8	SB	L	SBT
Case Number	,	The state of the s		-		8.0			5.0	2.0			7		4
	•			-		17.8	-	-	17.8	-		4.0	2.0		4.0
	nge Period, (Y+Rc), s			-			-			0.0		28.2	14.		42.2
	nge Period, ( Y+R c ), s Allow Headway ( MAH ), s			-		0.0			4.0	4.0		4.0	4.0		4.0
	Allow Headway ( <i>MAH</i> ), s			Tuber.		0.0	-		0.0	0.0		3.0	3.1	-	3.0
	-					0.0	-		0.0	0.0		17.6 6.6	9.3	-	16.1
		( g e ), s				0.0			0.0	0.0		1.00	1.00		1.00
Max Out Probab	-						-					0.29	0.08	-	0.06
W 12 2 1				25-19			A STATE OF						Party I		
	-	ults		1000	EB			WB	1	711-0	NB			SB	915
				L	Т	R	L	Т	R	L	T	R	L	T	R
- No control of the last of th	_	HIS ALVES		5	2	12	1	6	16	3	8		7	4	100
					0		89	0	341	0	1075		449	1395	
Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, where the Owner, where the Owner, where the Owner, which is the Owner, which i	THE RESERVE THE PERSON NAMED IN		1		0		1435	1900	-	1810	1773		1757	1773	
THE RESERVE OF THE PERSON NAMED IN	_				0.0		3.1	0.0	9.7	0.0	15.6		7.3	14.1	
		e Time $(g_c)$ , s			0.0		3.2	0.0	9.7	0.0	15.6		7.3	14.1	
	_						0.23	0.23	0.40		0.40		0.17	0.64	
		H- ( ) ( )			0.000		447	437	639	3	1430		587	2259	
					0.000		0.199	0.000	-	0.000	0.751		0.766	0.618	
			0)		0		26.2	0	89.3	0	136		70.9	85.3	
the same of the sa	THE RESERVE AND ADDRESS.	eh/In ( 50 th percentile RQ ) ( 50 th percenti	-		0.00	23163	0.66	0.00	3.6 1.79	0.00	5.4 0.69		2.8 0.35	3.4 0.43	
Uniform Delay (		The second secon	10)		0.00		19.1	0.0	13.9	0.00	15.3		23.9	6.5	
ncremental Del	-				0.0	68 1	1.0	0.0	3.2	0.0	0.8		0.8	0.1	
nitial Queue De					0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	-					63	20.1	0.0	17.0	0.0	16.1	1 1 1 0	24.7	6.7	
_evel of Service	-						C		В		В		C	Α	
Approach Delay	-	LOS		17.9		В	17.7	7	В	16.1		В	11.0	-	В
Intersection Dela	-						3.5						В		
Multimodel De-	ulto		100		EB	-		WB	1000	Total Va	ND	9. 片层		O.D.	
<b>Multimodal Res</b> Pedestrian LOS	_	1108		2.8	CD	С	2.9	_	C	2.8	NB	С	20	SB	D
Sucotilail LUO	ore / LO		_	0.5		A	1.2	_	A	1.4		A	2.0	-	В

		HCS 2	010 S	ignali	zed I	nters	ection	Re	sults	Sum	ımaı	ry			Description.	
		y - 10-				5.76	513			PLANT.	lus for				14741	K/U
General Informa	ation								Interse				on	- 1	4	
Agency						1014100	40		Duratio	-		0.25		-		
Analyst				_		8/4/20	116		Area T	ype		Other		- 3-4	w∱e	
Jurisdiction				Time P					PHF			0.88		_ = = -	2 4 4 6	7
Urban Street		Whiffletree Lane		Analys		-			Analys	-		1> 7:0	00	_ ~		
Intersection		Rolling Hills Road		File Na	me	6-Roll	ing Hills	-Whi	ffletree (	C-P AN	M.xus				*	
Project Description	on		- 100		-	2000			P. T. S. T. S.		- 14-15-				<u>ጎላተቀየ</u>	P C
Demand Inform	ation	Name and Address of the Owner, where	-		EB			V	/B			NB			SB	
Approach Moven	nent			L	Т	R	L	Τ.	T F		L	Т	R	L	Т	R
Demand (v), ve	h/h			0	338	0	0	49	98 0		0	45	21	0	15	4
Signal Informati	ion					1 111				1 1 1 1						
	45.0	Reference Phase	2		.7	242						170		4		4
	0	Reference Point	End		74	1	7							Z	ů,	
Offset, s	No	Simult. Gap E/W	On	Green	-	1.4	3.7	0.0	CONTRACTOR OF THE PARTY OF THE		0.0			<b>5</b>		
Uncoordinated				Yellow	0.0	0.0	0.0	0.0	the same of the same of		0.0	-				Y
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	10.0	10.0	0 [0.0		0.0	2			7 7 7 7	91115
Timer Results				EBL		EBT	WBI		WBT		NBL	1	NBT	SB	L	SBT
Assigned Phase						2			6				8			4
Case Number	1					8.0		7	8.0				12.0			12.0
Phase Duration,	s					31.9			31.9				7.7			5.4
Change Period, (	Y+R	c), s				4.0	140 35		4.0				4.0			4.0
Max Allow Heady	way ( I	MAH ), s				0.0			0.0				3.1			3.1
Queue Clearance	e Time	(gs), s					- 34						3.8			2.5
Green Extension	Time	(ge), s				0.0			0.0				0.1			0.0
Phase Call Proba	-			Tajas L	Piloto.	1	N. Bright		101101			(	0.61			0.24
Max Out Probabi	ACCORDING TO THE PARTY OF THE P											(	0.00			0.00
					EB		THE IS	WE		-		NB		Service .	SB	STERNS
Movement Grou		SUITS			Т	R	L	T	R	L	-	Т	R	1	T	R
Approach Moven	-			L	2	12	1	6	16	3	-	8	18	7	4	14
Assigned Movem	Andrew Street, Square,	\	115	5	2			0	0	-	,	0	10	1	0	14
Adjusted Flow Ra	-			0		0	0					_		-	-	
The second secon	Name and Address of the Owner, where	ow Rate (s), veh/h/l	n	0		0	0		0	+	-	0		-	0	
Queue Service T	STREET, SQUARE,	NAME AND ADDRESS OF THE OWNER, TH		0.0		0.0	0.0		0.0	-	_	0.0		-	0.0	-
Cycle Queue Cle	_	e Time ( $g_c$ ), s		0.0		0.0	0.0		0.0	-		0.0		-	0.0	-
Green Ratio (g/0	NAME OF TAXABLE PARTY.									-	-	-				
Capacity (c), ve	-			0.000		0.000	0.000		0.00		-	000		-	0.000	-
Volume-to-Capac	ACCORDING TO SHAPE	THE RESERVE OF THE PARTY OF THE		0.000		0.000	0.000	Miles	0.00	J	U	.000			0.000	
AND RESIDENCE OF THE PARTY OF T	and the same of the same of	In (50 th percentile)	Andrew Control of the	0		0	0		0	-		0		-	0	
	-	eh/In (50 th percenti		0.0		0.00	0.00		0.00			0.0			0.0	
The second secon	-	RQ) (50 th percent	iie)	0.00		0.00	0.00		0.00	1		,.00	-	-	0.00	
Uniform Delay (	THE RESIDENCE OF STREET			0.0		0.0	0.0		0.0			0.0		-	0.0	
Incremental Dela	-			-		0.0	0.0		0.0	-	-	0.0			0.0	
Initial Queue Del	-			0.0		0.0	0.0		0.0	-		0.0		-	0.0	
Control Delay ( o	OWNERS OF TAXABLE PARTY.						-			-						
Level of Service				2.0		^	40		^	-	20.0		С	22.	2	С
Approach Delay,	- 1			3.8		A 5	4.0		Α	-	20.9		C	A 22.5		C
Intersection Dela	ıy, S/VE	aii/LUS	0.00		1000	3.		413	THY!		310	100		A	457/86	1000
Multimodal Res	ults				EB			WE	3			NB			SB	
Pedestrian LOS	_	/ LOS		2.0		В	2.0		В		2.7		В	2.7		В
Bicycle LOS Sco	re / LO	OS		0.8		Α	1.0		Α		0.6		Α	0.5		Α

		HCS 2	010 S	Signali	ized	Inters	ectio	n Re	esul	lts S	umn	nary				
General Inform	ation				-		10,574	le o	Inte	orooo	ion In	formati	ion	1990	기시시사	TRU
	lation	1												_	4	
Agency				A = = b	in Dat	- 10/4/0	040		-	ration,		0.25				
Analyst						e 8/4/2	016		PH	еа Тур	е	Othe				
Jurisdiction	-	NA //- : 60 - 1 1		Time F		0040			-		n .	0.98	_		- 5	*
Urban Street		Whiffletree Lane		Analys		_		100	_	alysis			:00			
Intersection		Rolling Hills Road		File Na	ame	6-Ro	lling Hills	s-VVh	iffletre	ee C-F	PM.	kus		_	*	
Project Descript	tion				313	70.00 M	1 550			3769			2343		ካ ተ ነ ተ	THE
Demand Inforn	nation		10.00	Marie	EB			V	VB	-		NB			SB	
Approach Move	ment			L	T	R	L	T	T	R	L	Т	F	R L	Т	R
Demand (v), v	_	Section of		0	525	_	0	3	96	0	0	15	_	_		7
							1	10/0		BER	1575		345		The state of	
Signal Informa	Information  45.0 Reference Phase  0 Reference Point  dinated No Simult. Gap E/W  Inde Fixed Simult. Gap N/S  Results  d Phase  Duration, s  Period, (Y+Rc), s  W Headway (MAH), s  Clearance Time (gs), s  Extension Time (ge), s  Call Probability  t Probability			-	7 4											人
Cycle, s	A 45.0 Reference Phase  S O Reference Point E  Idinated No Simult. Gap E/W  Idode Fixed Simult. Gap N/S  Results  Id Phase  Under Duration, s  Period, (Y+Rc), s  W Headway (MAH), s  Clearance Time (gs), s  Extension Time (ge), s  Call Probability	2	-	=	51	2							-		-4-	
Offset, s	Reference Point Edinated No Simult. Gap E/W (Mode Fixed Simult. Gap N/S (Mode Fixed Si	End	Green	29.5	1.5	2.0	0.	0	0.0	0.0			K			
Uncoordinated	No		On	Yellow		4.0	4.0	0.		0.0	0.0			<b>&gt;</b>	7 1 3	N
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.	0	0.0	0.0		5	6		
Timer Results				EBL		EBT	WB		W	RT	NE	BI I	NBT	9	BL	SBT
Assigned Phase	<u> </u>					2	1112	-	6	-		,_	8	-	DE	4
Case Number						8.0			8.	-		- SI NO	12.0			12.0
	c					33.5	-	-	33.	-			6.0			5.5
		٠) د		-	52 20	4.0			4.				4.0			4.0
THE RESIDENCE OF THE PARTY OF T	The second liverage of the second	AND DESCRIPTION OF THE PARTY OF			-	0.0			0.0	-			3.2			3.1
	-		- 6			0.0			0.1	U			2.8	-		2.6
				-	20 00	0.0		-	0.0	0			0.0			0.0
	-	( g e ), s				0.0			0.1	0			0.33	+		0.25
And the second s												-	0.00	1		
Max Out Probat	Jilly	STATE OF THE PARTY OF	2177				BETTE ST	STATE OF THE PARTY.	1000	-	1		0.00	No.		0.00
Movement Gro	up Res	ults	AIS (S)	10000	EB	U.S. dr.		W	В		346	NB	L. III		SB	
Approach Move	ment	111/2		L	Т	R	L	Т	T	R	L	T	R	L	Т	R
Assigned Mover	ment	Army-	- 17	5	2	12	1	6		16	3	8	18	7	4	14
Adjusted Flow R	-	), veh/h		0		0	0			0		0			0	
	-	ow Rate (s), veh/h/lr	1	0	18-10	0	0	Ja S		0		0			0	
Queue Service	MARKET PROPERTY.	Name of Street, Street		0.0		0.0	0.0		(	0.0		0.0			0.0	
Cycle Queue Cl	-			0.0	120	0.0	0.0		(	0.0	-	0.0			0.0	
Green Ratio ( g/	Section 1997 Annual Property Company															
Capacity ( c ), ve				100	in all	1600					163	100				
Volume-to-Capa	-	itio (X)		0.000		0.000	0.000		0.	.000		0.000			0.000	
WATER CO. LANSING MICH.	the Park Street, Stree	In (50 th percentile)		0	1	0	0	-	-	0		0			0	
THE RESERVE OF THE PARTY OF THE	NAME AND ADDRESS OF TAXABLE PARTY.	eh/In ( 50 th percentil	e)	0.0		0.0	0.0		-	0.0		0.0		1	0.0	1
the state of the last of the state of the st	Name and Address of the Owner, where	RQ) (50 th percenti	-	0.00		0.00	0.00	100		0.00		0.00			0.00	
Uniform Delay (		the second secon												1	1.00	
Incremental Dela	the second second			0.0	Halis	0.0	0.0		(	0.0		0.0			0.0	
nitial Queue De				0.0		0.0	0.0		-	0.0		0.0			0.0	
Control Delay (	-				1/2-71	9 10						5.0	-		5.0	
_evel of Service	-													1		
Approach Delay	-			3.3		Α	3.1		A	900	22.4	1	С	22	8	С
Intersection Dela	-			5.0		-	.3							A		-
	,, 5, 10	AL STREET			3	E Inch	385	-	13.3	1	1 1	Series of		Water House	12/2	
Multimodal Res	ults		- 4	-	EB			WE	3			NB	name Land		SB	T
Pedestrian LOS		/LOS		2.0		В	2.0	1	В		2.7	-	В	2.	-	В
Bicycle LOS Sco	_			0.9		Α	0.8		A		0.5	-	Α	0.	_	A

		HCS 2	010 S	Signal	ized	Inters	ectio	n Res	sults S	Sumn	nary				
General Inform	nation								Intersed	tion Ir	format	ion		기세기하	111
Agency	ilation							_	Duration		0.25			*	
Analyst				Analy	eie Dat	e 8/4/2	016	-	Area Ty	-	Othe	_			
Jurisdiction				-	Period	0/4/2	010		PHF	-	0.90			w+E	<u>~</u>
Urban Street		Fallenleaf Drive		-	sis Yea	r 2016		_	Analysis	Perior	_				-
Intersection		Rolling Hills Road		File N		-	ling Hill	-	nleaf C-l			.00	_ 3		
Project Descrip	tion	Troiling Tillis Troad		T lie iv	anic	7-1101	iiig riiii	3-1 alic	ilical O-I	AWI.A	us			ነ ላ ነ ቀ፣	7 + 7
APPLE SEE	-	algest a	18-1					90 A	The same		130	19 2	DE SER		
Demand Inform					EB			W	_		NE			SB	
Approach Move				L	Т	R	L	Т	_	L	Т	R	_	Т	R
Demand (v), v	eh/h			30	322	0	11	44	1 0	0	49	0	0	62	0
Signal Informa	tion		SAA!						C. San Carlotte Style						
Cycle, s	45.0	Reference Phase	2		⇒ "		7						→		4
Offset, s	0	Reference Point	End	Groon	26.6	3.5	3.0	0.0	0.0	0.0		N.	Y		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	0.0	THE RESERVE OF THE PERSON NAMED IN	0.0		No.	4		st2
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		11.6	6	1	8
Times Desults				ED		EDT	VA/E	458	WDT	ALI	21	NDT	0.5		ODT
Timer Results				EB	-	EBT	WE	L	WBT	NE	3L	NBT	SE	SL	SBT
Assigned Phase	е					2	-		6	-		8	-	_	4
Case Number						6.0			6.0	-		12.0	-		12.0
Phase Duration		1 .		-		30.6		-	30.6	-	-	7.0	-		7.5
Change Period						4.0			4.0			4.0	-		4.0
Max Allow Head		AND DESCRIPTION OF THE PARTY OF				0.0			0.0	-		3.0	-		3.0
Queue Clearan			. 30	-		0.0			0.0	-		3.3	-		3.6
Green Extensio		( g e ), S		-		0.0	-		0.0	-	-	0.1	-		0.1
Phase Call Prob							130			-		0.49	-		0.58
Max Out Probal	DIIIty		Section 2	-		4500	-	1000		100		0.00			0.00
Movement Gro	up Res	ults			EB			WB			NB	7/11		SB	
Approach Move	ement			L	T	R	L	Т	R	L	T	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate (v	), veh/h		33	358	0	12	490	0		0			0	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/li	n	921	1900	0	1040	1900	0		0			0	
Queue Service	Time ( g	g s ), S		0.8	1.9	0.0	0.2	2.7	0.0		0.0			0.0	
Cycle Queue C	learanc	e Time ( <i>g c</i> ), s		3.5	1.9	0.0	2.2	2.7	0.0	100	0.0			0.0	0
Green Ratio ( g.	/C)			0.59	0.59		0.59	0.59							
Capacity ( c ), v	eh/h			648	2244		729	2244	-						
Volume-to-Capa		NAME AND ADDRESS OF THE OWNER, WHEN PERSON WAS ADDRESS.		0.051	0.159	0.000	0.017	0.218	-		0.000			0.000	
	Contract of the last	In (50 th percentile)		3.1	11.1	0	1	15.9	0		0			0	
CONTRACTOR	ALC: UNKNOWN	eh/ln (50 th percentil	The same of the sa	0.1	0.4	0.0	0.0	0.6	0.0		0.0			0.0	
	-	RQ) (50 th percent	ile)	0.03	0.06	0.00	0.01	0.08	0.00		0.00			0.00	
Uniform Delay (	COLUMN TO SERVICE SERV			5.2	4.2		4.7	4.3					-		
Incremental Del	and the same of th			0.2	0.2	0.0	0.0	0.2	0.0		0.0			0.0	
Initial Queue De		and a being seen as a second second		0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
Control Delay (	_			5.3	4.3	17	4.7	4.6							
Level of Service	_			A	A	_	A	Α	_	0.1		_	-		
Approach Delay Intersection Del	-			4.4		A 6	4.6		Α	21.	2	С	20.8	5	С
microsolion Del	ay, sive			150	127			0.316	300		19.93	198		Paradi.	100
Multimodal Re	sults				EB			WB			NB			SB	
Pedestrian LOS	Score	/ LOS		2.0		В	2.0		В	2.8	3	С	2.8		С
Bicycle LOS Sc	ore / LC	os		0.8		Α	0.9		A	0.6	3	Α	0.6		Α

		HCS 2	010 S	Signal	ized	Inters	ectio	n Res	sults	Sumr	nary				
General Inform	nation					14.4		10.30	Interce	ction l	nformat	ion	e Gill	1474	ILL
Agency	iauon	T						_	Duration		0.25			4	
				Analy	oio Dot	e 8/4/2	016		_		Othe				
Analyst Jurisdiction				_		e 0/4/2	010	$\rightarrow$	Area Ty	pe	0.96			1	*
Urban Street		Follonion Drive		_	Period	r 2016		_		Dorio	_				7
	Information  Peet Fallenleaf Drive  Information  Informat		_	sis Yea	_			Analysis			:00		40.00		
Intersection Project Descrip	Information Inform		File N	ame	/-R0	lling Hill	s-raile	nleaf C-	P PIVI.X	us			<b>†</b>	7 4 7	
The state of the s			100						15,7	1100	ross!	李子		THE ST	
Demand Inform	37.51.71.71.71		4		EB			W	_		NE	-		SB	
	reet Rolling Hills Road  Pescription  Information  Information  A 5.0 Reference Phase  O Reference Point  Inated No Simult. Gap E/W  Index Rolling Hills Road  A 5.0 Reference Phase  O Reference Point  Inated No Simult. Gap N/S  Inated Rolling Hills Road  A 5.0 Reference Phase  O Reference Phase  Inated No Simult. Gap N/S  Inated Rolling Hills Road  A 5.0 Reference Phase  O Reference Phase  Inated No Simult. Gap N/S  Inated Rolling Hills Road  A 5.0 Reference Phase  O Reference Phase  O Reference Phase  Inated No Simult. Gap N/S  Inated Rolling Hills Road  A 5.0 Reference Phase  O Reference Phase  Inated Rolling Hills Road  Inated Rolling Hills Rolling Hil		L	Т	R	L	Т	_	L	_	_	R L	-	R	
Demand (v), v	nformation  45.0 Reference Phase  0 Reference Point  dinated No Simult. Gap E/W  ode Fixed Simult. Gap N/S  esults d Phase umber  ouration, s Period, ( Y+R c), s ow Headway ( MAH ), s  Clearance Time ( g s ), s  extension Time ( g e ), s		36	448	0	22	40:	3 0	0	26		0 0	47	0	
Signal Informa	tion	Para Galla						Name of Contract o		NAME OF STREET		1 - 7 - 7			
Cycle, s	Information  Itreet Fallenleaf Drive Ition Rolling Hills Road Description  Information Inf			1	-	211	-				72	22			4
Offset, s	Information  treet Fallenleaf Drive  tion Rolling Hills Road Description  Information  Informati		End	0	200.5	51		0.0	0.0			- 4	7 2	3	4
Uncoordinated	fron Rolling Hills Road Description  Information Infor	On	Yellow	28.5	2.7 4.0	4.0	0.0	NAME AND ADDRESS OF THE OWNER, WHEN	Company of the last of the las	the same of the sa		4		-4-	
Force Mode	reet Fallenleaf Drive from Rolling Hills Road Description  Information Movement  (v), veh/h  formation  45.0 Reference Phase 0 Reference Point Finated No Simult. Gap E/W  Ode Fixed Simult. Gap N/S  Desults  Phase These These These The (gs), s W Headway (MAH), s Idearance Time (gs), s All Probability  Probability  Probability  Information  A 45.0 Reference Phase  (a) Reference Point (b) Reference Point (c) Reference Phase (d) Reference Phase (	On	Red	0.0	0.0	0.0	0.0	the same of the sa			5		7	Y	
										F. 18		EL I	The Paris		
Timer Results				EB	L	EBT	WE	BL	WBT	N	BL	NBT	S	BL	SBT
Assigned Phase	9					2	_		6			8			4
Case Number						6.0			6.0			12.0			12.0
Phase Duration	-			_		32.5			32.5			5.7			6.7
-						4.0			4.0			4.0			4.0
	_					0.0			0.0			3.0			3.0
			1			FR		100				2.6			3.1
The San Printer of the San Print		( g e ), s				0.0			0.0	_		0.0			0.1
	-								F 1 1 - 1			0.29			0.46
Max Out Probab	oility		-								-	0.00			0.00
Movement Gro	up Res	sults			EB	m/ 2		WB			NB			SB	
Approach Move	_			L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	4	14
	_	), veh/h		38	467	0	23	420	0		0			0	
	_		n	982	1900	0	941	1900	0		0			0	
	THE RESERVE OF THE PERSON NAMED IN			0.7	2.3	0.0	0.5	2.0	0.0		0.0			0.0	
Cycle Queue Cl	earance	e Time (gc), s	- (19)	2.8	2.3	0.0	2.8	2.0	0.0		0.0	112		0.0	
Green Ratio (g/	(C)			0.63	0.63		0.63	0.63							
Capacity (c), v	eh/h			738	2409	-	708	2409				10	DE L		
Volume-to-Capa	city Ra	tio (X)		0.051	0.194	0.000	0.032	0.174	0.000		0.000			0.000	
Back of Queue	(Q), ft/	In (50 th percentile)	13 30	2.6	11.2	0	1.6	9.9	0		0			0	
The second secon			-	0.1	0.4	0.0	0.1	0.4	0.0		0.0			0.0	
	The second secon		ile)	0.03	0.06	0.00	0.02	0.05	0.00		0.00			0.00	
The second second second second	-			4.0	3.4		4.0	3.4							
	-			0.1	0.2	0.0	0.1	0.2	0.0		0.0			0.0	
The second secon	-			0.0	0.0	0.0	0.0	0.0	0.0		0.0			0.0	
	_	eh		4.1	3.6		4.1	3.5							
and the second s	The second second second			A	Α		A	Α							
	Contract of the local division in which the local division is not to be a second or the local division in the			3.7		A	3.6		Α	22.	3	С	21	.3	С
Intersection Del	s   45.0   Reference Phases   0   Reference Point rdinated   No   Simult. Gap E/No   Mode   Fixed   Simult. Gap N/S   Results   ed Phase   Number   Duration, see Period, (Y+Rc), see   Period, (Y+Rc)			E FE	1 113	5	.0	- 21 /	7775			1905	A	13,000	
Multimodal Res	sults		1	1000	EB	III to a		WB			NB	SAL	1	SB	
THE RESIDENCE OF THE PARTY OF T	Probability  Int Group Results  Movement  Movement  Flow Rate ( v ), veh/h  Saturation Flow Rate ( s ), veh/h/lr  Privice Time ( g s ), s  Privice Time ( g c ), s  Privice ( g c ), s  Privice ( Q ), r  Privice ( Q ), r  Privice ( G )  Privice Time ( g c ), s  Privice ( G ), s  Privice Time ( g c ), s  Privice ( G ), s  Privice ( LOS)  Privice Time ( g c ), s  Privice ( LOS)  Privice ( LOS)  Privice Time ( g c ), s  Privice Time ( g			2.0		В	2.0	-	В	2.8	-	С	2.	-	С
THE RESERVE AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NA	-			0.9		Α	0.9	_	A	0.5	_	Α	0.0	-	A

General Inform	nation								Intersec	tion Inf	ormatio	on		기식가하↑	
Agency		KHR Associates							Duration	, h	0.25			111	4
Analyst				Analys	is Date	8/1/20	016		Area Typ	е	Other		4		
Jurisdiction		Torrance California		Time F				$\rightarrow$	PHF		0.88		4	γγ‡ε	
Urban Street		Crenshaw Boulevan			is Year	2016			Analysis	Period	1> 7:	30	7		
Intersection		Rolling Hills Road		File Na			ina Hills		shaw C-I	-	s			5++	+
Project Descrip	tion	Troining rime rious		1		1	3							ነተተቀየ	1: 1
Demand Inform	nation	The Harris			EB		THE REAL PROPERTY.	WE			NB	HE		SB	
				L	T	R	L	T	R	L	T	R	L	T	
Approach Move				153	147	60	24	18	_	-	1392	_	159	1045	_
Demand ( v ), v	en/n	NAME OF TAXABLE PARTY.		153	147	60	24	10	200	117	1392		133	1045	Const.
Signal Informa	tion				-	1	1		2 1	. Ji					L
Cycle, s	120.0	Reference Phase	2		2 6	Ħ	=₹ `	K		150			<b>→</b>		12
Offset, s	0	Reference Point	End	Green	3.6	6.4	48.0	8.5	2.4	31.1	Laboratoria de la constantina della constantina		× .	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	0.0	4.0		7	<b>—</b>	1	K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	177	5	6		
	- July		E E							AUD		NET	0.0		007
Timer Results				EBI	0 8	EBT	WB	L	WBT	NBI		NBT	SBI 7	- 12	SBT
Assigned Phase	е			5		2	2.0		6 3.0	1.1		4.0	1.1		4.0
Case Number				2.0		3.0	-		-	_		35.1	-	-	37.5
Phase Duration	ase Duration, s ange Period, ( Y+R c ), s			18.0	_	62.4	7.6		52.0	12.5	_		14.9	_	
the state of the s				4.0	_	4.0	4.0	_	4.0	4.0	_	4.0	4.0 3.0	-	4.0
Name and Address of the Owner, where the Owner, which is the Owner,	x Allow Headway ( <i>MAH</i> ), s			3.0		0.0	3.0	-	0.0	3.0		2.9	-		2.9
Queue Clearan	NAME AND ADDRESS OF THE OWNER, WHEN			14.0	_	0.0	3.9	-	0.0	8.5		33.1	10.8		28.4
Green Extensio		( g e ), S		0.1	_	0.0	0.0	-	0.0	0.1		0.0	1.00	_	1.00
Phase Call Pro	-			1.00	-		0.60	-		0.99	_		0.09	-	-
Max Out Proba	bility	Water Control of	1000	1.00		TIST	0.00	-	4153	0.00	NEWS STREET	1.00	0.08	2	0.81
Movement Gro	up Res	sults			EB			WB			NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	Т	F
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow I	Rate (v	), veh/h		174	167	68	27	206	234	133	1582		181	1188	
Adjusted Satura	ation Flo	ow Rate (s), veh/h/l	ln	1723	1810	1608	1723	1810	1607	1774	1691		1774	1691	
Queue Service	Time (	g s ), S		12.0	8.0	3.5	1.9	10.8	14.2	6.5	31.1		8.8	26.4	
Cycle Queue C	learanc	e Time ( g c ), s		12.0	8.0	3.5	1.9	10.8	14.2	6.5	31.1		8.8	26.4	
Green Ratio ( g	/C)			0.12	0.49	0.49	0.03	0.40	0.40	0.33	0.26		0.35	0.28	
Capacity (c), v	/eh/h			201	881	783	51	724	643	206	1314		221	1415	1
Volume-to-Cap	acity Ra	atio (X)		0.866	0.190	0.087	0.530	0.284	-	0.647	1.204		0.816	0.839	
Back of Queue	(Q), ft	/In (50 th percentile)	)	169.9	91.2	33.3	22.1	129.9	150.1	71.9	638.8		108.6	290	
Back of Queue	(Q), ve	eh/In ( 50 th percenti	ile)	6.5	3.5	1.3	0.9	5.0	6.0	2.8	24.6		4.2	11.2	
Queue Storage	Ratio (	RQ) (50 th percent	tile)	0.57	0.30	0.12	0.07	0.43	0.52	0.35	3.12		0.35	0.94	
Uniform Delay	(d1), s	/veh		54.4	23.5	22.0	58.0	30.3	31.6	32.8	44.5		32.1	40.7	
Incremental De	lay (d2	), s/veh		23.0	0.5	0.2	3.1	1.0	1.6	1.3	99.3		9.1	4.4	
Initial Queue De	elay ( d	3 ), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	d), s/ve	eh		77.4	24.0	22.2	61.1	31.3	33.2	34.1	143.7		41.2	45.1	
Level of Service	e (LOS)			E	С	С	Е	С	С	С	F		D	D	
Approach Delay	y, s/veh	/LOS		46.4		D	34.0		С	135.	2	F	44.6	5	D
Intersection De	lay, s/ve	eh / LOS				82	2.8						F		-
Market and 15	ALL THE	Mark No.	N. Contraction	1	EP			WB	W. State	M.Sal.	NB	300	-	SB	Wing.
Multimodal Re	and the second second	/1.00		2.2	EB	С	3.3	_	С	2.5		В	2.4	-	В
Pedestrian LOS	score	/ LUS		3.3	_	A	1.3	_	A	1.4	-	A	1.2	-	A

		HCS 2	010 S	Signal	ized	Inters	ectio	n Re	sults	Sumn	nary				
General Inforn	nation		11/1/14				1		Interes	ction In	format	ion	- Will	7 4 7 4	IFU
Agency	lation	KHR Associates							Duratio		0.25			iiii	
Analyst		KI II Associates		Analy	cic Dat	e 8/1/2	016		Area Ty		Othe		- 4		
Jurisdiction		Torrance California		_	Period	0/1/2	.010		PHF	pe	0.97		<b>—</b> ∰	n nie	K.
Urban Street		Crenshaw Boulevar	rd	-	sis Yea	r 2016				s Period	_		4		*
Intersection		Rolling Hills Road	iu	File N		_		c Cron		P PM.x		.50	- 5		
Project Descrip	tion	Rolling Hills Road		File N	anie	0-KU	iling mil	S-CIEI	Sliaw C	-F FIVI.X	us		-	<u>`</u> ो ↑ ↑	7 + 7
		C STATE OF	The second					L ST	HE					PAR	
Demand Inform					EB			W	-		NE	-		SB	
Approach Move				L	Т	R	L	Т		L	Т	F		Т	F
Demand (v), v	eh/h	-		168	286	88	46	21	7 167	7 101	103	9	279	1088	8
Signal Informa	tion	Elman electron					1	R_	L U	5 J			-		
Cycle, s	120.0	Reference Phase	2	1	2 0	-3	-	<b>—</b> [	7 0	- 1	100			1	4
Offset, s	0	Reference Point	End	0	1.0	3	10.1	7.0	1 7	5			<b>Y</b> 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		5.2	48.1	7.3	The second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line in the second line is not a second line is not a second line in the second line is not a second lin			7	4		-4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	<b>Y</b> 7	
				FR	20.00	EDT	100		WEST			No.		15046	
Timer Results				EBI	-	EBT	WE	3L	WBT	NB	L	NBT	SB		SBT
Assigned Phase	9			5		2	1		6	3		8	7		4
Case Number				2.0	_	3.0	2.0		3.0	1.1		4.0	1.1	-	4.0
Phase Duration				17.9		61.2	8.8		52.1	11.3	_	30.0	20.	-	38.7
	nge Period, ( Y+R c ), s Allow Headway ( MAH ), s			4.0	_	4.0	4.0		4.0	4.0		4.0	4.0		4.0
	Allow Headway ( <i>MAH</i> ), s ue Clearance Time ( <i>g</i> s ), s			3.0	_	0.0	3.0	in the same of the	0.0	3.0	_	2.9	3.0	_	2.9
				13.9	9	0.0	5.3	-	0.0	7.4		27.2	17.	-	26.2
Green Extensio		( g e ), s		0.1		0.0	0.0		0.0	0.1	_	0.0	0.0	-	4.2
Phase Call Prob	_			1.00	_		0.7			0.9		1.00	1.0	-	1.00
Max Out Probat	ollity			1.00		15.10	0.0	U	200	0.00		1.00	1.00	J	0.42
Movement Gro	up Res	ults			EB	1//(3)	JE II	WB			NB			SB	
Approach Move	ment			L	T	R	L	T	R	L	Т	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	1	7	4	
Adjusted Flow F	Rate ( v	), veh/h		173	295	91	47	224	172	104	1071		288	1122	
Adjusted Satura	tion Flo	ow Rate (s), veh/h/lr	n	1723	1810	1608	1723	1810	1607	1774	1691		1774	1691	
Queue Service	Time ( g	g s ), S		11.9	15.0	4.8	3.3	11.9	10.2	5.4	25.2		15.0	24.2	
Cycle Queue Cl	earance	e Time ( g c ), s		11.9	15.0	4.8	3.3	11.9	10.2	5.4	25.2		15.0	24.2	
Green Ratio ( g/	(C)			0.12	0.48	0.48	0.04	0.40	0.40	0.28	0.22		0.37	0.29	
Capacity ( c ), v	eh/h			200	863	767	68	725	643	203	1099		300	1469	
Volume-to-Capa	city Ra	tio (X)		0.865	0.342	0.118	0.693	0.309	0.268	0.513	0.974		0.958	0.764	
Back of Queue	(Q), ft/	In (50 th percentile)		169.2	181.9	45.9	38.9	143.4	104	60.1	320.7	1111	247.7	258.9	
Back of Queue	( Q ), ve	eh/In (50 th percentil	le)	6.5	7.0	1.8	1.5	5.5	4.2	2.3	12.3		9.5	10.0	
Queue Storage	Ratio (	RQ) (50 th percenti	ile)	0.56	0.61	0.16	0.13	0.48	0.36	0.29	1.57		0.81	0.84	
Uniform Delay (	d 1), s/	/veh		54.4	26.5	23.0	57.7	30.7	30.1	34.9	46.7		33.1	38.9	
ncremental Del	ay ( d 2	), s/veh		22.9	1.1	0.3	4.6	1.1	1.0	0.7	21.0		40.3	2.2	
nitial Queue De	lay ( d :	3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	d), s/ve	eh		77.3	27.6	23.4	62.3	31.8	31.1	35.7	67.7		73.3	41.1	
_evel of Service	_			E	С	С	Е	С	С	D	E		E	D	
Approach Delay	_	/LOS		42.3		D	34.8	3	C	64.8	_	E	47.7	_	D
ntersection Del	-					50	0.9						D		
	45						3000	LA CO		-	1	STOP I	The same	1	100
Multimodal Res	-			3.3	EB	0		WB	0		NB	_		SB	
	dal Results an LOS Score / LOS					C	3.3		C	2.5		В	2.4		В

			L PAGE	Jigilia	11260		leis	Cuic	III K	est	uits .	Sullill	liary	200	170000	-	
General Infor	mation					<u> </u>				In	terse	ction Ir	forma	tion	PILEU	고 시 시.	AT BU
Agency		KHR Associates								-	uratio		0.2		_	11	
Analyst				Analy	sis Da	ate	8/1/2	016		_	rea Ty		Oth				
Jurisdiction		Torrance California			Perio	$\rightarrow$	0/ 1/2	010		_	HF	pe	0.9				
Urban Street			vav	-	sis Ye	$\rightarrow$	2016			-		s Period	-	7:30			
Intersection				File N		_	_	H-Cren	shaw	_	Marie Contractor		11/	7.30	- 3	1	
Project Descrip	otion	Distriction Bouleval	<u> </u>	1 110 1	anic		5-1-0	11-0161	Silaw	0-1	AIVI.	us			-	5 5 6 5	1
AL BENE		1	2		-		= 1	100		12	1190	1011.3			1200	ST SU SUSE	un dente
Demand Infor	mation				E	3			1	NΒ	and the same of th		N	В		SE	3
Approach Move	KHR Associates  on Torrance Californ reet Pacific Coast High on Crenshaw Boule escription  Information Movement (v), veh/h  formation 120.0 Reference Phase 0 Reference Point nated No Simult. Gap E/M de Fixed Simult. Gap N/S  sults  Phase her ration, s reriod, (Y+Rc), s Headway (MAH), s earance Time (ge), s Headway (MAH), s earance Time (ge), s Herobability Probability  or the Group Results  Movement Movement Hovement Flow Rate (v), veh/h Caturation Flow Rate (s), veh/h rvice Time (gs), s eue Clearance Time (gc), s io (g/C) c), veh/h -Capacity Ratio (X) Jule (Q), ft/In (50 th percentility or gage Ratio (RQ) (50 th percentility			L	T		R	L		Т	R	L	T	R	L	Т	-
Demand (v), v	/eh/h			178	97	3		653	3 1	984		68	104	46 49	8 14		_
Cinnelle	d Information th Movement 1 ( v ), veh/h  Information 120.0 Reference Phase 0 Reference Point Initiated No Simult. Gap E/W Index Fixed Simult. Gap N/S  Information Initiated No Simult. Gap N/S  Information Initiated No Simult. Gap E/W Initiated No Simult. Gap N/S  Information Initiated No Reference Phase Information I											Miles.		1.39	THE PERSON NAMED IN		No.
	KHR Associates  ion Torrance Californ treet Pacific Coast High ion Crenshaw Boule Description  Information Informa			-	2		-	_	4	6	1	u 1	. L	_	1		
Cycle, s	KHR Associates  ition Torrance Californ Itreet Pacific Coast Highton Description  Information Informat		2				E		K	5			17	-	4	1	12
Offset, s	KHR Associates  ion Torrance Californi treet Pacific Coast High ion Crenshaw Boulev Description  Information Movement ( v ), veh/h  Information  120.0 Reference Phase 0 Reference Point Inated No Simult. Gap E/W Index Fixed Simult. Gap N/S  Instead Simult. Gap N/S  Instea	End	Greer	1 6.3		5.8	46.0	6	.2	3.1	32.						
Uncoordinated	KHR Associates  In Torrance Californ  Information  Inform		On	Yellov	v 4.0		4.0	4.0	4	.0	0.0	4.0		1	7	1	1
Force Mode	formation    120.0   Reference Phase	On	Red	0.0		0.0	0.0	0.	.0	0.0	0.0		5	6	7		
Timer Results	120.0 Reference Phase 0 Reference Point linated No Simult. Gap E/W ode Fixed Simult. Gap N/S  esults d Phase imber furation, s Period, (Y+Rc), s w Headway (MAH), s Clearance Time (gs), s xtension Time (ge), s all Probability Probability  ent Group Results in Movement		ED			D.T.	10.0									4.8	
Assigned Phase				EB	L	_	ВТ	WE	3L	_	VBT	NB	L	NBT	SE		SBT
Case Number	e e			5		2	-	1		_	6	3		8	7	_	4
2 12 12 13 13 13 13 13 13 13 13 13 13 13 13 13	_			1.1	_	4.		1.1		_	1.0	2.0		3.0	1.		4.0
		1.		10.3		50		20.	-		9.7	10.:		36.7	13.	-	39.8
				4.0	-	4.	-	4.0	-		1.0	4.0	-	4.0	4.0		4.0
NAME AND ADDRESS OF TAXABLE PARTY.	_			3.0		0.	0	3.0	-	0	0.0	3.0		3.0	3.0	_	3.0
The same of the sa				6.0	_			18.			and the same	6.8	-	34.7	9.2		15.1
THE RESIDENCE OF THE PERSON NAMED IN	NATIONAL PROPERTY OF THE PARTY	( <i>g</i> e ), S		0.3	_	0.0	0	0.0	_	0	0.0	0.1	-	0.0	0.1		6.4
	Street, or other party of the Person			1.00	-			1.0	-			0.9	-	1.00	0.9		1.00
wax Out Probai	ollity		-	0.00	)		-	1.0	0			0.00	)	1.00	0.0	1	0.10
Movement Gro	up Res	ults		0.000	EB				W	R	1000		NB			CD	
Approach Move	the same of the sa			L	Т	T	R	L	T	_	R	L	T	R	L	SB	
Assigned Move	-			5	2			1	6	1		3	8	18	7	-	R
		) veh/h		187	1024	+		687	208	Q		72	1101	-	-	4	
			201	1673	1723	-		1673	164	-		1774	-	524	153	684	-
				4.0	33.1	-		16.1	48.9	-		4.8	1691	1608 32.7	1774	1691	-
THE RESERVE OF THE PARTY OF THE				4.0	33.1			16.1	48.9	_		4.8	24.2	-	7.2	13.1	-
Green Ratio ( g/		, mile ( g c ), c		0.44	0.38	-		0.53	0.46	-	-	-		32.7	7.2	13.1	
Capacity ( c ), v				310	1319			681	229	_		0.05 92	0.27	0.27	0.36	0.30	
		in (X)		0.604	0.776	-		1.009	0.91	-			1382 0.797	438	233	1513	
				40.9	394.4	-		259.9	559.	-	-	0.780	262.6	1.197	0.654	0.452	
AND REAL PROPERTY AND ADDRESS OF THE PARTY AND		The same of the sa	1	1.6	15.2	-		10.0	21.5	_		57.8		642.7	79.1	136.3	-
The second secon	SEPTEMBER STORT STORT			0.14	1.31			0.87	1.86	and the same	-	2.2	10.1	25.7	3.0	5.2	
			-,	29.4	39.9	-		31.7	39.1	-	-	0.28	1.28	3.26	0.26	0.44	
THE RESIDENCE OF THE PARTY OF T	_	CONTRACTOR OF THE PARTY OF THE		0.7	4.5			36.7	6.9	-		56.2	40.6	43.7	30.7	34.2	
The State of the S	Contract of the Contract of th	AND RESIDENCE AND ADDRESS OF THE PARTY.		0.0	0.0	-		0.0	0.0	-		5.3	3.1	109.0	1.2	0.1	
THE RESERVE OF THE PERSON NAMED IN	AND DESCRIPTION OF THE PERSON NAMED IN			30.1	44.4			68.3	46.0	-		0.0	0.0	0.0	0.0	0.0	
	-			C C	D	-		F	40.U			61.5	43.7	152.7	31.9	34.2	
	The same of the same of	LOS		42.2		D		51.5	-	D		E 70 1	D	F	C	С	
				42.2		U	54.			U	-	78.1		E	33.8		С
	, J, J, VCI			1991	- 4		54.	1	100		1000		100		D		100
Multimodal Res	ults				EB				WB	-	STATE OF THE PERSON NAMED IN		NB			CD	
edestrian LOS	The second second	LOS		3.4		С	-	3.3	1	C		2.1	IND	0	2.2	SB	0
Bicycle LOS Sco	-			1.5		A	-	2.0	-	В	-	3.1	-	C	3.3 0.9		C A

	ACC.			in a	4						. 17		-1500		
General Inform	nation								Inters	ection Ir	format	tion		1세기中	
Agency		KHR Associates							Durati	on, h	0.25	5	-	111	4
Analyst				Analys	sis Date	8/1/2	016		Area 7	уре	Othe	er	4		
Jurisdiction		Torrance California		Time F	Period				PHF		0.94		*	₩ <del>1</del> €	
Urban Street		Pacific Coast Highw	vay	Analys	sis Yea	2016	i .		Analys	sis Period	1 1> 7	:30			
Intersection		Crenshaw Boulevar	ď	File N	ame	9-PC	H-Cren	shaw (	C-P PM	.xus				5 + 1	1 7
Project Descrip	tion													1414	7 + 7
Demand Inform	nation		200		EB	-		W	R		NE			SB	
				L	T	R	L	T	_	R L	T	-	L	T	
	_		20-1	178	1305	_	477		-	84	_		_	-	1
Demand (V), V	Torrance California reet		170	1303		4//	140	01	04	12	0 438	330	1104		
Signal Informa	tion									L I	5	المندر			
Cycle, s	120.0	Reference Phase	2	1	-> K	- 1		ž <sup>12</sup>				_	4	1	1
Offset, s	KHR Associates  Torrance California  Torrance Calif		End	Green	6.3	5.4	46.3	7.6	4.	4 26	17		- 1	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	40.3	4.0				1	7		100
Force Mode			On	Red	0.0	0.0	0.0	0.0				5	6	7	
Timer Results	2 12	MATERIAL PROPERTY.		EBL		EBT	WE	21	WBT	NE	21	NBT	SB		CD
	Period, ( Y+R c), s W Headway ( MAH ), s				-			DL				-		_	SB
Assigned Phase	;			5		2	1		6	3	_	8	7		4
Case Number				1.1		4.0	1.1	-	4.0	2.0	_	3.0	1.1	_	4.0
Phase Duration				10.3		50.3	19.		59.7	11.	-	30.0	20.	_	38.4
The second secon	ge Period, ( <i>Y+R c</i> ), s Allow Headway ( <i>MAH</i> ), s			4.0		4.0	4.0		4.0	4.0		4.0	4.0	-	4.0
THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.				3.0	_	0.0	3.0	_	0.0	3.0	_	3.0	3.0		3.0
	-			6.0			15.			8.0		28.0	18.0	-	29.6
		( g e ), s	_	0.3		0.0	0.1	-	0.0	0.	_	0.0	0.0		3.1
	-			1.00		100	1.00			0.9	-	1.00	1.00		1.00
Max Out Probab	oility	A CHEST OF THE PARTY OF		0.00	The state of		1.00	0		0.0	0	1.00	1.00	)	0.82
Movement Gro	up Res	ults			EB			WB			NB	19.0		SB	
Approach Move	ment			L	T	R	L	T	R	L	T	R	L	T	F
Assigned Mover	ment	64 F - 7 - 1 III	1 17	5	2	1	1	6		3	8	18	7	4	
Adjusted Flow F	Rate ( v	), veh/h		189	1388		507	1576		89	774	488	381	1238	
			1	1673	1723	The sale	1673	1643		1774	1691	1608	1774	1691	
				4.0	46.3		13.7	33.7	_	6.0	16.9	26.0	16.0	27.6	-
THE RESERVE AND ADDRESS OF THE PARTY OF THE	_		- 10	4.0	46.3	5 70	13.7	33.7		6.0	16.9	26.0	16.0	27.6	
Green Ratio ( g/		, 0		0.44	0.39		0.53	0.46		0.06	0.22	0.22	0.37	0.29	-
Capacity ( c ), v			7	401	1328		559	2288		113	1099	348	349	1454	
	-	tio (X)		0.473	1.045		0.908	0.689	-	0.794	-	-	1.091	0.852	
	_	The state of the s		40.8	700		235.7	367.5	-	71.5	183.1	727.8	387.5	304	
			e)	1.6	26.9		9.1	14.1	_	2.7	7.0	29.1	14.9	11.7	
	-		_	0.14	2.33		0.79	1.23	_	0.35	0.89	3.70	1.26	0.99	
			-	24.7	44.6		39.0	33.8		55.4	43.4	47.0	34.9	40.4	
		Section in the section of the sectio		0.3	37.4		17.9	1.7		4.7	1.8	197.2	75.0	4.8	
	_	A STATE OF THE PARTY OF THE PAR		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
	-		100	25.0	82.0		56.9	35.5		60.1	45.2	244.2	109.9	45.2	
				C	F		E	D		E	D	F	F	D	-
		LOS	-	75.2		E	40.7		D	118.	_	F	60.4	or or the specimens	E
							9.5			110.			E 00.4		_
					1	33 9	118	Will.	353	1	Tel -	413			
Multimodal Res	ults				EB			WB			NB			SB	
				3.4		C	3.3		C	3.1		С	3.3		С

		HCS 2	010 S	ignal	ized l	nters	ectio	n Res	sults	Summ	ary		102 1	1000	
General Inform	nation	- Harris	- 55.5			170			Interse	ction In	formati	ion	A DESCRIPTION OF THE PERSON NAMED IN	1 4 7 4 1	LEU
Agency	lation	KHR Associates						$\rightarrow$	Duratio		0.25	-		1111	٠, ١,
Analyst		KHIK ASSOCIATES		Analy	sis Date	8/1/2	016	$\rightarrow$	Area Ty		Othe	r			
Jurisdiction		Torrance California		_	Period	5 0/1/2	010	_	PHF	pe	0.78		— → → * →	w+E	+
Urban Street				7.11.2	sis Yea	2016		_		s Period			_ <del>3</del> →		*
Intersection		Pacific Coast Highv Vista Montana	way	File N	_	_	CH-Vista			-		.50	-34	22.5	
Project Descrip	tion	VISIA MONIANA		THE IV	anie	10-1	CI I-VISI	a IVIOTIL	alla U-l	Alvi.xus				<b>ገገ</b> ነ ጎላሰቀን	
1000		PER STATE						100	115%	The state of	AUD			0.0	173
Demand Inform				-	EB		-	W	_	-	NB	-		SB	
Approach Move				L	T	R	L	T	_	L	T	R	L	T	R
Demand (v), v	eh/h			48	1175	7	72	156	15	153	150	130	289	116	19
Signal Informa	tion				1	T			s 2						
Cycle, s	120.0	Reference Phase	2		2 6	- :	= 3	; I	Z KA			_	A	1	4
Offset, s	0	Reference Point	End					,			17		40	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		0.5	67.5 4.0	8.9	1.9			A	<del></del>		4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0			6	6	7	
T Gree Wede	TINOG	Olinaia Gap ivio						TEN.	The state of	A				01233	
Timer Results	A. Lean	The second second		EB	L	EBT	WB	L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	е			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	2.0		4.0	2.0		3.0
Phase Duration	, s			9.2		71.5	9.7		72.0	12.9	9	19.9	18.8	8	25.8
Change Period,	(Y+R	c), s		4.0		4.0	4.0		4.0	4.0		4.0	4.0		4.0
Max Allow Head	dway ( /	MAH), s		3.0		0.0	3.0		0.0	3.0		3.1	3.0	)	3.1
Queue Clearan	ce Time	e (gs), s		3.8			4.6			8.7		14.6	14.	7	20.5
Green Extensio	n Time	(ge), s		0.1		0.0	0.1		0.0	0.2		1.3	0.1		1.3
Phase Call Prob	pability	and shallow		0.87	7		0.9	5		1.00	0	1.00	1.00	0	1.00
Max Out Probab	bility			0.00	)		0.00	0		0.0	1	0.01	1.00	0	0.01
Movement Gro	un Pos	ulte		PERM	EB			WB		-	NB		CONTRACTOR OF THE PARTY OF	SB	10.00
Approach Move	-	Suits		L	Т	R	L	T	R	L	T	R	L	Т	R
Assigned Move				5	2	- 1	1	6	1	3	8	18	7	4	14
Adjusted Flow F	-	\ voh/h	- 21	62	1506		92	2006		196	189	170	371	149	249
The second secon			ln.	_	100000000000000000000000000000000000000		1723	1723	-	1723	1863	1580	1723	1773	_
Adjusted Satura  Queue Service		ow Rate ( $s$ ), veh/h/l		1723	1723 46.3		2.6	68.0		6.7	11.7	12.6	12.7	4.3	157
Charles and the same of the sa				1.8	46.3		2.6	68.0	1	6.7	11.7	12.6	12.7	4.3	18.5
Cycle Queue Cl Green Ratio ( g.		e fille (ye), s		0.61	0.56		0.61	0.57		0.07	0.13	0.13	0.12	0.18	0.18
Capacity ( c ), v	_	lie and		135	1939		202	1953		256	247	210	425	645	286
Volume-to-Capa		atio ( Y )		0.456			0.457	1.027	-	0.766	0.763	0.812	0.871	0.231	0.87
THE RESERVE AND ADDRESS OF THE PARTY OF THE	and the second name of	/In ( 50 th percentile)		25.6	532.2		32.3	944.7	-	75.4	141.5	125.2	160.9	48	191.
	ALCOHOL: NAME OF TAXABLE PARTY.	eh/In ( 50 th percentile)	Name and Address of the Owner, where	1.0	20.5		1.2	36.3		2.9	5.4	5.0	6.2	1.8	7.6
		RQ) (50 th percent	-	0.17	1.77		0.27	3.78		0.49	0.69	0.64	1.05	0.26	0.97
	-		uic)	29.1	30.8	-	22.4	37.3	1	54.5	50.2	50.6	51.7	41.9	47.7
Uniform Delay ( Incremental Del	_			0.9	3.1		0.6	27.7		1.8	1.8	2.9	14.7	0.1	8.1
Initial Queue De	_			0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
	_		F	30.0	34.0		23.0	65.0		56.3	52.1	53.5	66.3	42.0	55.8
Control Delay (				C	C		C	F.		E	D D	D	E	D	55.6
Level of Service				33.8	-	C	63.		E	54.0		D	58.2	-	E
Approach Delay	Marine Street			33.0			2.2		_	J4.0			D 30.2		_
Intersection Del	ay, S/VE	all / LOS	1970		-	3		5000		-	1987				in a second
Multimodal Re	sults	and the same of the same of			EB			WB			NB	CONTRACTOR OF STREET	A B	SB	m per la la
Pedestrian LOS	-	/IOS		2.9		С	3.0	-	С	2.9	-	С	2.9	-	С
CONTRACTOR OF THE PARTY OF THE	ore / LO			1.8		A	2.2	_	В	0.9	-	A	1.1	-	A

	HCS 2	010 S	ignal	ized	Inters	ectio	n Res	sults	Sumn	nary		2017		
Cananal Information	The Market					Us. di	hoped	luto vo o	etion In	form of	-		1474	E INSTE
General Information	IVID Associates						_		ction In	0.25		-	JII	
Agency	KHR Associates		A = = b :	aia Dat	- 01410	040	$\rightarrow$	Duratio		_				
Analyst	Towns on Onlife win		_		e 8/1/2	016		Area Ty	ре	Othe				+
Jurisdiction	Torrance California			Period	0040			PHF	- D	0.98			24.6	-
Urban Street	Pacific Coast High	way			r 2016				s Period	_	:30			
Intersection	Vista Montana		File N	ame	10-P	CH-Vist	a Monta	ana C-F	PM.xus	3		_	ጎጎተ	1
Project Description	100000000000000000000000000000000000000			35.0	F153								14140	THE
Demand Information				EB			WE	3		NB			SB	
Approach Movement			L	T	R	L	Т	R	L	Т	R	L	T	R
Demand (v), veh/h			60	1328	3	208	141	4	115	203	158	361	211	98
0: 11 6 4			0.00											
Signal Information	Deference Phase	2	1	1		=		77			_	7	7	人
Cycle, s 120.0		2	-	"		-	1	177				<b>4</b>	3	
Offset, s 0	Reference Point	End	Green		3.5	63.8	15.8							
Uncoordinated No	Simult. Gap E/W	On	Yellow	_	0.0	4.0	4.0	4.0					1	V
Force Mode Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	Ğ	7	
Timer Results	MISSERVE ESCAL		EB		EBT	WE	1	WBT	NB		NBT	SB		SBT
Assigned Phase			5		2	1		6	110		8			4
Case Number			1.1		4.0	1.1		4.0		2 18	10.0	100		9.0
Phase Duration, s			9.2		67.8	12.		71.3	1		19.8			19.8
Change Period, (Y+R	(c) s		4.0		4.0	4.0		4.0			4.0			4.0
Max Allow Headway (			3.0	_	0.0	3.0		0.0			3.1			3.0
Queue Clearance Tim			3.9	_	0.0	8.3		0.0		T F I	14.9			14.5
Green Extension Time			0.1	_	0.0	0.3	_	0.0			0.9			1.3
Phase Call Probability			0.87	_	0.0	1.0	_	0.0			1.00			1.00
Max Out Probability			0.00	_		0.0	-				0.00			0.01
Wax out Floodshity		2012	0.00		70.35	1000					0.00			0.01
Movement Group Re	sults	255 1		EB	1941		WB	1024		NB		101	SB	
Approach Movement		8	L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Movement	A Comment of the Comm		5	2	- 10	1	6		3	8	18	7	4	14
Adjusted Flow Rate (	/ ), veh/h		61	1355		212	1443		117	193	175	368	215	100
Adjusted Saturation F	ow Rate ( $s$ ), veh/h/l	ln	1723	1723	1211	1723	1723		1774	1863	1595	1723	1773	1568
Queue Service Time (	g s ), S		1.9	41.3		6.3	43.7		3.6	12.1	12.9	12.5	6.7	7.1
Cycle Queue Clearand	ce Time ( g c ), s		1.9	41.3	HANE I	6.3	43.7		3.6	12.1	12.9	12.5	6.7	7.1
Green Ratio ( g/C )			0.58	0.53		0.62	0.56		0.13	0.13	0.13	0.13	0.13	0.13
Capacity (c), veh/h			199	1832	0.0	258	1931		466	245	209	453	466	206
Volume-to-Capacity R	atio (X)		0.307	0.740		0.824	0.747		0.252	0.790	0.837	0.814	0.462	0.485
Back of Queue (Q), f	t/In (50 th percentile)		18.2	476.1		87.3	500.5		40.3	146	129.8	138.3	76.1	68.7
Back of Queue (Q), v	eh/In (50 th percenti	ile)	0.7	18.3		3.4	19.3		1.5	5.6	5.2	5.3	2.9	2.7
Queue Storage Ratio	(RQ) (50 th percent	tile)	0.12	1.59		0.73	2.00		0.26	0.71	0.66	0.90	0.41	0.35
Uniform Delay ( d 1 ),	s/veh		20.5	31.5		24.7	30.2		46.8	50.5	50.9	50.7	48.2	48.4
Incremental Delay ( d	2 ), s/veh	111	0.3	2.7		2.5	2.7		0.1	2.2	3.4	1.4	0.3	0.7
Initial Queue Delay ( o	з), s/veh		0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay ( d ), s/v	reh		20.8	34.2		27.2	32.9		46.9	52.7	54.2	52.1	48.5	49.0
Level of Service (LOS	)		С	C		С	C		D	D	D	D	D	D
Approach Delay, s/veh	/LOS		33.6	5	C	32.2	2	C	51.9	9	D	50.5	5	D
Intersection Delay, s/v	eh / LOS				3	7.9						D		
													12/3/13	
Multimodal Results Pedestrian LOS Score			2.9	EB	С	3.0	WB	С	2.9	NB	С	2.9	SB	С

Phone: E-Mail:

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 8:00 - 9:00 A.M.
Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour
East/West Street: Via Valmonte
North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | Volume | 0 211 0 | 0 206 0 | 13 499 42 | 0 270 0 |

	Eastb	ound	West	bound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	211		206		13	499	270	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1			1		2	1	
Opposing-Lanes	1		15	1		L	2	
Conflicting-lanes	2		- 1	2		L	1	
Geometry group	2		13	2		5	4	a
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastk	oound	West	oound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	211		206		13	499	270	
Left-Turn	0		0		13	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl	Le0.0		0.0		0.0	0.0	0.0	
Geometry Group	2	2	2	2		5		4 a
Adjustments Exhibi	t 17-33	3:						
hLT-adj	(	.2	(	0.2		0.5	(1)	0.2

hRT-adj	-0.	6 -	-0.6	-0.7	-0.6
hHV-adj	1.	7	1.7	1.7	1.7
hadj, computed	0.0	0.0	0	.5 0.0	0.0
	Worksheet 4	- Departure	Headway and	Service Tin	ne

	East	oound	West	bound	Northk	ound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	211		206		13	499	270	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.19		0.18		0.01	0.44	0.24	2:55
hd, final value	7.08		7.10		7.09	6.58	6.72	
x, final value	0.415		0.406		0.026	0.912	0.504	
Move-up time, m	2	2.0		2.0	2	. 3		2.0
Service Time	5.1		5.1		4.8	4.3	4.7	

## Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Easth	oound	West	bound	Northk	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	211		206		13	499	270	
Service Time	5.1		5.1		4.8	4.3	4.7	
Utilization, x	0.415		0.406		0.026	0.912	0.504	
Dep. headway, hd	7.08		7.10		7.09	6.58	6.72	
Capacity	515		502		433	548	540	
95% Queue Length	2.1		2.0		0.1	17.9	3.0	
Delay	15.1		14.9		10.0-	60.8	16.5	
LOS	C		В		A	F	С	
Approach:							7.2	
Delay	1	5.1		14.9	5	9.5	1	6.5
LOS	C		1	В	F		C	
Intersection Delay	34.3		Inte	ersectio	n LOS D			

Phone: E-Mail: Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 8/4/2016

Analysis Time Period: 5:00 - 6:00 P.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	We	estbou	nd	N	orthbo	und	I S	outhbo	ound	1
	1 L	T	R	L	T	R	l L	T	R	L	T	R	1
Volume	10	23	0	10	189	0	16	389	38	-10	588	0	

% Thrus Left Lane

	Eastk	ound	West	bound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	23		189		6	389	588	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1			1		2	1	1
Opposing-Lanes	1		13	1		1	2	2
Conflicting-lanes	2			2		1	1	L
Geometry group	2	)		2		5	4	1a
Duration, T 1.00	hrs.							

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastk	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	23		189		6	389	588	
Left-Turn	0		0		6	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group	2	2		2		5		4 a
Adjustments Exhibi	it 17-33	3:						
hLT-adj	0	.2		0.2		0.5		0.2

hRT-adj	-0.6	-0.6	-0.7	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	0.0	0.5 0.0	0.0
	Worksheet 4 -	Departure Headway	and Service Ti	me

	East	oound	West	bound	Northk	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	23		189		6	389	588	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.02		0.17		0.01	0.35	0.52	
hd, final value	7.16		6.54		6.48	5.98	5.40	
x, final value	0.046		0.343		0.011	0.646	0.881	
Move-up time, m	2	2.0		2.0	2	2.3	2	2.0
Service Time	5.2		4.5		4.2	3.7	3.4	

Worksheet 5 - Capacity and Level of Service

outhbound
L1 L2
88
. 4
.881
.40
68
5.9
2.9
42.9
E

		HCS 2	010 5	Signal	ized	Inters	ectio	n Res	sults \$	Sumn	nary		STREET, STREET	W. 1921		
General Inform	nation			18					Interse	ction In	format	ion		기계시하	LEU	
Agency	nution	KHR Associates						_	Duration		0.25		_	111		
Analyst		IN IN Associates		Analy	sis Date	8/1/2	016	$\rightarrow$	Area Ty	-	Othe		4			
Jurisdiction		Torrance California		_	Period	5 0/1/2	010	_	PHF	þe	0.90		- 3	wir.		
Urban Street		Palos Verdes Dr No		-	sis Yea	r 2016				s Period	_				5	
Intersection		Hawthorne Bouleva	_	File N		_	awthorn	_		_	1127	.30	-			
Project Descrip	tion	nawthorne Bouleva	aiu	File IV	larrie	12-11	awunom	ie-PVD	C-P AIV	i.xus				<b>\\ \\ \</b>	7 + 7	
Demand Infor	mation				EB			WE	3		NE			SB	15.75	
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R	
Demand (v), v				32	935	291	_	-	_	_				_	-	
Bernana (V),	CHIT	OR SHALL SHA		52	300	251	120	00-	202	. 107	400	100	343	424	10	
Signal Informa	tion				T	1		r l		y 21						
Cycle, s	120.0	Reference Phase	2	1	2 6	- 1	-31		M IEW.	100	4.7		4	1	4	
Offset, s	0	Reference Point	End		110	1.0	24	100	- 0.5		17		A	3		
Uncoordinated	No	Simult. Gap E/W	On	Green		0.0	61.4 4.0	13.5	0.0	20. 4.0		7	<del>-</del>		-4	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5		*	Y	
	SHIP!		407	1		FIS	1000	TOTAL S		117 3		E. V.				
Timer Results				EB	L	EBT	WE	BL	WBT	NB	L	NBT	SB	L	SBT	
Assigned Phas	е			5		2	1		6	3		8	7		4	
Case Number		The Health		1.1		3.0	1.1		3.0	1.1		3.0	2.0	)	3.0	
Phase Duration	. S			8.2	_	65.4	9.9	_	67.2	17.	-	24.6	20.	-	27.2	
Change Period		c). s		4.0	_	4.0	4.0		4.0	4.0	_	4.0	4.0		4.0	
Max Allow Head	-	Name and Address of the Owner o		3.0	_	0.0	3.0		0.0	3.0	-	3.0	3.0		3.0	
Queue Clearan				3.1		0.0	4.3		0.0	13.4		18.7	18.		16.8	
Green Extension				0.0		0.0	0.2	_	0.0	0.1	-	1.9	0.0		2.3	
Phase Call Pro		(9 0), 3		0.69	_	0.0	0.99	_	0.0	1.00		1.00	1.0		1.00	
Max Out Proba	_			0.00			0.00			1.00	_	0.23	1.0		0.05	
Wax Out 1 loba	omity .	SECRETARIA DE LA COMPANSION DE LA COMPAN	ST STATE OF	0.00	THE REAL PROPERTY.	-	0.00			1.00		0.25	1.0		0.05	
Movement Gro	up Res	ults			EB			WB			NB			SB		
Approach Move	ment			L	Т	R	L	T	R	L	Т	R	L	T	R	
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow F	Rate ( v	), veh/h		36	1039	323	143	627	291	208	511	187	383	471	18	
Adjusted Satura	ation Flo	w Rate (s), veh/h/l	n	1740	1739	1608	1689	1739	1608	1774	1773	1607	1774	1773	1574	
Queue Service	Time (	7 s ), S		1.1	24.9	14.7	2.3	12.5	12.6	11.4	16.7	13.1	16.0	14.8	1.1	
Cycle Queue C	learance	e Time (gc), s		1.1	24.9	14.7	2.3	12.5	12.6	11.4	16.7	13.1	16.0	14.8	1.1	
Green Ratio ( g	/C)			0.55	0.51	0.51	0.56	0.53	0.53	0.28	0.17	0.17	0.13	0.19	0.19	
Capacity (c), v	eh/h			437	1780	823	610	1832	847	308	610	276	237	685	304	
Volume-to-Capa		tio (X)		0.081	0.584	0.393	0.235	0.342	-	0.675	0.838	0.675	1.621	0.688	0.059	
The second secon	and the Person Name of Street, or other Designation of the Person of the	In (50 th percentile)		10.9	252.1	136.7	21.4	123.9	115.1	130	197.1	130.6	683.2	166.2	10.5	
	-	eh/In (50 th percenti		0.4	9.8	5.5	0.8	4.8	4.6	5.0	7.6	5.2	26.5	6.4	0.4	
	-	RQ) (50 th percent		0.04	0.84	0.47	0.07	0.41	0.40	0.64	0.97	0.66	2.24	0.55	0.04	
Uniform Delay (			,	13.3	20.4	17.9	15.1	16.4	16.4	35.9	48.1	46.5	52.0	45.1	39.5	
Incremental De	-	- Aller Marie - Committee - Co		0.0	1.4	1.4	0.1	0.5	1.1	3.2	5.5	2.0	297.9	1.1	0.0	
Initial Queue De				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (				13.3	21.8	19.3	15.1	16.9	17.5	39.1	53.5	48.5	349.9	46.1	39.6	
Level of Service				В	C	В	В	В	В	D	D	D	F	D	D	
Approach Delay		LOS		21.0		С	16.8	-	В	49.2		D	179.	_	F	
Intersection Del	-						3.6		_	70.2			E 173.			
	, o. vo		7 3	200	25/16	100	N Steel	5 11 31	1	3 7 7 7 7	10 10		E STATE OF THE STA			
Multimodal Re	sults				EB			WB	-		NB			SB		
Pedestrian LOS		LOS		2.9		С	2.9		C	3.1		С	3.0		С	
Pievelo I OC Co				1.6	-		1.4	-	-			-	3.5		•	

Bicycle LOS Score / LOS

1.4

100		HCS 2	010 S	ignali	ized	nters	ectio	n Res	sults S	Summ	nary		-			
General Inform	nation								Interse	ction In	format	ion		1474	IBU	
	iiatioii	KUD Associates									0.25			. 11t	L	
Agency		KHR Associates		I A make	ia Dat	e 8/1/2	016	_	Duration		_	-				
Analyst		Townson Colifornia		-	_	8 0/1/2	016		Area Ty PHF	pe	Othe			-1-	+	
Jurisdiction		Torrance California	41.	Time F		- 2040		_		D:	0.90			0 0		
Urban Street		Palos Verdes Dr No		_	sis Yea	_			Analysis		1> 7	:30	-		<u>*</u>	
Intersection	Alan.	Hawthorne Bouleva	ard	File Na	ame	12-H	awtnorn	e-PVD	C-P PM	i.xus			-	7 1 1	<u>^</u>	
Project Descrip	tion	NECTOR PLAN	TES SO	15-1			1000				201		10000	II AL ILIAY I		
Demand Inform	mation				EB			WE	3		NB			SB		
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R	
Demand (v), v	eh/h			29	721	237	141	107	1 328	232	370	136	210	443	-	
					900				PLES.		100		L. C.	2015(5	150	
Signal Informa	_	1			2	6	١, ١		a A			_		K		
Cycle, s	120.0	Reference Phase	2	1	- V	-		1	15	17			0	1	x1	
Offset, s	0	Reference Point	End	Green	4.0	2.0	62.1	16.		0.0			K			
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0	4.0	0.0		1	7	1	N	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	ř		6	1		
Timer Results		E Palla	15	EBL		EBT	WB		WBT	NB	1	NBT	SB		SBT	
Assigned Phase	0			5	-	2	1		6	3	-	8	7	_	4	
Case Number	<del>U</del>			1.1		3.0	1.1		3.0	1.1		3.0	2.0		3.0	
	_			8.0	-	66.1	10.0	-	68.1	20.	-	23.9	20.	-	1000	
Phase Duration	-	١.٥		4.0	-	4.0	4.0	_	4.0	4.0	-	4.0	4.0		23.9	
Change Period	-				-		-	_		-	_		-	-	4.0	
Max Allow Head	-			3.0		0.0	3.0	_	0.0	3.0	_	3.0	3.0	-	3.0	
Queue Clearan				3.0	-	0.0	0.3	_	0.0	16.3		15.1	17.		18.1	
Green Extensio	_	( g e ), S		0.0		0.0	0.99		0.0	-	_	1.00	0.0	_	1.8	
Phase Call Prol	_			0.66	-		0.00			1.00	-		1.00		1.00	
Max Out Proba	Dility	Water Land	N 128	0.00			0.00			1.00		0.05	1.00		0.15	
Movement Gro	up Res	ults			EB		EMILE	WB			NB			SB		
Approach Move	ement			L	Т	R	L	Т	R	L	T	R	L	T	R	
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow F		), veh/h		32	801	263	157	1190	364	258	411	151	233	492	31	
		ow Rate (s), veh/h/li	n	1740	1739	1608	1689	1739	1608	1774	1773	1607	1774	1773	1573	
Queue Service	-	the same of the sa		1.0	17.3	11.3	2.5	29.1	16.4	14.3	13.1	10.4	15.8	16.1	2.0	
Cycle Queue C	, ,			1.0	17.3	11.3	2.5	29.1	16.4	14.3	13.1	10.4	15.8	16.1	2.0	
Green Ratio ( g	_	10-71-		0.55	0.52	0.52	0.57	0.53	0.53	0.30	0.17	0.17	0.13	0.17	0.17	
Capacity ( c ), v				244	1800	832	783	1859	859	310	589	267	237	589	261	
Volume-to-Capa	_	itio (X)		0.132	0.445	0.316	0.200	0.640	-	0.831	0.698	0.566	0.986	0.836	0.119	
	_	In (50 th percentile)		9.8	172.8	104.3	23	290.7	-	190	147.5	102.3	267.7	188.9	19.3	
		eh/In (50 th percenti	-	0.4	6.7	4.2	0.9	11.3	6.0	7.4	5.7	4.1	10.4	7.3	0.8	
		RQ) (50 th percent	-	0.03	0.58	0.36	0.08	0.97	0.52	0.94	0.73	0.52	0.88	0.62	0.07	
Uniform Delay (				16.1	18.1	16.7	13.2	19.8	16.8	36.1	47.2	46.1	51.9	48.5	42.6	
Incremental De		-		0.1	0.8	1.0	0.0	1.7	1.5	16.3	1.0	0.7	54.4	4.9	0.1	
Initial Queue De	_			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (				16.2	18.9	17.7	13.2	21.5	18.4	52.3	48.2	46.8	106.3	53.4	42.6	
Level of Service	-			В	В	В	В	С	В	D	D	D	F	D	D	
Approach Delay		the same of the sa		18.6		В	20.1		С	49.2		D				
Intersection Del						33	3.6						C 00.0			
- 00 76 8		A PROPERTY OF THE PARTY OF THE			100	M-					2.118	T Fall	BAR.	Street S		
					EB			WB			NB	SB				
Multimodal Re Pedestrian LOS				2.9 C			2.9			3.1		С	3.0	The same of	С	

390 - 1	4500	ПС5 2	010 8	signa	llized	Inter	sectio	n Re	sults	Sumr	nary		12-18	-	
General Inform	mation			the same	- 3 - 3			-200	Intere	ection l	nforma	tion		J 4 J.4	B & D
Agency		KHR Associates		-									-	JI	
Analyst		IN IIV Associates		Anal	voic Do	te 8/1/2	2016	_	Duratio	-	0.2				
Jurisdiction		Torrance California		_	Period	_	2016		Area T	ype	Oth	-			
Urban Street		Crenshaw Bouleva	rd	-	ysis Ye		2			ia Davis	0.90	_		77 1	
Intersection		Palos Verdes Dr No		-	Name	-		D\/D	_	is Period	1>	7:30			
Project Descrip	otion	raios veides Di No	Jilli	rile	varne	13-0	rensha	w-PVD	C-P AIV	ı.xus			_	111	1
Troject Descrip	Mon	500 Maria 1945	6866		-	3 3	6 11	1000		19/08/	1050			1414	MRC
Demand Infor	mation				EB			W	В		NI	В	7	SE	
Approach Move	ement			L	T	R	L	1 1		L		_	L	T	F
Demand (v), v	/eh/h			100	850	_	_	_	_			-	_	_	_
BETTE		ANDRES	393				THE REAL PROPERTY.	-	CHATCH	MISH.			70	45	0.
Signal Informa	ation							-	5 2	,					
Cycle, s	120.0	Reference Phase	2		-		=₹	K 6			10		4	1	4
Offset, s	0	Reference Point	End	Gree	n 5.2	0.6	61.4	16	0 20	7 0.0	)		Ä	3	
Uncoordinated	No	Simult. Gap E/W	On		w 4.0	0.0	4.0	4.0				7	<del>}</del>		1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				111	6	× 1 7	
Charles Col		45 (41)					JIE .							100	100
Timer Results	-			EB	3L	EBT	WE	3L	WBT	NE	3L	NBT	SE	3L	SBT
Assigned Phase	е			5		2	1		6	3		8	7		4
Case Number						4.0	1.1	1.1		1.1	1	3.0	2.	0	3.0
Phase Duration	se Duration, s					66.0	9.2	2	65.4	20.	0	24.7	20.	.0	24.7
Change Period,	(Y+R	e), s		4.0	0	4.0	4.0	)	4.0	4.0	)	4.0	4.0	0	4.0
Max Allow Head	dway ( 1	<i>MAH</i> ), s		3.0	)	0.0	3.0	)	0.0	3.0	)	3.0	3.0	0	3.0
Queue Clearan	ce Time	(gs), s		3.8	3		3.0			18.	0	18.9	18.	0	17.5
Green Extensio	n Time	(ge), s		0.2	2	0.0	0.1		0.0	0.0	)	1.9	0.0		2.0
Phase Call Prob	pability			0.9	8		0.8	7		1.0	0	1.00	1.0	0	1.00
Max Out Probal	bility			0.0	0		0.0	0		1.0	0	0.23	1.0	0	0.14
		CAR STORY					MARK	-110		Section 1	- 16-9		ALC: N	The same	
Movement Gro	THE RESERVE OF THE PERSON NAMED IN	ults			EB			WB			NB	- 1		SB	1900
Approach Move	-			L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	_			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F				111	768	698	61	595	535	527	516	113	446	479	69
THE RESERVE AND ADDRESS OF THE PARTY OF THE	the second second	w Rate ( s ), veh/h/lr	1	1689	1827	1609	1689	1827	1640	1774	1773	1607	1774	1773	1573
Queue Service				1.8	42.1	44.4	1.0	28.3	28.4	16.0	16.9	7.5	16.0	15.5	4.5
Cycle Queue Cl		Time $(g_c)$ , s		1.8	42.1	44.4	1.0	28.3	28.4	16.0	16.9	7.5	16.0	15.5	4.5
Green Ratio ( g/				0.56	0.52	0.52	0.56	0.51	0.51	0.31	0.17	0.17	0.13	0.17	0.17
Capacity ( $c$ ), $v$	-			552	944	832	359	935	839	321	613	278	237	613	272
Volume-to-Capa	THE RESERVE OF THE PARTY OF	Maria de la companya del la companya de la companya		0.201	0.814	0.840	0.170	0.636	0.638	1.639	0.841	0.408	1.884	0.781	0.253
the Market State Committee of the Commit		n (50 th percentile)		16.5	480.7	444.4	9.1	311.5	273.9	891.5	199.2	73.8	878.7	178.3	43.5
AND RESIDENCE OF THE PARTY OF T	The second second	h/ln (50 th percentile		0.6	18.6	17.8	0.4	12.1	11.0	34.6	7.7	3.0	34.1	6.9	1.7
		RQ) (50 th percentil	le)	0.05	1.60	1.53	0.03	1.04	0.94	4.39	0.98	0.38	2.88	0.59	0.15
Jniform Delay (				15.8	24.2	24.7	21.7	21.2	21.2	38.7	48.0	44.2	52.0	47.5	42.9
ncremental Del				0.1	7.6	10.0	0.1	3.3	3.7	301.4	5.7	0.4	413.2	3.1	0.2
nitial Queue De		The same of the sa		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	h		15.8	31.8	34.7	21.8	24.5	24.9	340.1	53.7	44.5	465.2	50.6	43.1
evel of Service	-			В	C	C	С	C	С	F	D	D	F	D	D
pproach Delay	, s/veh /	LOS		32.0		C	24.6	3	C	183.	3	F	236.	1	F
ntersection Dela	ay, s/veł	n/LOS				10	7.0						F		
	SEE SE	LIVE STATE	-				-16		233	-	2018	1131			TO !
Multimodal Res	-	1.00			EB	_		WB			NB			SB	
Pedestrian LOS	_			2.9	_	С	2.9		C	3.0		С	3.0		С
cycle LOS Score / LOS				1.8		Α	1.5		Α	1.4		Α	1.3		Α

		HCS 2	010 5	Signal	ized	Inters	ectio	n Res	sults S	Sumn	nary	Title .	e at the a		
General Inform	nation		93				4		Interse	ction In	format	ion	et de la	가 네 가야 !	L IN U
	iiatioii	KHR Associates						-	Duration		0.25			TIT	
Agency		KHR Associates		Analy	oio Dot	e 8/1/2	016	_	Area Ty	_	Othe		- 3		
Analyst Jurisdiction		Torrance California		_	Period	e 0/1/2	010		PHF	pe	0.90			vr∮£	÷
Urban Street		Crenshaw Bouleva	rd	_		r 2016		_		Doring	_		-47		7.
Intersection		-/	-	File N	_	_	renshaw		Analysis		1>1	.30	-		
	tion	Palos Verdes Dr No	orun	File IV	lame	13-0	rensnav	V-PVD	C-P PIVI.	xus			_	111	
Project Descrip	otion	C LONG P. C.	100		73.		788	333	-	100	FRE			La La	10000
Demand Inform	mation		1,-		EB			WE	3		NB	1		SB	
Approach Move	ement			L	Т	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	/eh/h	1, 1111		48	786	303	116	769	258	497	389	65	381	403	67
Signal Informa	ation			No. or other						I SEE	100			277.31	
	120.0	Reference Phase	2	1	10	_	≒₹	<u>`</u> ⊟ `	2 L				7	-	4
Cycle, s Offset, s	0	Reference Point	End				=3	5	10	17			<b>Q</b>	3	
Uncoordinated	No	Simult. Gap E/W	On	Greer		0.9	63.6		18.	5 0.0			4	1 8 30	
		Simult. Gap E/V	-	Yellov	0.0	0.0	0.0	4.0 0.0	0.0	0.0				7	Y
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	10.0	10.0	0.0	0.0	10.0		-	9		
Timer Results		1 - 1		EB	L	EBT	WB	BL	WBT	NB	L	NBT	SB	L	SBT
Assigned Phas	е			5		2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	1.1		3.0	2.0	)	3.0
Phase Duration						67.6	9.9	9.9		20.			20.	0	22.5
Change Period	(Y+R	c), s		4.0		4.0	4.0	)	4.0	4.0		4.0	4.0		4.0
Max Allow Hea	the State of the S	THE RESERVE OF THE PARTY OF THE		3.0		0.0	3.0	)	0.0	3.0		3.0	3.0	)	3.0
Queue Clearan	ce Time	(gs), s		2.8			4.0	)		18.	0 16.1		18.0	0	16.7
Green Extension	n Time	(ge), s		0.1		0.0	0.2	2	0.0	0.0	)	1.9			1.8
Phase Call Pro	bability			0.83	3		0.99	9		1.0	0	1.00	1.00	0	1.00
Max Out Proba	bility			0.00	0		0.00	0		1.0	0	0.06	1.00	)	0.07
Movement Gro	un Res	ulte			EB			WB	N. Post	PE	NB		-	SB	10000
Approach Move	and the last of th	uito		L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	PROFESSION AND ADDRESS OF THE PARTY NAMED IN COLUMN 2			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow I	-	\ veh/h		53	634	576	129	596	545	552	432	72	423	448	74
		ow Rate ( s ), veh/h/li	n	1689	1827	1652	1689	1827	1668	1774	1773	1607	1774	1773	-
Queue Service	extremely a story	CONTRACTOR OF THE PARTY OF THE		0.8	30.0	30.2	2.0	26.8	26.9	16.0	14.1	4.8	16.0	14.7	1572
Cycle Queue C				0.8	30.0	30.2	2.0	26.8	26.9	16.0	14.1	4.8	16.0	14.7	5.0
Green Ratio ( g		5 mile ( g c ), 5		0.57	0.53	0.53	0.58	0.54	0.54	0.29	0.15	0.15	0.13	0.15	0.15
Capacity (c), v				546	968	875	537	982	897	311	546	248	237	546	242
Volume-to-Cap	THE RESERVE OF THE PERSON NAMED IN	tio (X)		0.098	0.655	-	0.240	0.606	-	1.777	0.791	0.292	1.790	0.820	0.307
CHARLES AND ADDRESS OF THE PARTY OF THE PART		In (50 th percentile)		7.5	327.3	-	18.2	289.8	-	1003.	161.1	47	808.5	169.6	48.6
Back of Queue	( Q ), ve	eh/In ( 50 th percentil	le)	0.3	12.7	11.7	0.7	11.2	10.4	38.9	6.2	1.9	31.3	6.6	1.9
	The same of the sa	RQ) (50 th percent		0.03	1.09	1.00	0.06	0.97	0.89	4.94	0.79	0.24	2.65	0.56	0.16
Uniform Delay	(d1), s/	/veh		14.7	20.3	20.4	15.5	19.0	19.0	39.8	48.9	45.0	52.0	49.1	45.1
Incremental De	lay (d2	), s/veh		0.0	3.4	3.9	0.1	2.8	3.1	362.4	2.4	0.2	371.8	3.3	0.3
Initial Queue De	elay ( d	з), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	eh		14.7	23.7	24.2	15.6	21.8	22.1	402.2	51.3	45.2	423.8	52.5	45.3
Level of Service	e (LOS)			В	С	C	В	С	С	F	D	D	F	D	D
Approach Delay	y, s/veh	/ LOS		23.6	3	C	21.3	3	C	234.	3	F	218.	2	F
Intersection De						11	2.6						F		
		Total Sales					15	VA/D			AID.	ENE	12/19	65	
Multimodal Re	_	11.00		0.0	EB		2.0	WB	-	0.0	NB	0		SB	_
Pedestrian LOS Score / LOS				2.9		С	2.9		C	3.0		С	3.0		C

## **HCS 2010 Signalized Intersection Results Summary** 1474176 Intersection Information **General Information** 0.25 Duration, h KHR Associates Agency Other Analysis Date 8/1/2016 Area Type Analyst PHF 0.90 Torrance California Time Period Jurisdiction 1>7:30 Analysis Period Analysis Year 2016 **Urban Street** Rolling Hills Road 14-Rolling Hills-PVD C-P AM.xus Palos Verdes Dr North File Name Intersection **Project Description** WB NB SB EB **Demand Information** T Т R L R L T R L T R L Approach Movement 42 63 863 213 31 905 13 30 63 52 191 77 Demand (v), veh/h Signal Information Reference Phase 2 Cycle, s 90.0 Offset, s 0 Reference Point End 3.9 10.7 26.0 26.0 0.0 Green 3.4 On Simult. Gap E/W 4.0 0.0 Uncoordinated No Yellow 4.0 4.0 4.0 4.0 0.0 0.0 0.0 0.0 0.0 Simult. Gap N/S Red 0.0 Force Mode Fixed On NBL **NBT** SBL WBT SBT **EBL EBT** WBL **Timer Results** 8 4 6 5 2 1 Assigned Phase 9.0 10.0 1.1 3.0 3.0 1.1 Case Number 30.0 15.3 22.6 30.0 7.4 14.7 Phase Duration, s 4.0 4.0 4.0 4.0 4.0 4.0 Change Period, (Y+Rc), s 3.0 2.9 3.0 0.0 3.0 0.0 Max Allow Headway ( MAH ), s 11.2 28.0 28.0 3.5 Queue Clearance Time (gs), s 0.0 0.0 0.0 0.0 0.2 0.0 Green Extension Time ( g e ), s 1.00 1.00 1.00 0.57 Phase Call Probability 1.00 1.00 0.16 0.00 Max Out Probability WB NB SB **Movement Group Results** EB L T R L Т R L T R R L Approach Movement 18 7 4 5 2 12 1 6 16 3 8 14 Assigned Movement 959 237 34 1020 70 58 212 86 47 70 33 Adjusted Flow Rate (v), veh/h 1774 1863 1607 1774 1858 1827 1597 1740 1827 1602 Adjusted Saturation Flow Rate (s), veh/h/ln 1740 2.6 26.0 11.1 1.3 26.0 1.5 3.2 3.0 9.2 3.5 2.1 Queue Service Time (gs), s 11.1 26.0 3.5 2.1 2.6 26.0 1.3 1.5 3.2 3.0 9.2 Cycle Queue Clearance Time (gc), s 0.29 0.29 0.12 0.21 0.29 0.29 0.29 0.16 0.12 0.27 0.21 Green Ratio (g/C) 378 331 513 538 464 513 537 298 218 190 407 Capacity (c), veh/h 0.137 1.782 0.510 0.067 1.900 0.304 0.521 0.227 0.141 0.112 0.321 Volume-to-Capacity Ratio (X) 21.6 26.9 1663 99.9 13 1804.5 15.5 40.7 33 93 41.4 Back of Queue (Q), ft/ln (50 th percentile) 1.0 64.5 4.0 0.5 72.2 1.6 0.9 1.6 1.3 3.6 Back of Queue (Q), veh/ln (50 th percentile) 0.6 0.51 0.04 0.14 0.11 0.31 0.14 0.07 0.13 8.19 6.11 Queue Storage Ratio (RQ) (50 th percentile) 0.05 23.2 36.2 27.7 29.7 29.2 23.7 32.0 26.7 32.0 32.6 36.3 Uniform Delay ( d 1 ), s/veh 0.0 359.3 0.4 0.0 412.1 0.1 3.9 4.1 0.4 1.4 0.9 Incremental Delay ( d 2 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Initial Queue Delay ( d 3 ), s/veh 391.3 27.1 23.2 30.1 23.7 444.1 32.7 40.2 40.3 28.1 31.1 Control Delay (d), s/veh C C C C C C D C D Level of Service (LOS) 302.9 F 430.4 F 29.1 38.7 D C Approach Delay, s/veh / LOS 302.0 F Intersection Delay, s/veh / LOS EB WB NB SB **Multimodal Results** 2.5 В 2.4 В 2.5 B 2.3 В Pedestrian LOS Score / LOS В 2.6 В 2.2 0.8 Α 1.1 A Bicycle LOS Score / LOS

		HCS 2	010 S	ignal	ized	Inters	ectio	n Re	sults	Sumn	nary	BEOLES C. W.	Section 400		
General Inform	antion				-				Interse	otion In	format	ion	3/4/4	1 4 Y 4 1	I. U
	lation	KUD Associates						-					-	本人	
Agency		KHR Associates		I		0/4/0	040	-	Duration		0.25				
Analyst		T O . I'		_		e 8/1/2	016	-	Area Ty	ре	Othe				*
Jurisdiction		Torrance California		-	Period	- 0040		-	PHF	- D	0.90		_	S ALE	-
Jrban Street		Rolling Hills Road		-	sis Yea	-			Analysis		1> 7	:30	2		
ntersection		Palos Verdes Dr No	orth	File N	lame	14-R	olling Hi	IIs-PVI	C-P PI	M.xus			_	111	
Project Descrip	tion	12512				1000		108	2000	1/11/20				HINN	FIL
Demand Inform	nation				EB	- 1		W	В		NB	1		SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand (v), v	-			22	74	80	657	75	33	34	846	-	10	698	11
		10-4 R. M.	To the				<b>SPECIAL</b>			THE SECOND	Section 2		Elevania .		1
Signal Informa	tion						_ !		20						
Cycle, s	90.0	Reference Phase	2		- 1			K 4	17		1	_	<b>4</b>	1	<b>5</b> 12
Offset, s	0	Reference Point	End	Green	27	9.3	6.0	26.	0 26.	0.0			E	3	
Incoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0	Marie Contraction of the Contrac	about the last terminal to the last terminal ter		1	<b>&gt;</b>	-	st
orce Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	Y
imer Results				ED		CDT	1A/D		WDT	NID		NDT	CD		ODT
				EB 5	_	EBT 2	WB 1	L	WBT 6	NB	L	NBT 8	SB	L	SBT
Assigned Phase	9					3.0	1.1			-	-		-		4
Case Number				1.1	_		-	-	3.0		-	9.0	-		10.0
hase Duration	_	\ -		6.7	_	10.0	20.0	_	23.3	-		30.0	-		30.0
hange Period,				4.0	_	4.0	4.0	_	4.0	-	-	4.0	-		4.0
Max Allow Head	_			3.0		0.0	18.0		0.0	-	-	3.0	-		2.9
Queue Clearand				0.0		0.0	0.0		0.0	-		28.0	-		28.0
Green Extension		( g e ), s		_		0.0	1.00		0.0	-	_				0.0
hase Call Prob lax Out Probab	_			0.46	-		1.00	_				1.00			1.00
lax Out Flobal	Jilly		2 9 9	0.00			1.00		Brees.		-	1.00		II SUN	1.00
lovement Gro	up Res	ults			EB			WB			NB			SB	
pproach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	T	R
ssigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
djusted Flow F	Rate (v	), veh/h		24	82	89	730	83	37	38	940	250	11	788	
djusted Satura	ation Flo	ow Rate (s), veh/h/li	n	1740	1827	1586	1740	1827	1603	1774	1863	1607	1774	1857	
ueue Service	Time ( g	g s ), S		1.2	4.0	5.0	16.0	3.4	1.7	1.4	26.0	11.8	0.4	26.0	
ycle Queue Cl	earance	e Time ( g c ), s		1.2	4.0	5.0	16.0	3.4	1.7	1.4	26.0	11.8	0.4	26.0	
Green Ratio ( g/	/C)			0.10	0.07	0.07	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
capacity ( c ), v	-		10	219	122	106	418	391	343	513	538	464	513	537	
olume-to-Capa	_			0.112	0.675	0.841	1.744	0.213	0.107	0.074	1.747	0.538	0.022	1.468	
ack of Queue	(Q), ft/	In (50 th percentile)		12.3	66.6	84.8	1066.	39.7	16.6	14.2	1602. 8	107.4	4.1	1090.6	
ack of Queue	( Q ), ve	eh/In ( 50 th percentil	le)	0.5	2.6	3.4	41.3	1.5	0.7	0.6	62.1	4.3	0.2	43.6	
	-		_	0.04	0.22	0.29	3.55	0.13	0.06	0.07	7.89	0.55	0.01	3.69	
Iniform Delay (	_			37.2	41.0	41.5	33.1	29.1	28.5	23.3	32.0	26.9	22.9	32.0	
ncremental Del	ay ( d 2	), s/veh		0.1	26.1	52.0	344.8	1.2	0.6	0.0	343.7	0.7	0.0	220.7	
nitial Queue De				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
ontrol Delay (	d), s/ve	eh		37.3	67.1	93.6	377.9	30.4	29.1	23.3	375.7	27.6	22.9	252.7	
evel of Service				D	E	F	F	С	С	С	F	С	С	F	
pproach Delay	, s/veh	/LOS		75.4		Е	328.	8	F	294.	0	F	249.	5	F
ntersection Del	ay, s/ve	h/LOS				27	8.1						F		
Iultim a dal D	STATE OF	A Transport			ED	NAME .		VA/ID			AID	1000	PERM	000	
	-	/1.00		2.5	EB	D	2.2	-	D	2.5	_	D	0.1	_	<u> </u>
				-				_		-	$\rightarrow$		-		B A
nueue Storage Iniform Delay ( Incremental Del Initial Queue De Iontrol Delay ( Inevel of Service Inproach Delay	Ratio ( d 1), s/a ay ( d 2 elay ( d 3 elay ( d 3 elay ( d 3 elay ( d 4 elay ( d 3 elay ( d 4 elay ( d 4 elay ( d 5 elay ( d 5 elay ( d 6 elay ( d 6 elay ( d 6 elay ( d 6 elay ( d 7 elay (	RQ) (50 th percentifiveh ), s/veh 3), s/veh ch / LOS h / LOS	_	0.04 37.2 0.1 0.0 37.3	0.22 41.0 26.1 0.0 67.1 E	0.29 41.5 52.0 0.0 93.6 F	3.55 33.1 344.8 0.0 377.9 F 328.	0.13 29.1 1.2 0.0 30.4 C	0.06 28.5 0.6 0.0 29.1 C	0.07 23.3 0.0 0.0 23.3 C	7.89 32.0 343.7 0.0 375.7 F	0.55 26.9 0.7 0.0 27.6 C	0.01 22.9 0.0 0.0 22.9 C 249.	3 3 22 ( 2! 5	3.69 32.0 20.7 0.0 52.7

Phone: E-Mail:

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ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/17

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Newton Street
North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	astbo	und	We	estbo	ınd	1 No	orthbo	und	So	uthbo	und
	L	T	R	L	T	R	L	T	R	L	T	R
olume	10	0	0	-177	0	141	-10	357	98	1135	283	0

Eastbound L1 L2 Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 L R TR
1.00 1.00 1.00
77 141 455 Configuration L T PHF 1.00 1.00 77 141 455 0 0 0 135 283 0 0 Flow Rate % Heavy Veh 0 No. Lanes 2 1 1 Opposing-Lanes 0 2 2 2 Conflicting-lanes 2 Geometry group 1 3b 5 Duration, T 1.00 hrs.

Worksheet	3 -	Saturation	Headway	Adjustment	Worksheet
-----------	-----	------------	---------	------------	-----------

	Eastbo	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			77	141	455		135	283
Left-Turn			77	0	0		135	0
Right-Turn			0	141	98		0	0
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns			0.0	1.0	0.2		0.0	0.0
Prop. Heavy Vehicle			0.0	0.0	0.0		0.0	0.0
Geometry Group Adjustments Exhibit	17-33.			1	3	3 b		5
hLT-adj	41 33.			0.2	(	0.2		0.5

hRT-adj	-	0.6	-0.6	-	0.7
hHV-adj		1.7	1.7		1.7
hadj, computed	0.2	-0.6	-0.1	0.5	0.0

	100			Arrest to two fits to be				
Worksheet	4	-	Departure	Headway	and	Service	Time	

	East	bound	Westh	ound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			77	141	455		135	283
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.07	0.13	0.40		0.12	0.25
hd, final value			6.22	5.41	5.32		6.15	5.64
x, final value			0.133	0.212	0.673		0.231	0.444
Move-up time, m			2	. 0		2.0	2	. 3
Service Time			4.2	3.4	3.3		3.8	3.3

## Worksheet 5 - Capacity and Level of Service\_

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			77	141	455		135	283
Service Time			4.2	3.4	3.3		3.8	3.3
Utilization, x			0.133	0.212	0.673		0.231	0.444
Dep. headway, hd			6.22	5.41	5.32		6.15	5.64
Capacity			592	671	679		587	643
95% Queue Length			0.5	0.8	5.9		0.9	2.4
Delay			10.2	9.9	19.1		10.7	12.8
LOS			В	A	C		В	В
Approach:								
Delay		10.0-		19.1		12.1		
LOS		A		C		В		
Intersection Delay 14.6			Intersection LOS B					

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ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/17

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Newton Street North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	We	estbou	ind	l N	orthbo	ound	I S	outhbo	ound
	1 L	T	R	L	T	R	L	T	R	l L	T	R
Volume	10	0	0	163	337	62		310	51	192	337	0

% Thrus Left Lane

	Eastb	ound	West	bound	Northb	ound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	T
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			63	62	361		92	337
% Heavy Veh			0	0	0		0	0
No. Lanes			-	2	1		2	2
Opposing-Lanes			(	0	2	2	1	
Conflicting-lanes			2	2	2		2	2
Geometry group				1	3	b	5	
Duration, T 1.00	hrs.							

	Easth	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			63	62	361		92	337
Left-Turn			63	0	0		92	0
Right-Turn			0	62	51		0	0
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns			0.0	1.0	0.1		0.0	0.0
Prop. Heavy Vehicle			0.0	0.0	0.0		0.0	0.0
Geometry Group				1		3 b		5
Adjustments Exhibit	17-33	:						
hLT-adj				0.2		0.2		0.5

hRT-adj	-	0.6	-0.6	-	0.7
hHV-adj		1.7	1.7		1.7
hadj, computed	0.2	-0.6	-0.1	0.5	0.0

Worksheet	4	_	Departure	Headway	and	Service	Time
-----------	---	---	-----------	---------	-----	---------	------

	East	oound	Westh	ound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			63	62	361		92	337
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.06	0.06	0.32		0.08	0.30
hd, final value			5.95	5.14	5.06		5.70	5.20
x, final value			0.104	0.088	0.508		0.146	0.487
Move-up time, m			2	.0	2	2.0	2	.3
Service Time			3.9	3.1	3.1		3.4	2.9

# Worksheet 5 - Capacity and Level of Service\_\_\_

	East	bound	Westh	oound	North	bound	Southk	oound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate			63	62	361		92	337	
Service Time			3.9	3.1	3.1		3.4	2.9	
Utilization, x			0.104	0.088	0.508		0.146	0.487	
Dep. headway, hd			5.95	5.14	5.06		5.70	5.20	
Capacity			630	689	708		613	688	
95% Queue Length			0.3	0.3	3.0		0.5	2.8	
Delay			9.6	8.6	13.3		9.4	12.8	
LOS			A	A	В		A	В	
Approach:									
Delay			9	1.1	1	13.3	1	2.1	
LOS			P	1	I	3	E	3	
Intersection Delay	12.1		Inte	ersection	n LOS B				

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ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

\_\_\_\_\_Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	astbou	ind	W	estbou	ind	N	orthbo	und	I So	outhb	ound
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	179	145	77	142	189	148	172	179	19	165	9.4	34

% Thrus Left Lane

	Eastbo	und	Westk	oound	North	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	301		379		270		65	128
% Heavy Veh	0		0		0		0	0
No. Lanes	1		1		1		2	2
Opposing-Lanes	1		1		2		1	
Conflicting-lanes	2		2	)	1		1	
Geometry group	2		2	2	4	a		5
Duration, T 1.00	hrs.							

	Eastbound	Westbour	nd Northbound	Southbound
	L1 L2	L1	L2 L1 L2	L1 L2
Flow Rates:				
Total in Lane	301	379	270	65 128
Left-Turn	79	42	72	65 0
Right-Turn	77	148	19	0 34
Prop. Left-Turns	0.3	0.1	0.3	1.0 0.0
Prop. Right-Turns	0.3	0.4	0.1	0.0 0.3
Prop. Heavy Vehicl	e0.0	0.0	0.0	0.0 0.0
Geometry Group	2	2	4 a	5
Adjustments Exhibi	t 17-33:			
hLT-adj	0.2	0.2	0.2	0.5

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.1	-0.2	0.0	0.5 -0.2

	East	oound	Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	301		379		270		65	128
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.27		0.34		0.24		0.06	0.11
hd, final value	6.15		5.89		6.59		7.72	7.02
x, final value	0.514		0.620		0.495		0.139	0.249
Move-up time, m		2.0	2	2.0	2	2.0	2	. 3
Service Time	4.1		3.9		4.6		5.4	4.7

Worksheet	5		Canadity	and	Tomol	of	Carrian
worksneet	2	_	Capacity	and	rever	OI	Service

	Easth	oound	Westh	oound	North	bound	Southb	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow Rate	301		379		270		65	128	
Service Time	4.1		3.9		4.6		5.4	4.7	
Utilization, x	0.514		0.620		0.495	e e	0.139	0.249	
Dep. headway, hd	6.15		5.89		6.59		7.72	7.02	
Capacity	590		611		551		464	512	
95% Queue Length	3.1		4.7		2.9		0.5	1.0	
Delay	15.6		18.4		16.0		11.7	12.0	
LOS	C		C		C		В	В	
Approach:									
Delay	1	5.6	1	8.4		16.0	1	1.9	
LOS	C		C	2		C	В		
Intersection Delay	7 16.0		Inte	ersection	LOS C				

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ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 4:00 - 5:00 P.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | | L T R | L T R | L T R | L T R | | Volume | | 40 79 10 | 36 73 214 | 10 148 15 | 69 165 53 |

% Thrus Left Lane

	Eastb	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	129		323		173		69	218
% Heavy Veh	0		0		0		0	0
No. Lanes	1			1		1		2
Opposing-Lanes	1		10	1	2	2	18	1
Conflicting-lanes	2			2		1	10	1
Geometry group	2			2		4a	t	5
Duration, T 1.00	hrs.							

	Eastbound	Westh	ound	Northb	ound	South	bound
	L1 L2	L1	L2	L1	L2	L1	L2
Flow Rates:							
Total in Lane	129	323		173		69	218
Left-Turn	40	36		10		69	0
Right-Turn	10	214		15		0	53
Prop. Left-Turns	0.3	0.1		0.1		1.0	0.0
Prop. Right-Turns	0.1	0.7		0.1		0.0	0.2
Prop. Heavy Vehicl		0.0		0.0		0.0	0.0
Geometry Group	2	2		4	a		5
Adjustments Exhibi	t 17-33:						
hLT-adj	0.2	0	.2	0	. 2		0.5

hRT-adj	-0.6	-0.6	-0.6	-0	.7
hHV-adj	1.7	1.7	1.7	1	. 7
hadj, computed	0.0	-0.4	-0.0	0.5	-0.2

# \_\_Worksheet 4 - Departure Headway and Service Time\_\_\_

	East	oound	West	bound	North	oound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	129		323		173		69	218
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.29		0.15		0.06	0.19
hd, final value	5.75		5.04		5.71		6.51	5.83
x, final value	0.206		0.453		0.274		0.125	0.353
Move-up time, m	2	2.0		2.0	2	2.0	2	. 3
Service Time	3.8		3.0		3.7		4.2	3.5

# Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Easth	ound	West	bound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	129		323		173		69	218
Service Time	3.8		3.0		3.7		4.2	3.5
Utilization, x	0.206		0.453		0.274		0.125	0.353
Dep. headway, hd	5.75		5.04		5.71		6.51	5.83
Capacity	614		718		641		575	623
95% Queue Length	0.8		2.4		1.1		0.4	1.6
Delay	10.2		12.2		10.9		10.1	11.7
LOS	В		В		В		В	В
Approach:								
Delay	1	0.2		12.2		10.9	1	1.3
LOS	В			В		В	В	
Intersection Delay	11.4		Inte	ersectio	n LOS B			

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ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

\_\_\_\_\_Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	stbou	ind	I W	estbou	ind	No	orthb	ound	I S	outhb	ound
	L	T	R	l L	T	R	L	T	R	L	T	R
Volume	1108	82	5	- 7	122	107	14	9	14	112	3	41

% Thrus Left Lane

	East	oound	West	bound	North	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	190	5	129	107	23	14	15	41
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes		2		2	2	2	2	2
Opposing-Lanes		2	13	2	2	2	2	2
Conflicting-lanes		2	15	2	2	2	2	2
Geometry group		5	- 1	5		5	1	5
Duration, T 1.00	hrs.							

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	190	5	129	107	23	14	15	41
Left-Turn	108	0	7	0	14	0	12	0
Right-Turn	0	5	0	107	0	14	0	41
Prop. Left-Turns	0.6	0.0	0.1	0.0	0.6	0.0	0.8	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehica	LeO.O	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibit	it 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

hRT-adj		0.7		0.7	-	0.7	-	0.7
hHV-adj	1.7		1.7		1.7		1.7	
hadj, computed				-0.7		-0.7	0.4	-0.7

Worksheet 4 - Depart	ure Headway	and	Service	Time
----------------------	-------------	-----	---------	------

	Eastk	oound	Westh	ound	Northk	ound	Southb	ound	
	L1	L2	L1	L2	L1	L2	L1	L2	
Flow rate	190	5	129	107	23	14	15	41	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial	0.17	0.00	0.11	0.10	0.02	0.01	0.01	0.04	
hd, final value	5.21	4.23	4.93	4.21	5.86	4.85	5.93	4.83	
x, final value	0.275	0.006	0.177	0.125	0.037	0.019	0.025	0.055	
Move-up time, m	2	2.3	2	. 3	2	. 3	2	.3	
Service Time	2.9	1.9	2.6	1.9	3.6	2.6	3.6	2.5	

# Worksheet 5 - Capacity and Level of Service

	Easth	ound	Westb	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	190	5	129	107	23	14	15	41
Service Time	2.9	1.9	2.6	1.9	3.6	2.6	3.6	2.5
Utilization, x	0.275	0.006	0.177	0.125	0.037	0.019	0.025	0.055
Dep. headway, hd	5.21	4.23	4.93	4.21	5.86	4.85	5.93	4.83
Capacity	679	500	717	823	575	700	750	683
95% Queue Length	1.1	0.0	0.6	0.4	0.1	0.1	0.1	0.2
Delay	9.9	7.0	8.7	7.5	8.8	7.6	8.8	7.8
LOS	A	A	A	A	A	A	A	A
Approach:								
Delay	9	. 8	8	. 2	8	. 4	8	.1
LOS	A		A		A		A	
Intersection Delay	8.8		Inte	rsection	LOS A			

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | Volume | 57 121 12 | 18 56 28 | 16 18 2 | 38 16 153 |

Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 LT R LT R
1.00 1.00 1.00 1.00
178 12 74 28
0 0 0 0 LT R LT Configuration 1.00 1.00 1.00 1.00 34 2 54 153 0 0 0 0 PHF 54 153 0 0 Flow Rate % Heavy Veh 2 2 No. Lanes 2 Opposing-Lanes 2 2 2 2 2 2 Conflicting-lanes 2 2 5 5 Geometry group Duration, T 1.00 hrs.

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	178	12	74	28	34	2	54	153
Left-Turn	57	0	18	0	16	0	38	0
Right-Turn	0	12	0	28	0	2	0	153
Prop. Left-Turns	0.3	0.0	0.2	0.0	0.5	0.0	0.7	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	t 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

1			0.7				
			1.7				
0.2	-0.7	0.1	-0.7	0.2	-0.7	0.4	-0.7
csheet	4 - Dep	arture H	Headway a	nd Serv	rice Tim	e	
Easth	ound	Westh	ound	Northk	ound	Southk	ound
				L1	L2		
178	12	74	28	34	2	54	153
3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
0.16	0.01	0.07	0.02	0.03	0.00	0.05	0.14
5.35	4.49	5.40	4.58	5.69	4.76	5.64	4.59
0.265	0.015	0.111	0.036	0.054	0.003	0.085	0.195
2	. 3	2	. 3	2	.3	2	. 3
3.0	2.2	3.1	2.3	3.4	2.5	3.3	2.3
L1	L2	L1	L2	L1	L2	L1	L2
178	12	74	28	34	2	54	153
685	1200	673	700	680	0	675	765
1.1	0.0	0.4	0.1	0.2	0.0	0.3	0.7
10.0-	7.3	8.8	7.4	8.7	7.5	8.9	
A	A	A	A	A	A	A	A
				8	. 6	8	. 5
9.0			rsection			A	
	Eastb L1 178 3.20 0.16 5.35 0.265 23.0 sheet Eastb L1 178 3.0 0.265 5.35 685 1.1 10.0-A	Eastbound L1 L2 178 12 3.20 3.20 0.16 0.01 5.35 4.49 0.265 0.015 2.3 3.0 2.2 sheet 5 - Capa Eastbound L1 L2 178 12 3.0 2.2 0.265 0.015 5.35 4.49 685 1200 1.1 0.0 10.0- 7.3 A 9.8 A	Eastbound Westh L1 L2 L1 178 12 74 3.20 3.20 3.20 0.16 0.01 0.07 5.35 4.49 5.40 0.265 0.015 0.111 2.3 3.0 2.2 3.1 sheet 5 - Capacity and Eastbound Westh L1 L2 L1 178 12 74 3.0 2.2 3.1 0.265 0.015 0.111 5.35 4.49 5.40 685 1200 673 1.1 0.0 0.4 10.0- 7.3 8.8 A  9.8 A  9.8 A  9.8 A	Eastbound Westbound L1 L2 L1 L2 178 12 74 28 3.20 3.20 3.20 3.20 0.16 0.01 0.07 0.02 5.35 4.49 5.40 4.58 0.265 0.015 0.111 0.036 2.3 2.3 3.0 2.2 3.1 2.3 sheet 5 - Capacity and Level  Eastbound Westbound L1 L2 L1 L2  178 12 74 28 3.0 2.2 3.1 2.3 0.265 0.015 0.111 0.036 5.35 4.49 5.40 4.58 685 1200 673 700 1.1 0.0 0.4 0.1 10.0- 7.3 8.8 7.4 A A A  9.8 8.4 A	Eastbound Westbound Northk L1 L2 L1 L2 L1 L2 L1 L2 L1 L3 A3.20 3.20 3.20 3.20 3.20 0.16 0.01 0.07 0.02 0.03 5.35 4.49 5.40 4.58 5.69 0.265 0.015 0.111 0.036 0.054 2.3 2.3 3.0 2.2 3.1 2.3 3.4 A5 A A A A A A A A A A A A A A A A A A	Eastbound Westbound Northbound L1 L2 L1 L2 L1 L2 178 12 74 28 34 2 3.20 3.20 3.20 3.20 3.20 3.20 3.20 0.16 0.01 0.07 0.02 0.03 0.00 5.35 4.49 5.40 4.58 5.69 4.76 0.265 0.015 0.111 0.036 0.054 0.003 2.3 2.3 2.3 3.0 2.2 3.1 2.3 3.4 2.5  Sheet 5 - Capacity and Level of Service  Eastbound Westbound Northbound L1 L2 L1 L2 L1 L2  178 12 74 28 34 2 3.0 2.2 3.1 2.3 3.4 2.5 0.265 0.015 0.111 0.036 0.054 0.003 5.35 4.49 5.40 4.58 5.69 4.76 685 1200 673 700 680 0 1.1 0.0 0.4 0.1 0.2 0.0 10.0- 7.3 8.8 7.4 8.7 7.5 A A A A A A  9.8 8.4 8.6 A  9.8 8.4 8.6	178

											51				
General Inform	nation								Intersec	ction In	formati	ion		14741	
Agency		KHR Associates							Duration	n, h	0.25			111	
Analyst				Analy	sis Dat	e 8/1/2	016		Area Typ	ре	Othe	r	4		
Jurisdiction		Torrance California		Time I	Period				PHF		0.90		÷	w ∔ E	
Urban Street		Pacific Coast Highw	vay	Analys	sis Yea	r 2016			Analysis	Period	1> 7:	30	1		
Intersection		Calle Mayor		File N		-	CH-Call	e Mayo	or C-P AN	M.xus				5 1 7	
Project Descrip	tion													14149	111
Demand Inform	nation				EB		1	WI	R.		NB		7	SB	
Approach Move				L	T	R	L	T		L	T	R	L	T	R
Demand ( v ), v	_		4 - 1	120	232	171	96	25		_	-		180	_	305
Demand (V), V	CII/II	CHARLES NO.	-	120	232		30	25	4 103	140	000	33	100	900	300
Signal Informa	tion							_	211	. U.			THE T	DESTRI	
Cycle, s	90.0	Reference Phase	2	1	2	- ≓	$\equiv$	<u></u> <sup>(2</sup>		-	17		4	1	4
Offset, s	0	Reference Point	End	Green	5.6	1.1	25.3	7.1	1.2	33.			7	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0		4.0		7	<del>-</del>		KŤ
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0	-	5	6	7	Y
Times Desults			3	EDI		EBT	WB		WBT	NB		NBT	SB		CDT
Timer Results				EBI 5	-	2	1	L	6	3	_	8	7	_	SBT
Assigned Phase	9			_			1.1		4.0	1.1		3.0	1.1		4
Case Number				1.1	7	4.0				_			-		3.0
Phase Duration	-	\ -		10.7	_	30.4	9.6	_	29.3	11.1	_	37.7	12.		38.9
Change Period	-			4.0	_	0.0	3.0	-	0.0	3.0	-	3.0	3.0	-	4.0
Max Allow Head				3.0 6.8		0.0	5.9		0.0	7.0	$\rightarrow$	35.7	8.1		3.0
Queue Clearan	-	NAME OF TAXABLE PARTY.		0.8		0.0	0.1	-	0.0	0.2	_	0.0	0.1		0.0
Green Extension	the state of the s	( g e ), S		_		0.0	0.1		0.0	-	_		-	_	
Phase Call Proba	_			0.96	_		0.9			0.98	_	1.00	0.99		1.00
Wax Out Floba	Oility			0.00			0.00	1080	ALL L	0.00		1.00	0.0	DIST.	1.00
Movement Gro	up Res	ults			EB	1(16)		WB			NB			SB	
Approach Move	ment			L	Т	R	L	Т	R	L	Т	R	L	T	R
Assigned Move	ment			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	Rate (v	), veh/h		133	236	211	107	244	220	164	894	37	200	1067	339
Adjusted Satura	ation Flo	ow Rate (s), veh/h/li	1	1740	1827	1568	1740	1827	1586	1774	1863	1609	1774	1863	1576
Queue Service				4.8	9.4	9.9	3.9	10.0	-	5.0	33.7	1.3	6.1	34.9	15.1
Cycle Queue C	Name and Address of the Owner, where	e Time ( g c ), s		4.8	9.4	9.9	3.9	10.0		5.0	33.7	1.3	6.1	34.9	15.1
Green Ratio ( g	-			0.36	0.29	0.29	0.34	0.28	_	0.45	0.37	0.37	0.47	0.39	0.39
Capacity (c), v	NAME OF TAXABLE PARTY.			360	537	461	337	514	447	220	698	603	243	722	611
Volume-to-Capa	-			0.370	0.440	0.459	0.317	0.474	- Commence	0.749	1.282	0.061	0.823	1.477	0.555
Back of Queue	(Q), ft/	In (50 th percentile)		47.2	108.6	96.7	38.1	115.9	103.7	50.2	1035.	11.4	61.8	1507.2	129.4
Back of Queue	(Q), ve	eh/In ( 50 th percentil	e)	1.8	4.2	3.9	1.5	4.5	4.1	1.9	40.1	0.5	2.4	58.4	5.2
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.16	0.36	0.33	0.13	0.39	0.36	0.25	5.10	0.06	0.20	4.95	0.44
Uniform Delay (	d 1), s/	/veh		20.9	25.8	25.9	21.4	26.8	27.0	21.1	28.1	18.0	20.8	27.6	21.5
Incremental De	-			0.2	2.6	3.3	0.2	3.1	3.8	1.9	137.6	0.0	3.0	222.1	0.7
Initial Queue De	elay ( d	з ), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	eh		21.2	28.4	29.2	21.6	29.9	30.8	23.1	165.7	18.0	23.8	249.7	22.1
Level of Service	(LOS)		1	С	С	С	С	С	С	С	F	В	С	F	С
Approach Delay	, s/veh	/LOS		27.0		С	28.7	7	С	139.	3	F	173.	5	F
Intersection De	ay, s/ve	h/LOS				12	0.3						F	Sinon	
Multimodal Re	sulte	MARKET THE PARTY OF THE PARTY O	11-1		EB		No.	WB		16	NB	10000		SB	
Pedestrian LOS		/10S		2.4		В	2.4	-	В	2.8	110	С	2.8	-	С
	ore / LC	and the second s	-	1.0		A	1.0	_	A	2.3		В	3.1	-	C

	200711	HCS 2	010 S	ignal	ized	Inters	ectio	n Re	sults S	Summ	ary	7/9	- Barghan	-	191-
General Inform	nation	20 20 20		12.3					Interse	ction In	format	ion		<b>147季</b> 1	b L
	iation	KHR Associates							Duration		0.25			111	
Agency		KITK ASSOCIATES		Analy	aia Dat	e 8/1/2	016		Area Ty		Othe				
Analyst Jurisdiction		Torrance California		-	Period	e 6/1/2	010	-	PHF	pe	0.90			wir.	*
				_		2016				Dorind	_				-
Urban Street		Pacific Coast Highw	vay	_		2016		o Mayı	Analysis	_	127	.30	- 3		
Intersection	Ai a ia	Calle Mayor		File N	ame	18-P	JH-Call	e iviay	or C-P P	w.xus		_	-	1 1 1 2 2	to C
Project Descrip	tion		-		2000	542		000	1				E CONTRACT	13171	The same of
Demand Inform	nation				EB			W	В	T	NB			SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v				120	270	232	57	18	5 136	194	105	1 50	175	959	86
THE PERSON	P			1	1	2000	1/200		17/100			25.33		19.19	
Signal Informa	tion				2	2		-	2	21	w III	_		R	1
Cycle, s	90.0	Reference Phase	2		- "		- ₹	, K	5 5	77 5	17		0	1	x1z
Offset, s	0	Reference Point	End	Green	4.8	1.9	25.3	8.1		33.			K		
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0		4.0		/	7	1	心
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	
T' D 4	400	DESCRIPTION OF STREET		ED		EDT	I W/D	T.	WDT	ND		AIDT	CD		ODT
Timer Results				EB	_	EBT	WB	SL	WBT	NB	_	NBT	SB		SBT
Assigned Phase	е			5	-	2	1		6	3		8	7		4
Case Number				1.1		4.0	1.1		4.0	1.1	_	3.0	_		3.0
Phase Duration				10.7		31.2	8.8		29.3	12.8	_	37.9	-	_	37.2
Change Period	_			4.0	_	4.0	4.0	_	4.0	4.0	_	4.0	.9 12.1 3 0 4.0 9 9 3.0 .8 8.0 3 0 0.2 0 00 0.99 1	4.0	
Max Allow Head				3.0	_	0.0	3.0	-	0.0	3.0	_	2.9	-		2.9
Queue Clearan		and the second s		6.8	_	0.0	4.3	_	0.0	8.6		35.8	-	-	35.2
Green Extensio		( g e ), S		0.1	_	0.0	0.1	_	0.0	0.2	_	0.0	-		0.0
Phase Call Prol	-			0.96			0.79	-		1.00	_	1.00	-		1.00
Max Out Proba	bility		-	0.00	)	5000	0.00	0	1	0.0	1	1.00	0.0	1	1.00
Movement Gro	up Res	ults			EB			WB			NB			SB	
Approach Move	ment			L	Т	R	L	T	R	L	Т	R	L	T	R
Assigned Move				5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	CONTRACTOR OF STREET	), veh/h		133	298	260	63	187	170	216	1168	56	194	1066	96
		ow Rate (s), veh/h/lr	1	1740	1827	1545	1740	1827	1570	1774	1863	1609	1774	1863	1576
Queue Service				4.8	12.2	12.7	2.3	7.4	7.9	6.6	33.8	2.0	6.0	33.2	3.7
Cycle Queue C		Name and Address of the Owner, where the Party of the Owner, where the Owner, which is t		4.8	12.2	12.7	2.3	7.4	7.9	6.6	33.8	2.0	6.0	33.2	3.7
Green Ratio ( g	THE RESERVE THE PARTY NAMED IN			0.36	0.30	0.30	0.33	0.28	-	0.47	0.38	0.38	0.46	0.37	0.37
Capacity (c), v	_			404	553	468	289	514	442	254	700	605	240	686	581
Volume-to-Capa	-	atio (X)		0.330		-	0.219	0.363	-	0.848	1.667	0.092	0.809	1.553	0.165
	-	/In (50 th percentile)		47.1	142.4	-	22.4	84.6	-	72.4	1887.	17.4	60.3	1601.6	-
Back of Queue	(Q). ve	eh/In ( 50 th percentil	e)	1.8	5.5	4.9	0.9	3.3	3.1	2.8	73.2	0.7	2.3	62.1	1.3
	_	RQ) (50 th percent	-	0.16	0.47	0.42	0.07	0.28	-	0.36	9.29	0.09	0.20	5.26	0.11
Uniform Delay (	_			20.6	26.1	26.3	21.7	25.9	-	20.7	28.1	18.1	20.9	28.4	19.1
Incremental De	_			0.2	3.7	4.7	0.1	2.0	2.5	5.9	306.6	0.0	2.5	256.0	0.0
Initial Queue De	-	THE RESERVE AND ADDRESS OF THE PARTY OF THE		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (				20.8	29.9	31.0	21.8	27.9	28.6	26.6	334.7	18.2	23.4	284.4	19.2
Level of Service	_			С	С	С	С	С	С	С	F	В	С	F	В
Approach Delay				28.5	5	С	27.2	2	C	276.	3	F	228.	3	F
Intersection Del		THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW				18	9.0						F	-	
Multimodal Re	sulte	US SECTION OF			EB	1000		WB			NB			SB	
Pedestrian LOS	and the latest devices the	/LOS		2.4		В	2.4	-	В	2.8		С	2.8		С
	ore / LC	The second secon		1.1	_	A	0.8	_	A	2.9	_	C	2.7	-	В

2019 Project Plus Cumulative Development Conditions Highway Capacity Method

		HCS 2	010 \$	Signal	lized	Inters	sectio	n Re	sults	Sumn	nary	Tel Solution	111111111111111111111111111111111111111	W. 1885	
General Inform	mation				Sec.	E 32	100		Interes	ction Ir	forma	tion	and the same	月日以本	1.5.0
Agency	nation	KHR Associates							Duratio	-	0.25	-	_	TIT	, LL
Analyst		IN IN Associates		Analy	eie Do	e 8/1/2	2016	_			Oth		- 5		R.
Jurisdiction		Torrance California		_	Period	e 0/1/2	2010		Area Ty	ype	0.95			7.	+
Urban Street		Pacific Coast High		-	sis Yea	r 2016		-		o Dorino	_		-83	",	+
Intersection		Hawthorne Bouleva	_	File N		_		thorno		s Period	1 12/	7.30	_	To the same of	*
Project Descrip	otion	Hawthorne Bouleva	aru	File	lame	1-PC	л-паw	triorne	Cumu A	IVI.XUS			_	ነነተ	11
Project Descrip	olion			100	1000	1811		1000	397	F24 3		10 No. 15		1 4 1 4	rrr
Demand Infor	mation				EB			W	В		NE	3		SB	USAN 2
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand (v), v	/eh/h			294	104	5 273	3 14	7 107	75 27	7 303	3 143	38 68	202	2 772	_
			5119		OF I	THE RE	Marin Control				1343	SERV	1959	Mrs D	
Signal Informa	_			4	2	_ 2		=	2	2			11 3		1
Cycle, s	120.0		2	-	-	R	=	2	1 6	318	17	-	V	1.	1 t
Offset, s	0	Reference Point	End	Green	7.6	1.6	48.8	9.5			9	1000	K	1	
Uncoordinated		Simult. Gap E/W	On	Yellow	and the same of the same of	4.0	4.0	4.0		4.0		1		1	t
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	1	
Timer Results	فالأحا			EBI	100	EBT	WE	31	WBT	NE		NBT	SE	N S	CDT
Assigned Phas	ρ.			5		2	1	_	6	3		8	7	-	SBT
Case Number				2.0		3.0	2.0	_	3.0	2.0		3.0	-		4
Phase Duration				17.2	-	58.4	-	-	-	-	-	-	2.0		3.0
Change Period	-	- \ 0	_	-	_	-	11.	_	52.8	17.	-	36.5	13.	_	32.9
	-	THE RESERVE AND ADDRESS OF THE PARTY OF THE		4.0	-	4.0	4.0	_	4.0	4.0	-	4.0	4.0		4.0
Max Allow Head	-			3.0	_	0.0	3.0	_	0.0	3.0	-	3.0	3.0		3.0
Queue Clearan	-	The same of the sa		13.0	-	0.0	7.5	_	0.0	12.	_	34.5	9.3	_	27.3
Green Extension		( <i>g</i> e ), s	-	0.2	-	0.0	0.2	_	0.0	0.2	_	0.0	0.2		1.2
Phase Call Prol	-			1.00			0.9	-		1.0	-	1.00	1.0		1.00
Max Out Proba	DIIIty		N-11-11	0.98			0.0	0	2000	0.9	3	1.00	0.0	1	1.00
Movement Gro	up Res	ults			EB			WB			NB	Jel I Tale	The same of	SB	
Approach Move	-	Marie de la companya		L	Т	R	L	Т	R	L	T	R	L	T	R
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	_	), veh/h		309	1100	287	155	1132	292	319	1514	72	213	813	342
	-	w Rate (s), veh/h/lr	1	1673	1643	1531	1673	1643	_	_	1691	1577	1723	1691	1573
Queue Service		the same of the sa		11.0	22.0	18.0	5.5	23.7	19.1	10.9	32.5	4.2	7.3	17.4	25.3
Cycle Queue C				11.0	22.0	18.0	5.5	23.7	19.1	10.9	32.5	4.2	7.3	17.4	25.3
Green Ratio ( g	The second second	7 mio ( g v ), o		0.11	0.45	0.45	0.06	0.41	0.41	0.11	0.27	0.27	0.08	0.24	0.24
Capacity ( c ), v	_			368	2234	694	213	2005	622	377	1374	427	273	1220	-
Volume-to-Capa	-	tio (X)		0.841	0.492	0.414	0.728	0.564	-	0.845	1.102	0.168	0.779	0.666	378
The state of the s	-	In (50 th percentile)		134.3	238.3	187.5	61.1	259.3	-	132.9	528.1	40.6	81.7	185.6	0.905
The second secon	and the latest designation of the latest des	eh/In (50 th percentile)	e)	5.2	9.2	7.2	2.3	10.0	7.8	5.1	20.3	1.6	3.1	7.1	312.5 12.0
THE RESIDENCE OF STREET	-	RQ) (50 th percenti		0.45	0.79	0.63	0.20	0.86	0.67	0.65	2.58	0.20	0.27	0.60	1.02
Uniform Delay (	CONTRACTOR STATE OF	STORES OF LANGUAGE ACCUMULATION OF THE PARTY	0)	54.6	30.6	29.2	56.4	34.6	32.9	52.4	43.8	33.4	54.2	41.2	-
Incremental Del	-			9.9	0.8	1.8	1.8	1.2	2.5	10.0	57.2	0.1	1.8	-	44.2
nitial Queue De	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.9
Control Delay (	-			64.5	31.3	31.0	58.2	35.7	35.4	_	The state of the s	-	_	-	0.0
_evel of Service	-	41.		E	C	C	E	D	35.4 D	62.4	100.9 F	33.5 C	56.0	42.3	68.2
Approach Delay	-	IIOS		37.3		D	37.9	_	D	E 01.0	-	F	E 50.0	D	E
Intersection Del	-	The Table Street Control of the Cont	-	37.3			57.8		D	91.9		-	50.9	,	D
The section Del	ay, sive	17.200	1000	100	FATE TE	30	1.2	200	S THEN		119	St. 31	E	and the	
Multimodal Res	sults				EB	C Select	ALCOHOL:	WB		1	NB	THE PARTY OF	- Committee	SB	12.9
Pedestrian LOS	-	LOS		3.5		С	3.5	_	С	3.5	-	С	3.5	JB	С
Bicycle LOS Sc	STATE OF THE OWNER, WHEN PERSON			1.4	-	A	1.4	-	A	1.5	-	A	1.2		A

		HCS 2	2010 \$	Signa	lized	Inters	sectio	n Re	sults	Sumn	nary				
General Inform	nation					E134 1111			Intono	ation In		Al au	- Wild	보세시하	
	nation	IZUD Associates								ection Ir		-	_		
Agency		KHR Associates		T		laur		_	Duratio		0.25				
Analyst		Tanana a Oalifania		_	-	te 8/1/2	2016		Area Ty	ype	Oth				
Jurisdiction		Torrance California		_	Period	2016			PHF		0.90			W	
Urban Street		Pacific Coast High	_	_	sis Yea					s Period	1 > 5	5:00			*
Intersection		Hawthorne Bouleva	ard	File N	lame	1-PC	CH-Haw	thorne	Cumu P	M.xus				ጎጎተነ	111
Project Descrip	tion		-				(C. VI	THE REAL PROPERTY.	-	15.000				7414	444
Demand Inform	nation				EB		7	W	В	-	NE	3		SB	
Approach Move	ement			L	T	R	L	T		L	T	_	L	T	_
Demand (v), v	-			254	1147	_	_	_	_	_	_		_	_	
		Man De la Company		201	Name of			3 00	0 20	7 000	30		42.	130	5 43
Signal Informa	tion							<u></u>	5 21	1 1				1 (50)	
Cycle, s	120.0	Reference Phase	2	1	1		=			-	42	_	-	1	4
Offset, s	0	Reference Point	End	Green	1 10.0	2.2	49.8	3 14.	7 1.3	26.		1	¥ 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellov		0.0	4.0	4.0				7	4	1	4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
(Na) Hivotes		the second	107		See .							Ross	200	AL TO SE	V A
Timer Results				EB	L	EBT	WE	3L	WBT	NB		NBT	SE		SBT
Assigned Phase	9			5		2	1		6	3		8	7		4
Case Number				2.0		3.0	2.0	_	3.0	2.0	)	3.0	2.0	0	3.0
Phase Duration	_			16.3	2	56.0	14.	0	53.8	18.	7	30.0	20.	.0	31.3
Change Period,	STATE OF THE PARTY			4.0		4.0	4.0	)	4.0	4.0		4.0	4.0	0	4.0
Max Allow Head	Marine Services			3.0		0.0	3.0		0.0	3.0	)	3.0	3.0	0	3.0
Queue Clearand	and the latest designation of the	THE RESERVE OF THE PARTY OF THE		12.0			9.8	3		14.	5	27.1	18.	.0	29.3
Green Extension		( g e ), s		0.2		0.0	0.2	2	0.0	0.2	2	0.0	0.0	0	0.0
Phase Call Prob	A STATE OF THE PARTY OF THE PAR			1.00			1.0	0		1.0	0	1.00	1.0	0	1.00
Max Out Probat	oility			0.37	7		0.0	3		1.00	0	1.00	1.0	0	1.00
				Breek			E31970		10750	BILLION.			in the same		Jack Tolly
Movement Gro	-	uits		-	EB	_ B	-	WB	-	-	NB		-	SB	
Approach Move	-			L	T	R	L	T	R	L	Т	R	L	T	R
Assigned Mover		\		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow R				282	1274	404	220	1109	282	367	1068	86	470	1450	478
	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	w Rate (s), veh/h/lr	n	1673	1643	-	1673	1643	-	-	1691	1576	1723	1691	1572
Queue Service	The same and the same and			10.0	26.7	27.4	7.8	23.0	18.3	12.5	25.1	5.4	16.0	27.3	27.3
Cycle Queue Cl	-	e Time ( $g_c$ ), s		10.0	26.7	27.4	7.8	23.0	18.3	12.5	25.1	5.4	16.0	27.3	27.3
Green Ratio ( g/				0.10	0.43	0.43	0.08	0.41	0.41	0.12	0.22	0.22	0.13	0.23	0.23
Capacity ( c ), ve		4:- / \/ \	_	341	2135	663	280	2044	634	422	1099	342	459	1155	358
Volume-to-Capa	OCCUPATION AND ADDRESS OF THE PARTY OF THE P			0.827	0.597	0.610	0.787	0.543	-	0.869	0.971	0.250	1.023	1.256	1.335
Married State of State of the State of	THE RESERVE AND ADDRESS.	In (50 th percentile)	_	119.3	291.3	292.1	87.2	251.1	192.2	158.9	317.9	53.4	254	627.2	703.5
Management of the Park of the	The second liverage and the se	eh/ln (50 th percentil		4.6	11.2	11.2	3.4	9.7	7.4	6.1	12.2	2.1	9.8	24.1	27.1
		RQ) (50 th percenti	iie)	0.40	0.97	0.97	0.29	0.84	0.64	0.78	1.55	0.26	0.83	2.04	2.29
Uniform Delay (				54.9	33.7	33.9	55.6	33.7	32.0	51.7	46.6	38.9	52.0	46.3	46.3
ncremental Dela				7.4	1.2	4.1	1.9	1.0	2.3	14.3	20.4	0.1	48.0	122.4	168.8
nitial Queue De	STREET, SQUARE,			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	at the same of the same	n		62.3	34.9	38.1	57.5	34.8	34.3	66.0	67.0	39.1	100.0	168.7	215.2
evel of Service	and the local division in the local division			Е	С	D	E	С	С	E	E	D	F	F	F
Approach Delay,	_			39.5		D	37.8	3	D	65.2		E	164.	5	F
ntersection Dela	ay, s/vel	h / LOS			200	84	1.4	10.37	100				F		
Aultimodel Bee	ulto		-	St. St	ED	NAME .	HIN. AL	\\/D	100	11.8	NID.	20 - 10		1850	Terry!
Multimodal Res Pedestrian LOS	-	1100		2.5	EB	0	2.5	WB	0	0.5	NB	0		SB	
recesinan LOS	ocore /	LUS		3.5		С	3.5		C	3.5		C	3.5		C

# **HCS 2010 Signalized Intersection Results Summary General Information** Intersection Information 1111 Agency Duration, h 0.25 Analyst Analysis Date 8/4/2016 Area Type Other Jurisdiction Time Period PHF 0.90 **Urban Street** Hawthorne Boulevard Analysis Year 2016 1>7:00 Analysis Period Intersection 244th Street File Name 2-Hawthorne-244th Cumu AM.xus ጎ † † † **Project Description Demand Information** EB WB NB SB Approach Movement L T R L T R L T R L Т R Demand (v), veh/h 0 29 8 0 60 57 4 1719 42 1100 Signal Information b Cycle, s 45.0 Reference Phase 2 61 Offset, s 0 Reference Point End Green 21.0 16.0 0.0 0.0 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 0.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 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 6 8 4 Case Number 8.0 8.0 6.0 6.0 Phase Duration, s 25.0 25.0 20.0 20.0 Change Period, (Y+Rc), s 9.0 9.0 4.0 4.0 Max Allow Headway (MAH), s 0.0 0.0 3.2 3.2 Queue Clearance Time (gs), s 18.0 18.0 Green Extension Time ( g e ), s 0.0 0.0 0.0 0.0 Phase Call Probability 1.00 1.00 Max Out Probability 1.00 1.00 **Movement Group Results** EB WB NB SB Approach Movement L T R L Т R T L R L T R Assigned Movement 5 12 2 1 6 16 3 8 7 Adjusted Flow Rate (v), veh/h 0 0 4 1910 47 1222 Adjusted Saturation Flow Rate (s), veh/h/ln 0 0 464 1691 239 1691 Queue Service Time (gs), s 0.0 0.0 0.4 16.0 0.0 9.2 Cycle Queue Clearance Time (gc), s 0.0 0.0 9.6 16.0 16.0 9.2 Green Ratio (g/C) 0.36 0.36 0.36 0.36 Capacity (c), veh/h 230 1804 160 1804 Volume-to-Capacity Ratio (X) 0.000 0.000 0.019 0.292 1.059 0.677 Back of Queue (Q), ft/In (50 th percentile) 0 0 0.9 276.8 11.3 69.7 Back of Queue (Q), veh/ln (50 th percentile) 0.0 0.0 0.0 11.1 0.5 2.8 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.00 0.01 1.41 0.11 0.35 Uniform Delay ( d 1 ), s/veh 16.4 14.5 22.5 12.3 Incremental Delay ( d 2 ), s/veh 0.0 0.0 0.0 38.7 0.4 8.0 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 16.4 53.2 22.9 13.2 Level of Service (LOS) В C В Approach Delay, s/veh / LOS 9.7 Α 10.9 В 53.1 D 13.5 В Intersection Delay, s/veh / LOS 36.0 D **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 3.2 C 3.2 C 2.1 В 2.1 В Bicycle LOS Score / LOS 0.6 A 0.7 A 1.5 Α 1.2 Α

# **HCS 2010 Signalized Intersection Results Summary General Information** Intersection Information TITT Agency Duration, h 0.25 Analyst Analysis Date 8/4/2016 Area Type Other Jurisdiction Time Period PHF 0.90 **Urban Street** Hawthorne Boulevard Analysis Year 2016 1> 7:00 Analysis Period Intersection 244th Street File Name 2-Hawthorne-244th Cumu PM.xus <u>ጎ</u> † † † **Project Description Demand Information** EB WB NB SB Approach Movement L T R L T R T L R L T R Demand (v), veh/h 0 27 65 0 62 58 31 1341 82 1714 Signal Information Cycle, s 45.0 Reference Phase 2 51 Offset, s 0 Reference Point End Green 21.0 16.0 0.0 0.0 0.0 0.0 Uncoordinated On No Simult. Gap E/W Yellow 4.0 4.0 0.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 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 6 8 4 Case Number 8.0 8.0 6.0 6.0 Phase Duration, s 25.0 25.0 20.0 20.0 Change Period, (Y+Rc), s 9.0 9.0 4.0 4.0 Max Allow Headway ( MAH ), s 0.0 0.0 3.3 3.3 Queue Clearance Time (gs), s 18.0 18.0 Green Extension Time ( g e ), s 0.0 0.0 0.0 0.0 Phase Call Probability 1.00 1.00 Max Out Probability 1.00 1.00 **Movement Group Results** EB WB NB SB Approach Movement L R L R L T R L T R 5 12 Assigned Movement 2 6 16 1 3 8 7 4 Adjusted Flow Rate (v), veh/h 0 0 34 1490 91 1904 Adjusted Saturation Flow Rate (s), veh/h/ln 0 0 240 1691 359 1691 Queue Service Time ( g s ), s 0.0 0.0 12.1 0.0 3.9 16.0 Cycle Queue Clearance Time ( g c ), s 0.0 0.0 16.0 12.1 16.0 16.0 Green Ratio (g/C) 0.36 0.36 0.36 0.36 Capacity (c), veh/h 160 1804 191 1804 Volume-to-Capacity Ratio (X) 0.000 0.000 0.215 0.826 0.476 1.056 Back of Queue (Q), ft/In (50 th percentile) 0 0 22.2 8.3 99.8 272.4 Back of Queue (Q), veh/ln (50 th percentile) 0.0 0.0 0.3 4.0 10.9 0.9 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.00 0.08 0.51 0.22 1.38 Uniform Delay (d1), s/veh 22.5 13.2 21.8 14.5 Incremental Delay ( d 2 ), s/veh 0.0 0.0 0.2 3.1 0.7 37.6 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 22.7 16.3 22.5 52.1 Level of Service (LOS) С В C Approach Delay, s/veh / LOS 10.4 В 10.9 B 16.5 В 50.8 D Intersection Delay, s/veh / LOS 34.3 C **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 3.2 C 3.2 C 2.1 В 2.1 B Bicycle LOS Score / LOS 0.7 A 0.7 A 1.3 A 1.6 Α

			100	3134	1	333			07:0	Sumn	TENES	500	1 2	P. T.	7
General Inform	nation		1 (6) L		200				Interse	ction In	forma	tion	The state of the s	1414	1 4 4
Agency									Duratio	_	0.25		_	11	Ļ
Analyst				Analy	sis Date	e 8/4/	2016		Area Ty		Oth		- 4		
Jurisdiction				_	Period	3			PHF	-	0.97	_	-	SBL 7 2.0 6.5 4.0 3.1 3.0 0.0 0.42 0.00 SB L T 7 4 440 1094 810 1773 .0 11.7 0.5 0.46 .04 1623 428 0.674 0.7 84.2 4 3.4 11 0.43 2.3 10.3 .1 0.2 .0 0.0 8.5 10.5 C B 11.0 SB	
Urban Street		Hawthorne Bouleva	rd		sis Yea	201	6		Analysi	s Perioc	_	7:00	7		
Intersection		Newton Street		File N		-	awthorne	e-Newto		-		.00	7	* * * *	
Project Descrip	tion			1		10 11.		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	on ouni	7 1111.70				গ্ৰাক	747
	10.50	Cyale Welling	11	188		1247	The same			16-16		VI -			
Demand Inforr				-	EB	_		W	_		NE			SB	
Approach Move	-		_	L	T	R	_	Т	_	L	Т	_	_	-	-
Demand (v), v	eh/h		19785	27	77	82	91	11-	4 111	110	171	18	39	106	1
Signal Informa	tion	BEAR STATE OF THE	BILL THE		1 6		U. September 1			ACC. COLUMN		CORNEL I	Charles		
Cycle, s	48.6	Reference Phase	2	1	3 8		TE LE	. 1	1					1	1
Offset, s	0	Reference Point	End	-		105	3			-		1	Y 2	3	
Uncoordinated	Yes	Simult. Gap E/W	On	Green	THE OWNER WHEN PERSON NAMED IN	2.5	0.0	22. 4.0	The second liverage and the second				<del>\$-</del>	-	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	-	0.0		5	6	7	
A Committee of		STATE TO STATE OF		Will S			5/2		100					NY T	
Timer Results				EB	-	EBT	WE	3L	WBT	NB	L	NBT	SE	BL	SB
Assigned Phase	9					2	-		6	3		8	_	_	4
Case Number						6.0			5.0	2.0	-	4.0	-		4.0
Phase Duration	-					13.6			13.6	8.7	_	28.4	_	_	26.2
Change Period,	Section Section Section					4.0			4.0	4.0	-	4.0	-		4.0
Max Allow Head	_	the same of the sa		_		3.2	-	_	3.2	3.1	-	3.0	_		3.0
Queue Clearand	-					6.1			9.5	4.9		15.0	_	-	13.7
Green Extensio	distance of the last of the la	( g e ), s			_	0.5	-	-	0.1	0.1	_	8.1		_	8.5
Phase Call Prob	-		_	_		1.00	-		1.00	0.78	-	1.00	_		1.00
Max Out Probab	ollity			-	STATE OF THE PARTY OF	0.67			1.00	0.00	0	0.38	0.0	0	0.35
Movement Gro	up Res	ults		200	EB			WB			NB		The same	SB	3
Approach Move	and the latest section in the latest section			L	T	R	L	T	R	L	Т	R	L	_	F
Assigned Mover	and the same of th			5	2	12	1	6	16	3	8		_	-	+
Adjusted Flow F		), veh/h		28	164		94	118	114	113	1771		40	-	-
THE RESERVE OF THE PARTY OF THE	CONTRACTOR OF THE PARTY OF THE	w Rate (s), veh/h/lr		1295	1739		1241	1900	-	1810	1691		1810		-
Queue Service	the same of the same of the same of	and the second contract of the second contrac		0.9	4.1		3.5	2.6	3.0	2.9	13.0		1.0		
Cycle Queue Cl	-	Contract Con		3.5	4.1		7.5	2.6	3.0	2.9	13.0		1.0	-	-
Green Ratio ( g/				0.20	0.20		0.20	0.20	0.20	0.10	0.50		0.05	-	
Capacity ( c ), ve	_			337	345		291	377	319	175	2551		94	-	
/olume-to-Capa		tio (X)		0.083	0.475		0.322	0.312	and the same of	0.647	0.694		0.428	0.674	
Back of Queue (	Q), ft/	In (50 th percentile)		6.1	35.7		22.9	24.6	24.2	29.2	83.5		10.7	_	
Back of Queue (	Q), ve	eh/In (50 th percentile	e)	0.2	1.4		0.9	1.0	1.0	1.2	3.3		0.4		
Queue Storage	Ratio (	RQ) (50 th percenti	e)	0.06	0.36		0.23	0.25	0.24	0.29	0.42		0.11	-	
Jniform Delay (		to the second se		18.1	17.2		20.6	16.6	16.8	21.1	9.2		22.3	10.3	
ncremental Dela	April and the same of the same	No. of the last of		0.0	0.4		0.2	0.2	0.3	1.5	0.3		1.1	0.2	
nitial Queue De	lay (d	), s/veh		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	NAME OF TAXABLE PARTY.	h		18.1	17.6		20.8	16.8	17.1	22.6	9.5		23.5	10.5	
evel of Service	-			В	В		С	В	В	C	Α		С	В	
pproach Delay	SOURCE OF STREET	CONTRACTOR OF THE PARTY OF THE	1	17.7		В	18.0		В	10.3	3	В	11.0		В
ntersection Dela	ay, s/ve	h/LOS				1	1.6	ordinar s					В		
The Part Service		CANAL CONTRACTOR		9.5	-		7.5	145				188	TY		545
Multimodal Res	and the latest devices the lates	11.00		0.0	EB	0	0.0	WB	_	-	NB	-		and the latest designation of the latest des	
Pedestrian LOS	Score /	S		2.9 0.8	-	C A	3.2 1.0		C	2.4 1.5	-	B A	1.4	-	В

	Such		1	1.1.16	de la	Market						- STEEL	321		
General Inform	nation								Interse	ction In	forma	tion		1444	l ble
Agency									Duratio	n, h	0.25	5		111	4
Analyst				Analy	sis Date	8/4/2	016		Area Ty	ре	Oth	er	A		
Jurisdiction				Time	Period				PHF		0.97	7	- A	Wite	
Urban Street		Hawthorne Bouleva	ard	Analy	sis Year	2016			Analysi	s Period	1 1> 7	7:00	7		
Intersection		Newton Street		File N	Name	3-Hav	wthorne	-Newt	on Cum	u PM.xu	s			5 f	t
Project Descrip	tion													7474	777
Demand Inform	nation		16	DESCRIPTION OF THE PERSON OF T	EB		350	W	P.		NE			SB	
Approach Move				L	T	R	L	T		L	T	-	₹ L	J T	
Demand (v), v	Name and Address of the Owner, where			21	53	115					_		54	-	$\rightarrow$
Demand (V), V	CIMI	No. of Particular	Dw. W.	21	55	110	210	5 50	5 10.	2 110	133	2	54	1668	5
Signal Informa	tion		SEPTIME S		5	- 6		T							
Cycle, s	51.2	Reference Phase	2		3 8		5		1				4	1	1
Offset, s	0	Reference Point	End	Crook		2.2			2 00	0.0		- 1	Y 2	3	
Uncoordinated	Yes	Simult. Gap E/W	On	Greer	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN	3.3	0.0	4.0			-		<del>}</del>	1	1 8
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0					6	2	
			Ville		The said		11 000	75.5	190					1	
Timer Results				EB	L	EBT	WE	SL	WBT	NB	-	NBT	SB		SB
Assigned Phase	9			-		2	-	_	6	3	_	8	7		4
Case Number					$\rightarrow$	6.0	_	_	5.0	2.0	-	4.0	2.0		4.0
Phase Duration	-				-	14.0			14.0	8.9		30.0	7.3		28.3
Change Period,	NAME OF TAXABLE PARTY.	the state of the s			-	4.0			4.0	4.0	_	4.0	4.0	-	4.0
Max Allow Head	-					3.3			3.3	3.1	-	3.0	3.1		3.0
Queue Clearand		Name and Address of the Owner, where the Owner, which is the				6.7			12.0	5.3	-	18.0	3.5	5	15.8
Green Extension	The Park of the Pa	(ge), s	_			0.5			0.0	0.2	_	7.7	0.1		8.5
Phase Call Prob	-				1	1.00			1.00	0.82	2	1.00	0.5	5	1.00
Max Out Probab	oility				1	1.00		-	1.00	0.00	0	0.56	0.00	0	0.48
Movement Gro	un Res	ults	No. of Street, or other Persons and Street, o		EB	10.10		WB	2300		NB	4 101	THE REAL PROPERTY.	SB	
Approach Move	_			L	T	R	L	T	R	L	T	R	L	T	F
Assigned Mover	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			5	2	12	1	6	16	3	8	1	7	4	+
Adjusted Flow R	_	) veh/h		22	173	12	225	58	105	120	1373	-	56	1720	-
COLUMN TWO IS NOT THE OWNER.		w Rate (s), veh/h/lr	1	1367	1692		1231	-	_	1810	1773		1810	1691	+
Queue Service		AND RESIDENCE OF THE PARTY OF T		0.7	4.7		5.3	1.3	2.9	3.3	16.0		1.5	13.8	-
Cycle Queue Cle		THE RESERVE AND ADDRESS OF THE PARTY OF THE		2.0	4.7		10.0	1.3	2.9	3.3	16.0		1.5	13.8	-
Green Ratio ( g/		, iiiio ( g c ), s		0.20	0.20		0.20	0.20	0.20	0.10	0.51	-	-	-	-
Capacity ( c ), ve	THE OWNER OF THE OWNER,			373	330		268	371	314	173	1797		0.06	0.47	-
/olume-to-Capa		tio ( X )		0.058			0.840	0.156	-	0.690	0.764		0.480	2410	-
THE R. P. LEWIS CO., LANSING, MICH.	STATE OF THE PERSON NAMED IN	In (50 th percentile)		4.9	42		98.8	12.6	23.9	33.4	117.2	-	15.6	0.714	-
A SHAREST PARTY OF THE PARTY OF	STATE OF TAXABLE PARTY.	eh/In (50 th percentile)	e)	0.2	1.7		4.0	0.5	1.0	1.3	4.7	-	0.6	97.1	-
THE RESERVE THE PARTY OF THE PA		RQ) (50 th percenti	Service or reservoir and	0.05	0.42		0.99	0.5	0.24	0.33	0.60	-	0.6	3.9 0.49	-
Jniform Delay (	-		10)	17.9	18.5		24.1	17.1	17.8	22.4	10.2		23.2	10.7	-
ncremental Delay	-	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN TWO		0.0	0.8		19.6	0.1	0.2	1.8	1.2	-	1.1	0.4	-
nitial Queue De	-			0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.4	-
Control Delay (	-			18.0	19.2	-	43.7	17.2	18.0	24.3	11.4		24.3		-
evel of Service	_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	B	B		43.7 D	B	B	C C	B		24.3 C	11.1 B	-
approach Delay,	_	1108		19.1	-	В	32.8	_	С	12.4	_	В	-		D
ntersection Delay	-	and the second s		19.1		14			0	12.4		В	11.5 B		В
THE TANK	1,0,00		5/99	11/15/14			1	Mark I		34.23		BLV:	中 西京山	5-320-	63
Multimodal Res	ults				EB			WB			NB			SB	-
Pedestrian LOS	Score /	LOS		3.2		С	2.9		С	2.4		В	2.2		В
Bicycle LOS Sco	re/IO	S		0.8		A	1.1		Α	1.7		Α	1.5		Α

		HCS 2	010 3	oigna	nzea	inte	ersec	tion	Re	Suits	Sumr	nary	1000	100 mm	18150	100
General Inform	mation		Car Ma							Interse	ction Ir	nformat	tion	a world	ما يا يا يا	141
Agency										Duratio		0.25		_	41	
Analyst				Analy	sis Da	te 9/	25/201	18		Area Ty		Othe	_			
Jurisdiction					Period	_	20,20			PHF	рс	0.90			w.l.	
Urban Street		Hawthorne Bouleva	ard		sis Ye	_	18			Analysi	e Perior	_				
Intersection		Via Valmonte	ai u	_	Vame			orne_	Via V	almonte	_	-	.00	-	N at Mile	
Project Descrip	otion	via valifionite		Tile	varrie	4-	lawuii	OITIE-	via v	aimonte	Culliu	-livi.xus	-	_	111	
Troject Descrip	Mon	WE SEE SEE	Control of	1	S. Wall	15/1		1 13	-17		1000	89.96	AT STATE		TATE OF	i e i
Demand Inform	mation				E	3		PRODUCTION OF THE PARTY OF THE	W	В		NE	3		SB	
Approach Move	ement			L	T		R	L	T	R	L	T	R	L	T	F
Demand (v), v	/eh/h			0	30	3	72	0	0	1	46	165	0 37	3	122	5 (
Cianal Inform	Alan			1 1 10	1111	156	15.00	11-11	NE PEN	12 280		MI SAN			STE	
Signal Informa	_	Deference Dhase	2	-	717	1	, )=							ETA		
Cycle, s	90.0	Reference Phase	2	-	R	75								72	3	-0
Offset, s	0	Reference Point	End		1 55.6	22		0.2	0.0						A PERM	5
Uncoordinated	_	Simult. Gap E/W	On	-	v 4.0	4.		4.0	0.0					T		7
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.	0 10	0.0	0.0	0.0	0.0		5	6	7	Lika
Timer Results			2000	EB	L	EBT		WBL	AL P.	WBT	NE	SI.	NBT	SE	BL	SBT
Assigned Phase	e					4				8			2	0.		6
Case Number						10.0		-	+	12.0			5.0		-	6.0
Phase Duration	S		_			26.3				4.2		_	59.6	-		59.6
Change Period	-	c) s				4.0				4.0		_	4.0	+-	-	4.0
Max Allow Head	_					3.1	-		+	3.4	-		0.0	-		0.0
Queue Clearan	-					21.9			+	2.1			0.0	-	-	0.0
Green Extensio	and the contract of the last					0.4			+	0.0	-		0.0	-	-	0.0
Phase Call Prol		(90),0				1.00			+	0.03			0.0	1		0.0
Max Out Probal	-					0.50			+	0.00	-	+		-		-
			45.50	78.50	-	0.00	Tarrier I	1804	100	0.00	-		F- 1/16	1350	ALC: NO	40,000
Movement Gro	up Res	ults			EB		T	-	WB			NB		T	SB	
Approach Move	ment			L	T	R		L	Т	R	L	T	R	L	T	R
Assigned Move	ment			7	4	14	1	3	8	18	5	2	12	1	6	16
Adjusted Flow F	Rate ( v	), veh/h		0	417			0		1	51	1833	41	3	1361	0
Adjusted Satura	ation Flo	w Rate (s), veh/h/lr	1	1810	1837			0		1610	406	1725	1610	257	1900	0
Queue Service				0.0	19.9		0	0.0		0.1	6.5	18.9	0.9	0.7	10.8	0.0
Cycle Queue Cl	learance	e Time (gc), s	1	0.0	19.9		0	0.0		0.1	17.3	18.9	0.9	19.6	10.8	0.0
Green Ratio ( g	/C)			0.25	0.25					0.00	0.62	0.62	0.62	0.62	0.62	-
Capacity ( c ), v	eh/h			448	454					3	282	3196	994	185	3520	
Volume-to-Capa		tio (X)		0.000	0.917		0.0	000		0.373	0.181	0.574	0.041	0.018	0.387	0.00
CONTRACTOR OF STREET,	a transfer of the	In (50 th percentile)		0	268.4	-	-	0	-	1.2	16.6	158.4	7.4	1.2	99	0.00
THE RESIDENCE OF THE PARTY OF T	AND DESCRIPTION OF THE PERSON NAMED IN	eh/In (50 th percentile	e)	0.0	10.7		_	.0		0.0	0.7	6.3	0.3	0.0	4.0	0.0
Allertan and the second		RQ) (50 th percenti	-	0.00	0.00		-	00		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Jniform Delay (				0.0	33.0					44.9	13.0	10.2	6.8	16.0	8.6	5.00
ncremental Del	Name and Address of the Owner, where	CONTRACTOR OF THE PARTY OF THE		0.0	17.9		0	.0		26.4	1.4	0.8	0.1	0.2	0.3	0.0
nitial Queue De	AND DESCRIPTION OF THE PERSON NAMED IN			0.0	0.0		-	.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	THE RESERVE OF THE PERSON	THE RESIDENCE OF THE PARTY OF T		0.0	50.9					71.2	14.4	11.0	6.8	16.2	9.0	0.0
evel of Service	CHEST AND DESCRIPTION OF				D					E	В	В	A	В	Α	
Approach Delay	_	LOS		50.9	-	D		71.2		E	11.0	_	В	9.0		Α
ntersection Del	CONTRACT OF THE PARTY.					_	14.7						-	В		71
Carlotte Control		A THE LOW LAND				3	Sale L	15 33	FRY		The same	8 ( 82	A A A		- L	11
Multimodal Res	sults				EB				WB			NB			SB	
Pedestrian LOS	Score	LOS		3.4		С		3.3		С	2.2		В	2.7	T	В
Bicycle LOS Sco	ore / LO	S		1.2		Α		0.5		Α	1.5		Α	1.2		Α

### **HCS 2010 Signalized Intersection Results Summary General Information** Intersection Information 4111 Agency 0.25 Duration, h Analyst Analysis Date 9/25/2018 Area Type Other Jurisdiction Time Period PHF 0.90 **Urban Street** Hawthorne Boulevard Analysis Year 2018 Analysis Period 1>7:00 Intersection Via Valmonte File Name 4-Hawthorne-Via Valmonte Cumu PM.xus ጎተተተ **Project Description Demand Information** EB WB NB SB Approach Movement Т L R L Т R L Т R L T R Demand (v), veh/h 0 190 64 0 16 20 64 1258 18 16 2032 0 Signal Information 1 Cycle, s 90.0 Reference Phase 2 Offset, s 0 Reference Point End Green 58.2 16.0 0.0 0.0 0.0 3.8 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results EBL EBT** WBT WBL **NBL NBT** SBL SBT Assigned Phase 4 8 2 6 Case Number 10.0 12.0 5.0 6.0 Phase Duration, s 20.0 7.8 62.2 62.2 Change Period. (Y+Rc), s 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 3.1 3.2 0.0 0.0 Queue Clearance Time (gs), s 15.6 3.2 Green Extension Time (ge), s 0.4 0.1 0.0 0.0 Phase Call Probability 1.00 0.63 Max Out Probability 0.00 0.00 **Movement Group Results** EB WB NB SB Approach Movement L R L R L T R L T R 7 4 14 Assigned Movement 3 18 2 8 5 12 1 6 16 Adjusted Flow Rate (v), veh/h 0 282 0 22 71 1398 20 2258 0 Adjusted Saturation Flow Rate (s), veh/h/ln 1810 1818 0 1610 170 1725 1610 392 1900 0 Queue Service Time (gs), s 0.0 13.6 0.0 1.2 37.3 11.8 0.4 2.1 20.8 0.0 Cycle Queue Clearance Time ( g c ), s 0.0 13.6 0.0 1.2 58.2 11.8 0.4 13.8 0.0 20.8 Green Ratio (g/C) 0.18 0.18 0.04 0.65 0.65 0.65 0.65 0.65 Capacity (c), veh/h 321 323 68 150 3348 1042 282 3687 Volume-to-Capacity Ratio (X) 0.000 0.874 0.000 0.327 0.473 0.418 0.019 0.063 0.612 0.000 Back of Queue (Q), ft/In (50 th percentile) 0 157.6 0 12.2 46 94.2 3.1 5 184.8 0 Back of Queue (Q), veh/ln (50 th percentile) 0.0 6.3 0.0 0.5 1.8 3.8 0.1 0.2 7.4 0.0 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Uniform Delay ( d 1 ), s/veh 0.0 36.0 41.9 26.5 7.7 5.7 11.0 9.3 Incremental Delay ( d 2 ), s/veh 0.0 5.3 0.0 1.0 10.3 0.4 0.0 0.4 8.0 0.0 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 0.0 41.3 42.9 36.8 8.1 5.7 11.5 10.1 Level of Service (LOS) D D D В Α A В Approach Delay, s/veh / LOS 41.3 D 42.6 D 9.4 Α 10.1 В Intersection Delay, s/veh / LOS 12.3 B **Multimodal Results** EB WB NB SB Pedestrian LOS Score / LOS 3.4 C 3.3 C 2.2 В 2.7 В 1.0 Bicycle LOS Score / LOS A 0.5 A A 1.3 1.7 Α

## **HCS 2010 Signalized Intersection Results Summary** General Information Intersection Information 1111 Agency Duration, h 0.25 Analyst Analysis Date 8/4/2016 Area Type Other Jurisdiction Time Period PHF 0.92 Hawthorne Boulevard **Urban Street** Analysis Year 2016 Analysis Period 1>7:00 Intersection Rolling Hills Road File Name 5-Hawthorne-Rolling Hills Cumu AM.xus ጎ † † **Project Description Demand Information** EB WB NB SB Approach Movement L T R Т R Τ L L R L T R Demand (v), veh/h 0 2 0 88 2 440 0 1405 289 853 Signal Information 160 Cycle, s 60.0 Reference Phase 2 Offset, s 0 Reference Point End Green 10.4 0.0 7.6 30.0 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 4.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results** EBL **EBT** WBT WBL **NBL NBT** SBL SBT Assigned Phase 2 6 3 8 7 4 Case Number 8.0 5.0 2.0 4.0 2.0 4.0 Phase Duration, s 14.4 14.4 0.0 34.0 11.6 45.6 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway ( MAH ), s 0.0 0.0 0.0 3.0 3.1 3.0 Queue Clearance Time (gs), s 24.7 7.1 8.5 Green Extension Time ( g e ), s 0.0 0.0 0.0 5.3 0.5 8.8 Phase Call Probability 1.00 0.99 1.00 Max Out Probability 0.49 0.01 0.02 **Movement Group Results** EB WB NB SB Approach Movement L T R L R L T R L T R 5 12 Assigned Movement 2 16 1 6 3 8 7 4 Adjusted Flow Rate (v), veh/h 0 2 96 478 0 1527 314 927 Adjusted Saturation Flow Rate (s), veh/h/ln 0 1437 1900 1610 1810 1773 1757 1773 Queue Service Time (gs), s 0.0 3.5 0.1 10.4 22.7 0.0 5.1 6.5 Cycle Queue Clearance Time (gc), s 0.0 3.6 0.1 10.4 0.0 22.7 5.1 6.5 Green Ratio (g/C) 0.17 0.17 0.30 0.50 0.13 0.69 Capacity (c), veh/h 367 329 483 3 1773 446 2460 Volume-to-Capacity Ratio (X) 0.000 0.260 0.007 0.990 0.000 0.861 0.704 0.377 Back of Queue (Q), ft/In (50 th percentile) 0 31.7 0.7 275 0 195 50.5 31.5 Back of Queue (Q), veh/ln (50 th percentile) 0.0 1.3 0.0 11.0 7.8 0.0 2.0 1.3 Queue Storage Ratio (RQ) (50 th percentile) 0.00 0.79 0.01 5.50 0.00 0.99 0.25 0.16 Uniform Delay ( d 1 ), s/veh 22.0 20.5 20.9 0.0 13.2 25.1 3.8 Incremental Delay ( d 2 ), s/veh 0.0 1.7 0.0 38.6 0.0 3.2 8.0 0.0 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 23.7 20.6 59.5 16.4 0.0 25.9 3.8 Level of Service (LOS) C C Ε В C Α 20.6 Approach Delay, s/veh / LOS C 53.4 D 16.4 В 9.4 A Intersection Delay, s/veh / LOS 20.2 C **Multimodal Results** EB **WB** NB SB Pedestrian LOS Score / LOS 2.8 C 2.9 C 2.8 C 2.0 В Bicycle LOS Score / LOS 0.5 A 1.4 A 1.5 1.7 Α Α

	6713	HCS 2	010 5	Signal	ized	Inter	sectio	n Re	sults	Sumn	nary				
General Inforn	nation	to the second	100		Service.	S. Cal	1.7.7	A STATE OF	Interse	otion !-	forms	ion		1444	HILLY:
	nation	1						-					_		
Agency		-		A	-:- D-4	- 0/4/	2040	-	Duratio		0.25		74		
Analyst		-		_	sis Date	e  8/4/2	2016	-	Area Ty	pe	Othe				_
Jurisdiction		Havethama Davilavi			Period	- 204		_	PHF		0.99			wite	·
Urban Street		Hawthorne Bouleva	ard	_	sis Yea	_	_	-	Analysi		_	:00			
Intersection		Rolling Hills Road		File N	ame	5-Ha	wthorne	-Rollin	g Hills C	umu Pl	M.xus			11	
Project Descrip	tion		01-1	S. Contract					NAME OF TAXABLE PARTY.	50.0	200000	1 11 1		18141	THE
Demand Inform	nation				EB			WI	3		NE	3		SB	
Approach Move	ement			L	T	R	L	T	R	L	Т	R	L	T	R
Demand (v), v	eh/h			0	3	1	88	0	344	1 0	107	1	447	-	_
	A COLOR		11.18	SE VIE	ER			MA TO	Carlotte.		CONTRACTOR OF THE PARTY OF THE				TATE OF
Signal Informa	-				7 4	7	a B	100							
Cycle, s	60.0	Reference Phase	2	1	<b>3</b>	3			T				<b>+</b>		+
Offset, s	0	Reference Point	End	Green	13.6	0.0	10.1	24.	3 0.0	0.0			K	T	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	-	4.0	4.0	4.0	0.0	0.0			7	7-	1
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	1	8
Timer Results	1.00	ENDERNY	30.0	EBI		EBT	WE	OI.	WBT	NB		NBT	SB	125,018	CDT
Assigned Phase				EBI	-	2	VVE	DL		3	-	8			SBT
Case Number	*			-	-		+		6	-	-		7		4
_	•			-	-	8.0	-	-	5.0	2.0	-	4.0	2.0	_	4.0
Phase Duration	-	1.		-	-	17.6	-	-	17.6	0.0		28.3	14.	_	42.4
Change Period,	ACCRECATION OF THE PERSON.	A STATE OF THE PARTY OF THE PAR			-	4.0	-	-	4.0	4.0	_	4.0	4.0	-	4.0
Max Allow Head	ACCOUNT NAME OF THE OWNER, OF THE OWNER, OF THE OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER, OWNER,			-	-	0.0	-	-	0.0	0.0	-	3.0	3.1		3.0
Queue Clearand							-	-			_	17.7	9.4		16.2
Green Extension	AND RESIDENCE AND RESIDENCE	( g e ), S			-	0.0	-	_	0.0	0.0		6.7	0.7	_	8.6
Phase Call Prob	-			-	-		-				-	1.00	1.0	-	1.00
Max Out Probab	ollity	Villa Series Marianes	2000			10000			W. C.	L.		0.30	0.0	8	0.06
Movement Gro	un Pas	ulte		Marie Paper	EB			WB	The same		NB			CD	
Approach Move		uito		L	T	R	L	T	R	L	T	R	L	SB	I D
Assigned Mover	Company of the last of the las			5	2	12	1	6	16	3	8		7	4	R
Adjusted Flow R		) veh/h	_	3	0	12	89	0	347	0	1082		452	-	
		ow Rate ( s ), veh/h/lr	0		0		1435	1900		1810	1773		-	1403	
Queue Service	THE RESERVE OF THE PARTY OF		-		0.0	-	3.1	0.0	10.0	0.0	15.7		1757 7.4	1773	
Cycle Queue Cle	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN		_		0.0	-	3.2	0.0	10.0	0.0	15.7		7.4	14.2	
Green Ratio ( g/		e Time ( g c ), s			0.0		0.23	0.23	0.39	0.0	0.41	-	-	0.64	
Capacity ( c ), ve							444	432	636	3	1437		0.17	-	
Volume-to-Capa		tio ( Y )			0.000		0.200	0.000	-	0.000	0.753	-	-	2268	
THE RESERVE OF THE PARTY OF THE	AND DESCRIPTION OF THE PERSON NAMED IN	In (50 th percentile)	-		0.000		26.3	0.000	92.1	0.000	136.3		0.767 71.4	0.619 85.4	
the second secon	Section in the latest section	eh/In (50 th percentil			0.0		1.1	0.0	3.7	0.0	5.5		2.9	3.4	
THE RESERVE OF THE PARTY OF THE	THE RESERVE OF THE PERSON NAMED IN	RQ) (50 th percenti	-		0.00		0.66	0.00	1.84	0.00	0.69		0.36	0.43	
Uniform Delay (		and the same of the last of the same of th					19.2	0.0	14.0	0.0	15.3		23.9	6.5	
Incremental Dela		and the later with th			0.0		1.0	0.0	3.4	0.0	0.8		0.8	0.1	
Initial Queue De	the same of the sa	AND DESCRIPTION OF THE PERSON NAMED IN			0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay (	the state of the s	The state of the s					20.2	0.0	17.4	0.0	16.1		24.7	6.6	
Level of Service	-						С		В		В		C	A	
Approach Delay,		/LOS		18.0		В	17.9		В	16.1	-	В	11.0	-	В
Intersection Dela	COLUMN TO SERVICE						3.5						В		
A CALL	Const.		325	19-19	F. 5.		BORD		1316		THE ST		1	The Contract	
Multimodal Res	ults				EB			WB			NB			SB	
Pedestrian LOS	the state of the s			2.8		С	2.9	_	С	2.8		С	2.0		В
Bicycle LOS Sco	ore / LO	S		0.5		Α	1.2		Α	1.4		Α	2.0		В

		HCS 2	010 5	Signal	ized l	nters	sectio	n Re	esul	ts S	umr	nary				
General Inform	ation			TU					Into	reco	tion l	nformat	ion		1414	1 1 1
	lation	T							-					-		
Agency		-		Analus	is Dat	0/4/5	2040		-	ation,		0.25				
Analyst Jurisdiction				Time F	sis Date	0/4/2	2016		PHE	а Тур -	е	Othe	_	- 3.4		
Urban Street		\Mhiffletree Lene	_			2016	,		-	_	Davia	0.88		_ =	- B	
Intersection		Whiffletree Lane			sis Year	_		100	-	lysis	-	Name and Address of the Owner, where the	:00	_		
	lian.	Rolling Hills Road		File Na	ame	b-R0	lling Hill	s-vvni	metre	e Cu	mu Al	VI.XUS		-	*	
Project Descrip	tion	THE PARTY OF THE P		172		of the v	S20 F 30 CV		200	G0 673		7 - 5 1	P STATE	-	1414	ren
Demand Inform	nation		DOS 1800E	1	EB			V	VB		The same of	NE	3	NO.	SB	Section 1
Approach Move	ment			L	T	R	L	_	Т	R	L	-	-	L	T	R
Demand (v), v	_			0	342	0	0	_	00	0	0	_		_	15	4
The same of the same	-570-		-			1 215	E TOTAL	LAS I		1000	100				10	No.
Signal Informa	tion				- 5	111									P.M. SA	
Cycle, s	45.0	Reference Phase	2		= 3	51	7							<b>4</b>		T
Offset, s	0	Reference Point	End	Green		1.4	3.7	0.	0	0.0	0.0	)	24	Y	3	
Uncoordinated	No	Simult. Gap E/W	On	Beauty-miseries constraints	Characteristic and particular sections in the contract of the	4.0	4.0	0.	The same of the sa	0.0	0.0			<del></del>		<b>K1</b>
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	(National Control of the Control of	0.0	0.0		5	6	17	
Timer Results			No.	EDI		EDT	I W/D	1768	W.F				NDT			
				EBL	-	EBT	WB	-	WB	51	NE	3L	NBT	SE	3L	SBT
Assigned Phase	9				-	2	-	-	6	_		-	8	-	-	4
Case Number	-		-	-		8.0	-	-	8.0	-		-	12.0	-		12.0
Phase Duration,	_	\ -		-	_	31.9	-	-	31.9			-	7.7	-		5.4
Change Period,	-			-	-	4.0			4.0	-		_	4.0	-		4.0
Max Allow Head	and the local division in the local division			-	-	0.0	-	-	0.0	)		-	3.1	-		3.1
Queue Clearand		The state of the s			-	0.0		-		-		_	3.8			2.5
Green Extension		( g e ), s		-	-	0.0	-	-	0.0	)		-	0.1	-		0.0
Phase Call Prob	-			-	-		-	-		-		-	0.61	-		0.24
Max Out Probab	ollity		107556			40000	-	-	111 (112)	-			0.00	Account to	-	0.00
Movement Gro	up Res	ults	ALC: NO		EB		-	WE	3		100	NB	100	1	SB	
Approach Move	-			L	T	R	L	Т	-	R	L	T	R	L	T	R
Assigned Mover				5	2	12	1	6	_	16	3	8	18	7	4	14
Adjusted Flow R		) veh/h		0	-	0	0	-	-	0		0	10	-	0	14
	_	w Rate (s), veh/h/lr	1	0		0	0		_	0		0	-	-	0	_
Queue Service		NAME AND ADDRESS OF THE OWNER,		0.0		0.0	0.0		-	.0		0.0			0.0	-
Cycle Queue Cle	_	The second secon		0.0		0.0	0.0		_	.0		0.0			0.0	-
Green Ratio ( g/	CONTRACTOR OF THE PARTY OF THE	(3 - ), -							1			0.0			0.0	
Capacity ( c ), ve	-									1						
Volume-to-Capa		tio (X)		0.000		0.000	0.000		0.0	000		0.000			0.000	
The second second second second	_	In (50 th percentile)		0		0	0		-	0		0			0	
CONTRACTOR OF THE PERSON NAMED IN COLUMN 2 IS NOT THE OWNER.	_	eh/In (50 th percentile	e)	0.0		0.0	0.0		-	.0		0.0			0.0	
THE RESERVE OF THE PARTY OF THE	STREET, SQUARE, SQUARE	RQ) (50 th percenti	and the same of	0.00		0.00	0.00		-	00		0.00			0.00	
Uniform Delay (															0.00	
ncremental Dela	The second second second			0.0		0.0	0.0		0.	.0		0.0			0.0	
nitial Queue De	STREET, SQUARE, SQUARE	A STATE OF THE PARTY OF THE PAR		0.0		0.0	0.0		-	.0		0.0			0.0	
Control Delay (	and the last of th															
evel of Service	The second second															
Approach Delay,	and the local division in which the local division is not a second	LOS		3.8		Α	4.0		A		20.9	9	С	22.9	9	С
ntersection Dela	and the latest and the latest and					-	.5						-	A		
			14.14	110	1		SIL.		1764	E E					- Royal	
Multimodal Res					EB			WB				NB			SB	
Pedestrian LOS	The second second			2.0	_	В	2.0		В		2.7		В	2.7		В
Bicycle LOS Sco	re / LO	S		0.8		Α	1.0		Α		0.6		Α	0.5		Α

PROPERTY OF THE PARTY OF THE PA	6 3 - 3	HCS 2	010 8	ignal	ized I	nters	ectio	n Re	Sult	s S	umn	nary	Special Control			
General Inform	nation	The state of the state of				2 2	1000		Into	2004	ion In	format	ion		خالله اد	11.1
Agency	ilation								Dura	_	_	0.25		-	1	
Analyst		-		[ Analy	sis Date	0///2	016		-	_	_	Othe				
Jurisdiction			-	Time		0/4/2	010	_	Area	Туре	3	0.98			- 1	
Urban Street		Whiffletree Lane		-		2016			-	raia I	Dorina	_			W # E	*
Intersection				File N	sis Year	-		1 A /h:	-	-	Perioc		:00	-		
Project Descrip	tion	Rolling Hills Road		File N	ame	6-K0	lling Hills	s-vvni	metree	Cur	nu Pi	/i.xus			1110	777
Demand Inform					EB	10 80	STANS!	V	ID.		1	NIC		W ST	0.0	300
					-	T D	-	-	-	D	-	NE		-	SB	
Approach Move	-			L	T	R	L	-	Т	R	L	T		L	T	R
Demand (v), v	en/n	MA LONA DE	Sec. 15	0	527	0	0	40	02	0	0	15	16	0	16	7
Signal Informa	tion				R	JIL					T					
Cycle, s	45.0	Reference Phase	2	1	- F	E4	2							0		4
Offset, s	0	Reference Point	End	0	34	1		-	_		100		1	Y 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green Yellow		1.5	2.0	0.0		0.0	0.0			<b>\$</b> -		-
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0	0.0			6	7	Y
																Die
Timer Results			_	EBL	-	EBT	WB	_	WBT		NB	L	NBT	SB	BL	SBT
Assigned Phase	Э			-	-	2		-	6	-		-	8			4
Case Number				-	_	8.0	-	-	8.0	-		-	12.0		_	12.0
Phase Duration	-			-	_	33.5	-	-	33.5	-	-	_	6.0	-		5.5
Change Period,	-			-	_	4.0	-	-	4.0	-	-	-	4.0	-		4.0
Max Allow Head	_				-	0.0	-	-	0.0	-		_	3.2			3.1
Queue Clearan	THE RESERVE OF THE PERSON NAMED IN	THE RESERVE OF THE PARTY OF THE			-			-		-	-	-	2.8		-	2.6
Green Extensio	-	( g e ), s			-	0.0		-	0.0	-			0.0	_		0.0
Phase Call Prob	_				-			-		-		-	0.33	_		0.25
Max Out Probab	oility			NAME OF TAXABLE PARTY.		- 18-9	ALC: NAME OF TAXABLE PARTY.	2000			14-57		0.00	COLUMN TO SERVICE	-	0.00
Movement Gro	up Res	ults			EB	- 5-17-5		WB				NB		THE REAL PROPERTY.	SB	
Approach Move	-			L	T	R	L	Т	R		L	T	R	L	T	R
Assigned Move	-			5	2	12	1	6	16	-	3	8	18	7	4	14
Adjusted Flow F		) veh/h		0	-	0	0		0	-		0	10	-	0	14
	_	w Rate (s), veh/h/ln		0		0	0		0	-		0		-	0	-
Queue Service	distance of the last			0.0		0.0	0.0		0.0	-		0.0		-	0.0	-
Cycle Queue CI				0.0		0.0	0.0		0.0	-		0.0		-	0.0	-
Green Ratio ( g/		5 Time ( g c ), 5		0.0		0.0	0.0		0.0	+		0.0			0.0	-
Capacity (c), v	-								1	+						-
Volume-to-Capa	-	tio (X)		0.000		0.000	0.000		0.00	00		0.000			0.000	
THE RESERVE THE PERSON NAMED IN	THE RESERVE OF THE PARTY OF	In (50 th percentile)		0		0	0		0.00	-		0			0.000	
the state of the s	and the second second second	eh/In (50 th percentile	9)	0.0	-	0.0	0.0		0.0	-		0.0			0.0	
With March 1980 to the Commission of State of St	-	RQ) (50 th percentil	Name and Address of the Owner, where the Owner, which is the Own	0.00		0.00	0.00		0.0	_		0.00			0.00	
Uniform Delay (	_	Name and Address of the Owner, where the Owner, which is the Owne	-/	5.55			-100		5.0	-		5.00			0.00	
Incremental Del				0.0		0.0	0.0		0.0			0.0			0.0	
Initial Queue De	STATE OF TAXABLE PARTY.			0.0		0.0	0.0		0.0	-		0.0			0.0	
Control Delay (	THE RESERVE AND ADDRESS OF THE PARTY NAMED IN								-	+		2.0			0.0	
Level of Service	CONTRACTOR DESCRIPTION OF THE PERSON NAMED IN								1	1						
Approach Delay		LOS		3.3		Α	3.1		A	+	22.4		С	22.8		С
Intersection Dela	NAME AND ADDRESS OF			5.0		4				+				A 22.0		-
	1, 5, 10	1 2 C 1 C 1 2 W		No.	March.		170703	11/2	1,015	100	11.5	12/17	All rate	Sport H	<b>学</b>	
Multimodal Res	sults				EB			WB			Contract S	NB			SB	100000
Pedestrian LOS	Score /	LOS		2.0		В	2.0		В		2.7		В	2.7		В
	ore / LO	Andreas Andreas Company of the Compa	-	0.9	-	Α	0.8		Α	-	0.5		Α	0.5	-	A

Company of the State of the Sta		HCS 2		rigilia	IIZCU	THE COL	SCOTIO	II IXC	Juito	Juli	illiai y			- A . U . IN	1800	100
General Inform	nation			4000	Elle Valle	3 133	20 K. 1975	ET AU 25	Inters	ection	Inform	atio	n	DESCRIPTION OF THE PARTY OF THE	1474	111
Agency									Duratio			25	-	_	*	
Analyst				Analy	sis Dat	e 8/4/2	2016		Area T		_	ther				
Jurisdiction				_	Period	0. 172			PHF	JPO	_	90			wie	
Urban Street		Fallenleaf Drive		_		r 2016	:		Analys	is Peri		7:0	0			
Intersection		Rolling Hills Road		File N		_	lling Hil	ls-Falle	_			7.0		-		
Project Descrip	tion	rtening rinio rtead		111101	vario -	7-110	iiiig i iii	io i alic	illoar o	dilla /	IVI.AUS				7114	747
La La Land		MARK SERVICE	15 7 2 19	1				T. Fai				SPACE.		2 19 19	M	Till to
Demand Inform	-				EB	_		W	_			NB			SB	
Approach Move	-			L	T	R	L	T	_		L	Т	R	L	Т	R
Demand (v), v	eh/h		-	30	326	0	11	44	3 0		0	49	0	0	62	0
Signal Informa	tion						-									
Cycle, s	45.0	Reference Phase	2	1									100			4
Offset, s	0	Reference Point	End		-3	1							1	<b>Y</b> 2	3	
Uncoordinated	No	Simult. Gap E/W	On		26.6	3.5	3.0	0.0			0.0			1		
Force Mode	Fixed	Simult. Gap N/S	On	Yellov	v 4.0 0.0	0.0	0.0	0.0			0.0		5	6	7	Y
The Action			1	10.00							547.3		16			
Timer Results				EB	L	EBT	WE	3L	WBT	1	NBL	١	IBT	SE	3L	SBT
Assigned Phase	)					2			6				8			4
Case Number						6.0			6.0			1.	2.0			12.0
Phase Duration	S					30.6			30.6			7	7.0			7.5
Change Period,	(Y+R	c), s				4.0			4.0			4	1.0			4.0
Max Allow Head	lway ( /	<i>ИАН</i> ), s				0.0			0.0			3	3.0			3.0
Queue Clearand	ce Time	(gs), s										3	3.3			3.6
Green Extension	n Time	(ge), s				0.0			0.0			0	).1			0.1
Phase Call Prob	ability											0.	.49			0.58
Max Out Probab	oility											0.	.00			0.00
Movement Gro	un Poo	ulto		1000	EB		No.	VA/D	Serie !		NIT.		12 99	SHEW!	0.0	
Approach Move	the same of the same of	uits	-	L	T	R	L	WB	R	-	NE	7	R	-	SB	T 0
Assigned Mover				5	2	12	1	6	16	L 3	-	+	-	L	T	R
Adjusted Flow R	The same of the same of	) veh/h		33	362	0	12	492	0	3	8	+	18	7	4	14
And the control of the last of		w Rate ( s ), veh/h/lr	,	919	1900	0	1036	1900	-	-	0	+			0	-
Queue Service		A PROPERTY OF THE PARTY OF THE		0.8	1.9	0.0	0.2	2.7	0.0		0.0	+			0	
Cycle Queue Cl	Marie Company of the	CONTRACTOR OF THE PARTY OF THE		3.6	1.9	0.0	2.2	2.7	0.0	-	0.0	-			0.0	-
Green Ratio ( g/		7 mile ( g c ), 3	-	0.59	0.59	0.0	0.59	0.59	0.0	-	0.0	+		-	0.0	-
Capacity ( c ), ve			-	646	2244		727	2244		-	+-	+		-	-	-
Volume-to-Capa	-	tio (X)		0.052	0.161	0.000	0.017	0.219	-	-	0.00	0		-	0.000	
THE RESIDENCE AND PARTY OF THE PERSON NAMED IN	and the same of the same of	In (50 th percentile)		3.1	11.3	0	1	15.9	0.000	-	0.00				0.000	-
THE REST OF SHAPE AND ADDRESS OF SHAPE AND ADDRESS.	And the second second	eh/In (50 th percentile	e)	0.1	0.5	0.0	0.0	0.6	0.0	1	0.0			_	0.0	-
THE RESERVE THE PERSON NAMED IN	STREET, SQUARE, SQUARE	RQ) (50 th percentil	-	0.03	0.06	0.00	0.01	0.08	0.00	1	0.00				0.00	
Uniform Delay (		and the latest the lat		5.2	4.2		4.7	4.3			3.30	1			3.50	
Incremental Dela	_	and the same of th		0.2	0.2	0.0	0.0	0.2	0.0		0.0	1			0.0	
nitial Queue De	A RESIDENCE TO A STREET			0.0	0.0	0.0	0.0	0.0	0.0		0.0	-			0.0	
Control Delay (	STATE OF THE OWNER, TH			5.3	4.3		4.7	4.6							5.0	
_evel of Service	THE RESERVE OF THE PERSON NAMED IN			Α	Α		А	Α				1				
Approach Delay,		LOS		4.4		Α	4.6	-	Α	21	.2	C		20.8	3	С
ntersection Dela	ay, s/vel	h/LOS				6	.5							A		
	T. Carl	State of the state			20,20,7				Sec. 13	1		1				
Multimodal Res	Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, w				EB			WB			NB	-			SB	
Pedestrian LOS	Score	201		2.0		В	2.0		В	2	.8	C		2.8	1	C

## **HCS 2010 Signalized Intersection Results Summary General Information** 144444 Intersection Information Agency 0.25 Duration, h Analyst Analysis Date 8/4/2016 Area Type Other PHF Jurisdiction Time Period 0.96 Urban Street Fallenleaf Drive Analysis Year 2016 Analysis Period 1>7:00 Intersection Rolling Hills Road File Name 7-Rolling Hills-Fallenleaf Cumu PM.xus **Project Description Demand Information** EB WB NB SB Approach Movement T R L L T R L T R L T R 0 Demand (v), veh/h 36 450 22 409 0 0 0 47 26 0 0 - 11 Signal Information Cycle, s 45.0 Reference Phase 2 0 Offset, s Reference Point End Green 28.5 2.7 0.0 1.7 0.0 0.0 Uncoordinated No Simult. Gap E/W On Yellow 4.0 4.0 4.0 0.0 0.0 0.0 Force Mode Fixed Simult. Gap N/S Red 0.0 0.0 0.0 On 0.0 0.0 0.0 **Timer Results EBL EBT** WBL WBT **NBL** NBT SBL SBT Assigned Phase 2 6 8 4 Case Number 6.0 6.0 12.0 12.0 Phase Duration, s 32.5 32.5 5.7 6.7 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 0.0 0.0 3.0 3.0 Queue Clearance Time (gs), s 2.6 3.1 Green Extension Time (ge), s 0.0 0.0 0.0 0.1 Phase Call Probability 0.29 0.46 Max Out Probability 0.00 0.00 **Movement Group Results** EB WB NB SB Approach Movement L Т R Т R Т L L R T L R Assigned Movement 5 2 12 1 6 16 3 8 18 7 4 14 Adjusted Flow Rate ( v ), veh/h 38 469 0 23 426 0 0 0 Adjusted Saturation Flow Rate (s), veh/h/ln 977 1900 0 939 1900 0 0 0 Queue Service Time (gs), s 0.7 2.3 0.0 0.5 2.1 0.0 0.0 0.0 2.8 2.3 0.0 2.8 0.0 0.0 Cycle Queue Clearance Time ( g c ), s 2.1 0.0 0.63 Green Ratio (g/C) 0.63 0.63 0.63 Capacity (c), veh/h 734 2409 707 2409 0.032 Volume-to-Capacity Ratio (X) 0.051 0.195 0.000 0.177 0.000 0.000 0.000 2.7 1.7 Back of Queue (Q), ft/In (50 th percentile) 11.3 0 10.1 0 0 0 0.5 0.4 Back of Queue (Q), veh/ln (50 th percentile) 0.1 0.0 0.1 0.0 0.0 0.0 0.02 0.03 0.06 0.00 Queue Storage Ratio (RQ) (50 th percentile) 0.05 0.00 0.00 0.00 Uniform Delay ( d 1 ), s/veh 4.0 3.4 4.0 3.4 0.1 0.2 0.0 0.1 0.2 0.0 Incremental Delay ( d 2 ), s/veh 0.0 0.0 Initial Queue Delay (d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 4.1 3.6 4.1 3.6 Control Delay (d), s/veh Α Α Α Α Level of Service (LOS) Approach Delay, s/veh / LOS 3.7 3.6 22.3 21.3 A A C C Intersection Delay, s/veh / LOS 5.0 Α EB WB **Multimodal Results** NB SB В Pedestrian LOS Score / LOS 2.0 2.0 В 2.8 C 2.8 C 0.9 A Bicycle LOS Score / LOS 0.9 A 0.5 A 0.6 Α

	9	HCS 2	9		(A 191)	S4 (8-5)	No est	15	95v2	15,00		S 800	1 10 10 10	160.5	1
General Inform	nation		Marie Land	THE STATE OF	-	36/100	1000	Santal S	Interse	ection Ir	forma	tion	Total Colors	با با با با	
Agency		KHR Associates							Duratio		0.25			11	l L
Analyst				Analy	sis Da	te 8/1/2	2016		Area T		Oth		- A		
Jurisdiction		Torrance California		_	Period	-			PHF	,,,,,	0.88			- W	
Urban Street		Crenshaw Boulevan	rd	-	_	ar 2016	3			is Period	_				
Intersection		Rolling Hills Road	-	File N		_	-	ls-Crer	_	umu AN		.00			
Project Descrip	tion	r touring r mile r touc		11101	· cirio	Onc	aning i in	0101	onaw o	unia / iiv				TATE	747
10 11 15 15 1/ S			15 15		TIES.	147	200	200	SELECTION				-		
Demand Infor					EB			W	В		N	В		SB	
Approach Move	-			L	Т	R	L	T	R	L	T	F	₹ L	T	
Demand (v), v	/eh/h			155	147	62	24	18	1 20	6 118	3 139	92	159	104	6
Signal Informa	tion			S H S	115	to the		B03	22400						
-	_	Deference Phase	2	-	1			¥	7		2	-		~	-
Cycle, s	120.0	Reference Phase	2	1	1	3	=3	4			T	1	7 2	) 3	1
Offset, s	0	Reference Point	End	Greer	_	6.6	47.9						5		
Uncoordinated	No	Simult. Gap E/W	On	Yellov	and the same of th	4.0	4.0	4.0						1	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	NEWS IN	5	6	7	
Timer Results			EX.Ed.	EB	L	EBT	WE	BL	WBT	NE		NBT	SE	RI T	SB
Assigned Phase	е			5	-	2	1	-	6	3	_	8	7	-	4
Case Number				2.0		3.0	2.0		3.0	1.1	_	4.0	1.1	_	4.0
Phase Duration	S			18.	_	62.4	7.6	-	51.9	12.	_	35.1	14.	-	37.4
Change Period,	-	-) s		4.0	_	4.0	4.0	-	4.0	4.0	_	4.0	4.0	_	4.0
Max Allow Head	-			3.0	-	0.0	3.0		0.0	3.0	_	2.9	3.0	-	2.9
Queue Clearan		The second secon		14.		0.0	3.9	-	0.0	8.6		33.1	10.		28.5
Green Extensio	-	THE RESERVE THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO I		0.1	_	0.0	0.0		0.0	0.1	_	0.0	0.1		3.5
Phase Call Prob	THE RESIDENCE OF	(90),0		1.00	_	0.0	0.6	_	0.0	0.9	_	1.00	1.0	_	1.00
Max Out Probat	-			1.00	_		0.0			0.0	-	1.00	0.0		
VIAX GULT TOBAL	Jilly	William Barrier	100	1.00		150	0.0		No.	0.0		1.00	0.0		0.82
Movement Gro	up Res	ults			EB			WB	-		NB		T	SB	
Approach Move	ment			L	Т	R	L	T	R	L	Т	R	L	T	F
Assigned Move	ment			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow F	Rate ( v	), veh/h		176	167	70	27	206	234	134	1582		181	1189	
		w Rate (s), veh/h/lr	1	1723	1810	1608	1723	1810	1607	1774	1691		1774	1691	
Queue Service	The second second	NAME AND ADDRESS OF THE OWNER, WHEN PERSON NAMED IN COLUMN 2 ADDRESS O		12.1	8.0	3.7	1.9	10.8	14.2	6.6	31.1		8.8	26.5	
Cycle Queue CI	THE RESERVE THE PERSON NAMED IN			12.1	8.0	3.7	1.9	10.8	14.2	6.6	31.1		8.8	26.5	-
Green Ratio ( g/	(C)			0.12	0.49	0.49	0.03	0.40	0.40	0.33	0.26		0.35	0.28	1
Capacity ( c ), v	-			203	881	783	51	722	641	206	1314		221	1412	
/olume-to-Capa	acity Rat	tio (X)		0.867	0.190	0.090	0.530	0.285	-	0.651	1.204		0.816	0.842	
Back of Queue	(Q), ft/l	n (50 th percentile)		173	91.2	34.5	22.1	130.1	150.3	72.6	639		108.5	290.9	
Back of Queue	(Q), ve	h/ln (50 th percentile	e)	6.7	3.5	1.4	0.9	5.0	6.0	2.8	24.6		4.2	11.2	
Queue Storage	Ratio (	RQ) (50 th percentil	le)	0.58	0.30	0.12	0.07	0.43	0.52	0.35	3.12		0.35	0.95	
Jniform Delay (		Company of the Compan		54.4	23.5	22.0	58.0	30.4	31.7	32.8	44.5		32.1	40.8	
ncremental Del	ay ( d 2	), s/veh		23.6	0.5	0.2	3.1	1.0	1.6	1.3	99.4		9.1	4.5	
nitial Queue De	The second second			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	-
Control Delay (	OF REAL PROPERTY.	THE RESIDENCE AND ADDRESS OF THE PARTY OF TH		77.9	24.0	22.3	61.1	31.4	33.3	34.1	143.8		41.2	45.3	
evel of Service	(LOS)			E	С	С	E	С	C	С	F		D	D	
Approach Delay	-	LOS		46.7		D	34.1		C	135.	2	F	44.8	_	D
ntersection Dela		and the second second second second second second				82	2.9						F		
TO SUMME	AL.		Old Service					100	21 192		15481	109/13	The Wall	500	541
Multimodal Res	TO SHOW SHOW SHOW				EB			WB			NB			SB	
Pedestrian LOS	Score /	LOS		3.3		С	3.3		C	2.5		В	2.4		В
Bicycle LOS Sco	ore / LO	S		1.2		Α	1.3		Α	1.4		Α	1.2		Α

		HCS 2	2010 5	Signa	lized	Inters	sectio	n Re	sults	Sumr	nary	5.00		Two said	
General Informati	ion	And the second	Fan Jac	1 10	7 4	- The state of	TO ALTER	PE	Interes	ection Ir	form	tion	+	7444	1.61
		KHR Associates											-		
Agency	r	NITR ASSOCIATES		Anal	raia Dat	- 0/4/0	040		Duratio		0.25				
Analyst	-	Farmana California		_	sis Dat	e 8/1/2	.016		Area T	ype	Othe			,	
Jurisdiction	_	Torrance California		-	Period	0040			PHF		0.97			W÷	
Urban Street	_	Crenshaw Bouleva	ira	_	sis Yea					s Period		7:30			
Intersection Project Description		Rolling Hills Road		File N	lame	8-Ro	lling Hil	ls-Crer	ishaw C	umu PN	1.xus		_	7 1 1	1
Troject Becomption					1.75	77.50		5	Fig. Sale	2.00	113 19	September 1	NAME OF THE OWNER, OWNE		
Demand Informat	_				EB			W	В		NE	3		SB	
Approach Moveme	-			L	Т	R	L	T		L	Т	F	R L	Т	F
Demand (v), veh/	/h			169	286	89	46	21	7 16	7 10	4 103	39	279	109	1
Signal Information	n			T T	33-56			REGION OF		7 1		441,014			
The second secon	_	Reference Phase	2	1	-> W	-3	_	<b>←</b>	2 1			1		1	4
	_	Reference Point	End			N	7		1		T	1)	7 2	3	
		Simult. Gap E/W	On	Green		5.2	48.0			The second second	AND DESCRIPTION OF THE PERSON NAMED IN		_		
	-	Simult. Gap N/S	On	Yellov	0.0	0.0	0.0	0.0					6	7	-
ELE BOUETON	You do		FACE	805			A WE	7511			1 - 1	16-	5 F. A.S.	The last	TO B
Timer Results				EB	L	EBT	WE	BL	WBT	NE	L	NBT	SE	BL	SBT
Assigned Phase				5		2	1		6	3		8	7		4
Case Number				2.0		3.0	2.0		3.0	1.		4.0	1.1	1	4.0
Phase Duration, s				18.	0	61.2	8.8	3	52.0	11.	4	30.0	20.	0	38.6
Change Period, (Y	(+Rc)	, S		4.0		4.0	4.0	)	4.0	4.0	)	4.0	4.0		4.0
Max Allow Headwa	ay (MA	AH), s		3.0		0.0	3.0		0.0	3.0	)	2.9	3.0		2.9
Queue Clearance T	Time (	g s ), S		14.0	0		5.3	3		7.6	3	27.2	17.	0	26.3
Green Extension Ti	ime ( g	g e ), s		0.1		0.0	0.0	)	0.0	0.1		0.0	0.0		4.1
Phase Call Probabi	ility			1.00	)		0.79	9		0.9	7	1.00	1.0	0	1.00
Max Out Probability	у			1.00	)		0.0	0		0.0	0	1.00	1.0	0	0.44
		RESERVED TO SERVED	DOLE !	130			All a	100	Alles .		N P P		1	No. of Parties	
Movement Group	-	ITS			EB	-	-	WB			NB	_		SB	_
Approach Movemer				L	T	R	L	T	R	L	Т	R	L	T	R
Assigned Movemen	-			5	2	12	1	6	16	3	8		7	4	
Adjusted Flow Rate	STREET, SQUARE, SQUARE	AND DESCRIPTION OF THE PARTY OF		174	295	92	47	224	172	107	1071		288	1125	
Adjusted Saturation			n	1723	1810	1608	1723	1810	-	1774	1691		1774	1691	
Queue Service Time	And the second			12.0	15.0	4.9	3.3	11.9	10.2	5.6	25.2	-	15.0	24.3	-
Cycle Queue Clear		ime ( <i>g c</i> ), s		12.0	15.0	4.9	3.3	11.9	10.2	5.6	25.2	-	15.0	24.3	
Green Ratio (g/C)				0.12	0.48	0.48	0.04	0.40	0.40	0.28	0.22		0.37	0.29	
Capacity ( c ), veh/h		(1)()		201	863	767	68	724	642	204	1099		300	1461	
Volume-to-Capacity	ACCRECATE DATE OF	The state of the s		0.866	0.342	0.120	0.693	0.309	-	0.525	0.974		0.958	0.770	
Back of Queue (Q)	-	THE RESIDENCE OF THE PARTY OF T	0)	170.4	-	46.5	38.9	143.5	and the local division in which the	61.9	320.7		247.7	260.8	-
Back of Queue(Q) Queue Storage Rat	THE RESERVE	REPORT OF THE PARTY OF THE PART	-	6.6 0.57	7.0	0.16	1.5 0.13	5.5 0.48	0.36	0.30	12.3 1.57	-	9.5	10.0	-
Uniform Delay ( d 1	-		110)	54.4	26.5	23.1	57.7	30.8	30.1	34.9	46.7	-	0.81	0.85	-
ncremental Delay (				23.2	1.1	0.3	4.6	1.1	1.0	0.8	21.0		40.3	2.3	
nitial Queue Delay	The second second	No. of Chicago, Control of Contro		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Control Delay ( d ),	-			77.6	27.6	23.4	62.3	31.9	31.2	35.7	67.7		73.3	41.4	
evel of Service (LC				E	C	C	E	C	C	D	E		13.3 E	D D	
Approach Delay, s/v	_	.OS		42.4	-	D	34.8	-	C	64.8	-	E	47.9		D
ntersection Delay,							.0					_	D 47.8		0
	3.00		Pin S	350			100		PR 8/2		1308	H 18			
			-		EB			WB		1	NB		1	0.0	
Multimodal Results Pedestrian LOS Sco				3.3	LD	С	3.3	-	С	2.5	IND			SB	

		HCS 2	010 5	Signal	ized	Inte	rsectio	n Re	sul	ts S	umm	ary				
Cananal Inform	andian					le le			Inte						14144	LLT
General Inforn	nation	luin .							-	_	tion In	_				
Agency		KHR Associates		1		lan			_	ation		0.25		-		
Analyst				_	sis Dat	e  8/1	/2016		_	а Тур	е	Othe			, y	
Jurisdiction		Torrance California		-	Period	-	_		PHF	_		0.95			w.te	
Urban Street		Pacific Coast High		_	sis Yea	$\rightarrow$					Period	1> 7	:30			
Intersection		Crenshaw Bouleva	rd	File N	ame	9-P	CH-Cren	shaw (	Cumu	J AM.	xus				111	† r*
Project Descrip	tion		-						-			7	200		7414	7 1 1 7
Demand Inform	nation	Maria Service			EB			W	/B			NE	3		SB	
Approach Move	ement			L	T	F	R L	1	-	R	L	T	R	L	T	T
Demand (v), v	THE RESERVE OF THE PERSON NAMED IN			182	980	-	653	_	_		68	104	_	_	_	_
E.C.Ship	NA SE		ALL DE	SC-PIE			20135	200			19.0	1350		W 3377		
Signal Informa	tion				1			_	7	1		u		1		
Cycle, s	120.0	Reference Phase	2		1		E-3	· .	5			1.7	_	4	1	D
Offset, s	0	Reference Point	End	Green	6.4	5.7	46.0	6.2	,	3.1	32.7	7			3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0		4.0		0.0	4.0		1	7	1	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0		0.0		0.0	0.0		5	6	7	
Timer Results				EBI	THE REAL PROPERTY.	EBT	WE		WB	T	NBI	15	NBT	CD		CDT
The second second second second			-	-	-		_	SL	_	51		-		SB		SBT
Assigned Phase	3		-	5	-	2	1	-	6	$\overline{}$	3	-	8	7	_	4
Case Number				1.1	-	4.0	1.1	_	4.0	-	2.0		3.0	1.1	-	4.0
Phase Duration	designation of the last of the			10.4	-	50.0	20.	_	59.0		10.2		36.7	13.	-	39.8
Change Period,	NAME OF TAXABLE PARTY.	And the second s		4.0		4.0	4.0	-	4.0	-	4.0	_	4.0	4.0	-	4.0
Max Allow Head	and the same of th	the state of the s		3.0		0.0	3.0	-	0.0	)	3.0		3.0	3.0	-	3.0
Queue Clearand	Annual Section 1	the same of the sa		6.1			18.	-			6.8		34.7	9.2		15.2
Green Extension		( g e ), s		0.3		0.0	0.0	$\rightarrow$	0.0	)	0.1		0.0	0.1		6.4
Phase Call Prob	ability			1.00	-		1.0	0			0.91		1.00	0.9	9	1.00
Max Out Probab	oility		NAME OF TAXABLE PARTY.	0.00			1.0	0			0.00		1.00	0.0	1	0.11
Movement Gro	un Res	ulte			EB		4	WB		1515	3143	NB	NE THE		SB	
Approach Move	_	uito		L	T	R	L	T	-	R	L	T	R	L	T	R
Assigned Mover	-		_	5	2	11	1	6	+		3	8	18	7	-	-
Adjusted Flow R	_	) veh/h		192	1032		687	2091		-	72	1102	525	153	689	-
THE RESERVE AND ADDRESS OF THE PARTY OF THE	-	CHARLES THE PROPERTY OF THE PARTY OF THE PAR	,	1673	1723	-	1673	_	_	-	_		-	-	_	-
Queue Service	and the last of th	ow Rate ( $s$ ), veh/h/lr	1			-	16.1	-	_	-	1774	1691	1608	1774	1691	-
The state of the s				4.1	33.4	-	_	49.0	$\rightarrow$	-	4.8	24.2	32.7	7.2	13.2	-
Cycle Queue Cle	-	e fille (gc), S		4.1	33.4	-	16.1	49.0	_	-	4.8	24.2	32.7	7.2	13.2	-
Green Ratio ( g/	-			0.44	0.38		0.53	0.46	_	-	0.05	0.27	0.27	0.36	0.30	-
Capacity ( c ), ve	-	4:- / \/\		312	1319	-	678	2286	-	-	92	1382	438	233	1513	
Volume-to-Capa	STATE OF THE PARTY	CONTRACTOR OF THE PROPERTY OF		-	0.782	-	1.014	-	THE RESERVE		0.780	0.798	1.199	0.654	0.456	-
the state of the s		In (50 th percentile)		41.8	398.5	-	263	561.2	-	-	57.8	263	645.5	79.1	137.6	-
Charles and Control of the Control o	the subsequence and the subsequence and	eh/ln (50 th percentil		1.6	15.3	-	10.1	21.6		-	2.2	10.1	25.8	3.0	5.3	
	-	RQ) (50 th percenti	ie)	0.14	1.33	-	0.88	1.87	-	-	0.28	1.28	3.28	0.26	0.45	_
Jniform Delay (	_			29.4	40.0	-	31.9	39.2	+	_	56.2	40.6	43.7	30.7	34.2	_
ncremental Dela		A REAL PROPERTY AND ADDRESS OF THE PARTY AND A		0.7	4.7		38.1	7.1	-	_	5.3	3.1	109.9	1.2	0.1	
nitial Queue De				0.0	0.0	-	0.0	0.0	-		0.0	0.0	0.0	0.0	0.0	
Control Delay (	THE RESIDENCE AND ADDRESS OF THE PERSON NAMED IN	h		30.1	44.7		70.0	46.3	-		61.5	43.7	153.6	31.9	34.3	
evel of Service	-			С	D		F	D			E	D	F	С	С	
Approach Delay	-			42.4		D	52.	1	D		78.4		E	33.9	)	С
ntersection Dela	ay, s/ve	h/LOS	250,000		-	-	54.8	T along	E SAL					D		No see
Multimodal Res	ulte		F	The state of	EB	100		WB		-		NB	143	218 3	SB	124
Pedestrian LOS	-	/I OS	-	3.4		С	3.3	_	C	-	3.1	IND	С	3.3	-	
cuestilali LUS	Score /	LUU		1.5	-	A	2.0	-	В	-	1.4	-	A	1.0	-	C A

### **HCS 2010 Signalized Intersection Results Summary General Information** Intersection Information 1111 Agency KHR Associates Duration, h 0.25 Analyst Analysis Date 8/1/2016 Area Type Other Jurisdiction Torrance California Time Period PHF 0.94 Urban Street Pacific Coast Highway Analysis Year 2016 Analysis Period 1>7:30 Intersection Crenshaw Boulevard File Name 9-PCH-Crenshaw Cumu PM.xus ጎ ተ ተ ተ ሰ Project Description **Demand Information** EB WB NB SB Approach Movement L Т R L T R L T R L T R Demand (v), veh/h 180 1308 477 1485 84 728 460 358 1182 Signal Information IL J. Cycle, s 120.0 Reference Phase 2 Offset, s 0 Reference Point End Green 6.3 5.4 46.3 7.6 4.4 26.0 Uncoordinated No Simult. Gap E/W On 4.0 Yellow 4.0 4.0 4.0 4.0 4.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **Timer Results EBL** EBT WBL WBT NBL **NBT** SBL SBT Assigned Phase 5 2 1 6 3 8 7 4 Case Number 1.1 4.0 4.0 2.0 1.1 3.0 4.0 1.1 Phase Duration, s 10.3 50.3 19.7 59.7 11.6 30.0 20.0 38.4 Change Period, (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Max Allow Headway (MAH), s 3.0 0.0 3.0 0.0 3.0 3.0 3.0 3.0 Queue Clearance Time (gs), s 6.1 15.7 8.0 28.0 18.0 30.2 Green Extension Time ( g e ), s 0.3 0.0 0.1 0.0 0.1 0.0 0.0 2.8 Phase Call Probability 1.00 1.00 0.95 1.00 1.00 1.00 Max Out Probability 0.00 1.00 0.00 1.00 1.00 0.88 **Movement Group Results** EB WB NB SB Approach Movement L R L R L T R T L R 5 2 Assigned Movement 1 6 3 8 18 7 4 Adjusted Flow Rate (v), veh/h 191 1391 507 1580 89 774 489 381 1257 Adjusted Saturation Flow Rate (s), veh/h/ln 1673 1723 1673 1643 1774 1691 1608 1774 1691 Queue Service Time (gs), s 4.1 46.3 13.7 33.8 6.0 16.9 26.0 16.0 28.2 Cycle Queue Clearance Time ( g c ), s 4.1 46.3 13.7 33.8 6.0 16.9 26.0 16.0 28.2 Green Ratio (g/C) 0.44 0.39 0.53 0.46 0.06 0.22 0.22 0.37 0.29 Capacity (c), veh/h 401 1328 559 2286 113 1099 348 349 1454 Volume-to-Capacity Ratio (X) 0.478 1.048 0.908 0.691 0.794 0.704 1.405 1.091 0.865 Back of Queue (Q), ft/In (50 th percentile) 41.2 703.7 369.4 235.7 71.5 183.1 731 387.5 312.5 Back of Queue (Q), veh/In (50 th percentile) 1.6 27.1 9.1 14.2 2.7 7.0 29.2 14.9 12.0 Queue Storage Ratio (RQ) (50 th percentile) 0.14 2.35 0.79 1.23 0.35 0.89 3.71 1.26 1.02 Uniform Delay ( d 1 ), s/veh 24.7 44.6 39.0 33.9 55.4 43.4 47.0 34.9 40.6 Incremental Delay ( d 2 ), s/veh 0.3 38.2 17.9 1.7 4.7 1.8 198.5 75.0 5.5 Initial Queue Delay ( d 3 ), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 Control Delay (d), s/veh 25.1 82.8 56.9 35.6 60.1 45.2 245.5 109.9 46.1 Level of Service (LOS) C F E D E D F F D Approach Delay, s/veh / LOS 75.8 E 40.8 118.6 F 60.9 E

Intersection Delay, s/veh / LOS

Pedestrian LOS Score / LOS

**Multimodal Results** 

3.3

1.6

WB

C

A

69.9

EB

C

A

3.4

1.8

3.3

SB

C

A

E

NB

C

A

3.1

1.2

		HCS 2	010 S	Signal	ized	In	ters	ectio	n Re	su	Its S	umm	ary				
				200	100		W-104	100						107	Mary :	Jaka.	
General Informatio	_					_						tion Inf		ion	-	JII	
Agency	K	HR Associates		T		. 1				_	ration		0.25				1
Analyst	-	0.116		Analy		$\rightarrow$	8/1/20	)16		_	ea Typ	oe	Othe	r			<b>←</b>
Jurisdiction		orrance California		Time		$\rightarrow$	2010			PH	_		0.78	•	_ = =	w+e	
Urban Street		acific Coast Highw	vay	Analy		$\rightarrow$	2016			_	_	Period	_	:30	_3		
Intersection	V	ista Montana		File N	ame		10-PC	CH-Vista	a Mon	tana	Cum	u AM.xı	us			111	1
Project Description			- 3					10000	100	1000	-	*	775			11141	THY
Demand Information	on				EE	3			V	/B		T	NB	V V-	NAME OF TAXABLE PARTY.	SB	
Approach Movemen	nt			L	T		R	L	1		R	L	T	R	L	T	R
Demand (v), veh/h				48	117	7		72	15	75		153	151	130	290	116	
	5.43	Estate III		A STATE OF									TO S	-5.75		100	2000
Signal Information	_				2		+	_ ,		6	211	2		_		K	1
Cycle, s 120	_	Reference Phase	2	-		6	6	-		5			17		4	1 3	4
Offset, s 0	-	Reference Point	End	Green	5.2		0.5	67.5	8.9	)	1.9	16.0					
Uncoordinated No	_	Simult. Gap E/W	On	Yellow	_		0.0	4.0	4.0		4.0	4.0		1		1	D
Force Mode Fixe	ed S	Simult. Gap N/S	On	Red	0.0	1000	0.0	0.0	0.0	)	0.0	0.0		5	6	7	8
Timer Results			15.0	EBI		F	ВТ	WB		W	ВТ	NBI		NBT	SB		SBT
Assigned Phase				5		_	2	1	_	6	_	3		8	7		4
Case Number				1.1		4.	_	1.1		4.	_	2.0		4.0	2.0		3.0
Phase Duration, s				9.2		71		9.7	-	72	_	12.9	_	20.0	18.		25.9
Change Period, (Y+	+Rc)	9		4.0	-	4.	-	4.0	_	4.	_	4.0	_	4.0	4.0	_	4.0
Max Allow Headway	-			3.0	_	0.		3.0	-	0.	_	3.0	_	3.1	3.0	_	3.1
Queue Clearance Ti	-			3.8	$\rightarrow$	-		4.6	$\rightarrow$	0.		8.7	_	14.6	14.		20.5
Green Extension Tim				0.1		0.	0	0.1	-	0.0	0	0.2		1.3	0.1	_	1.4
Phase Call Probabili	-	0 ), 0		0.87	,	0.		0.98	_	0.		1.00	-	1.00	1.00	_	1.00
Max Out Probability	icy .			0.00	$\rightarrow$			0.00				0.01	_	0.01	1.00		0.01
		Section 1	1039		5300		655	THE REAL PROPERTY.		18	1077	F-3-2	28/19			10.501	SCHOOL STREET
Movement Group R	Resul	ts			EB				WB				NB			SB	
Approach Movement	it			L	Т		R	L	T		R	L	Т	R	L	Т	R
Assigned Movement	t			5	2			1	6			3	8	18	7	4	14
Adjusted Flow Rate	(v)	veh/h		62	1509	_		92	2019	$\rightarrow$		196	189	171	372	149	249
Adjusted Saturation	Flow	Rate (s), veh/h/lr	1	1723	1723	3		1723	1723	3		1723	1863	1581	1723	1773	1571
Queue Service Time	(gs	), s		1.8	46.4	_		2.6	68.0	_		6.7	11.8	12.6	12.7	4.3	18.5
Cycle Queue Cleara	nce T	ime ( g c ), s		1.8	46.4			2.6	68.0			6.7	11.8	12.6	12.7	4.3	18.5
Green Ratio ( g/C )				0.61	0.56	-		0.61	0.57	_		0.07	0.13	0.13	0.12	0.18	0.18
Capacity ( c ), veh/h				135	1937	-		201	1951	_		256	248	210	427	647	287
Volume-to-Capacity		CONTRACTOR OF THE PARTY OF THE		0.456	0.779	-		0.459	1.03	_		0.766	0.764	0.813	0.872	0.230	0.868
Back of Queue (Q),	_			25.5	534.1	_		32.5	960.8	_		75.4	142.2	125.7	161.8	48	190.7
Back of Queue (Q),	-		-	1.0	20.5		_	1.3	37.0	$\rightarrow$		2.9	5.5	5.0	6.2	1.8	7.6
Queue Storage Ratio	_	AND REAL PROPERTY AND ADDRESS OF THE PARTY AND	le)	0.17	1.78	+	_	0.27	3.84	-	_	0.49	0.69	0.64	1.05	0.26	0.97
Uniform Delay ( d 1)	-			29.1	30.9	+	-	22.5	37.3	$\rightarrow$	_	54.5	50.2	50.6	51.6	41.9	47.6
Incremental Delay (				0.9	3.2	+	-	0.6	30.0	+		1.8	1.9	2.9	14.8	0.1	7.9
Initial Queue Delay (	_	s/veh		0.0	0.0	+	_	0.0	0.0	+		0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s	Bearing to the second			30.0	34.1	+	-	23.1	67.4	+		56.3	52.1	53.5	66.4	41.9	55.6
Level of Service (LO		00		C	С	_		C	F		_	E	D	D	E	D	E
Approach Delay, s/ve	-			33.9		C	- 1	65.5		E		54.0		D	58.2		E
Intersection Delay, sa	/ven/	105			1-3-	133	53	.2	15	775		-			D	-	(300)
Multimodal Results		N// he liberal		25-5-0	EB				WB	Sinds.	-	ALC: NO.	NB	-3.36		SB	Series Series
Pedestrian LOS Sco	_	OS		2.9	T	C		3.0	_	C		2.9	T	С	2.9		С
Bicycle LOS Score /	-			1.8		A	_	2.2	-	В	_	0.9	1	Α	1.1	-	Α

		HCS 2	010 \$	Signal	ized	Inte	erse	ectio	n Re	sul	Its S	Sumn	nary				
General Inform	nation			ile-			11/5		THE CO.	Inte	ersed	tion In	format	ion	al di	月桂基本	1 1 4 4
Agency		KHR Associates								_	ration		0.25			111	44
Analyst		THE TOTAL CONTROL		Analy	sis Dat	e 8/	/1/20	)16		_	a Ty	_	Othe				
Jurisdiction		Torrance California		_	Period	0,	1120	- 10		PH			0.98			wite	*
Urban Street		Pacific Coast Highv	vav		sis Yea	r 20	016			_		Period	_				-
Intersection		Vista Montana	vay	File N		$\rightarrow$		:H_Vist	a Mon		_	u PM.		.50	-		
Project Descrip	tion	Vista Wortana		Triicit	arric		0-1-0	11-1130	a WOT	laria	Oun	iu i ivi./	us			1114	THE
MALE NO.	1			1000	SULP	(4)		No.					10	3 4 3	FACE		San 3
Demand Inform					EB	_	_		W	-			NE			SB	_
Approach Move	_			L	T	-	R	L	T	-	R	L	Т	_	-	Т	R
Demand (v), v	eh/h			60	1334	1	-	208	3 142	20		116	204	4 158	364	211	98
Signal Informa	tion			T	1		20 15	1			2.5						
Cycle, s	120.0	Reference Phase	2	1	2		5	= -3	- Zu	77				/		1	4
Offset, s	0	Reference Point	End			-	_	1.		111				19	2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green	Market Contract	3.		63.6			15.8				-		
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.		0.0	0.0		0.0	0.0		5	6	,	Y
The state of				ATE.			1					will by	5				
Timer Results				EBI	_	EB1	Г	WB	BL	WE	-	NB	L	NBT	SE	L	SBT
Assigned Phase	9			5		2	_	1		6	-			8			4
Case Number				1.1		4.0	-	1.1	_	4.0	_			10.0			9.0
Phase Duration	_			9.2		67.6	3	12.	_	71.	_			19.8			19.9
Change Period,	-			4.0		4.0		4.0	_	4.0	-			4.0			4.0
Max Allow Head	_			3.0		0.0	_	3.0	_	0.0	0			3.1			3.0
Queue Clearand				3.9			1	8.4	_					14.9			14.6
Green Extension		(ge), s		0.1		0.0	4	0.3	_	0.0	0			0.9	_		1.3
Phase Call Prob	-			0.87	-			1.00	_					1.00			1.00
Max Out Probab	oility			0.00			I DESCRIPTION OF THE PERSON OF	0.00	0			3231		0.00			0.01
Movement Gro	up Res	ults			EB	- 1	7		WB			Jan 18	NB		The last	SB	
Approach Move	-	-		L	Т	R	2	L	T	T	R	L	Т	R	L	T	R
Assigned Mover	and the latest devices the lates			5	2			1	6			3	8	18	7	4	14
Adjusted Flow R	-	), veh/h		61	1361		1	212	1449			118	194	176	371	215	100
	_	w Rate (s), veh/h/lr	1	1723	1723		1	1723	_	_		1774	1863		-	1773	1568
Queue Service		The second secon		1.9	41.6			6.4	44.0			3.6	12.1	12.9	12.6	6.7	7.1
Cycle Queue Cl		William Street, Street		1.9	41.6		1	6.4	44.0			3.6	12.1	12.9	12.6	6.7	7.1
Green Ratio (g/				0.57	0.53			0.62	0.56			0.13	0.13	0.13	0.13	0.13	0.13
Capacity ( c ), ve				198	1827		1	256	1927			467	245	210	456	469	207
Volume-to-Capa	and the same of th	tio (X)		0.310	0.745			0.829	0.752	-		0.254	0.791	0.837	0.815	0.459	0.482
Back of Queue (	Q), ft/l	In (50 th percentile)		18.2	479.3		1	87.3	504.4			40.6	146.7	130.3	139.6	76	68.6
Back of Queue (	Q), ve	h/ln (50 th percentile	e)	0.7	18.4		1	3.4	19.4			1.6	5.6	5.2	5.4	2.9	2.7
AND DESCRIPTION OF THE PERSON NAMED IN COLUMN 1997		RQ) (50 th percentil	and the last of th	0.12	1.60			0.73	2.02			0.26	0.72	0.66	0.91	0.41	0.35
Uniform Delay (	d 1 ), s/	veh		20.7	31.7			24.8	30.4			46.8	50.5	50.9	50.6	48.1	48.3
Incremental Dela				0.3	2.8			2.7	2.8			0.1	2.2	3.4	1.4	0.3	0.6
Initial Queue De	-	AND RESIDENCE AND ADDRESS OF THE PARTY OF TH		0.0	0.0			0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	d), s/ve	h		21.1	34.5			27.5	33.1			46.9	52.7	54.2	52.0	48.4	48.9
Level of Service	-			С	С			С	С			D	D	D	D	D	D
Approach Delay,		LOS		33.9		C		32.4		C		51.8		D	50.4	_	D
ntersection Dela	ay, s/vel	h/LOS					38.0	0							D		
		CONTRACTOR	1710	P FOR		8	710									- F 11 45	MAY NOT
Multimodal Res	-				EB				WB				NB			SB	
Pedestrian LOS	-			2.9		С		3.0		С		2.9		С	2.9		С
Bicycle LOS Sco	ore / LO	S		1.7		Α		1.9		Α		0.9		Α	1.1		Α

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates Date Performed: 8/4/2016

Analysis Time Period: 8:00 - 9:00 A.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

T T			ınd	1	rthbound	1 01	outhbound
1 1	T R	L T	R	L	T R	L	T R
Volume 10	211 0	0 206	0	13	499 42	-10	271 0

Eastbound Westbound Northbound Southbound

	L1	L2	L1	L2	L1	L2	L <sub>1</sub> 1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	211		206		13	499	271	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1			1		2	1	
Opposing-Lanes	1		3	1		1	2	2
Conflicting-lanes	2			2		Ĺ	1	
Geometry group	2		2	2		5	4	a
Duration, T 1.00	hrs.							

	Eastb	ound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	211		206		13	499	271	
Left-Turn	0		0		13	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group	2			2		5		4 a
Adjustments Exhibi	t 17-33	:						
hLT-adj	0	. 2	11)	0.2		0.5		0.2

hRT-adj	-0.6	-0.6	-0.7	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	0.0	0.5 0.	0 0.0

\_Worksheet 4 - Departure Headway and Service Time

	Eastbound		West	bound	Northb	ound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	211		206		13	499	271	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.19		0.18		0.01	0.44	0.24	
hd, final value	7.08		7.10		7.09	6.58	6.72	
x, final value	0.415		0.406		0.026	0.913	0.506	
Move-up time, m	2.0		2.0		2.3		2.0	
Service Time	5.1		5.1		4.8	4.3	4.7	

\_Worksheet 5 - Capacity and Level of Service

	Eastbound	Westbound	Northk	oound	Southbound		
	L1 L2	L1 L2	L1	L2	L1 L2		
Flow Rate	211	206	13	499	271		
Service Time	5.1	5.1	4.8	4.3	4.7		
Utilization, x	0.415	0.406	0.026	0.913	0.506		
Dep. headway, hd	7.08	7.10	7.09	6.58	6.72		
Capacity	502	502	433	548	531		
95% Queue Length	2.1	2.0	0.1	17.9	3.0		
Delay	15.1	14.9	10.0-	61.0	16.6		
LOS	C	В	A	F	C		
Approach:							
Delay	15.1	14.9	5	9.7	16.6		
LOS	C	В	E		C		
Intersection Delay	34.4	Intersectio	n LOS D				

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates

Date Performed: 8/4/2016

Analysis Time Period: 5:00 - 6:00 P.M. Intersection: Palos Verdes North

Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Via Valmonte

North/South Street: Palos Verdes North

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbou	and	W€	estbou	nd	l N	orthbo	und	S	outhbo	ound
	L	T	R	L	Т	R	L	T	R	L	T	R
Volume	10	23	0	10	189	0	- 6	390	38	-10	590	0

% Thrus Left Lane

	Eastbound		Westk	oound	North	oound	Southbound	
	L1 -	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		L	T	LTR	
PHF	1.00		1.00		1.00	1.00	1.00	
Flow Rate	23		189		6	390	590	
% Heavy Veh	0		0		0	0	0	
No. Lanes	1		1		2	2		1
Opposing-Lanes	1		1			1		2
Conflicting-lanes	2		2	2		1		1
Geometry group	2		2	2		5		4 a
Duration, T 1.00	hrs.							

	Eastbound		West	bound	North	bound	Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	23		189		6	390	590	
Left-Turn	0		0		6	0	0	
Right-Turn	0		0		0	0	0	
Prop. Left-Turns	0.0		0.0		1.0	0.0	0.0	
Prop. Right-Turns	0.0		0.0		0.0	0.0	0.0	
Prop. Heavy Vehicl			0.0		0.0	0.0	0.0	
Geometry Group 2			2		5		4 a	
Adjustments Exhibi	it 17-33	è						
hLT-adj	0	. 2		0.2		0.5		0.2

hRT-adj	-0.6	-0.6	-0.7	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	0.0	0.5 0.0	0.0

\_Worksheet 4 - Departure Headway and Service Time\_

	East	oound	West	bound	Northk	ound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	23		189		6	390	590	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.02		0.17		0.01	0.35	0.52	
hd, final value	7.17		6.55		6.49	5.98	5.40	
x, final value	0.046		0.344		0.011	0.648	0.885	
Move-up time, m		2.0		2.0	2	. 3	2	2.0
Service Time	5.2		4.5		4.2	3.7	3.4	

Worksheet 5 - Capacity and Level of Service

	Eastbound	Westbound	Northk	ound	Southbound
	L1 L2	L1 L2	L1	L2	L1 L2
Flow Rate	23	189	6	390	590
Service Time	5.2	4.5	4.2	3.7	3.4
Utilization, x	0.046	0.344	0.011	0.648	0.885
Dep. headway, hd	7.17	6.55	6.49	5.98	5.40
Capacity	460	556	600	600	670
95% Queue Length	0.1	1.6	0.0	5.3	16.2
Delay	10.5	13.0	9.3	19.5	43.9
LOS	В	В	A	C	E
Approach:					
Delay	10.5	13.0	1	9.3	43.9
LOS	В	В	C		E
Intersection Delay	30.2	Intersection	n LOS D		

			1	-	Mr. S.										
General Inform	nation								Interse	ection In		_		14741	10 10
Agency		KHR Associates							Duratio	n, h	0.25		-	~ * *	•
Analyst				Analys	sis Date	e 8/1/2	016		Area T	ype	Othe	er	A		
Jurisdiction		Torrance California		Time F	Period				PHF		0.90		*	wie	
Urban Street		Palos Verdes Dr No	rth	Analys	sis Yea	2016			Analys	is Period	1>7	:30	-		
Intersection		Hawthorne Bouleva	rd	File Na	ame	12-Ha	awthorn	e-PVE	) Cumu	AM.xus				511	r
Project Descrip	tion													<u> </u>	HIP
Demand Inform	nation				EB	SHEET STATE	ales.	W	'B		NB	- 11		SB	
Approach Move				L	T	R	L	1		L	T	R	L	T	F
Demand ( v ), v	and the second second			32	935	291	129	_		_	_	_	-	_	1
Demand (V), V	CII/II	MARIE TO THE REAL PROPERTY.	6.3	32	333	251	123	00	7 20	5 101	40	100	341	400	
Signal Informa	tion					1 5			5 2	1 1				35 3	
Cycle, s	120.0	Reference Phase	2		-> A	- 6			5		10	-	4	1	4
Offset, s	0	Reference Point	End	Green	42	1.8	61.4	13	.5 2.5				K	1	
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	0.0	4.0	4.0				1	7	5	K
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
Timer Results			4 34	EBL	Santa .	EBT	WB	24	WBT	NB	AL FOL	NBT	SB	and the last	SBT
Assigned Phase	2			5	-	2	1	-	6	3	-	8	7	-	4
	9		_	1.1		3.0	_		3.0	1.1		3.0	2.0		3.0
Case Number						65.4	9.9		67.2	17.		24.7	20.0	_	27.2
Phase Duration	ange Period, (Y+Rc), s							$\rightarrow$	4.0	4.0	_	4.0	4.0	_	-
	nange Period, ( Y+R c ), s ax Allow Headway ( MAH ), s					4.0	4.0		0.0	3.0	_	3.0	3.0		4.0
_	_					0.0	3.0 4.3		0.0	_	_	-	-	_	3.0
Queue Clearan				0.0		0.0		_	0.0	13.	_	18.8	18.0	_	17.1
Green Extensio	and the second named in column 2 is not to second named in column 2 in column	( g e ), s		0.69		0.0	0.2	$\rightarrow$	0.0	0.1	_	1.9	0.0	_	2.3
Phase Call Prol				0.00			0.99	_		1.0	-	1.00	1.00		1.00
Max Out Proba	oility			0.00		1533	0.00	,	- 7/6	1.0	J Table 2	0.23	1.00	STATE OF THE PARTY OF	0.05
Movement Gro	un Ros	ulte	CO. SEE		EB	11.50		WB			NB			SB	-
Approach Move	-	uito		L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move	ALC: UNKNOWN OF THE PARTY OF TH			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	_	) veh/h		36	1039	323	143	627	_	208	512	187	386	478	20
		ow Rate ( s ), veh/h/lr	1	1740	1739	1608	1689	1739	_	_	1773	1607	1774	1773	157
Queue Service		AND DESCRIPTION OF THE PARTY OF		1.1	25.0	14.8	2.3	12.5	-	_	16.8	13.0	16.0	15.1	1.2
Cycle Queue C				1.1	25.0	14.8	2.3	12.5	_	_	16.8	13.0	16.0	15.1	1.2
Green Ratio ( g	-	o iiiie (ye), s		0.55	0.51	0.51	0.56	0.53	-	-	0.17	0.17	0.13	0.19	0.1
Capacity ( c ), v				437	1779	822	609	183	_	306	611	277	237	686	304
Volume-to-Capa		tio ( Y )		0.081	0.584	0.393	0.235	0.34	_	-	_	-	1.630	0.696	0.06
THE RESERVE OF THE PARTY OF THE	and the latest designation of the latest des	In (50 th percentile)		10.9	252.5	136.8	21.5	123.9	-	-	197.6	-	690.1	168.9	11.9
		eh/In (50 th percentile)	e)	0.4	9.8	5.5	0.8	4.8	4.6	5.1	7.7	5.2	26.7	6.5	0.5
The second second second second second	and the latest designation of the latest des	RQ) (50 th percenti	-	0.04	0.84	0.47	0.07	0.41	-	THE RESERVE AND ADDRESS OF THE PARTY NAMED IN	0.97	0.66	2.26	0.55	0.04
Uniform Delay (	-		/	13.3	20.4	17.9	15.1	16.4	_	-	48.0	46.5	52.0	45.1	39.
Incremental De	and the same of the same			0.0	1.4	1.4	0.1	0.5	1.1	3.3	5.5	1.9	302.0	1.2	0.0
The second second second	-			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	tial Queue Delay ( d 3 ), s/veh			13.4	21.8	19.3	15.2	16.9	_	-	53.5	48.4	354.0	46.3	39.6
	evel of Service (LOS)			В	С	В	В	В	В	D	D	D	F	D	D
Approach Delay	_	/LOS		21.0	_	С	16.9		В	49.2		D	180.		F
Intersection Del	-					59							E		
	707,04	APPLAT AT		1/2/6			e e			- P. S. S.		1448	1050		179
Multimodal Re	-			2.9	EB	С	2.9	WB	С	3.1	NB	С	3.0	SB	
	destrian LOS Score / LOS														C

Control Sales	12 9 77	HCS 2	010 5	Signal	ized	Inters	sectio	n Re	sults	Sumn	nary		1112	- Alexander	
General Inform	nation		2.3			The same		4	Interse	ction In	format	ion		ما ما ما ما	144
Agency	iation	KHR Associates							Duratio		0.25			1 † f	
Analyst		IN IIV Associates		Analy	eie Dat	e 8/1/2	016		Area Ty		Othe				K.
Jurisdiction		Torrance California		_	Period	0/1/2	.010		PHF	pe	0.90			wie	
Urban Street		Palos Verdes Dr No	orth	-	sis Yea	r 2016				s Period	_		- 3		7
Intersection		Hawthorne Bouleva		File N		_	_	ρ_P\/Γ	Cumu l		11-1	.50	-		
Project Descrip	tion	nawthorne bouleva	iiu	THE IV	anie	12-11	awthorr	IE-F VL	Curiu	WI.XUS				NA TAN	
Project Descrip	LIOIT		123	E	3-0		100 x 1	25-3	G-5505	13/10	5-20	100		7711	
Demand Inform	nation				EB			W	/B		NE	3	T	SB	
Approach Move	ement			L	Т	R	L	1	R	L	Т	R	L	T	R
Demand (v), v				30	721	237	141	1 10	71 330	232	374	1 136	211	449	-
LOS BOOK	7333		H		737		N. F			10.19	5700	S.Ve	100	To the same	1333
Signal Informa	tion				1 2		₹.	-	5 21						1
Cycle, s	120.0	Reference Phase	2		- 6		≥ =	R	5 6	10			<b>4</b>		4
Offset, s	0	Reference Point	End	Green	4.0	1.9	61.9	16					K	,	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		0.0	4.0	4.0	4.0	0.0	1000	1	<b>*</b>	-	ST.
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	N.	5	6	7	
								1	100		EE		326	1/20	
Timer Results				EBI	-	EBT	WE	3L	WBT	NB	L	NBT	SB	L	SBT
Assigned Phase	9			5		2	1		6	3	-	8	7		4
Case Number				1.1		3.0	1.1	-	3.0	1.1	-	3.0	2.0	-	3.0
Phase Duration	Property Commencer Commenc			8.0		65.9	10.	_	67.8	20.	_	24.1	20.		24.1
	hange Period, ( Y+R c ), s			4.0	-	4.0	4.0	_	4.0	4.0	-	4.0	4.0		4.0
Max Allow Head	-			3.0		0.0	3.0		0.0	3.0		3.0	3.0	)	3.0
Queue Clearan	ce Time	(gs), s		3.1			4.5	5		16.3	3	15.3	17.	8	18.3
Green Extensio	n Time	( g e ), s				0.0	0.3	3	0.0	0.0		2.1	0.0		1.8
Phase Call Prob	pability			0.67			0.9	9		1.00	)	1.00	1.00	0	1.00
Max Out Probal	oility			0.00			0.0	0		1.00	)	0.05	1.00	0	0.17
Manager of Con-					ED.		Section.	1A/D		N. C.	AUD	400	MELL	OD	1
Movement Gro	-	uits			EB	T D		WB	_		NB			SB	T .
Approach Move				L	T	R	L	T	R	L	T	R	L	T	R
Assigned Move		\		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F	-			33	801	263	157	1190	_	258	416	151	234	499	32
THE RESERVE OF THE PARTY OF THE		ow Rate (s), veh/h/lr	1	1740	1739	1608	1689	1739	-	1774	1773	1607	1774	1773	1573
Queue Service	and the local division in the local division	The same of the sa		1.1	17.4	11.4	2.5	29.2		14.3	13.3	10.4	15.8	16.3	2.1
Cycle Queue Cl		e Time ( g c ), s		1.1	17.4	11.4	2.5	29.2	-	14.3	13.3	10.4	15.8	16.3	2.1
Green Ratio ( g			_	0.55	0.52	0.52	0.57	0.53	-	0.30	0.17	0.17	0.13	0.17	0.17
Capacity (c), v		E- ( )()	-	243	1794	830	780	1850	-	310	595	270	237	595	264
Volume-to-Capa	and the same of the same of	the state of the s		0.137	0.447	0.317	0.201	0.643	-	0.832	0.698	0.560	0.991	0.838	0.122
	ASSESSMENT OF THE PARTY OF THE	In (50 th percentile)	2)	10.2	174	104.7	23.3	292.5	-	189.6	149	102.1	271.1	192	20
THE RESERVE OF THE PARTY OF THE		eh/In (50 th percentil	Marine Company	0.4	6.7	4.2	0.9	11.3 0.98	THE RESERVE TO SHARE	7.3	5.8	4.1	10.5	7.4	0.8
The second liverage and the se		RQ) (50 th percenti	ie)	0.03	0.58	0.36	0.08	-	-	0.93	0.73	0.52	0.89	0.63	0.07
Uniform Delay (	_			16.3	18.3	16.8	13.3	20.0	-	35.9	47.1	45.9	51.9	48.4	42.4
Incremental Del		and the second s		0.1	0.8	1.0	0.0	0.0	1.6	16.3	1.1	0.7	55.8	5.2	0.1
Initial Queue De	AND DESCRIPTION OF THE PERSON NAMED IN	The same of the sa		0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0
and the second s	ontrol Delay ( d ), s/veh			16.4	19.1	17.8	13.4	21.7	-	52.2	48.1	46.5	107.8	53.5	42.5
Level of Service	ACCRECATE VALUE OF STREET	/1.00		B 10.7	В	В	B 20.3	C	В	D 40.4	D	D	F	D	D
Approach Delay	And in contrast of		_	18.7		В	20.3	5	С	49.1		D	69.7		Е
Intersection Del	ay, s/ve	n / LOS	7. T. T.	-	9119	3.	3.9			-	The same of	-3-0	С	-	
Multimodal Res	eulte	MALE STATE OF THE	-	mile	EB		1	WB	3. 12.	-	NB		No. of Lot	SB	
Pedestrian LOS	-	/IOS		2.9	1	С	2.9	-	С	3.1	T	С	3.0	JD	С
Bicycle LOS Sc	per delegation of the last	The second secon		1.4	-	A	1.9		A	1.2	-	A	1.1	-	
DICYCIE LUS SC	DIE / LU	70		1.4		^	1.5		7	1.2		^	1.1		Α

## **HCS 2010 Signalized Intersection Results Summary General Information** Intersection Information TITI KHR Associates Duration, h 0.25 Agency Analysis Date 8/1/2016 Analyst Area Type Other Torrance California Time Period PHF 0.90 Jurisdiction **Urban Street** Crenshaw Boulevard Analysis Year 2016 Analysis Period 1>7:30 Intersection Palos Verdes Dr North File Name 13-Crenshaw-PVD Cumu AM.xus Project Description EB WB NB SB **Demand Information** L Т R L Т R Т R Approach Movement L L T R 100 852 470 55 715 303 474 465 102 401 Demand (v), veh/h 433 62 Signal Information 1 Cycle, s 120.0 Reference Phase 2 M Offset, s 0 Reference Point End 20.8 Green 5.2 0.6 61.4 16.0 0.0 On Uncoordinated No Simult. Gap E/W Yellow 4.0 0.0 4.0 4.0 4.0 0.0 Force Mode Fixed Simult. Gap N/S On Red 0.0 0.0 0.0 0.0 0.0 0.0 **EBL EBT** WBL WBT NBT **Timer Results NBL** SBL SBT Assigned Phase 5 2 1 6 3 8 7 4 1.1 4.0 1.1 4.0 1.1 3.0 2.0 Case Number 3.0 9.9 66.0 9.2 65.4 20.0 24.8 20.0 Phase Duration, s 24.8 4.0 4.0 4.0 4.0 4.0 4.0 4.0 Change Period, (Y+Rc), s 4.0 Max Allow Headway ( MAH ), s 3.0 0.0 3.0 0.0 3.0 3.0 3.0 3.0 Queue Clearance Time (gs), s 3.8 3.0 18.0 18.9 18.0 17.6 0.2 0.0 0.1 0.0 0.0 1.9 0.0 Green Extension Time ( g e ), s 2.0 Phase Call Probability 0.98 0.87 1.00 1.00 1.00 1.00 0.00 0.00 1.00 0.24 1.00 0.15 Max Out Probability **Movement Group Results** EB WB NB SB Approach Movement L R L R L T R L R 5 12 16 18 7 2 1 6 3 8 14 Assigned Movement 4 111 769 699 61 595 536 527 517 113 Adjusted Flow Rate (v), veh/h 446 481 69 1689 1827 1609 1689 1827 1640 1774 1773 1607 1774 Adjusted Saturation Flow Rate (s), veh/h/ln 1773 1573 28.3 Queue Service Time (gs), s 1.8 42.2 44.6 1.0 28.5 16.0 16.9 7.5 16.0 15.6 4.5 Cycle Queue Clearance Time (gc), s 1.8 42.2 44.6 1.0 28.3 28.5 16.0 16.9 7.5 16.0 15.6 4.5 0.55 0.51 Green Ratio (g/C) 0.56 0.52 0.52 0.51 0.31 0.17 0.17 0.13 0.17 0.17 551 944 831 357 934 321 614 278 Capacity (c), veh/h 839 237 614 272 0.202 0.815 0.841 0.171 0.637 0.639 1.641 0.841 Volume-to-Capacity Ratio (X) 0.407 1.884 0.783 0.253 16.5 483.4 447.1 9.1 312.3 275 Back of Queue (Q), ft/ln (50 th percentile) 892.6 199.9 73.8 878.7 179.3 43.5 Back of Queue (Q), veh/ln (50 th percentile) 0.6 18.7 17.9 0.4 12.1 11.0 34.6 7.7 3.0 34.1 6.9 1.7 0.06 1.61 1.54 0.03 1.04 0.95 Queue Storage Ratio (RQ) (50 th percentile) 4.39 0.98 0.37 2.88 0.59 0.15 21.3 Uniform Delay ( d 1 ), s/veh 15.8 24.2 24.8 21.8 21.3 38.7 48.0 44.1 52.0 47.5 42.9 0.1 10.1 0.1 3.3 3.7 302.2 5.7 0.4 Incremental Delay ( d 2 ), s/veh 7.7 413.2 3.2 0.2 0.0 0.0 0.0 0.0 0.0 0.0 Initial Queue Delay (d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 15.9 31.9 34.9 21.8 24.6 25.0 340.9 53.7 44.5 465.2 50.7 43.1 Control Delay (d), s/veh В C C C C C F D D F D Level of Service (LOS) D 32.1 24.6 Approach Delay, s/veh / LOS 183.6 235.7 F 107.0 Intersection Delay, s/veh / LOS F EB WB **Multimodal Results** NB SB

Pedestrian LOS Score / LOS

Bicycle LOS Score / LOS

2.9

C

3.0

1.4

C

A

2.9

1.8

C

A

3.0

1.3

C

A

		HCS 2	010 8	Signa	lized	Inters	sectio	n Re	sults	Sumn	nary		107.00	Name to	
General Inform	nation					31-15			Interse	ction In	format	ion	1000	المال المال	1 5 1
Agency	nation	KHR Associates							Duration		0.25		_	htt	
Analyst		KI II A A SOCIALES		Analy	reie Dat	te 8/1/2	2016		Area Ty		Othe				
Jurisdiction		Torrance California	_	-	Period	0/1/2	.010		PHF	pe	0.90		- 5	wis	+
Urban Street		Crenshaw Bouleva	rd	_	_	r 2016	:		Analysis	Period	_		- 3		4
Intersection		Palos Verdes Dr No	-	File N		_	renshav	v-PVD	_	_	11-1	.50			
Project Descrip	tion	raios veides Di No	Jiui	Tile	varrie	13-0	Terisiiav	V-F VD	Culliu F	IVI. XUS			- 1	7 4 7 445	
Project Descrip	olion	A SECTION			E The T	153115		1	1.16%	18.8	1	1000		TATE OF STREET	3 15 15
Demand Inform	mation				EB			W	В		NE			SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Demand ( v ), v	eh/h			48	787	303	116	3 77	1 258	497	392	2 65	381	404	67
Ciamal Inform	41			STATE OF THE PARTY NAMED IN								MARKET -			
Signal Informa	_	Reference Phase	2	-	1	_	Ħ.,	<b>∷</b>	الحا لا		t a	/	7	7	1
Cycle, s Offset, s	120.0		_	-			7	"	- 5	10		1	<b>\$</b> 2	3	
Uncoordinated	0	Reference Point	End	Green		0.9	63.6		0 18.	5 0.0	-				
	No	Simult. Gap E/W	On	Yellov		0.0	4.0	4.0						7	V
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	-	5	6	7	
Timer Results				EB	L	EBT	WE	3L	WBT	NB	L	NBT	SB	L I	SBT
Assigned Phase	е			5		2	1		6	3		8	7		4
Case Number				1,1		4.0	1.1		4.0	1.1		3.0	2.0	_	3.0
Phase Duration	S			9.0		67.6	9.9	_	68.5	20.	-	22.5	20.		22.5
The second second second	nange Period, (Y+Rc), s			4.0	_	4.0	4.0	_	4.0	4.0	_	4.0	4.0	-	4.0
THE RESIDENCE OF THE PARTY OF T	ax Allow Headway ( MAH ), s			3.0	_	0.0	3.0	_	0.0	3.0	_	3.0	3.0	-	3.0
Queue Clearan				2.8			4.0	_		18.	-	16.2	18.0		16.7
Green Extensio		A RESIDENCE OF THE PARTY OF THE				0.0	0.2		0.0	0.0	_	1.9		0.0	
Phase Call Prob		(3-7)-		0.83			0.9	_		1.00	_	1.00	1.0	_	1.8
Max Out Probat	_			0.00			0.0	_		1.00			1.00		0.08
		STATE OF THE			L OUT			18.						182	
Movement Gro	_	ults			EB	_		WB			NB			SB	
Approach Move	and the same of			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move	-			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F				53	634	577	129	597	546	552	436	72	423	449	74
		w Rate (s), veh/h/lr	1	1689	1827	1652	1689	1827	1668	1774	1773	1607	1774	1773	1572
Queue Service				0.8	30.0	30.3	2.0	26.9	27.0	16.0	14.2	4.8	16.0	14.7	5.0
Cycle Queue Cl	and the local division in the	e Time ( g c ), s		0.8	30.0	30.3	2.0	26.9	27.0	16.0	14.2	4.8	16.0	14.7	5.0
Green Ratio ( g	_			0.57	0.53	0.53	0.58	0.54	0.54	0.29	0.15	0.15	0.13	0.15	0.15
Capacity ( c ), v				544	968	875	536	982	897	311	548	248	237	548	243
Volume-to-Capa	-	the state of the s		0.098	0.656	0.659	0.240	0.608	-	1.777	0.795	0.291	1.790	0.820	0.307
Back of Queue	(Q), ft/	In (50 th percentile)		7.5	327.6	292.4	18.2	290.9	260.5	1003.	162.6	46.9	808.5	169.7	48.5
Back of Queue	(Q) ve	eh/In ( 50 th percentil	e)	0.3	12.7	11.7	0.7	11.3	10.4	38.9	6.3	1.9	31.3	6.6	1.9
The second second second second second	_	RQ) (50 th percenti	-	0.03	1.09	1.01	0.06	0.97	0.90	4.94	0.80	0.24	2.65	0.56	0.16
Uniform Delay (	and the same of the same of		,	14.7	20.3	20.4	15.5	19.1	19.1	39.8	48.9	44.9	52.0	49.1	45.0
Incremental Del	-	and the second s		0.0	3.5	3.9	0.1	2.8	3.1	362.3	2.5	0.2	371.8	3.4	0.3
Initial Queue De	and the latest terms of th			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (	and the local division in which the local			14.7	23.8	24.3	15.6	21.9	22.2	402.1	51.4	45.2	423.8	52.5	45.3
Level of Service				В	С	С	В	С	C	F	D	D	F	D	D
Approach Delay	THE RESIDENCE AND PARTY.	LOS		23.6		С	21.4		C,	233.	_	F	218.		F
Intersection Del		THE RESIDENCE OF THE PARTY OF T				11	2.5						F		
La Voltage	1000	9	it i	335	PA S	C MILE	200			1					1
Multimodal Res	sults				EB			WB			NB			SB	
Pedestrian LOS	Score /	LOS		2.9		С	2.9		С	3.0		С	3.0		С
Bicycle LOS Sco	ore / LO	S		1.5		Α	1.5		Α	1.4		Α	1.3		Α

		HCS 2	2010 5	Signal	ized	Inters	sectio	n Re	sults	Sumr	nary				
							No.	A COL	E	AR		4.00	127		34
General Inform	nation	Tonia de la companya della companya									nformat			147中	
Agency		KHR Associates							Duratio	n, h	0.25		_		
Analyst				_		te 8/1/2	2016		Area Ty	/ре	Othe				
Jurisdiction		Torrance California		_	Period				PHF		0.90		_ ‡=	₩‡¢	
Urban Street		Rolling Hills Road		Analy	sis Yea	ar 2016	3		Analysi	s Period	d 1>7	:30			
Intersection		Palos Verdes Dr No	orth	File N	ame	14-R	olling H	ills-PV	D Cumu	AM.xus	3			ነ ተ	r
Project Descrip	tion					El Serie		CP C S						শ্ৰ শ্ৰুণ	711
Demand Inform	nation				EB		100	W	В		NE	3		SB	
Approach Move				L	T	R	L	T		L	-	R	L	T	F
Demand (v), v	-			30	65	52	191	-		_	_	_	_	905	-
Demand (V), V		The state of the	216	30	00	32	3050	200			000	210	31	900	
Signal Informa	tion				1			-1	5			المصر			1
Cycle, s	90.0	Reference Phase	2		1				M2			_	4	1	D
Offset, s	0	Reference Point	End	Green	3 /	3.9	10.7	26.	0 26.	0 0.0		1	¥ 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Yellow		4.0	4.0	4.0				1	<del>}</del>	1	4
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0				5	6	7	
Times Deculte			-	EDI		FDT	10/0	N.	WDT	NI NI		NDT	0.0		0.0.7
Timer Results				EBI	-	EBT	WE	SL	WBT	NE	SL	NBT	SE	3L	SBT
Assigned Phase	9			5		2	1	-	6	-	-	8	-	_	4
Case Number	ase Duration, s			1.1	-	3.0	1.1	-	3.0	-	-	9.0	-	-	10.0
Contract of the Contract of th				7.4		14.7	15.	-	22.6	-		30.0	-	_	30.0
The Real Property lies and the last of the	nange Period, ( Y+R c ), s ax Allow Headway ( MAH ), s			4.0	-	4.0	4.0	_	4.0	-	_	4.0	-	_	4.0
AND RESIDENCE OF THE PARTY OF T		the same of the sa				0.0	3.0	-	0.0	-		3.0			2.9
Queue Clearand		The second secon		3.5			11.3	_		-		28.0			28.0
Green Extension	CONTRACTOR OF STREET	( g e ), s		0.0		0.0	0.2	_	0.0	-	_	0.0	_		0.0
Phase Call Prob	-			0.57	_		1.00	_				1.00	-		1.00
Max Out Probab	oility			0.00			0.16	6				1.00			1.00
Mayamant Cua	Dealer Dea				ED.			VA/D	1		NID			0.0	2013
Movement Gro	_	uits			EB	T D	-	WB	_ D	-	NB			SB	
Approach Move			_	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Mover	manage in the service	\		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow R				33	72	58	212	87	47	70	959	237	34	1020	-
DECEMBER OF STREET		ow Rate (s), veh/h/li	n	1740	1827	1597	1740	-	-	1774	-	1607	1774	1858	-
Queue Service				1.5	3.3	3.0	9.2	3.6	2.1	2.6	26.0	11.1	1.3	26.0	-
Cycle Queue Cl	-	e Time ( g c ), s	_	1.5	3.3	3.0	9.2	3.6	2.1	2.6	26.0	11.1	1.3	26.0	-
Green Ratio ( g/				0.16	0.12	0.12	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	-
Capacity ( c ), ve		4:- ( \ \ )		298	218	190	405	378	331	513	538	464	513	537	-
Volume-to-Capa	OR OTHER DESIGNATION OF THE PERSON NAMED IN	Company of the Compan		_	0.332	0.304	0.523	0.229	-	0.137	1.782	0.510	0.067	1.900	-
personal region of the contract of the contrac		In (50 th percentile)		15.5	42.1	33	93	42	21.6	26.9	1663	99.9	13	1804.5	
COMMONSTRATION OF THE PARTY OF	Section 1 to the second	eh/In (50 th percentil	-	0.6	1.6	1.3	3.6	1.6	0.9	1.0	64.5	4.0	0.5	72.2	
THE RESERVE THE PARTY OF THE PA	and the second	RQ) (50 th percenti	ile)	0.05	0.14	0.11	0.31	0.14	0.07	0.13	8.19	0.51	0.04	6.11	-
Uniform Delay (				32.6	36.3	36.2	27.7	29.7	29.2	23.7	32.0	26.7	23.2	32.0	
ncremental Dela				0.1	4.0	4.1	0.4	1.4	0.9	0.0	359.3	0.4	0.0	412.1	
AND DESCRIPTION OF THE PARTY OF	ial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	ntrol Delay ( d ), s/veh			32.7	40.4	40.3	28.1	31.1	30.1	23.7	391.3	27.1	23.2	444.1	
The second secon	vel of Service (LOS)			С	D	D	С	С	С	С	F	С	С	F	
the same of the sa	pproach Delay, s/veh / LOS			38.8		D	29.1		С	302.	9	F	430.	4	F
ntersection Dela	ay, s/ve	h/LOS			er com	30	1.7		198				F		1011-500
Multimodal Res	ults	Maria Children			EB	S. S. S. S.	No. Albanya	WB	Wis.		NB	23		SB	
Pedestrian LOS	-	/I OS	-	2.5	T	В	2.3		В	2.5		B	2.4	-	В
Judget lail LOO	20016	OS S		0.8	-	A	1.1	_	A	2.6	-		2.4		В

		HCS 2	010 5	Signal	ized	Inters	ectio	n Re	sults :	Sumn	nary				
								MO				B.V.		الجاللة ال	VA.
								-	Interse	_			- 1	41	
Agency		KHR Associates		T		01110	010	-	Duration		0.25		- 3		
Analyst				_		e 8/1/2	016		Area Ty	pe	Othe				~
Jurisdiction				1.00.00	Period			_	PHF		0.90	_	_ = =	w+e	
Urban Street		Rolling Hills Road		-		r 2016	THE RESERVE OF THE PERSON NAMED IN		Analysis	_	_	:30			
Intersection		Palos Verdes Dr No	orth	File N	ame	14-R	olling Hi	lls-PVI	O Cumu	PM.xus			_	ነተሮ	
Project Descrip	otion		2732	E 765	1000	1.35		15.20		0-9				14144	H III
Demand Inform	mation				EB			W	3		NE			SB	
Approach Move	ement			L	T	R	L	Т	R	L	Т	R	L	Т	R
Demand (v), v	/eh/h			22	75	80	657	77	33	34	846	225	10	698	11
Signal Informa	ation			-		1		R		B(B(S)					
Cycle, s	90.0	Reference Phase	2	1	1		7.2	E 24	2		37	/	4	1	4
Offset, s	0	Reference Point	End				-3	,	il			1	Y 2	3	
Uncoordinated	No	Simult. Gap E/W	On	Green	_	9.3	6.0	26. 4.0		0.0			4		-
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0		0.0		5	6	7	Y
CHICAGO CO	S. Line	- A Call Division				100	PLEAT		FIF A	70 75 1					1
Timer Results				EBL		EBT	WB	BL	WBT	NB	L	NBT	SB	L	SBT
Assigned Phas	е			5		2	1		6	_		8			4
Case Number				1.1		3.0	1.1		3.0			9.0			10.0
	ase Duration, s			6.7		10.0	20.0	_	23.3			30.0			30.0
AND DESCRIPTION OF THE PERSON NAMED IN	nange Period, ( Y+R c ), s			4.0	_	4.0	4.0		4.0			4.0			4.0
Max Allow Hea	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN			3.0		0.0	3.0		0.0			3.0			2.9
Queue Clearan	-	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TWO		3.2			18.0					28.0			28.0
Green Extension	-	(ge), s		0.0		0.0			0.0	_		0.0			0.0
Phase Call Pro	NAME OF TAXABLE PARTY.		-	0.46			1.00	_		_		1.00			1.00
Max Out Proba	bility			0.00			1.00	0	HES WA			1.00	2000000		1.00
Movement Gro	up Res	ults		-	EB			WB		The same of	NB	and the second	1	SB	
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R
Assigned Move	Name and Address of			5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow I		), veh/h		24	83	89	730	86	37	38	940	250	11	788	
THE RESIDENCE OF SHARP SHAPE OF SHAPE O	and the sales of the sales of	w Rate (s), veh/h/li	n	1740	1827	1586	1740	1827	1603	1774	1863	1607	1774	1857	
Queue Service	-			1.2	4.0	5.0	16.0	3.5	1.7	1.4	26.0	11.8	0.4	26.0	
Cycle Queue C	learance	e Time ( g c ), s		1.2	4.0	5.0	16.0	3.5	1.7	1.4	26.0	11.8	0.4	26.0	
Green Ratio ( g	/C)			0.10	0.07	0.07	0.27	0.21	0.21	0.29	0.29	0.29	0.29	0.29	
Capacity (c), v	reh/h			218	122	106	418	391	343	513	538	464	513	537	
Volume-to-Capa	acity Ra	tio (X)		0.112	0.684	0.841	1.748	0.219	0.107	0.074	1.747	0.538	0.022	1.468	
Back of Queue	(Q), ft/	In (50 th percentile)		12.3	68.1	84.8	1068.	40.9	16.6	14.2	1602.	107.4	4.1	1090.6	
Back of Queue	(Q), ve	eh/In ( 50 th percentil	le)	0.5	2.6	3.4	41.4	1.6	0.7	0.6	62.1	4.3	0.2	43.6	
Queue Storage	Ratio (	RQ) (50 th percent	ile)	0.04	0.23	0.29	3.56	0.14	0.06	0.07	7.89	0.55	0.01	3.69	
Uniform Delay (	(d1), s/	/veh		37.2	41.1	41.5	33.1	29.2	28.5	23.3	32.0	26.9	22.9	32.0	
Incremental De	lay (d2	), s/veh		0.1	26.9	52.0	346.3	1.3	0.6	0.0	343.7	0.7	0.0	220.7	
Initial Queue De	and the latest designation of the latest des	Market and the Control of the Contro		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (	Acres de la companya del la companya de la companya	eh		37.3	68.0	93.6	379.4	30.5	29.1	23.3	375.7	27.6	22.9	252.7	
Level of Service	_			D	E	F	F	С	С	С	F	С	С	F	
Approach Delay	and the second name of the	CONTRACTOR OF THE PARTY OF THE		75.7		E	329.	3	F	294.	0	F	249.	5	F
Intersection De	lay, s/ve	h/LOS				27	8.3	-		To the same of			F		
Multimodal Re	sulte	Mestallian)	000 B	des-	EB	Service Services		WB	The last	1	NB			SB	
Pedestrian LOS	-	LOS		2.5	_	В	2.3	_	В	2.5	_	В	2.4	-	В
	ore / LC	and the same of th	-	0.8	-	A	1.9		A	2.5	market by the contract of	В	1.8	_	A

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/17

Analysis Time Period: 7:30 - 8:30 A.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Newton Street
North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	astbou	und	We	estbo	und	No	orthbo	ound	Sc	uthbo	und
	L	T	R	1 L	T	R	L	T	R	L	T	R
Volume	10	0	0	177	0	141	10	257	00	1125	202	

Eastbound Westbound Northbound Southbound L1 L2 L1 L2 L1 L2 L1 L2 TR L R TR 1.00 1.00 1.00 Configuration L L T PHF 1.00 1.00 77 141 Flow Rate 455 135 283 % Heavy Veh 0 0 0 0 No. Lanes 2 1 Opposing-Lanes 0 2 1 Conflicting-lanes 2 2

Geometry group Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

1

3b

5

	Easth	oound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane			77	141	455		135	283
Left-Turn			77	0	0		135	0
Right-Turn			0	141	98		0	0
Prop. Left-Turns			1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns			0.0	1.0	0.2		0.0	0.0
Prop. Heavy Vehicle			0.0	0.0	0.0		0.0	0.0
Geometry Group				1		3b		5
Adjustments Exhibit	17-33	3:						
hLT-adj				0.2		0.2		0.5

hRT-adj	-0.	6	-0.6	-	0.7
hHV-adj	1.	7	1.7		1.7
hadj, computed	0.2	-0.6	-0.1	0.5	0.0

Worksheet 4 - Departure Headway and Service Time

	East	bound	Westh	ound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			77	141	455		135	283
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.07	0.13	0.40		0.12	0.25
hd, final value			6.22	5.41	5.32		6.15	5.64
x, final value			0.133	0.212	0.673		0.231	0.444
Move-up time, m			2	. 0	2	2.0	2	.3
Service Time			4.2	3.4	3.3		3.8	3.3

Worksheet 5 - Capacity and Level of Service

	Eastb	ound	Westh	oound	Northk	oound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			77	141	455		135	283
Service Time			4.2	3.4	3.3		3.8	3.3
Utilization, x			0.133	0.212	0.673		0.231	0.444
Dep. headway, hd			6.22	5.41	5.32		6.15	5.64
Capacity			592	671	679		587	643
95% Queue Length			0.5	0.8	5.9		0.9	2.4
Delay			10.2	9.9	19.1		10.7	12.8
LOS			В	A	C		В	В
Approach:								
Delay			1	0.0-	1	9.1	1	2.1
LOS			A		C		В	
Intersection Delay	14.6		Inte	rsection	n LOS B			

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/17

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection: Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Newton Street
North/South Street: Calle Mayor

Worksheet 2 - Volume Adjustments and Site Characteristics

	E	astbo	und	We	estbou	ind	l N	orthbo	ound	I So	outhbo	ound
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	10	0	0	163	337	62	10	310	51	192	337	0

% Thrus Left Lane

	East	bound	West	bound	North	oound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration			L	R	TR		L	Т
PHF			1.00	1.00	1.00		1.00	1.00
Flow Rate			63	62	361		92	337
% Heavy Veh			0	0	0		0	0
No. Lanes				2	1		2	2
Opposing-Lanes			(	0	2	2		1
Conflicting-lanes			2	2	2		2	2
Geometry group				1	3	3b	1	5
Duration T 1.00	hrs							

Duration, T 1.00 hrs.

Eas	tbound	West	bound	North	bound	South	bound
L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:							
Total in Lane		63	62	361		92	337
Left-Turn		63	0	0		92	0
Right-Turn		0	62	51		0	0
Prop. Left-Turns		1.0	0.0	0.0		1.0	0.0
Prop. Right-Turns		0.0	1.0	0.1		0.0	0.0
Prop. Heavy Vehicle		0.0	0.0	0.0		0.0	0.0
Geometry Group			1		3b		5
Adjustments Exhibit 17-	33:						
hLT-adj			0.2		0.2		0.5

hRT-adj	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7
hadj, computed	0.2 -0.6	-0.1	0.5 0.0

Worksheet 4	1 -	Departure	Headway	and	Service	Time
-------------	-----	-----------	---------	-----	---------	------

	East	oound	Westh	ound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate			63	62	361		92	337
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial			0.06	0.06	0.32		0.08	0.30
hd, final value			5.95	5.14	5.06		5.70	5.20
x, final value			0.104	0.088	0.508		0.146	0.487
Move-up time, m			2	.0	2	2.0	2	. 3
Service Time			3.9	3.1	3.1		3.4	2.9

\_\_Worksheet 5 - Capacity and Level of Service\_\_

	East	bound	Westh	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate			63	62	361		92	337
Service Time			3.9	3.1	3.1		3.4	2.9
Utilization, x			0.104	0.088	0.508		0.146	0.487
Dep. headway, hd			5.95	5.14	5.06		5.70	5.20
Capacity			630	689	708		613	688
95% Queue Length			0.3	0.3	3.0		0.5	2.8
Delay			9.6	8.6	13.3		9.4	12.8
LOS			A	A	В		A	В
Approach:								
Delay			9	.1	1	3.3	1	2.1
LOS			A		В		В	
Intersection Delay	12.1		Inte	rsection	n LOS B			

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 7:30 - 8:30 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	astbou	ind	[ We	estbou	ind	No	orthbo	ound	I So	outhbo	ound	
	L	T	R	1 L	T	R	L	T	R	L	T	R	
Volume	179	145	77	44	189	149	172	179	21	165	94	34	

% Thrus Left Lane

	Eastb	ound	West	oound	North	oound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	301		382		272		65	128
% Heavy Veh	0		0		0		0	0
No. Lanes	1				1	L	2	2
Opposing-Lanes	1		1		2	2		1
Conflicting-lanes	2		2	2	1	L .	1.3	Ĺ
Geometry group	2		2	2	4	la		5
Duration, T 1.00	hrs.							

	Eastbo	ound	West	oound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	301		382		272		65	128
Left-Turn	79		44		72		65	0
Right-Turn	77		149		21		0	34
rop. Left-Turns	0.3		0.1		0.3		1.0	0.0
Prop. Right-Turns	0.3		0.4		0.1		0.0	0.3
Prop. Heavy Vehicl	.e0.0		0.0		0.0		0.0	0.0
Geometry Group	2		2	2		4a		5
Adjustments Exhibi	t 17-33:	J						
hLT-adi	0.	2	(	0.2	(	0.2		0.5

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.1	-0.2	0.0	0.5 -0.2

\_\_\_\_Worksheet 4 - Departure Headway and Service Time\_\_\_\_\_

	East	oound	West	bound	North	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	301		382		272		65	128
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.27		0.34		0.24		0.06	0.11
hd, final value	6.17		5.91		6.61		7.75	7.04
x, final value	0.516		0.627		0.500		0.140	0.250
Move-up time, m	2	2.0		2.0	2	2.0	2	.3
Service Time	4.2		3.9		4.6		5.4	4.7

Worksheet 5 - Capacity and Level of Service

	Eastbound	Westbound	Northbound	Southbound
	L1 L2	L1 L2	L1 L2	L1 L2
Flow Rate	301	382	272	65 128
Service Time	4.2	3.9	4.6	5.4 4.7
Utilization, x	0.516	0.627	0.500	0.140 0.250
Dep. headway, hd	6.17	5.91	6.61	7.75 7.04
Capacity	579	606	544	464 512
95% Queue Length	3.1	4.8	2.9	0.5 1.0
Delay	15.7	18.7	16.2	11.7 12.1
LOS	C	C	C	В В
Approach:				
Delay	15.7	18.7	16.2	12.0
LOS	C	C	C	В
Intersection Delay	16.2	Intersection	on LOS C	

Fax:

ALL-WAY STOP CONTROL (AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 4:00 - 5:00 P.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Newton Street North/South Street: Vista Montana

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	astbo	und	W	estbo	und	No	orthbo	ound	1 5	outhbo	ound	
	L	T	R	L	T	R	L	T	R	L	T	R	1
Volume	140	79	10	138	73	216	110	148	17	169	165	53	

% Thrus Left Lane

	Eastb	ound	Westk	oound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		L	TR
PHF	1.00		1.00		1.00		1.00	1.00
Flow Rate	129		327		175		69	218
% Heavy Veh	0		0		0		0	0
No. Lanes	1			Ĺ		1	2	2
Opposing-Lanes	1		1)	0		2	1	Ĺ
Conflicting-lanes	2		2	2		1	10	
Geometry group	2		2	2	4	4a	5	5
Duration, T 1.00	hrs.							

	Easth	ann d	Waath	barra	Nowth	barra	Canth	b a al
	East	ound	Westh	ouna	North	oouna	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	129		327		175		69	218
Left-Turn	40		38		10		69	0
Right-Turn	10		216		17		0	53
Prop. Left-Turns	0.3		0.1		0.1		1.0	0.0
Prop. Right-Turns	0.1		0.7		0.1		0.0	0.2
Prop. Heavy Vehic	le0.0		0.0		0.0		0.0	0.0
Geometry Group	2		2		4	la		5
Adjustments Exhibi	it 17-33	:						
hLT-adi	0	.2	0	.2	(	0.2		0.5

hRT-adj	-0.6	-0.6	-0.6	-0.7
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.0	-0.4	-0.0	0.5 -0.2

Worksheet 4 - Departure Headway and Service Time\_\_\_

	East	bound	West	bound	North.	bound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	129		327		175		69	218
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.11		0.29		0.16		0.06	0.19
hd, final value	5.77		5.06		5.72		6.53	5.85
x, final value	0.207		0.459		0.278		0.125	0.354
Move-up time, m	2	2.0		2.0		2.0	2	. 3
Service Time	3.8		3.1		3.7		4.2	3.6

\_\_Worksheet 5 - Capacity and Level of Service\_\_\_\_

	Eastbound	Westbound	Northbound	Southb	ound
	L1 L2	L1 L2	L1 L2	L1	L2
Flow Rate	129	327	175	69	218
Service Time	3.8	3.1	3.7	4.2	3.6
Utilization, x	0.207	0.459	0.278	0.125	0.354
Dep. headway, hd	5.77	5.06	5.72	6.53	5.85
Capacity	614	711	625	531	623
95% Queue Length	0.8	2.5	1.1	0.4	1.6
Delay	10.3	12.3	10.9	10.2	11.8
LOS	В	В	В	В	В
Approach:					
Delay	10.3	12.3	10.9	1	1.4
LOS	В	В	В	В	
Intersection Delay	11.5	Intersection	on LOS B		

Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017

Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative AM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics

	Ea	stbou	ind	We	estbou	nd	N	orthb	ound	1 8	outhb	ound
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	1108	86	5	- 7	126	107	14	9	14	12	3	41

% Thrus Left Lane

	East	oound	West	bound	North	bound	South	oound
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LT	R	LT	R	LT	R	LT	R
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flow Rate	194	5	133	107	23	14	15	41
% Heavy Veh	0	0	0	0	0	0	0	0
No. Lanes	2	2		2		2	2	2
Opposing-Lanes	2	2		2		2	2	2
Conflicting-lanes	2	2		2		2	2	2
Geometry group	Į.	5	1	5	1	5	1	5
Duration, T 1.00	hrs.							

	East	bound	West	bound	North	bound	South	bound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	194	5	133	107	23	14	15	41
Left-Turn	108	0	7	0	14	0	12	0
Right-Turn	0	5	0	107	0	14	0	41
Prop. Left-Turns	0.6	0.0	0.1	0.0	0.6	0.0	0.8	0.0
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0
Prop. Heavy Vehicl	Le0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Geometry Group		5		5		5		5
Adjustments Exhibi	it 17-3	3:						
hLT-adj		0.5		0.5		0.5		0.5

hRT-adj	- (	0.7	- 0	. 7	- (	0.7	-(	7
hHV-adj		1.7	1	. 7		1.7	- 1	1.7
hadj, computed	0.3	-0.7	0.0	-0.7	0.3	-0.7	0.4	-0.7
Wor	cksheet	4 - Dep	arture H	leadway	and Serv	vice Tim	e	
	Easth	oound	Westb	ound	North	oound	Southk	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	194	5	133	107	23	14	15	41
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.17	0.00	0.12	0.10	0.02	0.01	0.01	0.04
hd, final value	5.21	4.23	4.94	4.21	5.88	4.87	5.95	4.85
x, final value								
		2.3	2		2	2.3	2	
Service Time	2.9	1.9	2.6	1.9	3.6	2.6	3.7	2.6
Wor	ksheet	5 - Cap	acity an	d Level	of Serv	rice		
	Eastk	ound	Westb	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	194	5	133	107	23	14	15	41
Service Time	2.9	1.9	2.6	1.9	3.6	2.6	3.7	2.6
Utilization, x	0.281	0.006	0.182	0.125	0.038	0.019	0.025	0.055
Dep. headway, hd	5.21	4.23	4.94	4.21	5.88	4.87	5.95	4.85
Capacity	693	500	739	823	575	700	750	683
95% Queue Length	1.2	0.0	0.7	0.4	0.1	0.1	0.1	0.2
Delay		7.0			8.8	7.7	8.8	7.8
LOS	A	A	A	A	A	A	A	A
Approach:								
Dolasi	0	Q	Q	2	8	Δ	R	1

8.2 A

Intersection LOS A

9.9

A

Delay

Intersection Delay 8.8

LOS

8.4

A

8.1

A

Fax:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst:

Agency/Co.: KHR Associates
Date Performed: 11/15/2017
Analysis Time Period: 7:45 - 8:45 A.M.

Intersection:
Jurisdiction:

Units: U. S. Customary

Analysis Year:

Project ID: Cumulative PM Peak Hour East/West Street: Newton Street North/South Street: Madison Street

Worksheet 2 - Volume Adjustments and Site Characteristics

| Eastbound | Westbound | Northbound | Southbound | L T R | L T R | L T R | L T R | L T R | Volume | 57 123 12 | 18 171 28 | 16 18 2 | 38 16 153 |

% Thrus Left Lane

	Eastk	oound	West	bound	North	oound	Southbound		
	L1	L2	L1	L2	L1	L2	L1	L2	
Configuration	LT	R	LT	R	LT	R	LT	R	
PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Flow Rate	180	12	189	28	34	2	54	153	
% Heavy Veh	0	0	0	0	0	0	0	0	
No. Lanes	2	2		2	2	2	2	2	
Opposing-Lanes	2	2	2	2	á	2	2	2	
Conflicting-lanes	2	2	2	2	2	2	2	2	
Geometry group		Ó		5		5	t	5	
Duration, T 1.00	hrs.								

	Doob	to a constant	T-17 4	harrad	Month	haund	Southbound			
	East	bound	west	bound	NOTLI	bound	Southbound			
	L1	L2	L1	L2	L1	L2	L1	L2		
Flow Rates:										
Total in Lane	180	12	189	28	34	2	54	153		
Left-Turn	57	0	18	0	16	0	38	0		
Right-Turn	0	12	0	28	0	2	0	153		
Prop. Left-Turns	0.3	0.0	0.1	0.0	0.5	0.0	0.7	0.0		
Prop. Right-Turns	0.0	1.0	0.0	1.0	0.0	1.0	0.0	1.0		
Prop. Heavy Vehicle0.0 0.0			0.0	0.0	0.0	0.0	0.0	0.0		
Geometry Group		5		5		5		5		
Adjustments Exhibi	t 17-3	3:								
hLT-adj		0.5		0.5		0.5		0.5		

hRT-adj	- (	0.7	- (	.7	-(	0.7	-0.7		
hHV-adj	1	1.7	1	. 7	1	1.7	1	. 7	
hHV-adj hadj, computed	0.2	-0.7	0.0	-0.7	0.2	-0.7	0.4	-0.7	
Wor	ksheet	4 - Dep	arture H	leadway	and Serv	vice Tim	e		
	Easth	ound	Westh	ound	Northb	oound	Southbound		
	L1	L2	L1	L2	L1		L1	L2	
Flow rate	180	12	189	28	34	2	54	153	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	
x, initial								0.14	
hd, final value								4.89	
x, final value									
Move-up time, m				3			2.3		
Service Time					3.7				
Wor	ksheet	5 - Cap	acity an	d Level	of Serv	ice			
	Eastb	ound	Westb	ound	Northb	ound	Southbound		
	L1	L2	L1	T.2	T.1	T.2	L1	L2	

	Eastk	oound	Westh	ound	Northb	ound	Southb	ound
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	180	12	189	28	34	2	54	153
Service Time	3.2	2.3	3.1	2.3	3.7	2.8	3.6	2.6
Utilization, x	0.275	0.015	0.282	0.036	0.057	0.003	0.089	0.208
Dep. headway, hd	5.50	4.65	5.37	4.63	6.02	5.09	5.94	4.89
Capacity	643	600	675	700	567	0	600	729
95% Queue Length	1.1	0.0	1.2	0.1	0.2	0.0	0.3	0.8
Delay	10.3	7.4	10.2	7.5	9.1	7.8	9.2	8.9
LOS	В	A	В	A	A	A	A	A
Approach:								
Delay	1	0.1	9	.8	9	.0	9	.0
LOS	E	В		A			A	
Intersection Delay	9.6		Inte	rsection	1 LOS A			

Para Table	18000	HCS 2	010 \$	Signa	lized	Inters	sectio	n Re	sults	Sumn	nary				
General Inform	nation		la de	and and					Interse	ction In	format	ion	A STATE OF	بالمالية ال	la la
Agency KHR Associates									Intersection Information  Duration, h 0.25					11	
Analyst				Analy	sis Dat	e 8/1/2	2016		Area Ty		Othe		- 4		
Jurisdiction Torrance California				Period	0/1/2			PHF	po	0.90			w.1e	*	
Urban Street		Pacific Coast Highw	vav	-		r 2016	3		Analysis	s Period	_		- 5		
Intersection		Calle Mayor		File N		-	CH-Call		-	_			-		
Project Descrip	tion	Jame mayer		1		1.4				7 111111100				<b>শ্ৰাক্</b>	- 3- 1-
Sea al Mile	51 15			135	She Si	100		4-2	The same	300	W. C.	2.10		100	1305
Demand Inform					EB			WI	В		NE	3		SB	
Approach Move	-			L	T	R	L	Т		L	Т	R	L	Т	R
Demand (v), v	/eh/h		-	120	234	171	96	26	1 163	148	805	33	180	960	308
Cianal Inform	Alan			(Alleria	DESCRIPTION OF THE PERSON OF T				- 111	111					
Signal Informa Cycle, s	_	Reference Phase	2	-	1			; ;	2 M		11 77		7	~	人
Offset, s	90.0	Reference Point	End		,	3	3	1		15	17	1	♦ .	3	
Uncoordinated	No	Simult. Gap E/W	On	Green		1.1	25.3		1.2				5		
Force Mode	Fixed	Simult. Gap N/S	On	Yellov	v 4.0 0.0	0.0	0.0	0.0		-				7	Y
Force Mode	rixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0	V 1 6 1	5	6	7	
Timer Results				EB	L	EBT	WE	BL	WBT	NB	L	NBT	SE	L	SBT
Assigned Phas	е			5		2	1		6	3		8	7	_	4
Case Number				1.1		4.0	1.1		4.0	1.1		3.0	1.1	1	3.0
Phase Duration	S			10.7		30.4	9.6		29.3	11.	-	37.7	12.3		38.9
Change Period	(Y+R	c), s		4.0		4.0	4.0		4.0	4.0	_	4.0	4.0		4.0
Max Allow Head	THE RESERVE AND ADDRESS OF THE PARTY OF THE			3.0		0.0	3.0		0.0	3.0		3.0	3.0		3.0
Queue Clearan	-			6.8			5.9			7.0		35.7	8.1		36.9
Green Extension	The state of the s			0.1		0.0	0.1		0.0 0.2			0.0		0.2	
Phase Call Prol	-	7.		0.96			0.9	3		_	0.98		0.9	99 1.00	
Max Out Proba	bility			0.00			0.00			0.00		1.00 0.0		01 1.00	
Mayamant Con	un Das	MARKE PASS	15-1		EB		Parents of	WB	- BORNE	- 11	NB			CD	
Movement Gro Approach Move		uits		L	T	R	L	T	R	L	Т	R	L	SB	R
Assigned Move	or the same of the same of	-		5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow F		) veh/h		133	237	213	107	248	223	164	894	37	200	1067	339
NAME AND ADDRESS OF TAXABLE PARTY.	-	ow Rate (s), veh/h/lr	1	1740	1827	1569	1740	1827	1589	1774	1863	1609	1774	1863	1576
Queue Service				4.8	9.5	10.0	3.9	10.1	10.6	5.0	33.7	1.3	6.1	34.9	15.1
Cycle Queue C	-			4.8	9.5	10.0	3.9	10.1	10.6	5.0	33.7	1.3	6.1	34.9	15.1
Green Ratio ( g		5 mile ( g c ), 5		0.36	0.29	0.29	0.34	0.28	0.28	0.45	0.37	0.37	0.47	0.39	0.39
Capacity ( c ), v	_			358	537	461	336	514	447	220	698	603	243	722	611
Volume-to-Capa		tio (X)		0.373	0.442	0.461	0.317	0.482	-	0.749	1.282	0.061	0.823	1.477	0.555
	-	In (50 th percentile)		47.2	109.3	97.2	38.1	118.4	-	50.2	1035.	11.4	61.8	1507.2	Belline Communication
Back of Queue	( Q ), ve	eh/In (50 th percentil	e)	1.8	4.2	3.9	1.5	4.6	4.2	1.9	40.1	0.5	2.4	58.4	5.2
	The Real Property lies and the	RQ) (50 th percenti	and the same of th	0.16	0.36	0.33	0.13	0.39	0.36	0.25	5.10	0.06	0.20	4.95	0.44
Uniform Delay (	d 1), s/	veh		20.9	25.8	26.0	21.4	26.9	27.0	21.1	28.1	18.0	20.8	27.6	21.5
Incremental Delay ( d 2 ), s/veh			0.2	2.6	3.3	0.2	3.2	3.9	1.9	137.6	0.0	3.0	222.1	0.7	
Initial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay ( d ), s/veh			21.2	28.4	29.3	21.6	30.1	31.0	23.1	165.7	18.0	23.8	249.7	22.1	
Level of Service (LOS)				С	С	С	С	С	C	С	F	В	С	F	С
Approach Delay	, s/veh	LOS		27.1		С	28.9		С	139.	3	F	173.	5	F
Intersection Del	ay, s/ve	h/LOS				12	20.1						F		
195 99			The state of	10.35	-	264	300	HANDS		100			245		190
Multimodal Re	CONTRACTOR ST	/1.00			EB	-		WB	-		NB			SB	•
Pedestrian LOS Score / LOS				2.4		В	2.4		В	2.8		C	2.8		C

	NAME OF TAXABLE PARTY.	HCS 2	010 5	Signal	ized	Inters	ectio	n Res	sults \$	Summ	nary					
Canaval Inform	nation								Interse	otion In	format	ion		14741	1. 1.	
General Information									_		_					
Agency KHR Associates				T 4 1	-:- D-4	- 10/4/0	040	_	Duration		0.25		-		1	
Analyst				-		e 8/1/2	016	_	Area Ty	pe	Othe				*	
Jurisdiction Torrance California			_	Period			_	PHF		0.90	_	_ = =	w+e			
Urban Street		Pacific Coast High	way		sis Yea	_			Analysis	-		:30	_			
Intersection		Calle Mayor		File N	lame	18-P	CH-Call	e Mayo	r Cumu	PM.xus				5 † ሰ		
Project Descrip	tion	Born Barrell	- 16		* 32	-			- 50	57 55 55	To Internal	1000		na rev	10	
Demand Inform	nation				EB		- Control of the Cont	WE	3		NB			SB		
Approach Move	ement			L	Т	R	L	T	R	L	T	R	L	T	R	
Demand (v), v	CONTRACTOR OF THE PARTY OF THE			120	276	232	57	190	136	194	105	1 50	175	959	86	
No.	100	WALL STATE OF THE STATE	100			No.					19 6 9					
Signal Informa	tion				2	2			Li Li	2	'u	_				
Cycle, s	90.0	Reference Phase	2		. 6		= '	3	5	10 5	10	-	€ ,	1	**	
Offset, s	0	Reference Point	End	Green	1 4.8	1.9	25.3	8.1	0.7	33.			5			
Uncoordinated	No	Simult. Gap E/W	On	Yellov	4.0	0.0	4.0	4.0	0.0	4.0		1	7	1	寸	
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7		
Timer Results		(Tresum 14-15)		EB		EBT	WB		WBT	NB	END CE	NBT	SB		SBT	
Assigned Phase	2			5	-	2	1		6	3	-	8	7		4	
Case Number	-			1.1		4.0	1.1		4.0	1.1	-	3.0	1.1		3.0	
Phase Duration				10.7		31.2	8.8		29.3	12.8	THE RESERVE OF THE PERSON NAMED IN	37.9	12.	_	37.2	
		\ 0		4.0		4.0	4.0		4.0	4.0	-	4.0	4.0		4.0	
Change Period,		and the state of t				0.0	3.0		0.0	-	_	2.9			-	
Max Allow Head	_			_		0.0	-		0.0 3.0		_		3.0 8.0		2.9	
Queue Clearan	-			6.8	-	0.0	4.3 0.1	_	0.0 0.2		_	35.8	-	_	35.2	
Green Extensio	ACCORDING TO SECURE	( g e ), s				0.0	0.79				1.00 1.00		0.2	-	0.0	
Phase Call Prob	-			0.96			_			-			0.99		1.00	
Max Out Probat	ollity		N. STATE	0.00		7305	0.00				0.01 1.00		0.01		1.00	
Movement Gro	up Res	ults			EB			WB			NB			SB		
Approach Move	_			L	Т	R	L	T	R	L	Т	R	L	T	R	
Assigned Move	and the same of the same of			5	2	12	1	6	16	3	8	18	7	4	14	
Adjusted Flow F		), veh/h		133	302	263	63	190	173	216	1168	56	194	1066	96	
		ow Rate (s), veh/h/li	n	1740	1827	1548	1740	1827	1573	1774	1863	1609	1774	1863	1576	
Queue Service	Married World Street			4.8	12.4	12.8	2.3	7.5	8.0	6.6	33.8	2.0	6.0	33.2	3.7	
Cycle Queue Cl	_			4.8	12.4	12.8	2.3	7.5	8.0	6.6	33.8	2.0	6.0	33.2	3.7	
Green Ratio ( g		(3 - // -		0.36	0.30	0.30	0.33	0.28	0.28	0.47	0.38	0.38	0.46	0.37	0.37	
Capacity ( c ), v				402	553	469	287	514	443	254	700	605	240	686	581	
Volume-to-Capa		tio (X)		0.332	0.545	0.560	0.221	0.369	0.390	0.848	1.667	0.092	0.809	1.553	0.165	
The second second second	Name and Address of the Owner, where the Owner, which is the Own	In (50 th percentile)		47.1	144.3	125.4	22.4	86	77.7	72.4	1887.	17.4	60.3	1601.6	-	
Back of Queue	(Q) ve	eh/In ( 50 th percentil	le)	1.8	5.6	5.0	0.9	3.3	3.1	2.8	73.2	0.7	2.3	62.1	1.3	
		RQ) (50 th percent	the last transfer of the last	0.16	0.48	0.43	0.07	0.29	0.27	0.36	9.29	0.09	0.20	5.26	0.11	
Uniform Delay ( d 1 ), s/veh					26.2	26.3	21.7	25.9	26.1	20.7	28.1	18.1	20.9	28.4	19.1	
Incremental Del	and the last of th	CALL SECTION AND ADDRESS OF THE PARTY OF THE		0.2	3.8	4.8	0.1	2.0	2.6	5.9	306.6	0.0	2.5	256.0	0.0	
Initial Queue Delay ( d 3 ), s/veh			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Control Delay ( d ), s/veh			20.8	30.0	31.1	21.8	27.9	28.7	26.6	334.7	18.2	23.4	284.4	19.2		
Level of Service (LOS)				С	С	С	С	С	С	С	F	В	С	F	В	
Approach Delay, s/veh / LOS				28.7		С	27.3	3	С	276.	3	F	228.	3	F	
Intersection Del	the state of the state of						8.6						F			
		h See Street B	1230		ED	1	Reg !	MA	100		NB	A STATE	Charles .		74 30	
Multimodal Results				2.4	EB			WB	B			С		2.8 C		
Pedestrian LOS Score / LOS						В	2.4								C	