Appendix D:

Transportation and Circulation

DRAFT

TRAFFIC IMPACT ANALYSIS

LOWER HESSE PARK

City of Rancho Palos Verdes, CA

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March 12, 2012

DRAFT TRAFFIC IMPACT ANALYSIS

LOWER HESSE PARK

City of Rancho Palos Verdes, California

Prepared by

arch beach
CONSULTING

Project No. 11003b
March 12, 2012

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 INTRODUCTION

The following presents the Traffic Impact Analysis (TIA) prepared by Arch Beach Consulting for the proposed 18 acre Lower Hesse Park (proposed project) on Locklenna Lane, west of, and adjacent to, the existing Fred Hesse Jr. Community Park, in the City of Rancho Palos Verdes (City). The proposed project would develop a City park with park amenities, including tennis courts and a basketball court, on a vacant 18 acre site. This TIA has been prepared consistent with the policies of the City of Rancho Palos Verdes' General Plan Circulation Element, Los Angeles County's *Traffic Impact Analysis Report Guidelines*, and methodologies from the Institute of Transportation Engineers (ITE).

Purpose and Objectives of the TIA

The purpose of this TIA is to evaluate the traffic and circulation, and parking impacts of the proposed project. The study objectives of this TIA include:

- Documentation of existing traffic conditions and existing plus project traffic conditions corresponding to when the proposed project would be completely built-out and fully occupied.
- Determination of additional circulation system features and system management actions needed to achieve City level of service requirements with implementation of the proposed project (if required).
- Determination of the adequacy of proposed on-site parking facilities based on the peak demands of the project's proposed land uses.

Per review of Appendix B of the 2004 Los Angeles County Congestion Management Program's (CMP) *Guidelines for CMP Transportation Impact Analysis*, a regional CMP-level traffic analysis is not required for the proposed project since it would not add 50 or more weekday peak hour trips to a CMP facility.

Site Location and Study Area

The project site is located within the City of Rancho Palos Verdes and currently consists of vacant land. Specifically, the project site is located on the north and east sides of Locklenna Lane, adjacent to the Fred Hesse Jr. Community Park along Hawthorne Boulevard.

The project site is generally located in the northern portion of the City, adjacent to Palos Verdes Estates and Rolling Hills Estates. Regional access is provided by Hawthorne Boulevard. Local access to the site is provided by Locklenna Lane and Verde Ridge Road.

Per discussion with the City, the study area intersection and roadways are as follows:

1. Lower Hesse Park access/Locklenna Lane (proposed unsignalized intersection)
2. Hawthorne Boulevard/Locklenna Lane
3. Hawthorne Boulevard/Doverridge Drive
4. Hawthorne Boulevard/Verde Ridge Road
5. Locklenna Lane, Verde Ridge Road to Hawthorne Boulevard
6. Verde Ridge Road, Locklenna Lane to Hawthorne Boulevard

Figure 1 illustrates the project site location and study area intersections.

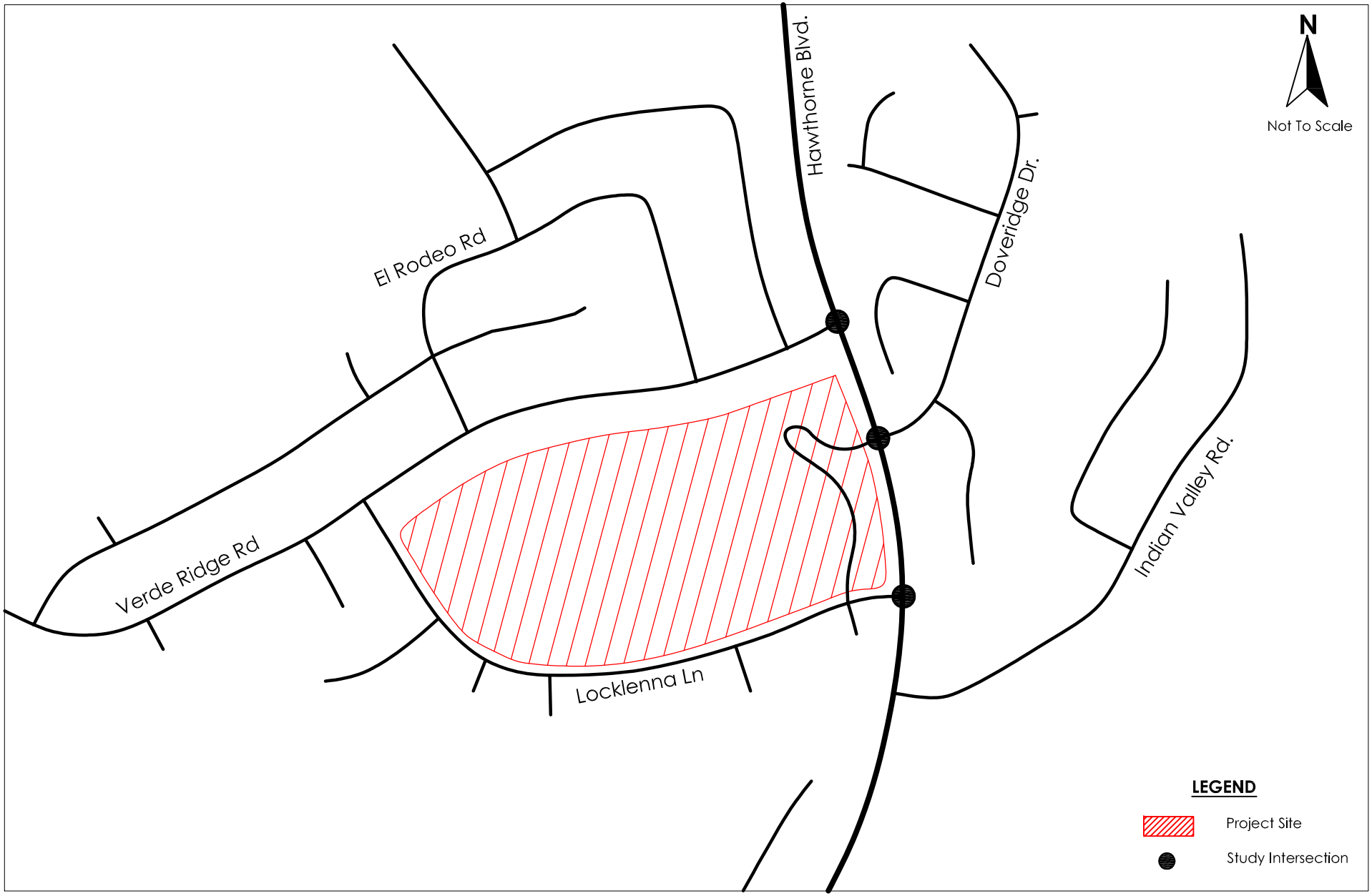

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Figure 1
Project Site Location
and Study Area

Methodology

Per consultation with the City Traffic Engineer, the County of Los Angeles (County), *Traffic Impact Analysis Report Guidelines* (1997) was used for the analysis of the intersection and roadway segments in the study area.

For unsignalized intersections, the methodologies contained in the *Highway Capacity Manual* (HCM) would be used to determine control delay. The *Traffix* level of service software package was used to determine intersection LOS in the study area.

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found the in the Highway Research Board Special Report 209, *Highway Capacity Manual* (HCM 2000). Brief descriptions of the six levels of service for unsignalized intersections are shown in Table A. Table B provides a description of each specific level of service grade (LOS A through LOS F).

Table A – Level of Service Definitions for Unsignalized Intersections Based on Delay

Level of Service	Delay per Vehicle (in seconds)
A	≤ 10
B	> 10 – 15
C	> 15 – 25
D	> 25 – 35
E	> 35 – 50
F	> 50

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Significance Criteria

Based on review of the City's General Plan, there is no specific minimum level of service criteria established. The relevant significance criteria for intersections in the City of Rancho Palos Verdes are defined in the County's *Traffic Impact Analysis Report Guidelines*. The significance criteria used for signalized intersections in this TIA is shown in Table C.

Table C – Significant Impact Thresholds for Intersections

Baseline (pre-project) Condition		Project V/C Increase
LOS	V/C	
C	0.71 to 0.80	0.04 or more
D	0.81 to 0.90	0.02 or more
E/F	0.91 or more	0.01 or more

Source: County of Los Angeles, *Traffic Impact Analysis Report Guidelines*, 1997.

Table B – Level of Service Descriptions

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

SOURCE: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

Since the study area intersections are all unsignalized, the proposed project would create a significant impact if it causes an intersection to operate at LOS E or F, from LOS D or better.

Traffic Analysis Scenarios

This TIA analyzed the following traffic scenarios:

Existing Condition

Existing traffic volumes in the study area were taken from the *Vehicle/Pedestrian Access Study in the Vicinity of Hawthorne Boulevard and Hesse Park* prepared by Willdan Engineering on March 4, 2011 (herein after known as the "Willdan study"). Weekday peak hour and daily traffic counts in the study area were collected in March 2010. The existing traffic scenario constitutes the environmental setting in accordance with the California Environmental Quality Act (CEQA) analysis at the time that the hearing body reviews the proposed project.

Existing plus Project Condition

Since a majority of the area surrounding the project site is built-out (primarily residential land uses), no significant increases in ambient traffic volumes are anticipated. The Existing plus Project Condition traffic was developed by adding the proposed project traffic to the existing traffic conditions. This scenario was the basis for determining project-specific impacts and mitigation measures.

2.0 PROJECT DESCRIPTION AND TRAFFIC GENERATION

The following section provides information on the permanent operation of the proposed project relative to the local and regional circulation network.

Background

Frank Hesse Memorial Park is an approximately 28 acre area which consists of two parts: Upper Hesse Park and Lower Hesse Park. Upper Hesse Park is approximately 10 acres in size and is improved with a community center, parking lot, playground equipment, and a multi-use athletic field with extensive landscaping. Lower Hesse Park is approximately 18 acres and is mostly undeveloped. Both Upper and Lower Hesse Parks are currently designated on the City's Zoning Map as Open Space Recreational. Currently, informal footpaths and trails exists on the Lower Hesse site, and are currently used primarily by the neighborhood for walking, including regular dog walking.

In 1999, local residents developed conceptual plans for Lower Hesse Park and worked with City Staff to improve the condition of Lower Hesse Park. New amenities were planned for the park such as a small dirt parking lot, a series of trails, a bridge over a natural drainage course, picnic facilities, and a sand volleyball court. Currently, most of Lower Hesse Park is not irrigated and outside of the rainy seasons, the park landscape is often dry and brown with little planted vegetation. Lower Hesse Park has not been renovated or improved since the installation of the aforementioned improvements in 1999.

The City of Rancho Palos Verdes currently owns and maintains the existing improvements on both Upper and Lower Hesse Parks with the western portion of the park purchased from the Palos Verdes Peninsula Unified School District in 1977. Lower Hesse Park remains in much the same undeveloped condition as when it was acquired by the City. The property is zoned "Open Space Recreation" (OR) with a General Plan Land Use designation of "Passive Recreational". The site is currently a largely undeveloped lot surrounded on all sides by single-family residential uses. The site itself is downslope from Upper Hesse Park and has gently sloping topography.

Project Description

Figure 2 illustrates the site plan of the proposed project. The proposed project is the establishment of a Master Plan for Lower Hesse Park. Two conceptual plans were originally proposed for Lower Hesse Park (Pacific Plan and Catalina Plan) and these plans were presented and commented upon at public workshops. In the case of Lower Hesse Park, a favored concept plan emerged (Pacific Plan) from the community workshop sessions. That conceptual plan included the following proposed improvements:

- Improving, expanding and realigning the existing trail system on the property. This includes expansion of trail access to more of the site, including the open area at the northern section of the park. The trails would comply with the requirements of the Americans Accessibility Act Guidelines (ADAG) and California title 24.
- Updating and constructing viewing and picnic nodes with benches, picnic tables, drinking fountains with dog bowls, trash cans, BBQs, and landscaping (trees and shrubs) etc.
- Improving the existing bridge and constructing two new bridges over the proposed greenbelt/dry creek that divides the site into two areas.

N

Not To Scale

Source: MIA LEHRER & ASSOCIATES

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Figure 2
Project Site Plan

- Enhancing the aesthetic condition of the existing greenbelt with the importation of rock material and new landscaping (trees and shrubs).
- Planting drought tolerant ornamental trees and shrubs selected from a colorful plant palette.
- Installing a lawn area for informal use by the public for picnics, games, etc.
- Repairing and installing irrigation for the proposed lawn area, landscape pods, and picnic areas.
- Installing post and cable fencing along the perimeter of the park adjacent to the roadway.
- Installing "mutt mitt" stations.
- Constructing three tennis courts (non-illuminated).
- Constructing an outdoor basketball court (non-illuminated).
- Renovating the existing sand volleyball court.
- Constructing an outdoor par course with approximately 6 stations along the outer ring trail system.
- Constructing a staff office/restroom/storage building.

In addition to the improvements described above, the concept plan for Lower Hesse Park includes the following accessibility/utility improvements:

- Installing park identification signs at the entrance off Locklenna Lane.
- Expanding and improving the existing parking lot to accommodate approximately 50 vehicles.
- Improving ingress and egress to the park by expanding the driveway entrance width and improving the parking lot circulation with a one-way circular pattern driveway aisle around the existing sand and volleyball court.

Project Traffic

Trip Generation

Trip generation estimates for the proposed project were developed using trip rates from *Trip Generation, 8th Edition* (Institute of Transportation Engineers – ITE, 2008) for general city park uses. Although the tennis courts and basketball court would be considered as ancillary park uses, to be conservative, ITE trip rates for the tennis courts were also used to generate trips for the three proposed tennis courts. A summary of the trip generation rates and resulting vehicle trips for the proposed project is presented in Table E.

As shown in the table, the proposed project would generate approximately 129 daily trips, 13 trips in the a.m. peak hour (seven inbound and six outbound), and 16 trips in the p.m. peak hour (eight inbound and eight outbound).

Trip Distribution and Assignment

Trip distribution percentages for the proposed project were based on review of current commute corridors and travel routes in the study area. Figure 3 illustrates the trip distribution percentages for the proposed project. It is anticipated that a majority of park users would be from the adjacent residential neighborhood. These users are anticipated to walk or ride their bicycles to the proposed park. The rest of the users, outside of the immediate residential neighborhood, would likely drive to the proposed park.

Table E – Project Trip Generation Estimates

Land Use	Size		Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Trip Rates									
City Park (ITE Code 411) [1]	per	acre	1.59	0.22	0.22	0.44	0.22	0.22	0.44
Tennis Courts (ITE Code 490) [2]	per	court	33.31	0.84	0.83	1.67	1.42	1.41	2.83
Trip Generation									
City Park	18	acres	29	4	4	8	4	4	8
Tennis Courts	3	courts	100	3	2	5	4	4	8
TOTAL TRIP GENERATION			**129**	**7**	**6**	**13**	**8**	**8**	**16**

Notes:
Trip rates based on *Trip Generation, 8th Edition*, Institute of Transportation Engineers (ITE), 2008.
[1] – ITE City Park rate only provides daily trips based on acreage. Peak hour trip rates are conservatively based on 50% of daily trips to occur during the two peak hours (25% during a.m. peak hour and 25% during p.m. peak hour). Also, trip rate includes trips for all other ancillary park uses, except for "tennis courts".
[2] – Trip rates not available for daily and p.m. peak hour using "court" variable, therefore rates determined proportionally for "court" and "acre" variables in ITE.

Based on the location of the project site, relative to the park users it would serve, a 50 percent to the north and 30 percent to the south trip distribution on Hawthorne Boulevard was assumed. The remaining 20 percent of park users would be from the surrounding residential areas (approximately 13 percent from the north, five percent from the east, and two percent from the west).

The trip distribution percentages were applied to the proposed project's trip generation to calculate the turn movement volumes that the project would generate at the project's access on Locklenna Lane, and the rest of the study area intersections and roadways. The resulting daily, a.m. and p.m. peak hour trip assignments are also shown in Figure 3.

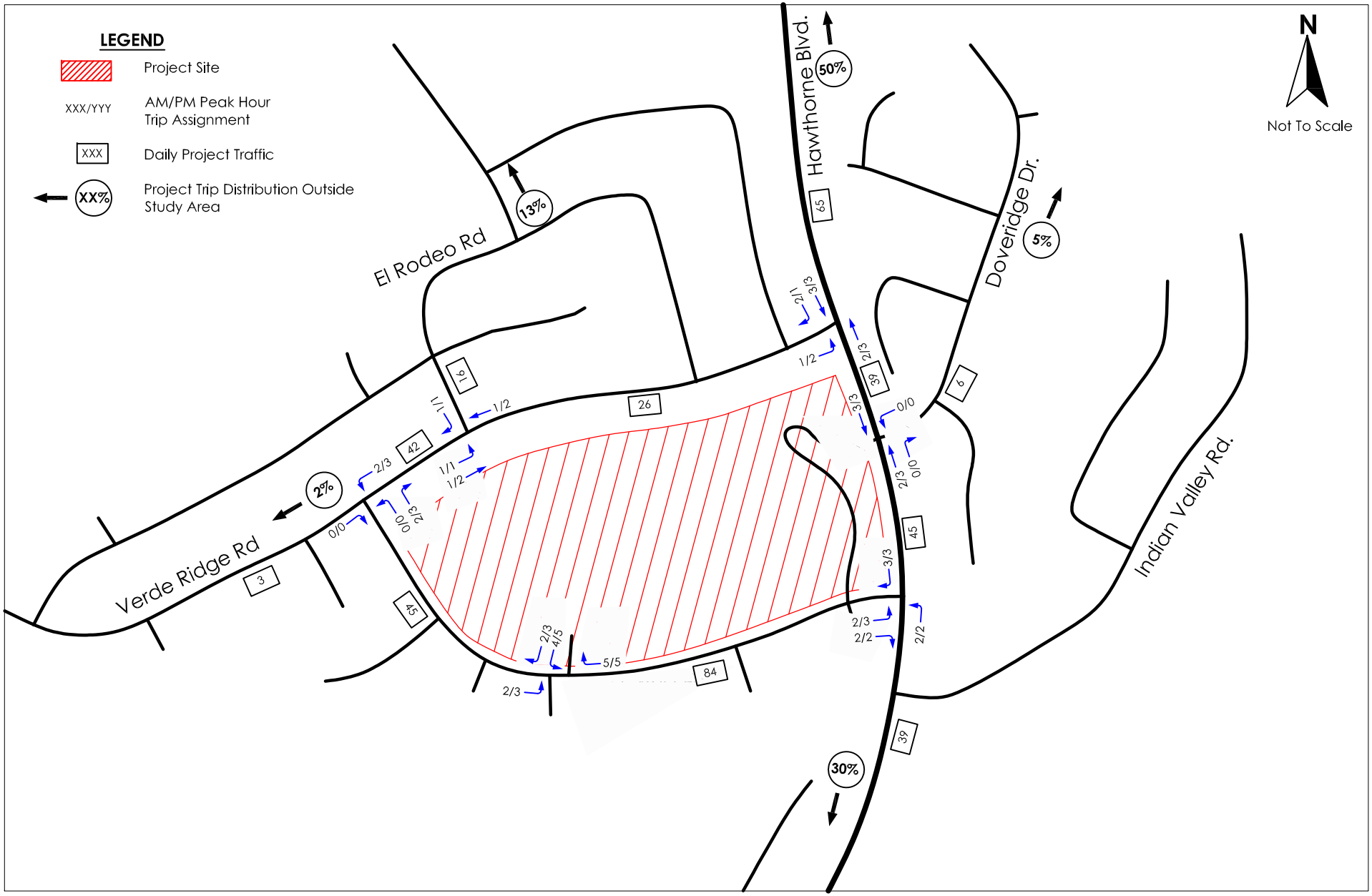

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Figure 3
Project Trip Distribution and Assignment

3.0 AREA CONDITIONS

The following section describes the existing traffic conditions in the project study area.

Existing Traffic Conditions

Roadways

Regional access to the proposed project is provided by Hawthorne Boulevard. Local access to the site is provided by Locklenna Lane and Verde Ridge Road. The following describes the existing roads in the study area.

Hawthorne Boulevard

Hawthorne Boulevard is designated in the City's General Plan as an Arterial. Hawthorne Boulevard is a divided four-lane north-south roadway with a raised median along most of its length through the City, with median breaks/turn pockets at intersections. This roadway would provide direct access to the project site via its intersections with Locklenna Lane and Verde Ridge Road. To the north, Hawthorne Boulevard traverses through Rolling Hills Estates and Torrance, and eventually becomes La Brea Avenue in Inglewood. To the south, Hawthorne Boulevard terminates at the coast at Palos Verdes Drive West. The roadway also contains Class II (striped) bike lanes on both sides of the roadway. On-street parking is prohibited on both sides of the street in the project vicinity. The posted speed limit on the roadway is 45 miles per hour (MPH). Average daily traffic volumes in the project vicinity are approximately 15,500 vehicles per day.

Locklenna Lane

Locklenna Lane is a two-lane undivided (Local) residential street that would provide vehicle, pedestrian, and bicycle access to the project site at the proposed driveway, located approximately 500 feet east of Faircove Drive. This street is a single-loaded (driveways on one side) residential street on the south side, and is approximately 0.4 miles in length between Verde Ridge Road and Hawthorne Boulevard. Other residential streets such as Faircove Drive, Driftwood Lane, Seaspray Drive – Upper Hesse Park driveway, and two small cul-de-sacs feed into Locklenna Lane. There is a slight grade on the street, sloping downward from east to west. On-street parking is allowed on both sides of the street. Average daily traffic volumes are approximately 800 vehicles per day. There is no posted speed limit on Locklenna Lane, however since it's within a residential area, the prima facie speed limit is 25 miles per hour (MPH). Average speed on Locklenna Lane is 28 MPH eastbound with an 85th percentile speed of 34 MPH. For the westbound direction, average speed is 31 MPH with an 85th percentile speed of 37 MPH.

Verde Ridge Road

Verde Ridge Road is a two-lane undivided (Local) residential street that would provide vehicle access to the project site via its intersection with Locklenna Lane. This street is a double-loaded (driveways on both sides) residential street, and is approximately 0.6 miles in length between its western terminus (cul-de-sac) and Hawthorne Boulevard. Other residential streets such as Kings Harbor Drive, El Rodeo Road, and Warnick Road feed into Verde Ridge Road. On-street parking is allowed on both sides of the street. Average daily traffic volumes are approximately 2,180 vehicles per day. There is no posted speed limit on Verde Ridge Road, however since it's also within a residential area, the prima facie speed limit is 25 MPH. Average speed on Locklenna Lane is 32 MPH eastbound with an 85th percentile speed of 38 MPH. For the westbound direction, average speed is 33 MPH with an 85th percentile speed of 39 MPH.

Traffic Volumes

Figure 4 illustrates the existing daily, a.m. and p.m. peak hour traffic volumes at the study locations. Existing traffic volumes in the study area were taken from the *Vehicle/Pedestrian Access Study in the Vicinity of Hawthorne Boulevard and Hesse Park* prepared by Willdan Engineering on March 4, 2011. Weekday peak hour and daily traffic counts in the study area were collected in March 2010. Appendix A contains a copy of the Willdan study with the raw traffic volume worksheets.

Levels of Service

Based on the analysis methodology described in Section 1.0, the existing a.m. and p.m. peak hour traffic volumes were analyzed using the HCM methodology in the Traffix LOS software to determine the intersection delay and LOS values. Table F presents the results of the existing LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Table F – Existing Condition Intersection Level of Service Summary

Intersection	Control	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1. Lower Hesse Park Dwy/Locklenna Lane	--	*does not exist*		*does not exist*	
2. Hawthorne Blvd/Locklenna Lane	1-way stop	14.1 sec	B	15.1 sec	C
3. Hawthorne Blvd/Doverridge Drive	2-way stop	27.2 sec	D	21.6 sec	C
4. Hawthorne Blvd/Verde Ridge Road	1-way stop	30.8 sec	D	17.1 sec	C

Note: LOS determined using the *Highway Capacity Manual* (HCM) method for unsignalized intersections.

According to the table, all three existing study area intersections are currently operating with satisfactory levels of service at LOS D or better in one or both peak hours.

It should be noted that the Willdan study conducted a traffic signal warrant analysis for the three intersections on Hawthorne Boulevard. The intersection of Hawthorne Boulevard/Verde Ridge Road meets the following warrants: 1) Warrant 1 – Eight Hour Vehicular Volume for Conditions A and B; and, 2) Warrant 2 – Four Hour Vehicular Volume. The other two intersections do not meet any of the warrants.

The City was awarded a grant to synchronize the traffic signals along Hawthorne Boulevard. Upon successful completion of this project, access to and from Hawthorne Boulevard will be improved. The synchronization project will improve safety along Hawthorne Boulevard by reducing speed, creating gap opportunities for side-street access, and improve vehicle flow. City staff has indicated that after the completion of the synchronization project, the need for new traffic signals along Hawthorne Boulevard will be minimized.

Transit Service

Transit services in the project vicinity are provided by the Palos Verdes Peninsula Transit Authority (PVPTA). There are nine routes that serve Palos Verdes Estates, Rancho Palos Verdes, and Rolling Hills Estates. These routes are: Blue, Gold, Green, Green – Eastview, Silver, White, Orange, Route 225, and Route 226. All routes operate from 6:30 a.m. to 6:30 p.m. from Monday through Friday except holidays. These routes also connect with other regional transit services provided by the Metropolitan Transportation Authority (MTA), the Municipal Area Express (MAX), and the Los Angeles Department of Transportation (LADOT). The PVPTA Blue route would service the proposed project with stops on Hawthorne Boulevard in front of the existing Upper Hesse Park and community center.

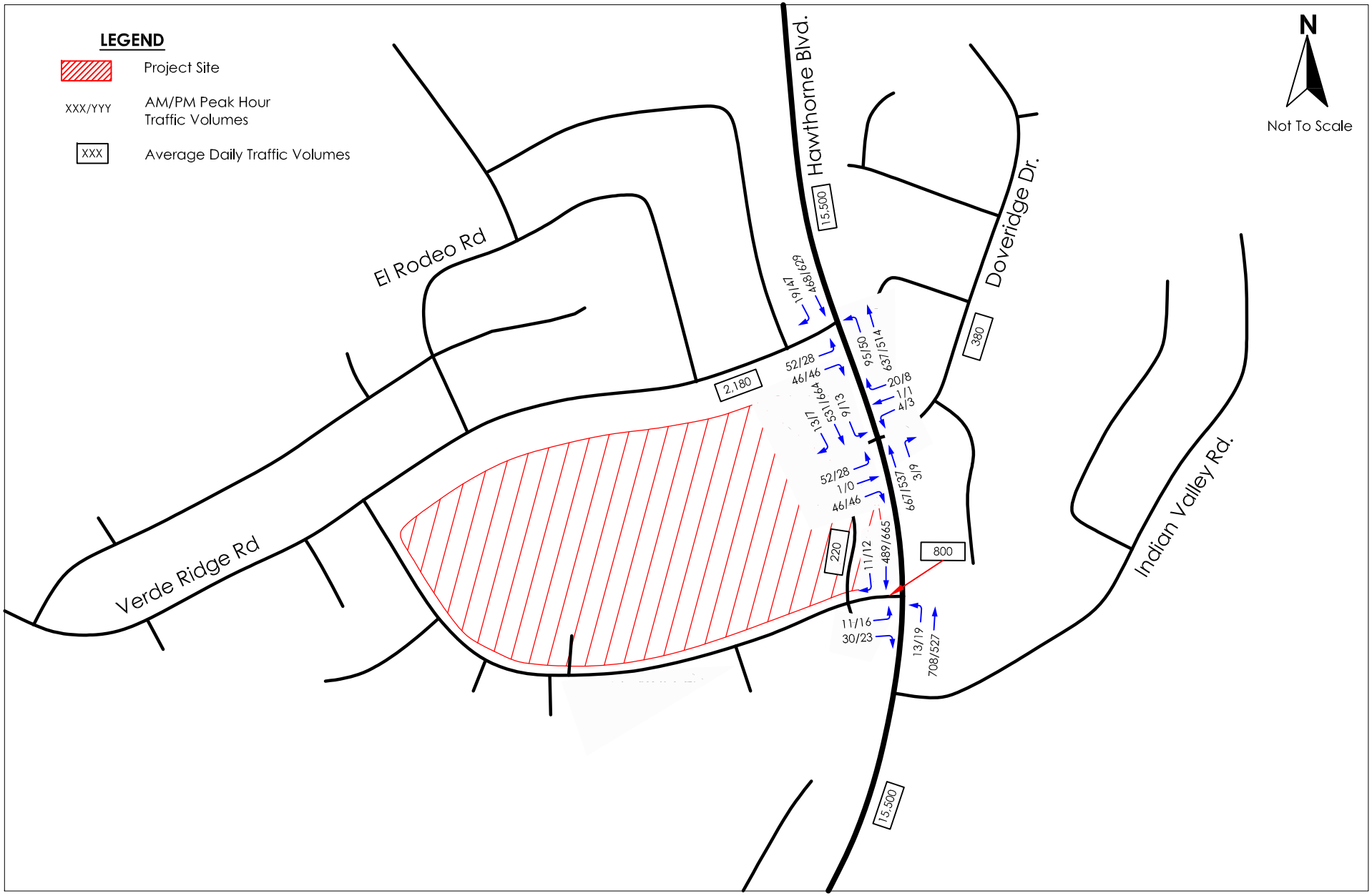

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Figure 4
Existing Traffic Volumes

Pedestrian and Bicycle Facilities

There are three basic categories of bike trails within the City, as defined by Caltrans. Class I bike paths involve designs which are completely separated from traffic lanes. Class II paths are on-street paths that are located along the edge of a street with a striped lane denoting this bike path. Class III paths also are located along a street edge, but are not striped. These paths are identified by street signs only. Hawthorne Boulevard currently has Class II bike lanes on both sides of the street.

Currently, there are sidewalks along both sides of Locklenna Lane along its entire length. All of the adjacent residential streets also contain sidewalks on both sides of the street, and are all connected.

In March 2011, the City analyzed pedestrian access on Hawthorne Boulevard at the existing Upper Hesse Park (Willdan study). The Willdan study provided three alternative improvements along Hawthorne Boulevard to enhance pedestrian safety: 1) traffic signal at Hawthorne Boulevard/Verde Ridge Road; 2) acceleration lanes for side-street left-turning traffic at Verde Ridge Road and Locklenna Lane; and, 3) installation of a high-visibility crosswalk.

In addition, the City was recently awarded grant to synchronize traffic signals along Hawthorne Boulevard. The City feels this synchronization project will improve safety along Hawthorne Boulevard by reducing speed, creating gap opportunities for side-street access, and improve vehicle flow. The City feels that this project would be a "do nothing" option until the effects of the signal synchronization projects are realized.

Existing plus Project Traffic Conditions

This section describes the potential impact of the proposed project on the existing traffic condition. Since a majority of the area surrounding the project site is built-out (primarily residential land uses), no significant increases in ambient traffic volumes are anticipated. The Existing plus Project Condition traffic was developed by adding the proposed project traffic to the existing traffic conditions. This scenario was the basis for determining project-specific impacts and mitigation measures.

Traffic Volumes

The project trip assignment noted in Figure 3 was added to the existing traffic volumes in Figure 4 which resulted in the Existing plus Project traffic condition. Figure 5 illustrates the Existing plus Project daily, a.m. and p.m. peak hour traffic volumes.

Levels of Service

The Existing plus Project a.m. and p.m. peak hour traffic volumes were input into the Traffix level of service software to determine the Existing plus Project's intersection delay and LOS values at the study area intersections. Table G presents the Existing plus Project intersection levels of service. Appendix B contains the LOS worksheets.

Based on the LOS analysis, the proposed project would not create a significant impact to the study area intersections, as all intersections would continue to operate with satisfactory LOS at LOS D or better in the peak hours. The traffic volumes from the proposed project would add less than one second of delay to the stop-controlled approaches at the existing intersections in both peak hours. In addition, the new unsignalized driveway intersection on Locklenna Lane is forecast to operate at LOS A in both peak hours, with 8.8 seconds of delay on the driveway approach in the a.m. peak hour, and 8.7 seconds of delay in the p.m. peak hour.

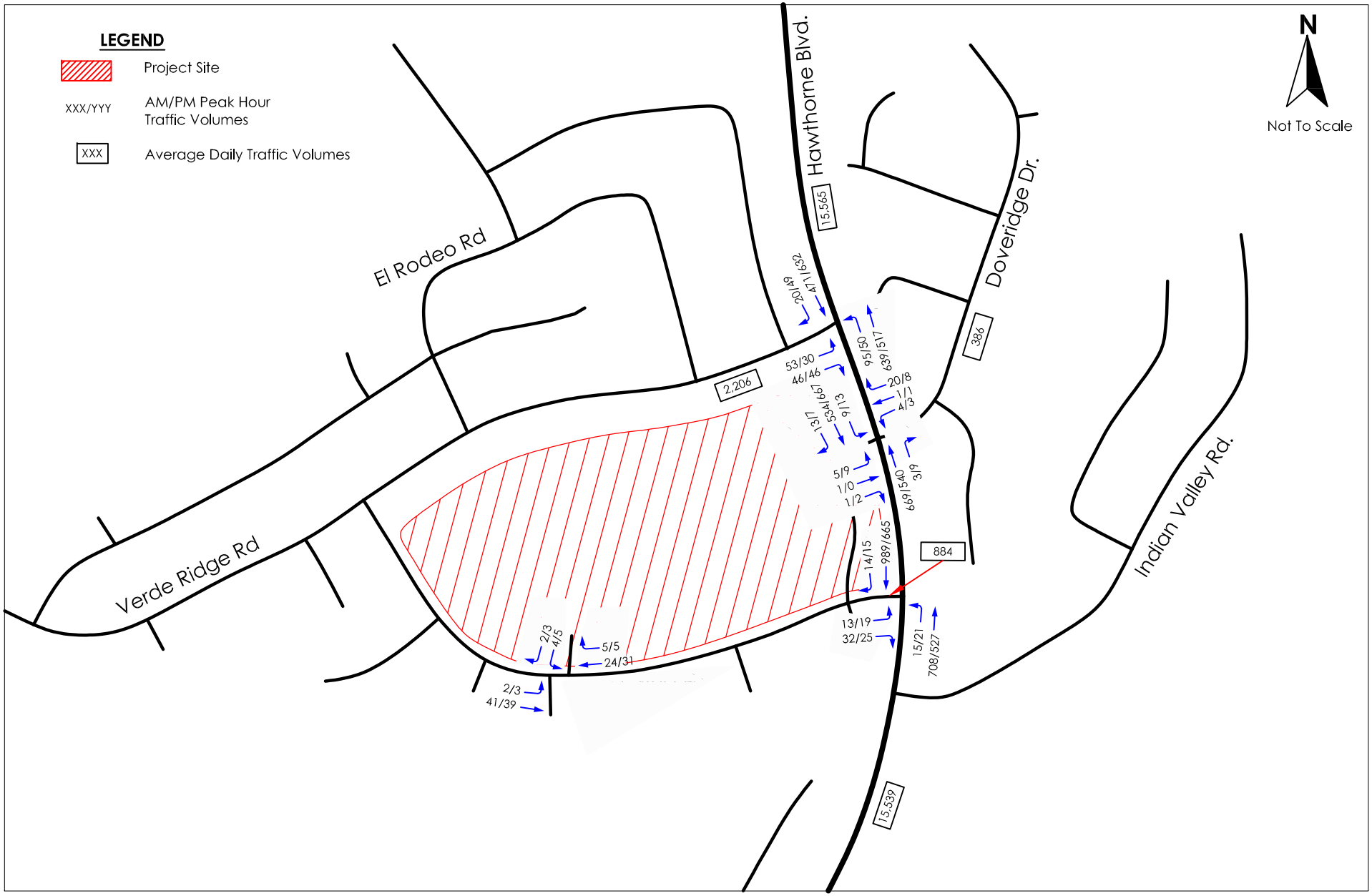

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Figure 5
Existing plus Project
Traffic Volumes

Table G – Existing plus Project Intersection Level of Service Summary

Roadway Segment	Control	Existing Condition				Existing plus Project					
		AM Peak Hour		PM Peak Hour		AM Peak Hour			PM Peak Hour		
		Delay	LOS	Delay	LOS	Delay	LOS	Change	Delay	LOS	Change
1. Lower Hesse Park Dwy/Locklenna Ln	--	*does not exist*		*does not exist*		8.8 sec	A	+8.8	8.7 sec	A	+8.7
2. Hawthorne Blvd/Locklenna Lane	1-way stop	14.1 sec	B	15.1 sec	C	14.6 sec	B	+0.5	15.6 sec	C	+0.5
3. Hawthorne Blvd/Doverridge Drive	2-way stop	27.2 sec	D	21.6 sec	C	27.4 sec	D	+0.2	21.8 sec	C	+0.2
4. Hawthorne Blvd/Verde Ridge Road	1-way stop	30.8 sec	D	17.1 sec	C	31.6 sec	D	+0.8	17.6 sec	C	+0.5

Roadway Speeds

As part of the existing conditions data collection, the City requested that speed surveys be collected on Locklenna Lane and Verde Ridge Road. The speed surveys were collected on both roadways during a typical weekday on January 12, 2012. The surveys were collected using standard engineering practice with more than 100 samples collected per direction of travel over a 24-hour period. The 50th percentile and 85th percentile speeds were calculated and are shown in Table H. The raw data for the speed surveys is contained in Appendix C.

Table H – Existing Speed Survey Results

Segment	# of Samples	50th Percentile	85th Percentile
Locklenna Ln – eastbound	203	28 MPH	34 MPH
Locklenna Ln – westbound	225	31 MPH	37 MPH
Verde Ridge Road – eastbound	314	32 MPH	38 MPH
Verde Ridge Road – westbound	409	33 MPH	39 MPH

Prima Facie Speed Limits

Since there are no posted speed limits on Locklenna Lane and Verde Ridge Road, the prima facie speed, per California Vehicle Code – Section 22352, is the established speed limit as discussed below:

California Vehicle Code Section 22352

"...22352. (a) The prima facie limits are as follows and shall be applicable unless changed as authorized in this code and, if so changed, only when signs have been erected giving notice thereof:

...(2) ***Twenty-five miles per hour****:*

(A) On any highway other than a state highway, in any business or residence district unless a different speed is determined by local authority under procedures set forth in this code.

(B) When approaching or passing a school building or the grounds thereof, contiguous to a highway and posted with a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching or passing any school grounds which are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a standard "SCHOOL" warning sign. For purposes of this subparagraph, standard "SCHOOL" warning signs may be placed at any distance up to 500 feet away from school grounds.

(C) When passing a senior center or other facility primarily used by senior citizens, contiguous to a street other than a state highway and posted with a standard "SENIOR" warning sign. A local authority is not required to erect any sign pursuant to this paragraph until donations from private sources covering those costs are received and the local agency makes a determination that the proposed signing should be implemented. A local authority may, however, utilize any other funds available to it to pay for the erection of those signs..."

Both, Locklenna Lane and Verde Ridge Road are within a "residence district", so per the California Vehicle Code, the speed limit on both roadways is 25 MPH. As shown in Table H, the 50th and 85th percentile speeds (between 28 MPH and 39 MPH) on both streets currently exceed the prima facie speed limit of 25 MPH. Average speed on Locklenna Lane is 28 miles per hour (MPH) eastbound with an 85th percentile speed of 34 MPH. For the westbound direction, average speed is 31 MPH with an 85th percentile speed of 37 MPH. Average speed on Locklenna Lane is 32 MPH eastbound with an 85th percentile speed of 38 MPH. For the westbound direction, average speed is 33 MPH with an 85th percentile speed of 39 MPH.

The proposed project would add 129 daily trips to Locklenna Lane, which is approximately 15 percent of the roadway's daily traffic. On Verde Ridge Road, the proposed project would add 42 daily trips, which is approximately two percent of the roadway's daily traffic. With exception to the segment of Locklenna Lane between the proposed driveway and Hawthorne Boulevard, a majority of the traffic destined to the park would be from the surrounding, adjacent residences.

The City does not have any specific significance criteria for roadway speed, however, since the current (i.e., without project) 50th and 85th percentile speeds on both roadways are above 25 MPH, the City may consider the installation of the following traffic calming measures, as developed by the Institute of Transportation Engineers (ITE) and the Federal Highway Administration (FHWA).

TRAFFIC CALMING MEASURES

The following traffic calming measures are some of the measures recommended the publication titled *Traffic Calming: State of the Practice* by the ITE and FHWA, August 1999:

- **Speed humps** (also known as – a.k.a., speed bumps, road humps, undulations).
  - Advantages
    - Effective on mid-block speeds (shown to reduce speeds by five to 10 MPH).
    - Low cost.
  - Disadvantages
    - Unattractive.
    - Increase in noise.
    - Increased liability.
- **Raised Crosswalks/Intersections** (a.k.a., speed tables, speed platforms).
  - Advantages
    - Effective on mid-block streets.
    - Allows for aesthetic treatments (stamped/textured designs).
    - More gentle than speed humps.
  - Disadvantages
    - Not as effective as speed humps.
    - More expensive than speed humps.
    - Increase in noise.
    - Increased liability.
- **Neighborhood Traffic Circles** (a.k.a., intersection islands).
  - Advantages

        - Aesthetically pleasing.
        - Calms traffic on both intersecting streets.
        - Less right-of-way (ROW) required when compared to roundabouts.
    - Disadvantages
        - Difficult for larger vehicles to maneuver.
        - Not effective on mid-block speeds.
        - Pedestrian and bicycle safety.
        - Driver confusion due to minimal channelization.
- **Roundabouts** (a.k.a., rotaries).
    - Advantages
        - Effective on higher volume streets.
        - Aesthetically pleasing.
        - Channelizes vehicles into travel paths.
        - Calms traffic down on both intersecting streets.
        - Pedestrians and bicyclists protected by "splitter islands".
    - Disadvantages
        - High cost due to maintenance and construction.
        - Requires additional ROW not found on residential streets.
        - Not effective on mid-block speed.
        - Driver confusion when compared to standard intersections.
- **Chicanes** (a.k.a., deviations, serpentines, twists).
    - Advantages
        - Effective mid-block speed control device.
    - Disadvantages
        - If poorly designed, cars will cut path through centerline.
        - High cost due to curb realignment and landscaping.
        - Loss of on-street parking.
- **Neckdowns** (a.k.a., bulb-outs, intersections narrowings, safe crossings).
    - Advantages
        - Shortens pedestrian travel at crossing.
        - Increases pedestrian comfort at intersection.
        - Effective mid-block or intersection speed control device.
        - Tighter curb radii slows down turning traffic.
    - Disadvantages
        - High cost due to curb realignment.
        - Loss of on-street parking.
- **Center Island Narrowings** (a.k.a., midblock medians, median chokers).
    - Advantages
        - Aesthetically pleasing.
        - Increased pedestrian comfort (provides for refuge in middle of street).
        - Effective mid-block speed control device.

        - Less cost than neckdowns and narrowings because there is no need for curb realignment.
    - Disadvantages
        - May be difficult for larger vehicles to maneuver.
        - Loss of on-street parking.
- **Chokers** (a.k.a., midblock narrowings, pinch points).
    - Advantages
        - Shortens mid-block pedestrian crossing.
        - Increases pedestrian comfort along the roadway.
        - Increases pedestrian frontage.
        - Effective mid-block speed control.
        - Narrow travel way slows down mid-block traffic.
    - Disadvantages
        - High cost due to curb realignment.
        - Loss of on-street parking.
- **One-way Street/Loop**
    - Advantages
        - No opposing traffic.
        - Reduces "cut-through" traffic.
    - Disadvantages
        - Inconvenient for existing residents.
        - Not a speed-reducing device.
        - Wider travel lanes allow for higher speeds.
- **Radar Enforcement**
    - Radar enforcement coupled with police officer presence would be a highly effective speed control measure, but extremely expensive since an officer would be dedicating a majority of his time monitoring traffic in one specific neighborhood. The placement of radar enforcement would work while the equipment is on the street, however high vehicle speeds may return once the equipment is removed.

Should the City pursue the installation of traffic calming measures, it is recommended that, at the least, the residents along Locklenna Lane and Verde Ridge Road be notified of the City's decision to pursue the installation of these devices and that a series of public meetings and/or design charrettes take place so that a consensus is made between the City and the residents on which specific measures may be implemented, if any.

Also, it should be noted that stop signs are not a form of speed control; they are meant to assign vehicular right-of-way at an intersection. The Manual of Uniform Traffic Control Devices (MUTCD) provides guidelines to the installation of stop signs and all-way stop controlled intersections:

- Entering volumes from the major street approaches averages at least 300 vehicles per hour for any 8 hours of an average day; and
- The combined vehicular, pedestrian, and bicycle movement entering the intersection from the minor street approaches averages at least 200 units per hour for the same 8 hours.

Unwarranted stop control measures can lead to unsafe driver behavior such as running of the stop sign because of low traffic volumes. For reasons like that, agencies are reluctant to use stop signs as speed control measures. In addition, the vehicular, pedestrian, and bicycle volumes along the residential side streets that intersect with Locklenna Lane and Verde Ridge Road would not warrant stop sign installation.

Mitigation Measures

No mitigation measures are required for the study area intersection and roadway segments.

4.0 PROJECT ACCESS & CIRCULATION, AND ON-SITE PARKING

Project Access and Circulation

Based on review of the project site plan, vehicular access to the site would be provided by a new driveway connecting to Locklenna Lane, at the southern end of the project site. The driveway would be two lanes wide, with one lane in each direction. The vehicular access into and out of the site would be provided at a new unsignalized intersection on Locklenna Lane that would allow for full access into the site. Due to the relatively low through volumes on Locklenna Lane, no left- or right turn pockets into the site would be required.

Internal circulation would occur on a two-way drive aisle that would be required to be designed to City standards. Parking stalls would be located on both sides of the drive aisle. A vehicle "hammerhead" turn-around would be provided at the end of the drive aisle.

Sight Distance

The proposed driveway location on Locklenna Lane contains a horizontal curve, and low natural landscaping. With the addition of the new driveway, the landscaped areas on both sides of the driveway should remain clear of obstructions to provide adequate visibility for traffic traveling into and out of the project site.

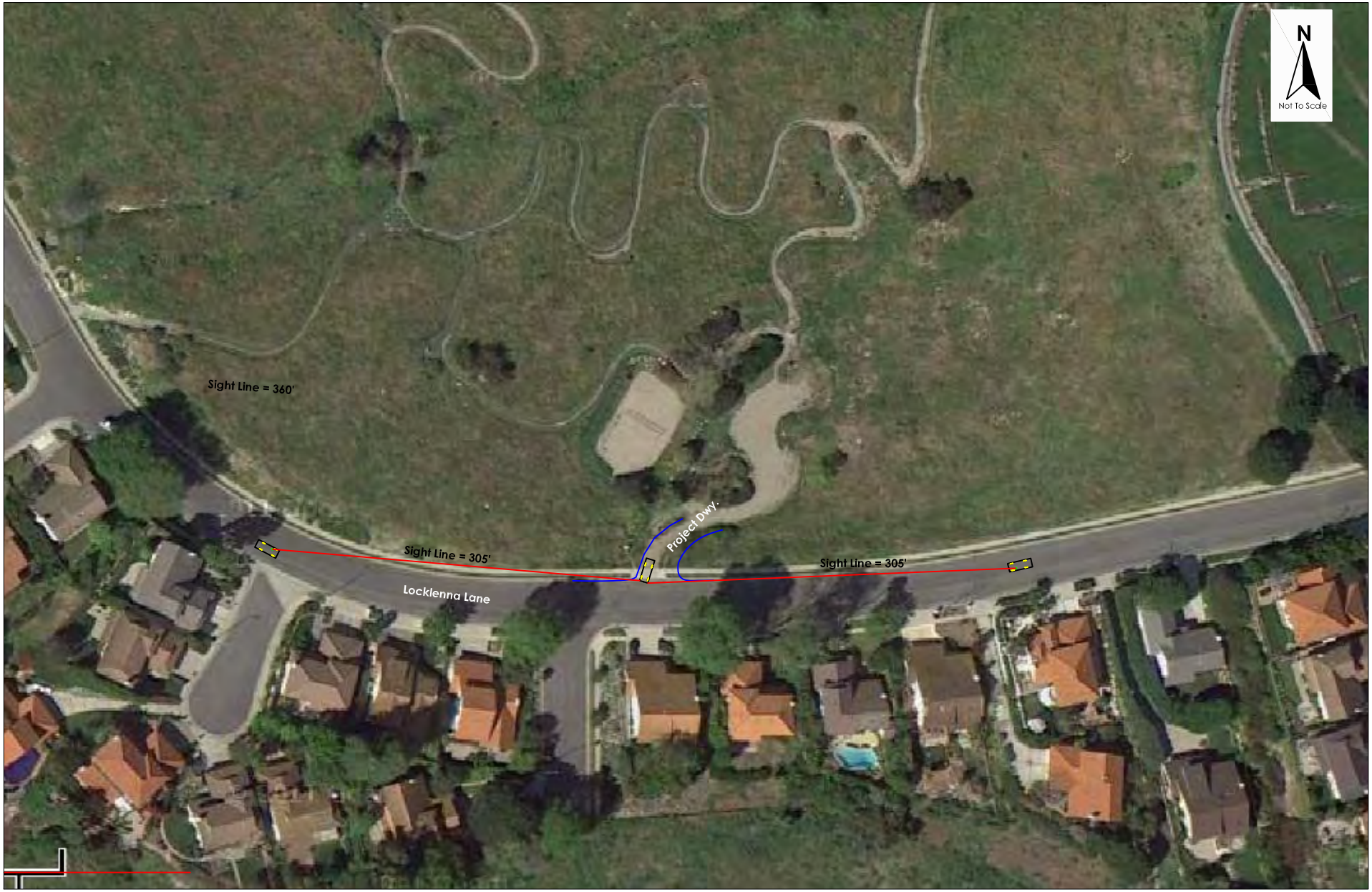
A Stopping Sight Distance analysis was conducted using the methodology from the American Association of State Highway Transportation Officials' (AASHTO) "Green Book", Exhibit 3-1 – Stopping Sight Distance. Although the prima facie speed limit on Locklenna Lane is 25 MPH, the assumed design speed was 40 MPH. Based on Exhibit 3-1 of AASHTO's Green Book, the minimum stopping sight distance would be 305 feet.

Figure 6 illustrates the sight line analysis for the proposed new southbound approach from Lower Hesse Park to Locklenna Lane. Based on the figure, landscaping interfering with the project driveway should be cleared to avoid potential sight distance conflicts with eastbound and westbound traffic traveling on Locklenna Lane. In addition, on-street parking on the north side of Locklenna Lane should be prohibited approximately 50 feet east of the project driveway.

On-site Parking

The City's Municipal Code does not provide parking requirements for park land uses. Arch Beach Consulting researched the Municipal Codes of other adjacent cities, Rolling Hills Estates and Torrance, and also found that no parking requirements for parks were provided.

Based on discussions with City staff, the 50 space parking lot on the project site was determined based on the comparison of the number of spaces provided at other similar, existing parks within the City. Also, since public on-street parking is permitted along both sides of Locklenna Lane, the City would allow park patrons to park along Locklenna Lane if additional parking is needed.



Aerial Source: Google Earth, March 2012.

arch beach CONSULTING

Figure 6
Sight Line Analysis

5.0 SUMMARY AND CONCLUSIONS

Traffic

Based on the traffic analysis performed for Lower Hesse Park, the following conclusions are made regarding the park's addition of traffic to the study area street network:

- The proposed project would generate approximately 129 daily trips, 13 trips in the a.m. peak hour (seven inbound and six outbound), and 16 trips in the p.m. peak hour (eight inbound and eight outbound).
- The proposed project would not create a significant impact to the study area intersections, as all intersections would continue to operate with satisfactory LOS at LOS D or better in the peak hours. The traffic volumes from the proposed project would add less than one second of delay to the stop-controlled approaches at the existing intersections in both peak hours.
- The City does not have any specific significance criteria for roadway speed, however, since the current (i.e., without project) 50th and 85th percentile speeds on both roadways are above 25 MPH, the City may consider the installation of traffic calming measures as developed by the ITE and FHWA.
- No mitigation measures are required for the study area intersection and roadway segments.

Project Access and Circulation

Based on review of the site plan for Lower Hesse Park, the following conclusions are made regarding project access and circulation:

- The new unsignalized driveway intersection on Locklenna Lane is forecast to operate at LOS A in both peak hours, with 8.8 seconds of delay on the driveway approach in the a.m. peak hour, and 8.7 seconds of delay in the p.m. peak hour.
- Internal circulation would occur on a two-way drive aisle that would be required to be designed to City standards.

Sight Distance

Based on review of the site plan for Lower Hesse Park, the following conclusions are made regarding sight distance at the project access with Locklenna Lane:

- Landscaping interfering with the project driveway should be cleared to avoid potential sight distance conflicts with eastbound and westbound traffic traveling on Locklenna Lane.
- On-street parking on the north side of Locklenna Lane should be prohibited approximately 50 feet east of the project driveway.

On-Site Parking

The City's Municipal Code does not provide parking requirements for park land uses. Based on discussions with City staff, the 50 space parking lot on the project site was determined based on the comparison of the number of spaces provided at other similar, existing parks within the City. Also, since public on-street parking is permitted along both sides of Locklenna Lane, the City would allow park patrons to park along Locklenna Lane if additional parking is needed.

6.0 REFERENCES

City of Rancho Palos Verdes, *General Plan, 1975*.

City of Rancho Palos Verdes, *General Plan Update Traffic Impact Analysis, 2010*.

County of Los Angeles, *Traffic Impact Study Guidelines*, January 1997.

Institute of Transportation Engineers (ITE) and the Federal Highway Administration (FHWA), *Traffic Calming: State of the Practice* by the, August 1999.

Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, Washington, D.C., 2000.

APPENDIX A

Raw Traffic Volume Counts

WILLDAN Engineering | extending your reach

March 4, 2011

Ms. Nicole Jules
Senior Engineer
City of Rancho Palos Verdes
30940 Hawthorne Boulevard
Rancho Palos Verdes, CA 90275-5391

SUBJECT: VEHICLE/PEDESTRIAN ACCESS STUDY IN THE VICINITY OF HAWTHORNE BOULEVARD AND HESSE PARK - **DRAFT**

Dear Ms. Jules:

Willdan Engineering (Willdan) is pleased to submit this summary of our vehicle/pedestrian study in the vicinity of Hawthorne Boulevard and Fred Hesse Community Park in the City of Rancho Palos Verdes. Traffic on Hawthorne Boulevard is heavy in this area and there are no traffic controls to assist motorists, pedestrians and bicyclists to enter or cross the street. This area is particularly critical due to the presence of Fred Hesse Community Park (Hesse Park) and the many activities available there. The City is looking for ways to improve vehicle/pedestrian safety and access in the area, particularly since there are plans to expand Hesse Park.

Accordingly, the vehicle/pedestrian access study assessed various improvements such as traffic signals, acceleration lanes and a high-visibility crosswalk to improve vehicular and pedestrian access to residential streets and Hesse Park in the vicinity of Hesse Park (see Exhibit A). In particular, the study focused on the following three intersections:

- Hawthorne Boulevard (NS) / Verde Ridge Road (EW)
- Hawthorne Boulevard (NS) / Doverridge Drive – Hesse Park Entrance (EW)
- Hawthorne Boulevard (NS) / Locklenna Lane (EW)

Existing Conditions

Hawthorne Boulevard is a north-south Arterial in the vicinity of Hesse Park, with two lanes of traffic and a bike lane in each direction. The opposing lanes are separated by a raised median. In the study area, Hawthorne Boulevard carries 15,519 vehicles per day, and has a posted speed limit of 45 mph.

The Fred Hesse Community Park serves as a key activity center for the City of Rancho Palos Verdes. Many civic events, including City Council meetings, are regularly held at its community center. Hesse Park is located on the west side of Hawthorne Boulevard between Verde Ridge Road on the north and Locklenna Lane on the south. The park's access road intersects Hawthorne Boulevard opposite Doverridge Drive and connects to

Locklenna Lane just west of Hawthorne Boulevard. Verde Ridge Road, Locklenna Lane and Doverridge Drive are all two-lane residential streets, with 2,182 vehicles per day, 795 vehicles per day and 381 vehicles per day, respectively. The Hesse Park entrance onto Hawthorne Boulevard carries 211 vehicles per day. The traffic count data, collected in March 2010, is included in Attachment A.

The existing intersection geometry at the study intersections is shown in Exhibit B and Exhibit C shows the current AM and PM peak hour intersection traffic volumes.

Pedestrian and bicycle counts were also collected at the study intersections and are illustrated on Exhibit D. They indicate that during the AM peak hour, three pedestrians crossed Hawthorne Boulevard at Verde Ridge Drive, five pedestrians crossed at Doverridge Drive – Hesse Park Entrance, and five pedestrians crossed at Locklenna Lane. During the PM peak hour, two crossed Hawthorne Boulevard at Verde Ridge Drive, three crossed at Doverridge Drive – Hesse Park Entrance, and one crossed at Locklenna Lane. At Hawthorne Boulevard and Verde Ridge Road, three bicycles were counted during the AM peak hour and no bicycles were observed during the PM peak hour. At Doverridge Drive – Hesse Park Entrance, two bicycles were counted during the AM peak hour and four were counted during the PM peak hour. At Locklenna Lane, three bicycles were counted during the AM peak hour and one was observed during the PM peak hour.

To determine the current operating conditions of the three study intersections, a peak hour level of service analysis was conducted for existing conditions, based on the 2000 *Highway Capacity Manual* methodology for unsignalized intersections. The results of the analysis are summarized in the table below.

INTERSECTION LEVEL OF SERVICE SUMMARY - EXISTING CONDITIONS

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	Delay (sec)	LOS	Delay (sec)	LOS
Hawthorne Bl./Verde Ridge Dr.	30.9	D	17.1	C
Hawthorne Bl./Doverridge Dr.-Hesse Park Entrance	27.2	D	21.6	C
Hawthorne Bl./Locklenna Ln.	14.1	B	15.1	C

LOS = Level of Service

The table indicates that two intersections, Hawthorne Boulevard at Verde Ridge Drive and at Doverridge Drive are currently operating at LOS D during the AM peak hour and at LOS C during the PM peak hour. The intersection of Hawthorne Boulevard/Locklenna Lane is currently operating at LOS B and LOS C during the AM and PM peak hours, respectively. Since the City of Rancho Palos Verdes considers LOS A – D to be acceptable levels of

service, all three intersections are currently operating at acceptable levels of service. LOS D at the two intersections is due to the delay and back-up of vehicles on the residential side streets as the vehicles wait to make left turns onto Hawthorne Avenue. Traffic on Hawthorne Boulevard is operating at LOS A at these two intersections. The LOS worksheets indicate that the average back-up on Verde Ridge Drive is 3 vehicles, and the average back-ups on Doverridge Drive and on Locklenna Lane are each less than one vehicle during the AM peak hour. The average back-up during the PM peak hour is less than one vehicle for each street. The back-ups on Doverridge Drive and Locklenna Lane are acceptable, however, a shorter back-up on Verde Ridge Drive during the AM peak hour would be preferred. The LOS worksheets are in Attachment B.

A summary of the traffic collision data in the study area for the last six years (2004 – 2009) was provided by the Los Angeles Sheriff's Department, Lomita Station (see Attachment C). The data shows that there were seven collisions involving the intersection of Hawthorne Boulevard and Verde Ridge Road, four of which were broadside (right-angle) collisions. The collision that occurred in December 2009 that precipitated this study does not appear on this list. There were four collisions at the intersection of Locklenna Lane and Hawthorne Boulevard, one involving a bicycle and two broadside collisions. The most recent collision occurred in November 2007. There was one reported collision at the intersection of Doverridge Drive and Hawthorne Boulevard during the five-year period.

Studies were conducted for the three study intersections to determine if they currently meet the federal and state guidelines for installing traffic signals. One intersection, Hawthorne Boulevard/Verde Ridge Road currently satisfies the following traffic signal warrants:

- Warrant 1 – Eight Hour Vehicular Volume for both Conditions A and B
- Warrant 2 – Four Hour Vehicular Volume

The other two study intersections, Hawthorne Boulevard/Doverridge Drive – Hesse Park Entrance and Hawthorne Boulevard/Locklenna Lane, do not satisfy the minimum warrants needed to qualify for a traffic signal. The side street traffic volumes and number of traffic collisions are below the required levels. The traffic signal warrant sheets are included in Attachment D.

The City of Rancho Palos Verdes has been recently awarded a grant to synchronize the traffic signals along Hawthorne Blvd. Upon successful completion of this project, access to and from Hawthorne Blvd will be improved. The synchronization project will improve safety along Hawthorne Blvd by reducing speed, creating gap opportunities for side-street access, and improve vehicle flow. Staff strongly feels after completion of the synchronization project, the need for new traffic signals along Hawthorne Blvd will be minimized.

Possible Actions to Improve Vehiclular and Pedestrian Access

The purpose of the study was to determine possible actions to improve vehicular and pedestrian access at the study intersections and assess their feasibility. Accordingly, the

following three possible actions were evaluated:

- Install a traffic signal at the intersection of Hawthorne Boulevard/Verde Ridge Road
- Provide acceleration lanes on Hawthorne Boulevard for Verde Ridge Road and Locklenna Lane
- Provide a high-visibility crosswalk on Hawthorne Boulevard at the Doverridge Drive/Hesse Park Entrance. The pros and cons of each possible action are discussed below.

Traffic Signal at the Intersection of Hawthorne Boulevard/Verde Ridge Road

Although the intersection meets the federal and state traffic signal warrants, that does not necessarily mean that a traffic signal should be installed. Other factors such as intersection spacing, intersection geometry, and the signal's effect on traffic should also be considered. Considering the City's recent grant to synchronize the traffic signals along Hawthorne Blvd, many of the factors that support installing a traffic signal will not apply.

But if a traffic signal was considered, the intersection would operate at LOS A during both peak hours (the LOS worksheets are in Attachment B). The signal's effect on traffic is noted below. Factors that support the installation of a traffic signal at Hawthorne Boulevard/Verde Ridge Road include the following:

1. The intersection meets Federal and state traffic signal warrants.
2. It would improve access to Verde Ridge Road by facilitating left turns into and out of Verde Ridge Road from Hawthorne Boulevard, thereby reducing the AM peak hour back-up on Verde Ridge Road to an acceptable level and improve the overall intersection LOS to A during both peak hours.
3. It would improve traffic safety by reducing the number of broadside traffic collisions
4. It would provide a signal-controlled crossing of Hawthorne Boulevard for pedestrians and bicyclists, improving safety and accessibility.
5. Since Locklenna Lane intersects Verde Ridge Road west of Hawthorne Boulevard, the signalized access would also be available to motorists and cyclists currently using Locklenna Lane and the Hesse Park Entrance.
6. The signalized access would be available to pedestrians and cyclists currently crossing Hawthorne Boulevard at Doverridge Drive – Hesse Park Entrance, and could be enhanced with count-down pedestrian heads.
7. It would serve the patrons of the nearby bus stops located on Hawthorne Boulevard.

Factors that do not support the installation of a traffic signal or are the undesired consequences of installing a traffic signal at the intersection of Hawthorne Boulevard/Verde Ridge Road are as follows:

1. Traffic signals typically increase rear-end traffic collisions.

2. The flow of traffic on Hawthorne Boulevard would be interrupted by the traffic signal.
3. Traffic volumes on Verde Ridge Road would increase due to the attraction of traffic currently using other nearby streets.
4. The homes on the corners of Hawthorne Boulevard/Verde Ridge Road would have traffic signal poles adjacent to them.

Acceleration Lanes on Hawthorne Boulevard at Verde Ridge Road and Locklenna Lane

Acceleration lanes are used to assist motorists at unsignalized intersections in making turns onto streets that have high traffic volumes and/or high speeds. It usually consists of a lane in the center of the major street that merges into the regular traffic lanes on the major street. It allows the side street traffic to enter traffic in two steps rather than one. In this case, we are considering acceleration lanes for left-turning traffic onto Hawthorne Boulevard from Verde Ridge Road and from Locklenna Lane. If available, medians or two-way left turn lanes are typically converted to acceleration lanes. Since Hawthorne Boulevard has a raised median, it is expected that the median would be modified to accommodate the acceleration lanes. If it is assumed that the critical speed for Hawthorne Boulevard is the speed limit plus five mph (50 mph), and the width of the acceleration lane is 11 feet, the minimum length of an acceleration lane, would be 650 feet. Since the next intersection north of Verde Ridge Road is one-fourth mile away, the median on Hawthorne Boulevard north of Verde Ridge Road is sufficiently long to accommodate a 650-foot acceleration lane. The existing median between Locklenna Drive and the next intersection to the north (Doverridge Drive) is 500 feet long, however, and would not meet the 650-foot minimum length required. The acceleration lane would end in the southbound left turn pocket for Doverridge Drive. Therefore, a northbound acceleration lane is not feasible for Locklenna Drive. As previously noted, motorists currently using Locklenna Drive for access to Hawthorne Boulevard can use Verde Ridge Road instead.

Factors that support the installation of a northbound acceleration lane on Hawthorne Boulevard at Verde Ridge Road include the following:

1. It would improve access at Verde Ridge Road by facilitating left turns from Verde Ridge Road onto Hawthorne Boulevard, thereby somewhat reducing the AM peak hour back-up on Verde Ridge Road and improving the LOS.
2. It would improve traffic safety by reducing the number of northbound broadside traffic collisions.
3. Since Locklenna Lane intersects Verde Ridge Road west of Hawthorne Boulevard, the acceleration lane would also be available to motorists currently using Locklenna Lane.

The following factors would be undesired consequences of installing a northbound acceleration lane on Hawthorne Boulevard at Verde Ridge Road:

1. There could be additional traffic collisions due to merging traffic.
2. The merging traffic from Verde Ridge Road would likely slow down and delay

northbound traffic on Hawthorne Boulevard.

3. Traffic volumes on Verde Ridge Road would increase due to the attraction of traffic currently using Locklenna Lane.

High-Visibility Crosswalk on Hawthorne Boulevard at Doverridge Drive/Hesse Park Entrance

The safety and access of pedestrians crossing Hawthorne Boulevard at Doverridge Drive – Hesse Park Entrance could be improved with the installation of a high-visibility crosswalk. Typical crosswalks are not very visible to motorists, who usually notice the pedestrians first. A high-visibility crosswalk enhances the crosswalk to be more visible to motorists, and typically consists of a ladder-striped crosswalk, warning signs/pavement legends, and in-roadway flashing lights (IRWLs) and/or overhead flashing beacons. The advantages of a high-visibility crosswalk over a normal crosswalk consist of the following:

1. It would be easier for pedestrians and cyclists to cross the street, with reduced time spent waiting for traffic to clear.
2. It would improve pedestrian/bicycle access to Hesse Park, in particular.
3. It would also serve the patrons of the nearby bus stops located on Hawthorne Boulevard.

The disadvantages of the high-visibility crosswalk are as follows:

1. Rear-end traffic collisions on Hawthorne Boulevard would likely increase, however, in general, they would not be as severe as pedestrian collisions.
2. Pedestrians may not be as cautious and careful when crossing the street.
3. The existing bus stop on the west side of Hawthorne just north of the Hesse Park entrance driveway would tend to block the view of pedestrians in the crosswalk to southbound motorists, and might need to be relocated.
4. Additional modifications would be needed at the Hesse Park entrance to make access to the crosswalk ADA compliant.
5. Motorists may not stop.

Hawthorne Blvd Traffic Signal Synchronization Project

The City of Rancho Palos Verdes has been recently awarded a grant to synchronize the traffic signals along Hawthorne Blvd. Upon successful completion of this project, access to and from Hawthorne Blvd will be improved. The synchronization project will improve safety along Hawthorne Blvd by reducing speed, creating gap opportunities for side-street access, and improve vehicle flow. Staff strongly feels after completion of the synchronization project, the need for new traffic signals along Hawthorne Blvd will be minimized. This is a do-nothing option until the effects of the signal synchronization projects are realized.

Cost Estimates

The estimated costs of the proposed improvements, including design and installation, are as follows:

Traffic Signal: $200,000

Acceleration Lane: $10,000

High-Visibility Crosswalk: $75,000

Future Park Improvements - Additional Studies

Subsequent to the initiation of this study, the City embarked on the conceptual improvement plans for Lower Hesse Park. During the public comment period, it was communicated that additional studies will be needed to evaluate the potential traffic impacts associated with the park development plans. As such, the City is in the process of obtaining an environmental consultant to conduct an Environmental Evaluation, which includes a traffic impact analysis, of the proposed improvements.

Thank you for the opportunity to be of continuing service to the City of Rancho Palos Verdes. Should you have any questions, please contact Ms. Ruth Smith at (714) 978-8225.

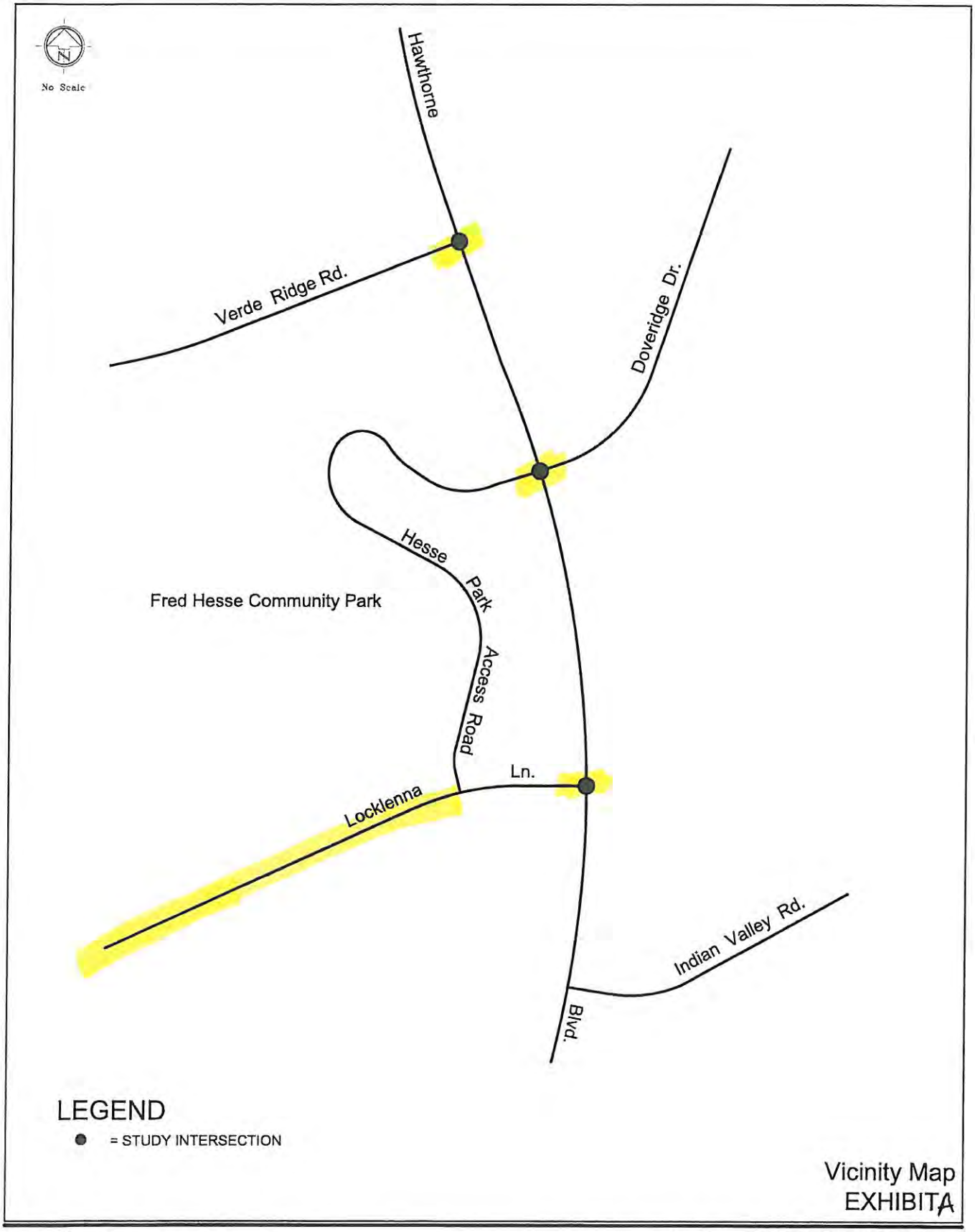
Respectfully submitted,

WILLDAN ENGINEERING

Ruth M. Smith

Ruth Smith, TE, PTP
Project Manager

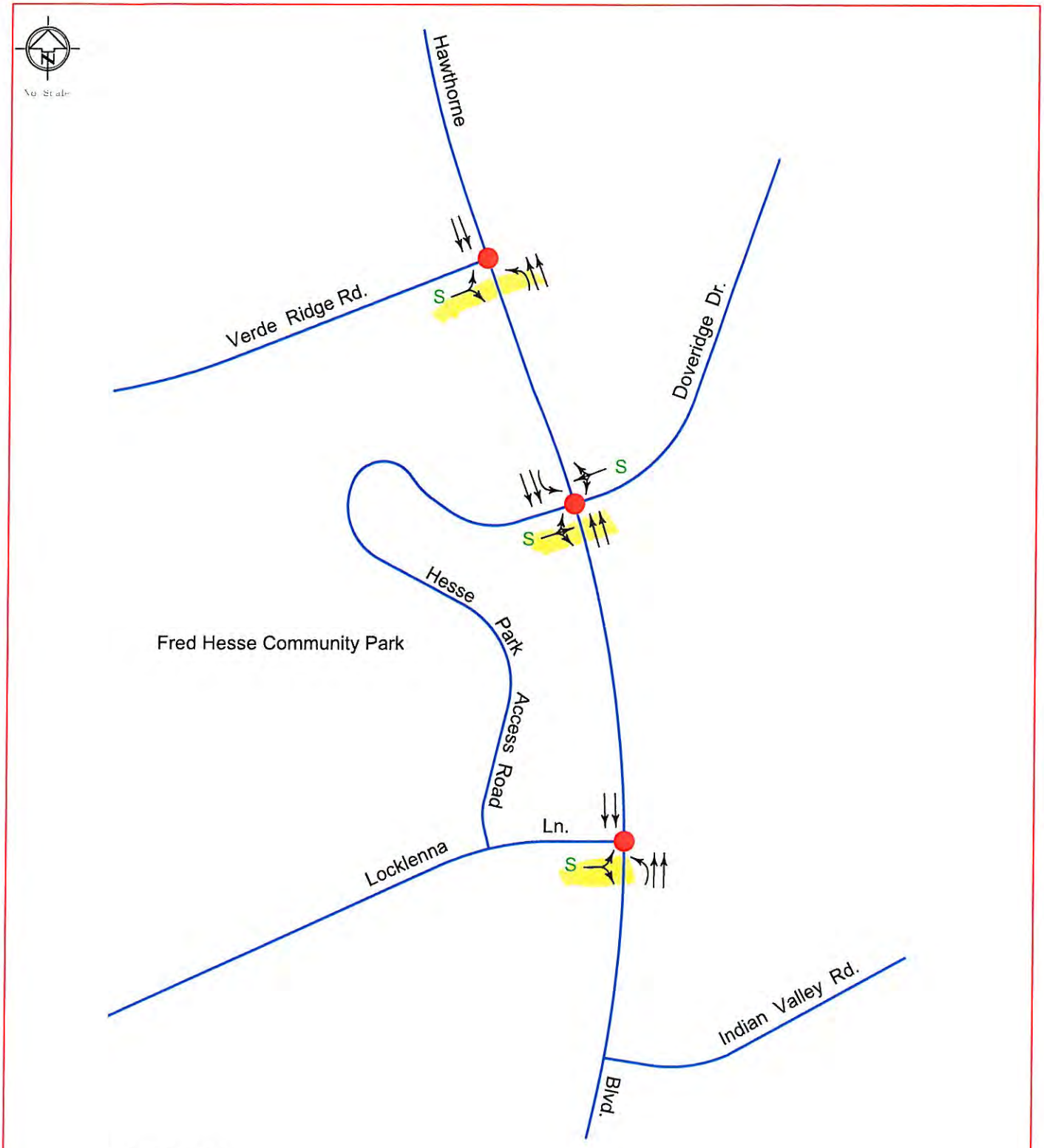
Attachments



Vicinity Map
EXHIBIT A

WILLDAN Engineering
2401 E. Katella Ave., #450, Anaheim, CA 92806
Phone: 714.978.8200

Hawthorne Blvd. & Hesse Park Traffic Study
City of Rancho Palos Verdes
#100114/3001/10006



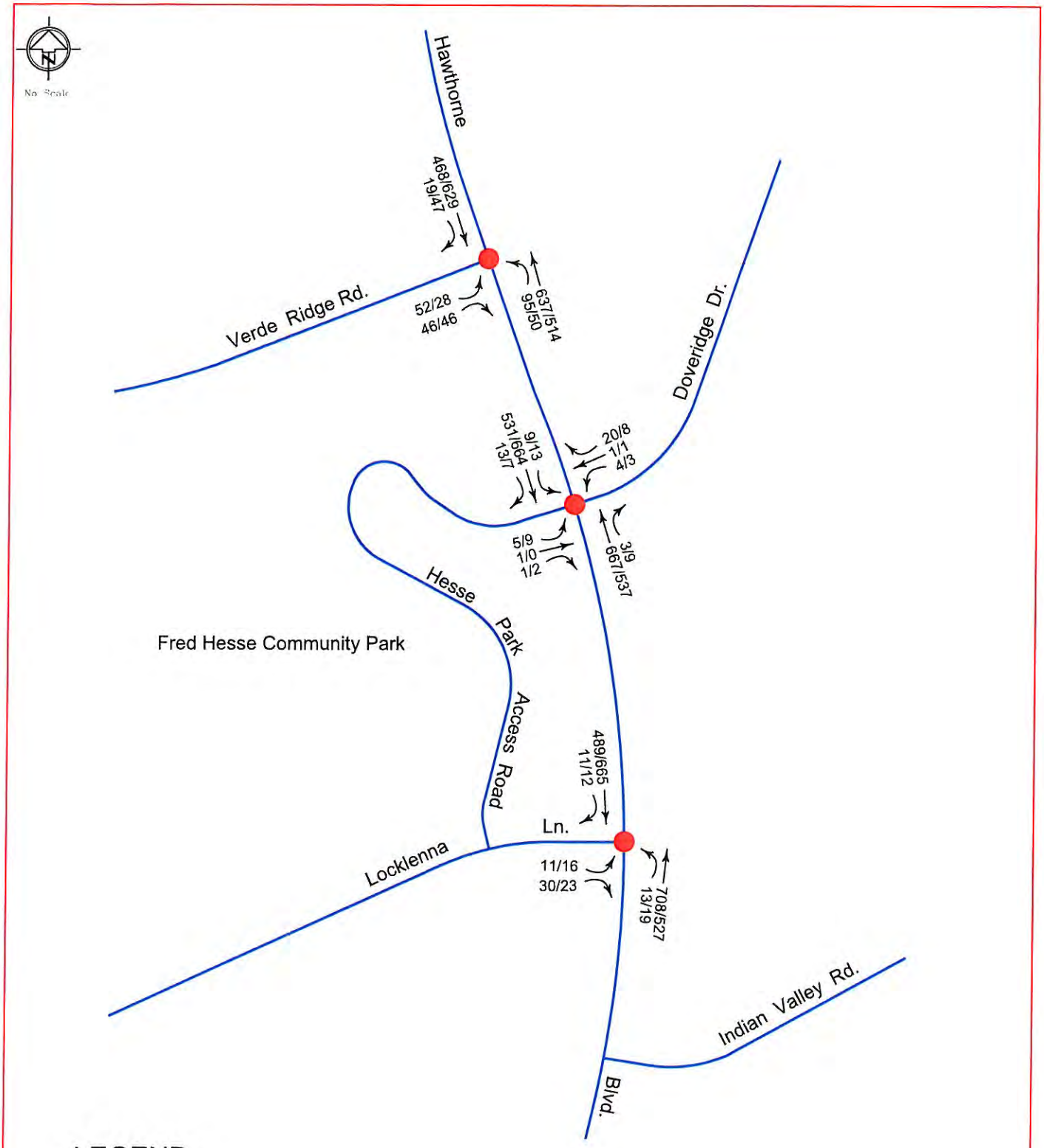
LEGEND

- = STUDY INTERSECTION
- → = EXISTING LANE CONFIGURATION
- S = STOP CONTROLLED

Existing Intersection Geometry
EXHIBIT B

WILLDAN Engineering
2401 E. Katella Ave., #450, Anaheim, CA 92806
Phone: 714.978.8200

Hawthorne Blvd. & Hesse Park Vicinity
Traffic Study (#100114)
City of Rancho Palos Verdes



LEGEND

= PROJECT LOCATION

298/358 = PEAK HOUR TRAFFIC VOLUMES

Existing AM/PM Peak Hour Volumes
EXHIBIT C

WILLDAN Engineering
2401 E. Katella Ave., #450, Anaheim, CA 92806
Phone: 714.978.8200

Hawthorne Blvd. & Hesse Park Vicinity
Traffic Study (#100114)
City of Rancho Palos Verdes

Average Daily Traffic Volumes
Quality Traffic Data, LLC

QTD PROJ/LOC #:	100117 - 004	GPS COORDINATES:	N/A
ON STREET:	HAWTHORNE BLVD	START DATE:	Wednesday, March 10, 2010
CROSS STREETS:	N OF VERDGE RIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

AM COUNTS								PM COUNTS							
	NB		SB		EB	WB			NB		SB		EB	WB	
00:00	3		7					12:00	137		117				
00:15	4		12					12:15	109		121				
00:30	4		4					12:30	135		131				
00:45	2	*13*	4	*27*			*40*	12:45	134	*515*	122	*491*			*1006*
01:00	6		5					13:00	119		105				
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07:15	108		59					19:15	68		113				
07:30	179		100					19:30	71		115				
07:45	195	*551*	118	*342*			*893*	19:45	48	*262*	107	*467*			*729*
08:00	133		107					20:00	45		127				
08:15	174		132					20:15	71		93				
08:30	189		130					20:30	47		88				
08:45	157	*653*	121	*490*			*1143*	20:45	34	*197*	68	*376*			*573*
09:00	157		90					21:00	36		82				
09:15	128		101					21:15	40		85				
09:30	160		104					21:30	43		62				
09:45	157	*602*	102	*397*			*999*	21:45	23	*142*	69	*298*			*440*
10:00	140		96					22:00	25		52				
10:15	118		99					22:15	30		39				
10:30	135		99					22:30	15		34				
10:45	131	*524*	100	*394*			*918*	22:45	17	*87*	27	*152*			*239*
11:00	135		99					23:00	13		22				
11:15	148		108					23:15	9		15				
11:30	127		85					23:30	11		13				
11:45	130	*540*	101	*393*			*933*	23:45	8	*41*	21	*71*			*112*
TOTALS:		**3298**		**2291**			**5589**	**TOTALS:**		**4439**		**5491**			**9930**

SPLIT	59.0%	41.0%	**36.0%**	SPLIT	44.7%	55.3%	**64.0%**
PEAK HOUR	07:45	08:00	**07:45**	PEAK HOUR	14:30	15:00	**14:45**
PH VOLUME	691	490	**1178**	PH VOLUME	674	693	**1356**
PHF	0.89	0.93	**0.92**	PHF	0.95	0.91	**0.93**

DAY'S TOTAL

NB	SB	EB	WB	TOTAL
7737	7782			**15519**

QUALITY TRAFFIC DATA, LLC
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Average Daily Traffic Volumes
Quality Traffic Data, LLC

QTD PROJ/LOC #:	100117 - 005	GPS COORDINATES:	N/A
ON STREET:	HAWTHORNE BLVD	START DATE:	Wednesday, March 10, 2010
CROSS STREETS:	S OF LOCKLENNA LN	VICINITY:	RANCHO PALOS VERDES, CA

AM COUNTS							PM COUNTS						
	NB		SB		EB	WB		NB		SB		EB	WB
00:00	4		6				12:00	134		124			
00:15	4		7				12:15	112		110			
00:30	3		6				12:30	129		124			
00:45	5	*16*	4	*23*		*39*	12:45	133	*508*	128	*486*		*994*
01:00	3		4				13:00	122		98			
01:15	5		5				13:15	111		120			
01:30	3		6				13:30	134		118			
01:45	7	*18*	3	*18*		*36*	13:45	122	*489*	135	*471*		*960*
02:00	5		4				14:00	144		121			
02:15	1		3				14:15	153		165			
02:30	2		0				14:30	169		141			
02:45	1	*9*	1	*8*		*17*	14:45	218	*684*	169	*596*		*1280*
03:00	2		2				15:00	176		214			
03:15	0		4				15:15	175		185			
03:30	1		3				15:30	153		151			
03:45	1	*4*	1	*10*		*14*	15:45	125	*629*	148	*698*		*1327*
04:00	1		5				16:00	130		137			
04:15	2		5				16:15	147		147			
04:30	4		9				16:30	135		157			
04:45	9	*16*	16	*35*		*51*	16:45	140	*552*	143	*584*		*1136*
05:00	16		7				17:00	122		188			
05:15	17		11				17:15	154		156			
05:30	20		10				17:30	135		184			
05:45	31	*84*	19	*47*		*131*	17:45	144	*555*	166	*694*		*1249*
06:00	47		25				18:00	122		145			
06:15	44		31				18:15	114		164			
06:30	67		26				18:30	103		122			
06:45	68	*226*	52	*134*		*360*	18:45	93	*432*	123	*554*		*986*
07:00	65		68				19:00	82		124			
07:15	93		79				19:15	64		96			
07:30	192		136				19:30	71		99			
07:45	206	*556*	127	*410*		*966*	19:45	53	*270*	93	*412*		*682*
08:00	118		121				20:00	48		112			
08:15	164		132				20:15	81		75			
08:30	235		139				20:30	51		77			
08:45	158	*675*	151	*543*		*1218*	20:45	32	*212*	65	*329*		*541*
09:00	151		94				21:00	39		72			
09:15	123		99				21:15	52		73			
09:30	144		104				21:30	38		47			
09:45	139	*557*	103	*400*		*957*	21:45	22	*151*	70	*262*		*413*
10:00	134		93				22:00	24		47			
10:15	131		98				22:15	27		33			
10:30	136		93				22:30	17		27			
10:45	129	*530*	107	*391*		*921*	22:45	17	*85*	25	*132*		*217*
11:00	130		94				23:00	17		15			
11:15	142		96				23:15	6		15			
11:30	124		85				23:30	9		12			
11:45	118	*514*	119	*394*		*908*	23:45	7	*39*	16	*58*		*97*
TOTALS:		**3205**		**2413**		**5618**	**TOTALS:**		**4606**		**5276**		**9882**

SPLIT	57.0%	43.0%	**36.2%**	SPLIT	46.6%	53.4%	**63.8%**
PEAK HOUR	07:45	08:00	**07:45**	PEAK HOUR	14:30	14:45	**14:30**
PH VOLUME	723	543	**1242**	PH VOLUME	738	719	**1447**
PHF	0.77	0.90	**0.83**	PHF	0.85	0.84	**0.93**

DAY'S TOTAL

NB	SB	EB	WB	TOTAL
7811	7689			**15500**

QUALITY TRAFFIC DATA, LLC
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Average Daily Traffic Volumes
Quality Traffic Data, LLC

QTD PROJ/LOC #:	100117 - 006	GPS COORDINATES:	N/A
ON STREET:	VERDE RIDGE RD	START DATE:	Wednesday, March 10, 2010
CROSS STREETS:	W OF HAWTHORNE BLVD	VICINITY:	RANCHO PALOS VERDES, CA

AM COUNTS						PM COUNTS					
	NB	SB	EB		WB			NB	SB	EB		WB	
00:00			0		1		12:00			7		12	
00:15			1		0		12:15			11		18	
00:30			1		0		12:30			7		14	
00:45			0	*2*	0	*1*	*3*	12:45			14	*39*	12	*56*	*95*
01:00			0		0		13:00			16		15	
01:15			0		0		13:15			11		12	
01:30			1		1		13:30			20		16	
01:45			0	*1*	0	*1*	*2*	13:45			9	*56*	16	*59*	*115*
02:00			0		0		14:00			12		27	
02:15			0		0		14:15			21		22	
02:30			0		1		14:30			23		31	
02:45			1	*1*	1	*2*	*3*	14:45			30	*86*	56	*136*	*222*
03:00			1		0		15:00			42		23	
03:15			0		0		15:15			24		21	
03:30			0		0		15:30			18		20	
03:45			0	*1*	0	*0*	*1*	15:45			15	*99*	31	*95*	*194*
04:00			0		0		16:00			13		18	
04:15			1		0		16:15			8		19	
04:30			3		0		16:30			19		17	
04:45			4	*8*	2	*2*	*10*	16:45			21	*61*	22	*76*	*137*
05:00			3		0		17:00			19		22	
05:15			3		1		17:15			18		29	
05:30			9		0		17:30			18		23	
05:45			12	*27*	2	*3*	*30*	17:45			12	*67*	25	*99*	*166*
06:00			6		0		18:00			15		32	
06:15			8		2		18:15			15		22	
06:30			13		0		18:30			12		27	
06:45			12	*39*	7	*9*	*48*	18:45			13	*55*	15	*96*	*151*
07:00			10		6		19:00			7		16	
07:15			32		6		19:15			13		20	
07:30			43		19		19:30			5		19	
07:45			20	*105*	26	*57*	*162*	19:45			6	*31*	17	*72*	*103*
08:00			23		10		20:00			7		18	
08:15			21		19		20:15			6		24	
08:30			35		61		20:30			6		9	
08:45			47	*126*	12	*102*	*228*	20:45			7	*26*	8	*59*	*85*
09:00			15		10		21:00			5		17	
09:15			15		10		21:15			4		17	
09:30			13		15		21:30			8		11	
09:45			20	*63*	12	*47*	*110*	21:45			3	*20*	5	*50*	*70*
10:00			11		8		22:00			2		6	
10:15			12		8		22:15			6		5	
10:30			13		11		22:30			0		3	
10:45			14	*50*	15	*42*	*92*	22:45			2	*10*	6	*20*	*30*
11:00			21		24		23:00			1		6	
11:15			12		9		23:15			0		0	
11:30			11		12		23:30			1		0	
11:45			17	*61*	8	*53*	*114*	23:45			0	*2*	3	*9*	*11*
TOTALS:				**484**		**319**	**803**	TOTALS:				**552**		**827**	**1379**

SPLIT		60.3%	39.7%	**36.8%**	SPLIT		40.0%	60.0%	**63.2%**
PEAK HOUR		08:00	07:45	**08:00**	PEAK HOUR		14:30	14:00	**14:30**
PH VOLUME		126	116	**228**	PH VOLUME		119	136	**250**
PHF		0.67	0.48	**0.59**	PHF		0.71	0.61	**0.73**

DAY'S TOTAL

NB	SB	EB	WB	TOTAL
		1036	1146	**2182**

QUALITY TRAFFIC DATA, LLC
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Average Daily Traffic Volumes
Quality Traffic Data, LLC

QTD PROJ/LOC #:	100117 - 007	GPS COORDINATES:	N/A
ON STREET:	DOVERRIDGE RD	START DATE:	Wednesday, March 10, 2010
CROSS STREETS:	N OF HAWTHORNE BLVD	VICINITY:	RANCHO PALOS VERDES, CA

AM COUNTS						PM COUNTS					
	NB	SB	EB		WB			NB	SB	EB		WB		
00:00			0		0		12:00			4		3		
00:15			0		0		12:15			3		4		
00:30			0		0		12:30			5		1		
00:45			0	*0*	0	*0*	12:45			3	*15*	1	*9*	*24*
01:00			0		1		13:00			1		2		
01:15			0		0		13:15			3		0		
01:30			0		0		13:30			4		6		
01:45			0	*0*	0	*1*	*1*	13:45			1	*9*	4	*12*	*21*
02:00			0		0		14:00			6		4		
02:15			0		0		14:15			0		4		
02:30			0		0		14:30			5		5		
02:45			0	*0*	0	*0*	14:45			6	*17*	2	*15*	*32*
03:00			0		0		15:00			3		3		
03:15			0		0		15:15			4		5		
03:30			0		0		15:30			2		4		
03:45			0	*0*	0	*0*	15:45			1	*10*	4	*16*	*26*
04:00			1		0		16:00			2		1		
04:15			0		0		16:15			5		6		
04:30			0		0		16:30			3		1		
04:45			1	*2*	0	*0*	*2*	16:45			1	*11*	1	*9*	*20*
05:00			2		0		17:00			4		3		
05:15			1		0		17:15			3		4		
05:30			2		1		17:30			5		3		
05:45			2	*7*	1	*2*	*9*	17:45			4	*16*	2	*12*	*28*
06:00			3		0		18:00			3		2		
06:15			2		1		18:15			2		4		
06:30			4		0		18:30			1		2		
06:45			2	*11*	0	*1*	*12*	18:45			2	*8*	3	*11*	*19*
07:00			1		3		19:00			1		3		
07:15			4		2		19:15			1		2		
07:30			2		5		19:30			1		4		
07:45			5	*12*	5	*15*	*27*	19:45			0	*3*	5	*14*	*17*
08:00			4		3		20:00			1		2		
08:15			3		6		20:15			1		3		
08:30			8		7		20:30			0		0		
08:45			5	*20*	5	*21*	*41*	20:45			0	*2*	2	*7*	*9*
09:00			4		8		21:00			1		1		
09:15			2		3		21:15			1		1		
09:30			4		1		21:30			0		2		
09:45			3	*13*	2	*14*	*27*	21:45			0	*2*	3	*7*	*9*
10:00			3		1		22:00			0		0		
10:15			3		3		22:15			1		0		
10:30			3		1		22:30			0		2		
10:45			5	*14*	3	*8*	*22*	22:45			0	*1*	0	*2*	*3*
11:00			4		2		23:00			0		1		
11:15			2		4		23:15			0		0		
11:30			5		2		23:30			0		0		
11:45			8	*19*	1	*9*	*28*	23:45			1	*1*	2	*3*	*4*
TOTALS:				**98**		**71**	**169**	TOTALS:				**95**		**117**	**212**

SPLIT				SPLIT			
	58.0%	42.0%	**44.4%**		44.8%	55.2%	**55.6%**
PEAK HOUR	07:45	08:15	**08:15**	PEAK HOUR	14:30	13:30	**14:30**
PH VOLUME	20	26	**46**	PH VOLUME	18	18	**33**
PHF	0.63	0.81	**0.77**	PHF	0.75	0.75	**0.83**

DAY'S TOTAL

NB	SB	EB	WB	TOTAL
		193	188	**381**

QUALITY TRAFFIC DATA, LLC
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Average Daily Traffic Volumes
Quality Traffic Data, LLC

QTD PROJ/LOC #:	100117 - 008	GPS COORDINATES:	N/A
ON STREET:	HESSE PARK DRIVEWAY	START DATE:	Wednesday, March 10, 2010
CROSS STREETS:	HAWTHORNE BLVD	VICINITY:	RANCHO PALOS VERDES, CA

AM COUNTS						PM COUNTS					
	NB	SB	EB		WB			NB	SB	EB		WB		
00:00			0		0		12:00			5		1		
00:15			0		0		12:15			8		3		
00:30			0		0		12:30			4		0		
00:45			0	*0*	0	*0*	12:45			1	*18*	2	*6*	*24*
01:00			0		0		13:00			2		1		
01:15			0		0		13:15			2		5		
01:30			0		0		13:30			1		1		
01:45			0	*0*	0	*0*	13:45			4	*9*	4	*11*	*20*
02:00			0		0		14:00			0		3		
02:15			0		0		14:15			2		2		
02:30			0		0		14:30			1		1		
02:45			0	*0*	0	*0*	14:45			1	*4*	0	*6*	*10*
03:00			0		0		15:00			1		2		
03:15			0		0		15:15			2		5		
03:30			0		0		15:30			4		5		
03:45			0	*0*	0	*0*	15:45			0	*7*	10	*22*	*29*
04:00			0		0		16:00			1		4		
04:15			0		0		16:15			1		1		
04:30			0		0		16:30			2		3		
04:45			0	*0*	0	*0*	16:45			2	*6*	3	*11*	*17*
05:00			0		0		17:00			5		6		
05:15			0		0		17:15			3		5		
05:30			0		0		17:30			1		1		
05:45			0	*0*	0	*0*	17:45			2	*11*	0	*12*	*23*
06:00			0		0		18:00			3		0		
06:15			0		0		18:15			1		2		
06:30			0		0		18:30			0		0		
06:45			0	*0*	0	*0*	18:45			0	*4*	0	*2*	*6*
07:00			0		1		19:00			0		0		
07:15			0		0		19:15			0		0		
07:30			0		0		19:30			0		0		
07:45			1	*1*	2	*3*	*4*	19:45		0	*0*	0	*0*	
08:00			0		1		20:00			0		0		
08:15			0		2		20:15			0		0		
08:30			3		7		20:30			0		0		
08:45			0	*3*	6	*16*	*19*	20:45		0	*0*	0	*0*	
09:00			2		6		21:00			0		0		
09:15			6		1		21:15			0		0		
09:30			7		1		21:30			0		0		
09:45			2	*17*	1	*9*	*26*	21:45		0	*0*	0	*0*	
10:00			2		8		22:00			0		0		
10:15			2		9		22:15			0		0		
10:30			0		3		22:30			0		0		
10:45			3	*7*	2	*22*	*29*	22:45		0	*0*	0	*0*	
11:00			1		0		23:00			0		0		
11:15			1		3		23:15			0		0		
11:30			1		3		23:30			0		0		
11:45			5	*8*	0	*6*	*14*	23:45		0	*0*	0	*0*	
TOTALS:				**36**		**56**	**92**	TOTALS:				**59**		**70**	**129**

SPLIT		39.1%	60.9%	**41.6%**	SPLIT		45.7%	54.3%	**58.4%**
PEAK HOUR		11:45	10:00	**09:30**	PEAK HOUR		12:00	15:15	**15:15**
PH VOLUME		22	22	**32**	PH VOLUME		18	24	**31**
PHF		0.69	0.61	**0.73**	PHF		0.56	0.60	**0.78**

DAY'S TOTAL

NB	SB	EB	WB	TOTAL
		95	126	**221**

QUALITY TRAFFIC DATA, LLC
9701 W Pico Blvd, Suite 205, Los Angeles, CA, 90035
Phone: 310-341-0019 Fax: 310-807-9247 Info@QualityTrafficData.com

Average Daily Traffic Volumes
Quality Traffic Data, LLC

QTD PROJ/LOC #:	100117 - 009	GPS COORDINATES:	N/A
ON STREET:	LOCKLENNA LN	START DATE:	Wednesday, March 10, 2010
CROSS STREETS:	W OF HAWTHORNE BLVD	VICINITY:	RANCHO PALOS VERDES, CA

AM COUNTS						PM COUNTS					
	NB	SB	EB		WB			NB	SB	EB		WB	
00:00			0		1		12:00			9		8	
00:15			3		2		12:15			6		6	
00:30			0		0		12:30			7		4	
00:45			0	*3*	0	*3*	*6*	12:45			4	*26*	7	*25*	*51*
01:00			0		0		13:00			2		7	
01:15			0		0		13:15			6		6	
01:30			1		1		13:30			6		7	
01:45			0	*1*	0	*1*	*2*	13:45			8	*22*	8	*28*	*50*
02:00			0		0		14:00			4		8	
02:15			0		0		14:15			5		7	
02:30			0		0		14:30			6		6	
02:45			0	*0*	0	*0*		14:45			14	*29*	5	*26*	*55*
03:00			0		0		15:00			8		5	
03:15			0		0		15:15			3		7	
03:30			0		0		15:30			8		7	
03:45			0	*0*	0	*0*		15:45			12	*31*	6	*25*	*56*
04:00			0		0		16:00			2		12	
04:15			1		0		16:15			6		2	
04:30			0		0		16:30			5		9	
04:45			0	*1*	0	*0*	*1*	16:45			10	*23*	7	*30*	*53*
05:00			2		1		17:00			8		4	
05:15			1		0		17:15			11		5	
05:30			0		1		17:30			11		10	
05:45			0	*3*	0	*2*	*5*	17:45			11	*41*	10	*29*	*70*
06:00			2		4		18:00			3		7	
06:15			0		4		18:15			7		4	
06:30			0		2		18:30			6		10	
06:45			7	*9*	3	*13*	*22*	18:45			8	*24*	3	*24*	*48*
07:00			4		4		19:00			3		7	
07:15			12		8		19:15			1		0	
07:30			16		7		19:30			3		1	
07:45			14	*46*	8	*27*	*73*	19:45			1	*8*	6	*14*	*22*
08:00			11		8		20:00			1		7	
08:15			10		5		20:15			1		5	
08:30			9		6		20:30			3		6	
08:45			8	*38*	4	*23*	*61*	20:45			0	*5*	3	*21*	*26*
09:00			4		5		21:00			1		4	
09:15			10		9		21:15			2		7	
09:30			6		7		21:30			1		3	
09:45			7	*27*	8	*29*	*56*	21:45			0	*4*	2	*16*	*20*
10:00			2		6		22:00			1		4	
10:15			3		13		22:15			1		1	
10:30			10		7		22:30			0		2	
10:45			5	*20*	6	*32*	*52*	22:45			0	*2*	0	*7*	*9*
11:00			4		3		23:00			1		2	
11:15			6		4		23:15			0		0	
11:30			6		5		23:30			1		1	
11:45			18	*34*	6	*18*	*52*	23:45			0	*2*	0	*3*	*5*
TOTALS:				**182**		**148**	**330**	TOTALS:				**217**		**248**	**465**

SPLIT				SPLIT			
	55.2%	44.8%	**41.5%**		46.7%	53.3%	**58.5%**
PEAK HOUR	07:15	09:30	**07:15**	PEAK HOUR	17:00	15:15	**17:00**
PH VOLUME	53	34	**84**	PH VOLUME	41	32	**70**
PHF	0.83	0.65	**0.91**	PHF	0.93	0.67	**0.83**

DAY'S TOTAL

NB	SB	EB	WB	TOTAL
		399	396	**795**

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VEHICLE TURNING MOVEMENT COUNT

#001 HAWTHORNE BLVD & VERDE RIDGE RD - AM PEAK

LOCATION#:	001	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	VERDE RIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	0	2	0	0	1	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	63	0	0	62	2	5	0	3	0	0	0	136
7:15 AM	4	97	0	0	56	1	10	0	21	0	0	0	189
7:30 AM	15	172	0	0	97	2	9	0	33	0	0	0	328
7:45 AM	21	182	0	0	112	6	15	0	6	0	0	0	342
8:00 AM	6	116	0	0	105	1	14	0	10	0	0	0	252
8:15 AM	10	161	0	0	124	6	14	0	6	0	0	0	321
8:30 AM	58	178	0	0	127	6	9	0	24	0	0	0	402
8:45 AM	9	150	0	0	120	3	9	0	40	0	0	0	331
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	124	1119	0	0	803	27	85	0	143	0	0	0	2301
P.H.V: (1)	95	637	0	0	468	19	52	0	46	0	0	0	1317
P.H.F: (2)		0.775			0.915			0.742			0.000		0.819

(1) Peak Hour Volume (Peak Hour Begins At 745 AM)
(2) Peak Hour Factor (directional aggregate)

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VEHICLE TURNING MOVEMENT COUNT

#001 HAWTHORNE BLVD & VERDE RIDGE RD - PM PEAK

LOCATION#: 001
NORTH / SOUTH: HAWTHORNE BLVD
EAST / WEST: VERDE RIDGE RD

QTD PROJ#: 100117
DATE: Wednesday, March 10, 2010
VICINITY: RANCHO PALOS VERDES, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	0	2	0	0	1	0	0	0	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	7	115	0	0	135	8	7	0	5	0	0	0	277
4:15 PM	8	148	0	0	139	10	4	0	6	0	0	0	315
4:30 PM	6	133	0	0	146	9	4	0	13	0	0	0	311
4:45 PM	6	138	0	0	145	16	9	0	12	0	0	0	326
5:00 PM	18	105	0	0	171	4	7	0	11	0	0	0	316
5:15 PM	16	147	0	0	145	13	6	0	11	0	0	0	338
5:30 PM	10	124	0	0	168	14	6	0	12	0	0	0	334
5:45 PM	12	128	0	0	159	11	5	0	7	0	0	0	322
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	83	1038	0	0	1208	85	48	0	77	0	0	0	2539
P.H.V: (1)	50	514	0	0	629	47	28	0	46	0	0	0	1314
P.H.F: (2)		0.865			0.929			0.881			0.000		0.972

(1) Peak Hour Volume (Peak Hour Begins At 445 PM)
(2) Peak Hour Factor (directional aggregate)

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PEDESTRIAN CROSSWALK COUNTS

#001 HAWTHORNE BLVD & VERDE RIDGE RD - AM PEAK

LOCATION#:	001
NORTH / SOUTH:	HAWTHORNE BLVD
EAST / WEST:	VERDE RIDGE RD

QTD PROJ#:	100117
DATE:	Wednesday, March 10, 2010
VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	1	2	0	4	7
7:15 AM	0	0	0	0	
7:30 AM	0	0	0	2	2
7:45 AM	0	0	0	0	
8:00 AM	0	0	0	0	
8:15 AM	0	0	0	0	
8:30 AM	0	0	0	0	
8:45 AM	1	0	0	0	1
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					

VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	2	2	0	6	10
P.H.V: [1]	1	2	0	6	9
P.H.F: [2]	0.250	0.250	0.000	0.375	0.321

(1) Peak Hour Volume (Peak hour begins at: 700 AM)
(2) Peak Hour Factor

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PEDESTRIAN CROSSWALK COUNTS

#001 HAWTHORNE BLVD & VERDE RIDGE RD - PM PEAK

LOCATION#:	001	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	VERDE RIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM	0	0	0	0	
4:15 PM	1	0	0	0	1
4:30 PM	0	0	0	0	
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM					

VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	1	2	0	1	4
P.H.V: [1]	0	2	0	1	3
P.H.F: [2]	0.000	0.500	0.000	0.250	0.750

(1) Peak Hour Volume (Peak hour begins at: 445 PM)
(2) Peak Hour Factor

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BICYCLE APPROACH COUNTS

#001 HAWTHORNE BLVD & VERDE RIDGE RD - AM PEAK

LOCATION#:	001	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	VERDE RIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	0	0	1	1
7:15 AM	0	0	0	0	
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	0	
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	0	
8:45 AM	0	0	0	0	
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					

VOLUME STATS:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	
TOTAL:	0	0	0	4	4
P.H.V: (1)	0	0	0	3	3
P.H.F: (2)	0.000	0.000	0.000	0.750	0.750

(1) Peak Hour Volume (Peak hour begins at: 730 AM)
(2) Peak Hour Factor

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BICYCLE APPROACH COUNTS

#001 HAWTHORNE BLVD & VERDE RIDGE RD - PM PEAK

LOCATION#:	001	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	VERDE RIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	TOTALS
4:00 PM	0	0	0	0	
4:15 PM	0	0	0	0	
4:30 PM	0	0	0	0	
4:45 PM	0	0	0	0	
5:00 PM	0	0	0	0	
5:15 PM	0	0	0	0	
5:30 PM	0	0	0	0	
5:45 PM	0	0	0	0	
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM					

VOLUME STATS:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	
TOTAL:	0	0	0	0	0
P.H.V: [1]	0	0	0	0	0
P.H.F: [2]	0.000	0.000	0.000	0.000	0.000

(1) Peak Hour Volume (Peak hour begins at: 0 AM)
(2) Peak Hour Factor

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VEHICLE TURNING MOVEMENT COUNT

#002 HAWTHORNE BLVD & DOVERRIDGE RD - AM PEAK

LOCATION#:	**002**	**QTD PROJ#:**	**100117**
NORTH / SOUTH:	**HAWTHORNE BLVD**	**DATE:**	**Wednesday, March 10, 2010**
EAST / WEST:	**DOVERRIDGE RD**	**VICINITY:**	**RANCHO PALOS VERDES, CA**

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	2	0	1	2	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	64	0	0	65	0	0	0	0	1	0	1	131
7:15 AM	0	95	0	2	74	0	0	0	0	0	0	4	175
7:30 AM	0	188	0	1	126	0	1	0	0	5	1	1	323
7:45 AM	0	197	4	1	114	0	1	0	0	0	0	5	322
8:00 AM	0	116	1	1	116	1	1	0	1	0	0	5	242
8:15 AM	0	165	0	1	127	2	0	0	0	0	0	7	302
8:30 AM	0	227	1	5	138	5	4	1	0	1	0	7	389
8:45 AM	0	159	1	2	150	5	0	0	0	3	1	1	322
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	1211	7	13	910	13	7	1	1	10	2	31	2206
P.H.V: [1]	0	667	3	9	531	13	5	1	1	4	1	20	1255
P.H.F: [2]		0.735			0.881			0.350			0.781		0.807

(1) Peak Hour Volume (Peak Hour Begins At 800 AM)
(2) Peak Hour Factor (directional aggregate)

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VEHICLE TURNING MOVEMENT COUNT

#002 HAWTHORNE BLVD & DOVERRIDGE RD - PM PEAK

LOCATION#: 002
NORTH / SOUTH: HAWTHORNE BLVD
EAST / WEST: DOVERRIDGE RD

QTD PROJ#: 100117
DATE: Wednesday, March 10, 2010
VICINITY: RANCHO PALOS VERDES, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	0	2	0	1	2	0	0	1	0	0	1	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	119	3	2	134	3	0	0	2	0	0	0	263
4:15 PM	0	146	1	4	142	2	2	0	1	0	1	6	305
4:30 PM	0	133	1	0	155	1	2	0	0	1	0	2	295
4:45 PM	0	144	1	1	147	6	2	0	0	1	0	0	302
5:00 PM	0	117	6	1	179	4	2	0	1	0	0	1	311
5:15 PM	0	153	0	6	151	2	5	0	1	1	0	3	322
5:30 PM	0	128	1	2	175	0	0	0	0	2	1	3	312
5:45 PM	0	139	2	4	159	1	2	0	0	0	0	1	308
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	0	1079	15	20	1242	19	15	0	5	5	2	16	2418
P.H.V: (1)	0	537	9	13	664	7	9	0	2	3	1	8	1253
P.H.F: (2)		0.892			0.929			0.458			0.500		0.973

(1) Peak Hour Volume (Peak Hour Begins At 500 PM)
(2) Peak Hour Factor (directional aggregate)

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PEDESTRIAN CROSSWALK COUNTS

#002 HAWTHORNE BLVD & DOVERRIDGE RD - AM PEAK

LOCATION#: 002
NORTH / SOUTH: HAWTHORNE BLVD
EAST / WEST: DOVERRIDGE RD

QTD PROJ#: 100117
DATE: Wednesday, March 10, 2010
VICINITY: RANCHO PALOS VERDES, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	2	3	7	12
7:15 AM	0	2	0	1	3
7:30 AM	0	0	0	4	4
7:45 AM	0	1	0	0	1
8:00 AM	0	0	1	2	3
8:15 AM	0	0	0	1	1
8:30 AM	0	1	1	0	2
8:45 AM	0	0	0	2	2
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					

VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	6	5	17	28
P.H.V: [1]	0	5	3	12	20
P.H.F: [2]	0.000	0.625	0.250	0.429	0.417

(1) Peak Hour Volume (Peak hour begins at: 700 AM)
(2) Peak Hour Factor

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PEDESTRIAN CROSSWALK COUNTS

#002 HAWTHORNE BLVD & DOVERRIDGE RD - PM PEAK

LOCATION#:	002	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	DOVERRIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM	0	0	0	0	
4:15 PM	0	0	0	2	2
4:30 PM	0	0	0	1	1
4:45 PM	0	0	0	2	2
5:00 PM	0	0	0	0	
5:15 PM	0	0	0	1	1
5:30 PM	0	3	0	1	4
5:45 PM	0	0	0	0	
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM					

VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	3	0	7	10
P.H.V: [1]	0	3	0	4	7
P.H.F: [2]	0.000	0.250	0.000	0.500	0.438

(1) Peak Hour Volume (Peak hour begins at: 445 PM)
(2) Peak Hour Factor

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BICYCLE APPROACH COUNTS

#002 HAWTHORNE BLVD & DOVERRIDGE RD - AM PEAK

LOCATION#: 002
NORTH / SOUTH: HAWTHORNE BLVD
EAST / WEST: DOVERRIDGE RD

QTD PROJ#: 100117
DATE: Wednesday, March 10, 2010
VICINITY: RANCHO PALOS VERDES, CA

DIRECTION:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	0	0	0	
7:15 AM	0	0	0	0	
7:30 AM	0	0	0	0	
7:45 AM	0	0	0	0	
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	0	
8:45 AM	0	0	0	0	
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					

VOLUME STATS:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	
TOTAL:	0	0	1	1	2
P.H.V: [1]	0	0	1	1	2
P.H.F: [2]	0.000	0.000	0.250	0.250	0.500

(1) Peak Hour Volume (Peak hour begins at: 800 AM)
(2) Peak Hour Factor

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BICYCLE APPROACH COUNTS

#002 HAWTHORNE BLVD & DOVERRIDGE RD - PM PEAK

LOCATION#:	002	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	DOVERRIDGE RD	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	TOTALS
4:00 PM	0	0	0	0	
4:15 PM	0	0	0	0	
4:30 PM	0	0	0	0	
4:45 PM	0	0	0	0	
5:00 PM	0	0	0	0	
5:15 PM	1	0	0	0	1
5:30 PM	0	0	2	0	2
5:45 PM	0	0	1	0	1
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM					

VOLUME STATS:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	
TOTAL:	1	0	3	0	4
P.H.V: [1]	1	0	3	0	4
P.H.F: [2]	0.250	0.000	0.375	0.000	0.500

(1) Peak Hour Volume (Peak hour begins at: 515 PM)
(2) Peak Hour Factor

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VEHICLE TURNING MOVEMENT COUNT

#003 HAWTHORNE BLVD & LOCKLENNA LN - AM PEAK

LOCATION#:	003	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	LOCKLENNA LN	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	0	2	0	0	1	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	64	0	0	65	2	2	0	1	0	0	0	134
7:15 AM	2	93	0	0	68	4	0	0	10	0	0	0	177
7:30 AM	7	188	0	0	126	2	3	0	11	0	0	0	337
7:45 AM	3	202	0	0	114	3	2	0	10	0	0	0	334
8:00 AM	4	114	0	0	114	4	2	0	7	0	0	0	245
8:15 AM	0	164	0	0	127	2	4	0	6	0	0	0	303
8:30 AM	6	228	0	0	134	2	3	0	7	0	0	0	380
8:45 AM	2	156	0	0	147	4	2	0	5	0	0	0	316
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	24	1209	0	0	895	23	18	0	57	0	0	0	2226
P.H.V: [1]	13	708	0	0	489	11	11	0	30	0	0	0	1262
P.H.F: [2]		0.770			0.919			0.854			0.000		0.830

(1) Peak Hour Volume (Peak Hour Begins At 745 AM)
(2) Peak Hour Factor (directional aggregate)

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VEHICLE TURNING MOVEMENT COUNT

#003 HAWTHORNE BLVD & LOCKLENNA LN - PM PEAK

LOCATION#: 003
NORTH / SOUTH: HAWTHORNE BLVD
EAST / WEST: LOCKLENNA LN

QTD PROJ#: 100117
DATE: Wednesday, March 10, 2010
VICINITY: RANCHO PALOS VERDES, CA

DIRECTION:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTALS
LANES:	1	2	0	0	2	0	0	1	0	0	0	0	
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	8	119	0	0	131	4	1	0	4	0	0	0	267
4:15 PM	2	144	0	0	145	1	1	0	5	0	0	0	298
4:30 PM	6	132	0	0	150	4	0	0	5	0	0	0	297
4:45 PM	3	139	0	0	142	4	6	0	3	0	0	0	297
5:00 PM	2	117	0	0	180	2	3	0	5	0	0	0	309
5:15 PM	3	149	0	0	154	2	4	0	5	0	0	0	317
5:30 PM	10	122	0	0	174	3	4	0	7	0	0	0	320
5:45 PM	4	139	0	0	157	5	5	0	6	0	0	0	316
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

VOLUME STATS:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
TOTAL:	38	1061	0	0	1233	25	24	0	40	0	0	0	2421
P.H.V: [1]	19	527	0	0	665	12	16	0	23	0	0	0	1262
P.H.F: [2]		0.898			0.930			0.886			0.000		0.986

(1) Peak Hour Volume (Peak Hour Begins At 500 PM)
(2) Peak Hour Factor (directional aggregate)

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PEDESTRIAN CROSSWALK COUNTS

#003 HAWTHORNE BLVD & LOCKLENNA LN - AM PEAK

LOCATION#:	003	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	LOCKLENNA LN	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	4	1	0	0	5
7:15 AM	0	0	0	0	
7:30 AM	0	0	0	0	
7:45 AM	0	0	0	0	
8:00 AM	0	0	0	0	
8:15 AM	0	0	0	0	
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	3	3
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					

VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	4	2	0	3	9
P.H.V: [1]	4	1	0	0	5
P.H.F: [2]	0.250	0.250	0.000	0.000	0.250

(1) Peak Hour Volume (Peak hour begins at: 700 AM)
(2) Peak Hour Factor

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PEDESTRIAN CROSSWALK COUNTS

#003 HAWTHORNE BLVD & LOCKLENNA LN - PM PEAK

LOCATION#:	003	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	LOCKLENNA LN	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	TOTALS
4:00 PM	0	1	0	1	2
4:15 PM	0	0	0	0	
4:30 PM	0	0	0	0	
4:45 PM	0	0	0	0	
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	
5:30 PM	0	0	0	0	
5:45 PM	0	0	0	0	
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM					

VOLUME STATS:	NORTHERN CROSSWALK	SOUTHERN CROSSWALK	EASTERN CROSSWALK	WESTERN CROSSWALK	
TOTAL:	0	2	0	1	3
P.H.V: (1)	0	1	0	1	2
P.H.F: (2)	0.000	0.250	0.000	0.250	0.250

(1) Peak Hour Volume (Peak hour begins at: 400 PM)
(2) Peak Hour Factor

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BICYCLE APPROACH COUNTS

#003 HAWTHORNE BLVD & LOCKLENNA LN - AM PEAK

LOCATION#:	003	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	LOCKLENNA LN	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	TOTALS
6:00 AM					
6:15 AM					
6:30 AM					
6:45 AM					
7:00 AM	0	0	0	0	
7:15 AM	0	0	0	0	
7:30 AM	0	0	0	1	1
7:45 AM	0	0	0	0	
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	1	1
8:30 AM	0	0	0	0	
8:45 AM	0	0	0	1	1
9:00 AM					
9:15 AM					
9:30 AM					
9:45 AM					
10:00 AM					
10:15 AM					
10:30 AM					

VOLUME STATS:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	
TOTAL:	0	0	0	4	4
P.H.V: [1]	0	0	0	3	3
P.H.F: [2]	0.000	0.000	0.000	0.750	0.750

(1) Peak Hour Volume (Peak hour begins at: 800 AM)
(2) Peak Hour Factor

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BICYCLE APPROACH COUNTS

#003 HAWTHORNE BLVD & LOCKLENNA LN - PM PEAK

LOCATION#:	003	QTD PROJ#:	100117
NORTH / SOUTH:	HAWTHORNE BLVD	DATE:	Wednesday, March 10, 2010
EAST / WEST:	LOCKLENNA LN	VICINITY:	RANCHO PALOS VERDES, CA

DIRECTION:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	TOTALS
4:00 PM	0	0	0	0	
4:15 PM	0	0	0	0	
4:30 PM	0	0	0	1	1
4:45 PM	0	0	0	0	
5:00 PM	0	0	0	0	
5:15 PM	0	0	0	0	
5:30 PM	0	0	0	0	
5:45 PM	0	0	0	0	
6:00 PM					
6:15 PM					
6:30 PM					
6:45 PM					

VOLUME STATS:	FROM NORTH	FROM SOUTH	FROM EAST	FROM WEST	
TOTAL:	0	0	0	1	1
P.H.V: [1]	0	0	0	1	1
P.H.F: [2]	0.000	0.000	0.000	0.250	0.250

(1) Peak Hour Volume (Peak hour begins at: 430 PM)
(2) Peak Hour Factor

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Rancho Palos Verdes - Hawthorne Blvd./Hesse Park Traffic Study (#100114)
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 HAWTHORNE BLVD. (NS)/VERDE RIDGE DRIVE (EW)

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: D[30.9]

Street Name:	Hawthorne Boulevard						Verde Ridge Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2	0	0	0 0 1	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	95	637	0	0	468	19	52	0	46	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	637	0	0	468	19	52	0	46	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
PHF Volume:	116	778	0	0	571	23	63	0	56	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	116	778	0	0	571	23	63	0	56	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	595	xxxx	xxxxx	xxxx	xxxx	xxxxx	1204	1593	297	xxxx	xxxx	xxxxx
Potent Cap.:	991	xxxx	xxxxx	xxxx	xxxx	xxxxx	180	108	705	xxxx	xxxx	xxxxx
Move Cap.:	991	xxxx	xxxxx	xxxx	xxxx	xxxxx	163	96	705	xxxx	xxxx	xxxxx
Volume/Cap:	0.12	xxxx	xxxx	xxxx	xxxx	xxxx	0.39	0.00	0.08	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	256	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.3	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	30.9	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	D	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			30.9			xxxxxx		
ApproachLOS:	*			*			D			*		

Note: Queue reported is the number of cars per lane.

Rancho Palos Verdes - Hawthorne Blvd./ Hesse Park Traffic Study (#100114)
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 HAWTHORNE BLVD. (NS)/VERDE RIDGE DRIVE (EW)

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C[17.1]

Street Name:	Hawthorne Boulevard						Verde Ridge Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2	0	0	0 0 1	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	50 514	0		0 629	47		28	0	46	0	0	0
Growth Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50 514	0		0 629	47		28	0	46	0	0	0
User Adj:	1.00 1.00	1.00		1.00 1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97 0.97	0.97		0.97 0.97	0.97		0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	51 529	0		0 647	48		29	0	47	0	0	0
Reduct Vol:	0 0	0		0 0	0		0	0	0	0	0	0
FinalVolume:	51 529	0		0 647	48		29	0	47	0	0	0
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		6.8	6.5	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	695 xxxx xxxxx	xxxx		xxxx xxxxx	xxxxx		1039	1303	348	xxxx	xxxx	xxxxx
Potent Cap.:	910 xxxx xxxxx	xxxx		xxxx xxxxx	xxxxx		230	162	654	xxxx	xxxx	xxxxx
Move Cap.:	910 xxxx xxxxx	xxxx		xxxx xxxxx	xxxxx		220	153	654	xxxx	xxxx	xxxxx
Volume/Cap:	0.06 xxxx xxxx	xxxx		xxxx xxxx	xxxx		0.13	0.00	0.07	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.2 xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.2 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A *	*		* *	*		*	*	*	*	*	*
Movement:	LT - LTR	- RT		LT - LTR	- RT		LT - LTR		- RT	LT - LTR		- RT
Shared Cap.:	xxxx xxxx xxxxx			xxxx xxxx xxxxx			xxxx	374	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx xxxx xxxxx			xxxxx xxxx xxxxx			xxxxx	17.1	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	* *	*		* *	*		*	C	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			17.1			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Rancho Palos Verdes - Hawthorne Blvd./Hesse Park Traffic Study (#100114)
Existing Conditions with Improvements
AM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

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Intersection #1 HAWTHORNE BLVD. (NS)/VERDE RIDGE DRIVE (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.297	
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	26	Level Of Service:	A	

****

Street Name:	Hawthorne Boulevard						Verde Ridge Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	95	637	0	0	468	19	52	0	46	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	95	637	0	0	468	19	52	0	46	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	103	692	0	0	509	21	57	0	50	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	103	692	0	0	509	21	57	0	50	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	103	692	0	0	509	21	57	0	50	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.92	0.08	0.53	0.00	0.47	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	3075	125	849	0	751	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.06	0.22	0.00	0.00	0.17	0.17	0.07	0.00	0.07	0.00	0.00	0.00
Crit Moves:	****				****				****			

****

Rancho Palos Verdes - Hawthorne Blvd./Hesse Park Traffic Study (#100114)
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 HAWTHORNE BLVD. (NS)/DOVERRIDGE DR. - HESSE PARK ENTRANCE

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: D[27.2]

Street Name:	Hawthorne Blvd.						Doverridge Dr. - Hesse Park Entra					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0	1 0	1	0 1 1	0	0	0 1!	0 0	0	0 1!	0 0
Volume Module:												
Base Vol:	0	667	3	9	531	0	5	1	1	4	1	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	667	3	9	531	0	5	1	1	4	1	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	0	827	4	11	658	0	6	1	1	5	1	25
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	827	4	11	658	0	6	1	1	5	1	25
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	830	xxxx	xxxxx	1094	1511	329	1180	1509	415
Potent Cap.:	xxxx	xxxx	xxxxx	811	xxxx	xxxxx	171	121	673	148	122	592
Move Cap.:	xxxx	xxxx	xxxxx	811	xxxx	xxxxx	161	120	673	145	120	592
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	0.04	0.01	0.00	0.03	0.01	0.04
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	171	xxxxx	xxxx	359	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	0.3	xxxxx
Shrd ConDel:	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	27.2	xxxxx	xxxxx	16.0	xxxxx
Shared LOS:	A	*	*	*	*	*	*	D	*	*	C	*
ApproachDel:	xxxxxx			xxxxxx			27.2			16.0		
ApproachLOS:	*			*			D			C		

Note: Queue reported is the number of cars per lane.

Rancho Palos Verdes - Hawthorne Blvd./ Hesse Park Traffic Study (#100114)
Existing Conditions with Improvements
PM Peak Hour

Level Of Service Computation Report
ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

****

Intersection #1 HAWTHORNE BLVD. (NS)/VERDE RIDGE DRIVE (EW)

****

Cycle (sec):	100	Critical Vol./Cap.(X):	0.314	
Loss Time (sec):	0	Average Delay (sec/veh):	xxxxxx	
Optimal Cycle:	27	Level Of Service:	A	

****

Street Name:	Hawthorne Boulevard						Verde Ridge Drive					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 1	0	0 0	1! 0	0	0 0	0 0	0
Volume Module:												
Base Vol:	50	514	0	0	629	47	28	0	46	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	50	514	0	0	629	47	28	0	46	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	54	559	0	0	684	51	30	0	50	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	559	0	0	684	51	30	0	50	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	559	0	0	684	51	30	0	50	0	0	0
Saturation Flow Module:												
Sat/Lane:	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	2.00	0.00	0.00	1.86	0.14	0.38	0.00	0.62	0.00	0.00	0.00
Final Sat.:	1600	3200	0	0	2978	222	605	0	995	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.03	0.17	0.00	0.00	0.23	0.23	0.05	0.00	0.05	0.00	0.00	0.00
Crit Moves:	****				****		****					

****

Rancho Palos Verdes - Hawthorne Blvd./ Hesse Park Traffic Study (#100114)
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 HAWTHORNE BLVD. (NS)/DOVERRIDGE DR. - HESSE PARK ENTRANCE

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[21.6]

Street Name:	Hawthorne Blvd.						Doverridge Dr. - Hesse Park Entra					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 1	0 1	0	1	0 1	1 0	0	0 1!	0 0	0	0 1!	0 0
Volume Module:												
Base Vol:	0	537	9	13	664	7	9	0	2	3	1	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	537	9	13	664	7	9	0	2	3	1	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	552	9	13	682	7	9	0	2	3	1	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	552	9	13	682	7	9	0	2	3	1	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.5	6.5	6.9	7.5	6.5	6.9
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	561	xxxx	xxxxx	989	1274	345	924	1273	281
Potent Cap.:	xxxx	xxxx	xxxxx	1020	xxxx	xxxxx	204	169	657	227	169	723
Move Cap.:	xxxx	xxxx	xxxxx	1020	xxxx	xxxxx	199	166	657	224	167	723
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	xxxx	0.05	0.00	0.00	0.01	0.01	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	228	xxxxx	xxxx	394	xxxxx
SharedQueue:	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	7.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	21.6	xxxxx	xxxxx	14.4	xxxxx
Shared LOS:	A	*	*	*	*	*	*	C	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			21.6			14.4		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

Rancho Palos Verdes - Hawthorne Blvd./Hesse Park Traffic Study (#100114)
Existing Conditions
AM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 HAWTHORNE BLVD. (NS)/LOCKLENNA LN (NS)

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[14.1]

Street Name:	Hawthorne Blvd.						Locklenna Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2	0	0	0 0 1	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	13	708	0	0	489	11	11	0	30	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	13	708	0	0	489	11	11	0	30	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	16	853	0	0	589	13	13	0	36	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	853	0	0	589	13	13	0	36	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	602	xxxx	xxxxx	xxxx	xxxx	xxxxx	1054	1480	301	xxxx	xxxx	xxxxx
Potent Cap.:	985	xxxx	xxxxx	xxxx	xxxx	xxxxx	225	127	701	xxxx	xxxx	xxxxx
Move Cap.:	985	xxxx	xxxxx	xxxx	xxxx	xxxxx	222	125	701	xxxx	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	0.00	0.05	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	444	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	14.1	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	B	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			14.1			xxxxxx		
ApproachLOS:	*			*			B			*		

Note: Queue reported is the number of cars per lane.

Rancho Palos Verdes - Hawthorne Blvd./ Hesse Park Traffic Study (#100114)
Existing Conditions
PM Peak Hour

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 HAWTHORNE BLVD. (NS)/LOCKLENNA LN (NS)

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C[15.1]

Street Name:	Hawthorne Blvd.						Locklenna Ln.					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	1 0 2	0	0	0 0 1	1	0	0 0 1!	0	0	0 0 0	0	0
Volume Module:												
Base Vol:	19	527	0	0	665	12	16	0	23	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	19	527	0	0	665	12	16	0	23	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	19	527	0	0	665	12	16	0	23	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	19	527	0	0	665	12	16	0	23	0	0	0
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	xxxxx	xxxx	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	677	xxxx	xxxxx	xxxx	xxxx	xxxxx	973	1236	339	xxxx	xxxx	xxxxx
Potent Cap.:	924	xxxx	xxxxx	xxxx	xxxx	xxxxx	253	178	663	xxxx	xxxx	xxxxx
Move Cap.:	924	xxxx	xxxxx	xxxx	xxxx	xxxxx	249	174	663	xxxx	xxxx	xxxxx
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx	0.06	0.00	0.03	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	395	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	15.1	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	*	*
ApproachDel:	xxxxxx			xxxxxx			15.1			xxxxxx		
ApproachLOS:	*			*			C			*		

Note: Queue reported is the number of cars per lane.

Los Angeles County Sheriff's Department
Lomita

Collision Report Summary

3/18/2010

Date Range Reported: 1/1/04 - 12/31/09
Total Number of Collisions: 7

Report#	Date	Time	Location	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Dir. of Travel 1	Movement Prec. Coll. 1	Dir. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil.	Ver.
104-01236-1735-471	3/21/04	06:05	Hawthorne Blvd & Verde Ridge Rd	30'	North	Hit Object	Fixed Object	South	Ran Off Road			Unsafe Speed	1	0	
104-04842-1734-472	11/19/04	23:56	Hawthorne Blvd & Verde Ridge Rd	0'	In Int.	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Other Improper Driving	0	0	
105-02208-1735-472	6/5/05	15:25	Hawthorne Blvd & Verde Ridge Rd	0'	In Int.	Broadside	Other Motor Vehicle	South	Changing Lanes	South	Proceeding Straight	Unknown	0	0	
105-02319-1735-471	6/11/05	17:55	Hawthorne Blvd & Verde Ridge Rd	10'	South	Broadside	Other Motor Vehicle	East	Making Left Turn	North	Proceeding Straight	Unknown	2	0	
105-04789-1735-471	11/23/05	21:50	Hawthorne Blvd & Verde Ridge Rd	0'	In Int.	Broadside	Other Motor Vehicle	East	Making Left Turn	South	Proceeding Straight	Not Stated	2	0	
106-03789-1735-250	10/2/06	19:30	Hawthorne Blvd & Verde Ridge Rd	152'	North	Hit Object	Fixed Object	South	Proceeding Straight			Other Improper Driving	0	0	
107-05431-1735-472	12/27/07	10:17	Hawthorne Blvd & Verde Ridge Rd	50'	North	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Slowing/Stopping	Unknown	0	0	

Los Angeles County Sheriff's Department
Lomita

Collision Report Summary

3/18/2010
Date Range Reported: 1/1/04 - 12/31/09
Total Number of Collisions: 1

Report#	Date	Time	Location	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Dir. of Travel 1	Movement Prec. Coll. 1	Dir. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil.	Ver.
017-03262-1735-471	8/4/07	21:35	Hawthorne Blvd & Doverridge Dr	108'	North	Hit Object	Fixed Object	North	Proceeding Straight			Other Improper Driving	1	0	

Los Angeles County Sheriff's Department
Lomita

Collision Report Summary

3/18/2010

Date Range Reported: 1/1/04 - 12/31/09

Total Number of Collisions: 4

Report#	Date	Time	Location	Dist.	Dir.	Type of Collision	Motor Veh. Involved With	Dir. of Travel 1	Movement Prec. Coll. 1	Dir. of Travel 2	Movement Prec. Coll. 2	PCF	Inj.	Kil.	Ver.
104-03780-1734-471	9/7/04	18:00	Hawthorne Blvd & Locklenna Ln	0'	In Int.	Other	Bicycle	West	Making Right Turn	South	Proceeding Straight	Other Improper Driving	1	0	
106-01933-1735-471	5/17/06	10:10	Hawthorne Blvd & Locklenna Ln	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Other Improper Driving	2	0	
106-03252-1735-471	8/19/06	16:35	Hawthorne Blvd & Locklenna Ln	0'	In Int.	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Other Improper Driving	3	0	
107-04941-1735-472	11/22/07	12:10	Hawthorne Blvd & Locklenna Ln	5'	South	Hit Object	Fixed Object	South	Making Right Turn			Other Improper Driving	0	0	

APPENDIX B

Intersection Level of Service Worksheets

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Lower Hesse Park dwy/Locklenna Ln

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[0.0]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	0	0	0		1	0	0	0	1		0	0	1	0	0		0	0	1	0	0	
Volume Module:																								
Base Vol:	0	0	0	0	0	0	0	41	0	0	24	0												
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
Initial Bse:	0	0	0	0	0	0	0	41	0	0	24	0												
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00												
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83												
PHF Volume:	0	0	0	0	0	0	0	49	0	0	29	0												
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0												
FinalVolume:	0	0	0	0	0	0	0	49	0	0	29	0												
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx			6.4	xxxx			6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	xxxx			3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx								
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx			78	xxxx			29	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Potent Cap.:	xxxx	xxxx	xxxxx			929	xxxx			1052	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Move Cap.:	xxxx	xxxx	xxxxx			929	xxxx			1052	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx								
Volume/Cap:	xxxx	xxxx	xxxx			0.00	xxxx			0.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx								
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx						
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx						
LOS by Move:	*	*	*			*	*	*			*	*	*			*	*	*						
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx						
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx						
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx						
Shared LOS:	*	*	*			*	*	*			*	*	*			*	*	*						
ApproachDel:	xxxxxx					xxxxxx					xxxxxx					xxxxxx								
ApproachLOS:	*					*					*					*								

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hawhtorne Blvd/Locklenna Ln

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[14.1]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1 0 2	0	0		0 0 1	1	0		0 0 1!	0	0		0 0 0	0	0	
Volume Module:																
Base Vol:	13	708	0		0	489	11		11	0	30		0	0	0	
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	13	708	0		0	489	11		11	0	30		0	0	0	
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.83	0.83	0.83		0.83	0.83	0.83		0.83	0.83	0.83		0.83	0.83	0.83	
PHF Volume:	16	853	0		0	589	13		13	0	36		0	0	0	
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0	
FinalVolume:	16	853	0		0	589	13		13	0	36		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx		6.8	6.5	6.9		xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx		3.5	4.0	3.3		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	602	xxxx	xxxxx		xxxx	xxxx	xxxxx		1054	1480	301		xxxx	xxxx	xxxxx	
Potent Cap.:	985	xxxx	xxxxx		xxxx	xxxx	xxxxx		225	127	701		xxxx	xxxx	xxxxx	
Move Cap.:	985	xxxx	xxxxx		xxxx	xxxx	xxxxx		222	125	701		xxxx	xxxx	xxxxx	
Volume/Cap:	0.02	xxxx	xxxx		xxxx	xxxx	xxxx		0.06	0.00	0.05		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.0	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	8.7	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	A	*	*		*	*	*		*	*	*		*	*	*	
Movement:	LT	LTR	RT		LT	LTR	RT		LT	LTR	RT		LT	LTR	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	444	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	0.4	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	14.1	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	B	*		*	*	*	
ApproachDel:	xxxxxx				xxxxxx				14.1				xxxxxx			
ApproachLOS:	*				*				B				*			

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hawhtorne Blvd/Doverridge Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: D[27.2]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1	1	0		1	0	1	1	0		0	1	0	0	1		0	0	1!	0	0	
Volume Module:																								
Base Vol:	0	667		3			9	531		13			5		1		1		4		1		20	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	0	667		3			9	531		13			5		1		1		4		1		20	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.81	0.81		0.81			0.81	0.81		0.81			0.81		0.81		0.81		0.81		0.81		0.81	
PHF Volume:	0	823		4			11	656		16			6		1		1		5		1		25	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	0	823		4			11	656		16			6		1		1		5		1		25	
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx		xxxxx			4.1	xxxx		xxxxx			7.5		6.5		6.9		7.5		6.5		6.9	
FollowUpTim:	xxxxx	xxxx		xxxxx			2.2	xxxx		xxxxx			3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx		xxxxx			827	xxxx		xxxxx			1098		1513		336		1176		1519		414	
Potent Cap.:	xxxx	xxxx		xxxxx			813	xxxx		xxxxx			170		121		666		149		120		593	
Move Cap.:	xxxx	xxxx		xxxxx			813	xxxx		xxxxx			160		119		666		146		118		593	
Volume/Cap:	xxxx	xxxx		xxxx			0.01	xxxx		xxxx			0.04		0.01		0.00		0.03		0.01		0.04	
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx		xxxxx			0.0	xxxx		xxxxx			xxxx		xxxx		0.0		xxxx		xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx			9.5	xxxx		xxxxx			xxxxx		xxxx		10.4		xxxxx		xxxx		xxxxx	
LOS by Move:	*	*		*			A	*		*			*		*		B		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			151		xxxx		xxxxx		xxxx		359		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			0.2		xxxx		xxxxx		xxxxx		0.3		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			30.0		xxxx		xxxxx		xxxxx		16.0		xxxxx	
Shared LOS:	*	*		*			*	*		*			D		*		*		*		C		*	
ApproachDel:	xxxxxx						xxxxxx						27.2						16.0					
ApproachLOS:	*						*						D						C					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hawthorne Blvd/Verde Ridge Rd

Average Delay (sec/veh): 2.9 Worst Case Level Of Service: D[30.8]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1	0 2	0	0	0	0 1	1	0	0	0 1!	0	0	0	0 0	0	0
Volume Module:																
Base Vol:	95	637	0	0	468	19			52	0	46		0	0	0	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	95	637	0	0	468	19			52	0	46		0	0	0	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.82	0.82	0.82	0.82	0.82	0.82			0.82	0.82	0.82		0.82	0.82	0.82	
PHF Volume:	116	777	0	0	571	23			63	0	56		0	0	0	
Reduct Vol:	0	0	0	0	0	0			0	0	0		0	0	0	
FinalVolume:	116	777	0	0	571	23			63	0	56		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.8	6.5	6.9		xxxxx	xxxx	xxxxx	
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	4.0	3.3		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	594	xxxx	xxxxx	xxxx	xxxx	xxxxx			1202	1591	297		xxxx	xxxx	xxxxx	
Potent Cap.:	992	xxxx	xxxxx	xxxx	xxxx	xxxxx			180	109	705		xxxx	xxxx	xxxxx	
Move Cap.:	992	xxxx	xxxxx	xxxx	xxxx	xxxxx			164	96	705		xxxx	xxxx	xxxxx	
Volume/Cap:	0.12	xxxx	xxxx	xxxx	xxxx	xxxx			0.39	0.00	0.08		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx				
Control Del:	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx				
LOS by Move:	A	*	*	*	*	*	*	*	*	*	*	*				
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	256	xxxxx	xxxx	xxxx	xxxxx				
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.3	xxxxx	xxxxx	xxxx	xxxxx				
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	30.8	xxxxx	xxxxx	xxxx	xxxxx				
Shared LOS:	*	*	*	*	*	*	*	D	*	*	*	*				
ApproachDel:	xxxxxx			xxxxxx			30.8			xxxxxx						
ApproachLOS:	*			*			D			*						

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Lower Hesse Park dwy/Locklenna Ln

Average Delay (sec/veh): 0.0 Worst Case Level Of Service: A[0.0]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	- T	- R		L	- T	- R		L	- T	- R		L	- T	- R	
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled			
Rights:	Include				Include				Include				Include			
Lanes:	0 0	0	0	0 0	1	0	0	0 1	0	0 1	0	0	0	0 1	0	0
Volume Module:																
Base Vol:	0	0	0	0	0	0	0	0	0	39	0	0	0	31	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	0	0	0	0	0	0	39	0	0	0	31	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	0	0	0	0	0	0	39	0	0	0	31	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	0	0	0	0	0	0	39	0	0	0	31	0	0
Critical Gap Module:																
Critical Gp:	xxxxx	xxxx	xxxxx		6.4	xxxx		6.2	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
FollowUpTim:	xxxxx	xxxx	xxxxx		3.5	xxxx		3.3	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Capacity Module:																
Cnflict Vol:	xxxx	xxxx	xxxxx		70	xxxx		31	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Potent Cap.:	xxxx	xxxx	xxxxx		939	xxxx		1049	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx		939	xxxx		1049	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Volume/Cap:	xxxx	xxxx	xxxx		0.00	xxxx		0.00	xxxx	xxxx	xxxx		xxxx	xxxx	xxxx	
Level Of Service Module:																
2Way95thQ:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
Control Del:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
LOS by Move:	*	*	*		*	*	*		*	*	*		*	*	*	
Movement:	LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT		LT -	LTR -	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx	
SharedQueue:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shrd ConDel:	xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx	
Shared LOS:	*	*	*		*	*	*		*	*	*		*	*	*	
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				xxxxxx			
ApproachLOS:	*				*				*				*			

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hawhtorne Blvd/Locklenna Ln

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: C[15.1]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	2	0	0		0	0	1	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	19	527		0		0	665		12				16		0		23		0		0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00				1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	19	527		0		0	665		12				16		0		23		0		0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00				1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00				1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	19	527		0		0	665		12				16		0		23		0		0		0	
Reduct Vol:	0	0		0		0	0		0				0		0		0		0		0		0	
FinalVolume:	19	527		0		0	665		12				16		0		23		0		0		0	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.8		6.5		6.9		xxxxx	xxxx	xxxxx			
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5		4.0		3.3		xxxxx	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	677	xxxx	xxxxx		xxxx	xxxx	xxxxx						973		1236		339		xxxx	xxxx	xxxxx			
Potent Cap.:	924	xxxx	xxxxx		xxxx	xxxx	xxxxx						253		178		663		xxxx	xxxx	xxxxx			
Move Cap.:	924	xxxx	xxxxx		xxxx	xxxx	xxxxx						249		174		663		xxxx	xxxx	xxxxx			
Volume/Cap:	0.02	xxxx	xxxx		xxxx	xxxx	xxxx						0.06		0.00		0.03		xxxx	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
LOS by Move:	A	*		*		*	*		*		*		*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	395	xxxxx		xxxx	xxxx	xxxxx									
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		0.3	xxxxx	xxxxx	xxxx	xxxxx											
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		15.1	xxxxx	xxxxx	xxxx	xxxxx											
Shared LOS:	*	*		*		*	*		*		C		*		*		*		*		*		*	
ApproachDel:	xxxxxx			xxxxxx					15.1				xxxxxx											
ApproachLOS:	*			*					C				*											

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hawhtorne Blvd/Doverridge Dr

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[21.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1	1	0		1	0	1	1	0		0	1	0	0	1		0	0	1!	0	0	
Volume Module:																								
Base Vol:	0	537		9			13	664		7			9		0		2		3		1		8	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	0	537		9			13	664		7			9		0		2		3		1		8	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.97	0.97		0.97			0.97	0.97		0.97			0.97		0.97		0.97		0.97		0.97		0.97	
PHF Volume:	0	554		9			13	685		7			9		0		2		3		1		8	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	0	554		9			13	685		7			9		0		2		3		1		8	
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx		xxxxx			4.1	xxxx		xxxxx			7.5		6.5		6.9		7.5		6.5		6.9	
FollowUpTim:	xxxxx	xxxx		xxxxx			2.2	xxxx		xxxxx			3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx		xxxxx			563	xxxx		xxxxx			992		1278		346		927		1277		281	
Potent Cap.:	xxxx	xxxx		xxxxx			1019	xxxx		xxxxx			203		168		656		226		168		722	
Move Cap.:	xxxx	xxxx		xxxxx			1019	xxxx		xxxxx			198		166		656		223		166		722	
Volume/Cap:	xxxx	xxxx		xxxx			0.01	xxxx		xxxx			0.05		0.00		0.00		0.01		0.01		0.01	
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx		xxxxx			0.0	xxxx		xxxxx			xxxx		xxxx		0.0		xxxx		xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx			8.6	xxxx		xxxxx			xxxxx		xxxx		10.5		xxxxx		xxxx		xxxxx	
LOS by Move:	*	*		*			A	*		*			*		*		B		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			198		xxxx		xxxxx		xxxx		393		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			0.1		xxxx		xxxxx		xxxxx		0.1		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			24.1		xxxx		xxxxx		xxxxx		14.5		xxxxx	
Shared LOS:	*	*		*			*	*		*			C		*		*		*		B		*	
ApproachDel:	xxxxxx						xxxxxx						21.6						14.5					
ApproachLOS:	*						*						C						B					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hawthorne Blvd/Verde Ridge Rd

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C[17.1]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	2	0	0		0	0	1	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	50	514		0		0	629		47			28		0	46			0	0			0		
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00			1.00		1.00	1.00			1.00	1.00			1.00		
Initial Bse:	50	514		0		0	629		47			28		0	46			0	0			0		
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00			1.00		1.00	1.00			1.00	1.00			1.00		
PHF Adj:	0.97	0.97		0.97		0.97	0.97		0.97			0.97		0.97	0.97			0.97	0.97			0.97		
PHF Volume:	52	530		0		0	648		48			29		0	47			0	0			0		
Reduct Vol:	0	0		0		0	0		0			0		0	0			0	0			0		
FinalVolume:	52	530		0		0	648		48			29		0	47			0	0			0		
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						6.8		6.5	6.9	xxxxx	xxxx	xxxxx						
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						3.5		4.0	3.3	xxxxx	xxxx	xxxxx						
Capacity Module:																								
Cnflict Vol:	697	xxxx	xxxxx	xxxx	xxxx	xxxxx						1041		1306	348	xxxx	xxxx	xxxxx						
Potent Cap.:	909	xxxx	xxxxx	xxxx	xxxx	xxxxx						229		161	654	xxxx	xxxx	xxxxx						
Move Cap.:	909	xxxx	xxxxx	xxxx	xxxx	xxxxx						219		152	654	xxxx	xxxx	xxxxx						
Volume/Cap:	0.06	xxxx	xxxx	xxxx	xxxx	xxxx						0.13		0.00	0.07	xxxx	xxxx	xxxx						
Level Of Service Module:																								
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx												
LOS by Move:	A	*		*		*	*		*	*		*												
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	373	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	17.1	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	*	*		*		*	*		C	*		*		*										
ApproachDel:	xxxxxx			xxxxxx			17.1			xxxxxx														
ApproachLOS:	*			*			C			*														

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Lower Hesse Park dwy/Locklenna Ln

Average Delay (sec/veh): 0.9 Worst Case Level Of Service: A[8.8]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Stop Sign						Stop Sign						Uncontrolled						Uncontrolled					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	0	0	0		1	0	0	0	1		0	1	0	0	0		0	0	0	1	0	
Volume Module:																								
Base Vol:	0	0	0				4	0	2				2	41	0				0	24	5			
Growth Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
Initial Bse:	0	0	0				4	0	2				2	41	0				0	24	5			
User Adj:	1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00				1.00	1.00	1.00			
PHF Adj:	0.83	0.83	0.83				0.83	0.83	0.83				0.83	0.83	0.83				0.83	0.83	0.83			
PHF Volume:	0	0	0				5	0	2				2	49	0				0	29	6			
Reduct Vol:	0	0	0				0	0	0				0	0	0				0	0	0			
FinalVolume:	0	0	0				5	0	2				2	49	0				0	29	6			
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx	xxxxx				6.4	xxxx	6.2				4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
FollowUpTim:	xxxxx	xxxx	xxxxx				3.5	xxxx	3.3				2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx	xxxxx				86	xxxx	32				35	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Potent Cap.:	xxxx	xxxx	xxxxx				920	xxxx	1048				1589	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Move Cap.:	xxxx	xxxx	xxxxx				919	xxxx	1048				1589	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Volume/Cap:	xxxx	xxxx	xxxx				0.01	xxxx	0.00				0.00	xxxx	xxxx		xxxx	xxxx	xxxx					
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx	xxxxx				0.0	xxxx	0.0				0.0	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Control Del:	xxxxx	xxxx	xxxxx				8.9	xxxx	8.4				7.3	xxxx	xxxxx		xxxxx	xxxx	xxxxx					
LOS by Move:	*	*	*				A	*	A				A	*	*		*	*	*					
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx				xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				0.0	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx				xxxxx	xxxx	xxxxx				7.3	xxxx	xxxxx				xxxxx	xxxx	xxxxx			
Shared LOS:	*	*	*				*	*	*				A	*	*				*	*	*			
ApproachDel:	xxxxxx						8.8						xxxxxx						xxxxxx					
ApproachLOS:	*						A						*						*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hawhtorne Blvd/Locklenna Ln

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[14.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	2	0	0		0	0	1	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	15	708		0		0	489		14			13		0	32			0	0			0		
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00			1.00		1.00	1.00			1.00	1.00			1.00		
Initial Bse:	15	708		0		0	489		14			13		0	32			0	0			0		
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00			1.00		1.00	1.00			1.00	1.00			1.00		
PHF Adj:	0.83	0.83		0.83		0.83	0.83		0.83			0.83		0.83	0.83			0.83	0.83			0.83		
PHF Volume:	18	853		0		0	589		17			16		0	39			0	0			0		
Reduct Vol:	0	0		0		0	0		0			0		0	0			0	0			0		
FinalVolume:	18	853		0		0	589		17			16		0	39			0	0			0		
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						6.8		6.5	6.9	xxxxx	xxxx	xxxxx						
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						3.5		4.0	3.3	xxxxx	xxxx	xxxxx						
Capacity Module:																								
Cnflict Vol:	606	xxxx	xxxxx	xxxx	xxxx	xxxxx						1060		1487	303	xxxx	xxxx	xxxxx						
Potent Cap.:	982	xxxx	xxxxx	xxxx	xxxx	xxxxx						222		126	699	xxxx	xxxx	xxxxx						
Move Cap.:	982	xxxx	xxxxx	xxxx	xxxx	xxxxx						219		123	699	xxxx	xxxx	xxxxx						
Volume/Cap:	0.02	xxxx	xxxx	xxxx	xxxx	xxxx						0.07		0.00	0.06	xxxx	xxxx	xxxx						
Level Of Service Module:																								
2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx												
LOS by Move:	A	*		*		*	*		*		*	*		*	*		*	*		*		*	*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	428	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	14.6	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	*	*		*		*	*		*		*	B		*	*		*	*		*		*	*	
ApproachDel:	xxxxxx			xxxxxx			14.6			xxxxxx														
ApproachLOS:	*			*			B			*														

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hawhtorne Blvd/Doverridge Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: D[27.4]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1	1	0		1	0	1	1	0		0	1	0	0	1		0	0	1!	0	0	
Volume Module:																								
Base Vol:	0	669		3			9	534		13			5		1		1		4		1		20	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	0	669		3			9	534		13			5		1		1		4		1		20	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.81	0.81		0.81			0.81	0.81		0.81			0.81		0.81		0.81		0.81		0.81		0.81	
PHF Volume:	0	826		4			11	659		16			6		1		1		5		1		25	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	0	826		4			11	659		16			6		1		1		5		1		25	
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx		xxxxx			4.1	xxxx		xxxxx			7.5		6.5		6.9		7.5		6.5		6.9	
FollowUpTim:	xxxxx	xxxx		xxxxx			2.2	xxxx		xxxxx			3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx		xxxxx			830	xxxx		xxxxx			1103		1519		338		1180		1525		415	
Potent Cap.:	xxxx	xxxx		xxxxx			811	xxxx		xxxxx			168		120		664		148		119		592	
Move Cap.:	xxxx	xxxx		xxxxx			811	xxxx		xxxxx			158		118		664		145		117		592	
Volume/Cap:	xxxx	xxxx		xxxx			0.01	xxxx		xxxx			0.04		0.01		0.00		0.03		0.01		0.04	
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx		xxxxx			0.0	xxxx		xxxxx			xxxx		xxxx		0.0		xxxx		xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx			9.5	xxxx		xxxxx			xxxxx		xxxx		10.4		xxxxx		xxxx		xxxxx	
LOS by Move:	*	*		*			A	*		*			*		*		B		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			150		xxxx		xxxxx		xxxx		358		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			0.2		xxxx		xxxxx		xxxxx		0.3		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			30.2		xxxx		xxxxx		xxxxx		16.0		xxxxx	
Shared LOS:	*	*		*			*	*		*			D		*		*		*		C		*	
ApproachDel:	xxxxxx						xxxxxx						27.4						16.0					
ApproachLOS:	*						*						D						C					

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hawthorne Blvd/Verde Ridge Rd

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: D[31.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	2	0	0		0	0	1	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	95	639		0		0	471		20			53		0	46			0	0			0		
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00			1.00		1.00	1.00			1.00	1.00			1.00		
Initial Bse:	95	639		0		0	471		20			53		0	46			0	0			0		
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00			1.00		1.00	1.00			1.00	1.00			1.00		
PHF Adj:	0.82	0.82		0.82		0.82	0.82		0.82			0.82		0.82	0.82			0.82	0.82			0.82		
PHF Volume:	116	779		0		0	574		24			65		0	56			0	0			0		
Reduct Vol:	0	0		0		0	0		0			0		0	0			0	0			0		
FinalVolume:	116	779		0		0	574		24			65		0	56			0	0			0		
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx						6.8		6.5	6.9	xxxxx	xxxx	xxxxx						
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx						3.5		4.0	3.3	xxxxx	xxxx	xxxxx						
Capacity Module:																								
Cnflict Vol:	599	xxxx	xxxxx	xxxx	xxxx	xxxxx						1208		1598	299	xxxx	xxxx	xxxxx						
Potent Cap.:	988	xxxx	xxxxx	xxxx	xxxx	xxxxx						179		107	703	xxxx	xxxx	xxxxx						
Move Cap.:	988	xxxx	xxxxx	xxxx	xxxx	xxxxx						162		95	703	xxxx	xxxx	xxxxx						
Volume/Cap:	0.12	xxxx	xxxx	xxxx	xxxx	xxxx						0.40		0.00	0.08	xxxx	xxxx	xxxx						
Level Of Service Module:																								
2Way95thQ:	0.4	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx												
Control Del:	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx												
LOS by Move:	A	*		*		*	*		*	*		*												
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	253	xxxxx	xxxx	xxxx	xxxxx												
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	2.4	xxxxx	xxxxx	xxxx	xxxxx												
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	31.6	xxxxx	xxxxx	xxxx	xxxxx												
Shared LOS:	*	*		*		*	*		D	*		*		*										
ApproachDel:	xxxxxx			xxxxxx			31.6			xxxxxx														
ApproachLOS:	*			*			D			*														

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #1 Lower Hesse Park dwy/Locklenna Ln

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: A[8.7]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			1 0 0 0 1			0 1 0 0 0			0 0 0 1 0		
Volume Module:												
Base Vol:	0	0	0	5	0	3	3	39	0	0	31	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	5	0	3	3	39	0	0	31	5
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	0	5	0	3	3	39	0	0	31	5
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	5	0	3	3	39	0	0	31	5
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	xxxx	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	xxxx	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	79	xxxx	34	36	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	929	xxxx	1046	1588	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	928	xxxx	1046	1588	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.01	xxxx	0.00	0.00	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	0.0	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.9	xxxx	8.5	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	A	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	*	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			8.7			xxxxxx			xxxxxx		
ApproachLOS:	*			A			*			*		

Note: Queue reported is the number of cars per lane.

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Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Hawhtorne Blvd/Locklenna Ln

Average Delay (sec/veh): 0.7 Worst Case Level Of Service: C[15.6]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	1	0	2	0	0		0	0	1	1	0		0	0	1!	0	0		0	0	0	0	0	
Volume Module:																								
Base Vol:	21	527		0		0	665		15				19		0		25		0		0		0	
Growth Adj:	1.00	1.00		1.00		1.00	1.00		1.00				1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	21	527		0		0	665		15				19		0		25		0		0		0	
User Adj:	1.00	1.00		1.00		1.00	1.00		1.00				1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	1.00	1.00		1.00		1.00	1.00		1.00				1.00		1.00		1.00		1.00		1.00		1.00	
PHF Volume:	21	527		0		0	665		15				19		0		25		0		0		0	
Reduct Vol:	0	0		0		0	0		0				0		0		0		0		0		0	
FinalVolume:	21	527		0		0	665		15				19		0		25		0		0		0	
Critical Gap Module:																								
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx							6.8		6.5		6.9		xxxxx	xxxx	xxxxx			
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx							3.5		4.0		3.3		xxxxx	xxxx	xxxxx			
Capacity Module:																								
Cnflict Vol:	680	xxxx	xxxxx		xxxx	xxxx	xxxxx						978		1242		340		xxxx	xxxx	xxxxx			
Potent Cap.:	922	xxxx	xxxxx		xxxx	xxxx	xxxxx						251		176		662		xxxx	xxxx	xxxxx			
Move Cap.:	922	xxxx	xxxxx		xxxx	xxxx	xxxxx						247		172		662		xxxx	xxxx	xxxxx			
Volume/Cap:	0.02	xxxx	xxxx		xxxx	xxxx	xxxx						0.08		0.00		0.04		xxxx	xxxx	xxxx			
Level Of Service Module:																								
2Way95thQ:	0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx					
Control Del:	9.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx											
LOS by Move:	A	*		*		*	*		*		*		*		*		*		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	384	xxxxx		xxxx	xxxx	xxxxx									
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		0.4	xxxxx	xxxxx	xxxx	xxxxx											
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		15.6	xxxxx	xxxxx	xxxx	xxxxx											
Shared LOS:	*	*		*		*	*		*		C		*		*		*							
ApproachDel:	xxxxxx			xxxxxx					15.6				xxxxxx											
ApproachLOS:	*			*					C				*											

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 Hawhtorne Blvd/Doverridge Dr

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[21.8]

Approach:	North Bound						South Bound						East Bound						West Bound					
Movement:	L	-	T	-	R		L	-	T	-	R		L	-	T	-	R		L	-	T	-	R	
Control:	Uncontrolled						Uncontrolled						Stop Sign						Stop Sign					
Rights:	Include						Include						Include						Include					
Lanes:	0	0	1	1	0		1	0	1	1	0		0	1	0	0	1		0	0	1!	0	0	
Volume Module:																								
Base Vol:	0	540		9			13	667		7			9		0		2		3		1		8	
Growth Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
Initial Bse:	0	540		9			13	667		7			9		0		2		3		1		8	
User Adj:	1.00	1.00		1.00			1.00	1.00		1.00			1.00		1.00		1.00		1.00		1.00		1.00	
PHF Adj:	0.97	0.97		0.97			0.97	0.97		0.97			0.97		0.97		0.97		0.97		0.97		0.97	
PHF Volume:	0	557		9			13	688		7			9		0		2		3		1		8	
Reduct Vol:	0	0		0			0	0		0			0		0		0		0		0		0	
FinalVolume:	0	557		9			13	688		7			9		0		2		3		1		8	
Critical Gap Module:																								
Critical Gp:	xxxxx	xxxx		xxxxx			4.1	xxxx		xxxxx			7.5		6.5		6.9		7.5		6.5		6.9	
FollowUpTim:	xxxxx	xxxx		xxxxx			2.2	xxxx		xxxxx			3.5		4.0		3.3		3.5		4.0		3.3	
Capacity Module:																								
Cnflict Vol:	xxxx	xxxx		xxxxx			566	xxxx		xxxxx			997		1284		347		932		1283		283	
Potent Cap.:	xxxx	xxxx		xxxxx			1016	xxxx		xxxxx			201		166		655		224		167		720	
Move Cap.:	xxxx	xxxx		xxxxx			1016	xxxx		xxxxx			196		164		655		221		164		720	
Volume/Cap:	xxxx	xxxx		xxxx			0.01	xxxx		xxxx			0.05		0.00		0.00		0.01		0.01		0.01	
Level Of Service Module:																								
2Way95thQ:	xxxx	xxxx		xxxxx			0.0	xxxx		xxxxx			xxxx		xxxx		0.0		xxxx		xxxx		xxxxx	
Control Del:	xxxxx	xxxx		xxxxx			8.6	xxxx		xxxxx			xxxxx		xxxx		10.5		xxxxx		xxxx		xxxxx	
LOS by Move:	*	*		*			A	*		*			*		*		B		*		*		*	
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx		xxxxx			xxxx	xxxx		xxxxx			196		xxxx		xxxxx		xxxx		390		xxxxx	
SharedQueue:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			0.1		xxxx		xxxxx		xxxxx		0.1		xxxxx	
Shrd ConDel:	xxxxx	xxxx		xxxxx			xxxxx	xxxx		xxxxx			24.3		xxxx		xxxxx		xxxxx		14.5		xxxxx	
Shared LOS:	*	*		*			*	*		*			C		*		*		*		B		*	
ApproachDel:	xxxxxx						xxxxxx						21.8						14.5					
ApproachLOS:	*						*						C						B					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #4 Hawthorne Blvd/Verde Ridge Rd

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: C[17.6]

Approach:	North Bound				South Bound				East Bound				West Bound			
Movement:	L	T	R		L	T	R		L	T	R		L	T	R	
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign			
Rights:	Include				Include				Include				Include			
Lanes:	1 0 2	0	0		0 0 1	1	0		0 0 1!	0	0		0 0 0	0	0	
Volume Module:																
Base Vol:	50 517	0	0		632	49			30	0	46		0	0	0	
Growth Adj:	1.00 1.00	1.00	1.00		1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
Initial Bse:	50 517	0	0		632	49			30	0	46		0	0	0	
User Adj:	1.00 1.00	1.00	1.00		1.00	1.00			1.00	1.00	1.00		1.00	1.00	1.00	
PHF Adj:	0.97 0.97	0.97	0.97		0.97	0.97			0.97	0.97	0.97		0.97	0.97	0.97	
PHF Volume:	52 533	0	0		652	51			31	0	47		0	0	0	
Reduct Vol:	0 0	0	0		0	0			0	0	0		0	0	0	
FinalVolume:	52 533	0	0		652	51			31	0	47		0	0	0	
Critical Gap Module:																
Critical Gp:	4.1 xxxx xxxxx	xxxxx	xxxx	xxxxx					6.8	6.5	6.9	xxxxx	xxxx	xxxxx		
FollowUpTim:	2.2 xxxx xxxxx	xxxxx	xxxx	xxxxx					3.5	4.0	3.3	xxxxx	xxxx	xxxxx		
Capacity Module:																
Cnflict Vol:	702 xxxx xxxxx	xxxx	xxxx	xxxxx					1046	1313	351	xxxx	xxxx	xxxxx		
Potent Cap.:	905 xxxx xxxxx	xxxx	xxxx	xxxxx					227	160	651	xxxx	xxxx	xxxxx		
Move Cap.:	905 xxxx xxxxx	xxxx	xxxx	xxxxx					217	151	651	xxxx	xxxx	xxxxx		
Volume/Cap:	0.06 xxxx	xxxx	xxxx	xxxx	xxxx				0.14	0.00	0.07	xxxx	xxxx	xxxx		
Level Of Service Module:																
2Way95thQ:	0.2 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	9.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	A *	*	*	*	*	*	*	*	*	*	*	*	*			
Movement:	LT - LTR - RT				LT - LTR - RT				LT - LTR - RT				LT - LTR - RT			
Shared Cap.:	xxxx xxxx xxxxx		xxxx	xxxx	xxxxx	xxxx	364	xxxxx	xxxx	xxxx	xxxxx					
SharedQueue:	xxxxx xxxx xxxxx		xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx					
Shrd ConDel:	xxxxx xxxx xxxxx		xxxxx	xxxx	xxxxx	xxxxx	17.6	xxxxx	xxxxx	xxxx	xxxxx					
Shared LOS:	* *	*	*	*	*	*	C	*	*	*	*					
ApproachDel:	xxxxxx		xxxxxx				17.6		xxxxxx							
ApproachLOS:	*		*				C		*							

Note: Queue reported is the number of cars per lane.

APPENDIX C

Speed Surveys

Daily Speed Report

Prepared by: National Data & Surveying Services

City of Rancho Palos Verdes

Project #: 12-5013-001e

Date: 1/12/12 THURSDAY

Location: Locklenna Ln btwn Faircove Dr & Driftwood Dr

East Bound

	5	15	20	25	30	35	40	45	50	55	60	65	70	
Time	**14**	**19**	**24**	**29**	**34**	**39**	**44**	**49**	**54**	**59**	**64**	**69**	**74+**	**Total**
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	1	1	0	1	0	0	0	0	0	0	0	3
06:00	0	0	3	0	1	0	0	0	0	0	0	0	0	4
07:00	1	0	2	8	9	4	1	0	0	0	0	0	0	25
08:00	1	2	1	3	7	0	1	0	0	0	0	0	0	15
09:00	0	1	5	7	4	1	0	0	0	0	0	0	0	18
10:00	1	2	4	4	2	0	0	0	0	0	0	0	0	13
11:00	0	1	3	6	2	0	0	0	0	0	0	0	0	12
12:00 PM	0	1	3	2	2	1	0	0	0	0	0	0	0	9
13:00	0	0	6	5	2	0	0	0	0	0	0	0	0	13
14:00	0	2	4	4	5	5	0	0	0	0	0	0	0	20
15:00	2	1	3	4	5	1	1	0	0	0	0	0	0	17
16:00	0	0	4	4	3	2	0	0	0	0	0	0	0	13
17:00	0	3	1	7	1	1	0	0	0	0	0	0	0	13
18:00	0	1	3	4	3	1	0	0	0	0	0	0	0	12
19:00	0	0	2	0	3	1	0	0	0	0	0	0	0	6
20:00	0	0	1	1	3	0	0	0	0	0	0	0	0	5
21:00	0	0	0	1	0	1	0	0	0	0	0	0	0	2
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Totals	**5**	**15**	**47**	**61**	**53**	**19**	**3**							**203**
% of Totals	2%	7%	23%	30%	26%	9%	1%							100%
% AM	1%	3%	9%	14%	12%	3%	1%							45%
AM Peak Hour	07:00	08:00	09:00	07:00	07:00	07:00	07:00							07:00
Volume	1	2	5	8	9	4	1							25
% PM	1%	4%	14%	16%	14%	6%	0%							55%
PM Peak Hour	15:00	17:00	13:00	17:00	14:00	14:00	15:00							14:00
Volume	2	3	6	7	5	5	1							20

Average Speed	50th Percentile	85th Percentile
27.7	28	34

Daily Speed Report

Prepared by: National Data & Surveying Services

City of Rancho Palos Verdes

Project #: 12-5013-001w

Date: 1/12/12 THURSDAY

Location: Locklenna Ln btwn Faircove Dr & Driftwood Dr

West Bound

	5	15	20	25	30	35	40	45	50	55	60	65	70	
Time	**14**	**19**	**24**	**29**	**34**	**39**	**44**	**49**	**54**	**59**	**64**	**69**	**74+**	**Total**
00:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	1	0	0	0	0	1	0	0	0	0	0	0	0	2
06:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00	0	0	0	1	0	1	1	0	0	0	0	0	0	3
08:00	0	2	1	4	7	2	0	0	0	0	0	0	0	16
09:00	0	0	1	4	5	1	2	0	0	0	0	0	0	13
10:00	1	0	1	2	4	3	0	0	0	0	0	0	0	11
11:00	0	1	1	3	6	1	0	0	0	0	0	0	0	12
12:00 PM	1	1	2	4	0	2	0	0	0	0	0	0	0	10
13:00	0	0	2	3	3	3	1	1	0	0	0	0	0	13
14:00	1	0	1	11	4	3	0	0	0	0	0	0	0	20
15:00	0	1	2	7	10	3	2	0	0	0	0	0	0	25
16:00	0	0	6	4	7	6	0	0	0	0	0	0	0	23
17:00	0	1	3	7	12	3	0	0	0	0	0	0	0	26
18:00	0	1	0	3	6	5	0	0	0	0	0	0	0	15
19:00	0	0	0	5	3	3	3	0	0	0	0	0	0	14
20:00	0	1	0	3	4	1	1	0	0	0	0	0	0	10
21:00	0	0	0	2	1	2	0	0	0	0	0	0	0	5
22:00	0	0	0	1	1	0	0	0	0	0	0	0	0	2
23:00	0	0	1	0	1	1	0	0	0	0	0	0	0	3
Totals	**4**	**9**	**21**	**64**	**75**	**41**	**10**	**1**						**225**
% of Totals	2%	4%	9%	28%	33%	18%	4%	0%						100%
% AM	1%	2%	2%	6%	10%	4%	1%							26%
AM Peak Hour	05:00	08:00	08:00	08:00	08:00	10:00	09:00							08:00
Volume	1	2	1	4	7	3	2							16
% PM	1%	2%	8%	22%	23%	14%	3%	0%						74%
PM Peak Hour	12:00	12:00	16:00	14:00	17:00	16:00	19:00	13:00						17:00
Volume	1	1	6	11	12	6	3	1						26

Average Speed	50th Percentile	85th Percentile
30.6	31	37

Daily Speed Report

Prepared by: National Data & Surveying Services

City of Rancho Palos Verdes

Project #: 12-5013-002n

Date: 1/12/12 THURSDAY

Location: Verde Ridge Rd btwn El Rodeo Rd & Whites Point Dr

North Bound

	5	15	20	25	30	35	40	45	50	55	60	65	70	
Time	**14**	**19**	**24**	**29**	**34**	**39**	**44**	**49**	**54**	**59**	**64**	**69**	**74+**	**Total**
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	2	0	0	0	0	0	0	0	0	2
04:00	0	0	1	1	0	1	0	0	0	0	0	0	0	3
05:00	0	1	0	4	1	1	2	0	0	0	0	0	0	9
06:00	0	0	1	7	6	2	1	0	0	0	0	0	0	17
07:00	2	2	1	9	22	8	4	1	0	0	0	0	0	49
08:00	1	2	2	3	10	4	2	0	0	0	0	0	0	24
09:00	0	0	2	7	5	7	4	0	0	0	0	0	0	25
10:00	0	2	2	3	9	4	0	0	0	0	0	0	0	20
11:00	0	1	2	2	2	4	3	0	0	0	0	0	0	14
12:00 PM	1	1	0	4	4	2	0	1	0	0	0	0	0	13
13:00	0	0	3	3	7	1	0	0	0	0	0	0	0	14
14:00	0	2	1	7	5	3	1	1	0	0	0	0	0	20
15:00	0	0	1	7	14	8	1	0	0	0	0	0	0	31
16:00	0	0	2	5	6	8	0	0	0	0	0	0	0	21
17:00	1	0	2	0	10	5	2	0	0	0	0	0	0	20
18:00	0	0	1	2	5	3	1	0	0	0	0	0	0	12
19:00	0	0	0	0	1	2	1	0	0	0	0	0	0	4
20:00	0	0	0	1	5	0	0	0	0	0	0	0	0	6
21:00	0	1	0	2	2	1	0	0	0	0	0	0	0	6
22:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Totals	**6**	**12**	**21**	**67**	**119**	**64**	**22**	**3**						**314**
% of Totals	2%	4%	7%	21%	38%	20%	7%	1%						100%
% AM	1%	3%	4%	11%	18%	10%	5%	0%						53%
AM Peak Hour	07:00	07:00	08:00	07:00	07:00	07:00	07:00	07:00						07:00
Volume	2	2	2	9	22	8	4	1						49
% PM	1%	1%	3%	10%	19%	11%	2%	1%						47%
PM Peak Hour	12:00	14:00	13:00	14:00	15:00	15:00	17:00	12:00						15:00
Volume	1	2	3	7	14	8	2	1						31

Average Speed	50th Percentile	85th Percentile
31.7	32	38

Daily Speed Report

Prepared by: National Data & Surveying Services

City of Rancho Palos Verdes

Project #: 12-5013-002s

Date: 1/12/12 THURSDAY

Location: Verde Ridge Rd btwn El Rodeo Rd & Whites Point Dr

South Bound

	5	15	20	25	30	35	40	45	50	55	60	65	70	
Time	**14**	**19**	**24**	**29**	**34**	**39**	**44**	**49**	**54**	**59**	**64**	**69**	**74+**	**Total**
00:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	1
04:00	1	0	0	0	0	0	0	1	0	0	0	0	0	2
05:00	1	0	0	0	1	0	0	0	0	0	0	0	0	2
06:00	0	0	2	1	3	2	1	0	0	0	0	0	0	9
07:00	0	1	3	2	6	3	1	0	0	0	0	0	0	16
08:00	1	2	3	5	5	3	0	0	0	0	0	0	0	19
09:00	0	0	1	5	2	2	0	0	0	0	0	0	0	10
10:00	1	0	1	4	6	1	1	0	0	0	0	0	0	14
11:00	0	0	2	1	3	4	2	1	0	0	0	0	0	13
12:00 PM	1	4	0	4	10	2	3	0	0	0	0	0	0	24
13:00	2	0	2	7	9	6	4	0	0	0	0	0	0	30
14:00	0	1	1	4	8	8	4	0	0	0	0	0	0	26
15:00	1	1	1	3	13	15	4	0	1	0	0	0	0	39
16:00	0	1	5	3	10	9	1	0	0	0	0	0	0	29
17:00	1	2	0	10	19	7	4	0	0	0	0	0	0	43
18:00	0	0	0	9	17	12	4	0	0	0	0	0	0	42
19:00	0	0	2	9	7	6	3	0	0	0	0	0	0	27
20:00	1	1	0	7	11	9	3	0	0	0	0	0	0	32
21:00	1	0	0	2	3	11	0	0	0	0	0	0	0	17
22:00	0	0	0	0	3	2	0	1	0	0	0	0	0	6
23:00	0	0	0	0	4	2	0	0	0	0	0	0	0	6
Totals	**11**	**13**	**23**	**76**	**140**	**106**	**36**	**3**	**1**					**409**
% of Totals	3%	3%	6%	19%	34%	26%	9%	1%	0%					100%
% AM	1%	1%	3%	4%	6%	4%	1%	0%						22%
AM Peak Hour	04:00	08:00	07:00	08:00	07:00	11:00	11:00	04:00						08:00
Volume	1	2	3	5	6	4	2	1						19
% PM	2%	2%	3%	14%	28%	22%	7%	0%	0%					78%
PM Peak Hour	13:00	12:00	16:00	17:00	17:00	15:00	13:00	22:00	15:00					17:00
Volume	2	4	5	10	19	15	4	1	1					43

Average Speed	50th Percentile	85th Percentile
32.3	33	39