City of Agoura Hills

Agoura Equestrian Estates

Draft Initial Study

May 2014

rincon

Environmental Scientists Planners Engineers

Agoura Equestrian Estates

Draft
Initial Study

Prepared by:

City of Agoura Hills
Planning and Community Development Department
30001 Ladyface Court
Agoura Hills, California 91301
Contact: Allison Cook, Principal Planner

Prepared with the assistance of:

Rincon Consultants, Inc.
180 N. Ashwood Avenue
Ventura, California 93003

May 2014

This report is printed on 30% recycled paper with 10% post-consumer content.

TABLE OF CONTENTS

Page

List of Figures

Appendices

INTRODUCTION

This Initial Study has been prepared for the Agoura Equestrian Estates Project ("the project") in compliance with the California Environmental Quality Act (CEQA) Statute and Guidelines (Public Resources Code Section 21000 et. seq. and California Code of Regulations Title 14, Chapter 3 Sections 15000–15387, respectively. The proposed project involves a subdivision for 15 residential single-family lots on the former Heschel school site in unincorporated Los Angeles County. The Initial Study addresses the potential environmental effects resulting from the proposed development.

LEGAL AUTHORITY AND FINDINGS

This Initial Study has been prepared in accordance with the *California Environmental Quality Act (CEQA) Guidelines* and relevant provisions of CEQA of 1970, as amended. The purposes of an Initial Study are:

(1) To provide the Lead Agency with the necessary information to decide whether to prepare an Environmental Impact Report (EIR) or a Mitigated Negative Declaration;

(2) To enable the Lead Agency to modify a project, mitigating adverse impacts, thus avoiding the need to prepare an EIR; and

(3) To provide sufficient technical analysis of the environmental effects of a project to permit a judgment based on the record as a whole, that the environmental effects of a project have been adequately mitigated.

IMPACT ANALYSIS AND SIGNIFICANCE CLASSIFICATION

The following sections of this Initial Study provide discussions of the possible environmental effects of the proposed project for specific issue areas that have been identified on the CEQA Initial Study Checklist. For each issue area, potential effects are discussed and evaluated.

A "significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." According to the *CEQA Guidelines*, "an economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

Following the evaluation of each environmental effect determined to be potentially significant is a discussion of mitigation measures and the residual effects or level of significance remaining after the implementation of the measures. In those cases where a mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed as a residual effect.

INITIAL STUDY

PROJECT TITLE

Agoura Equestrian Estates

LEAD AGENCY AND CONTACT PERSON

City of Agoura Hills
30001 Ladyface Court
Agoura Hills, CA 91301
Contact: Allison Cook, Principal Planner/Environmental Analyst

PROJECT PROPONENT

Equine Estates LLC (Applicant)
Fortune Realty (Manager)
Benjamin Efraim (contact)

PROJECT SITE CHARACTERISTICS

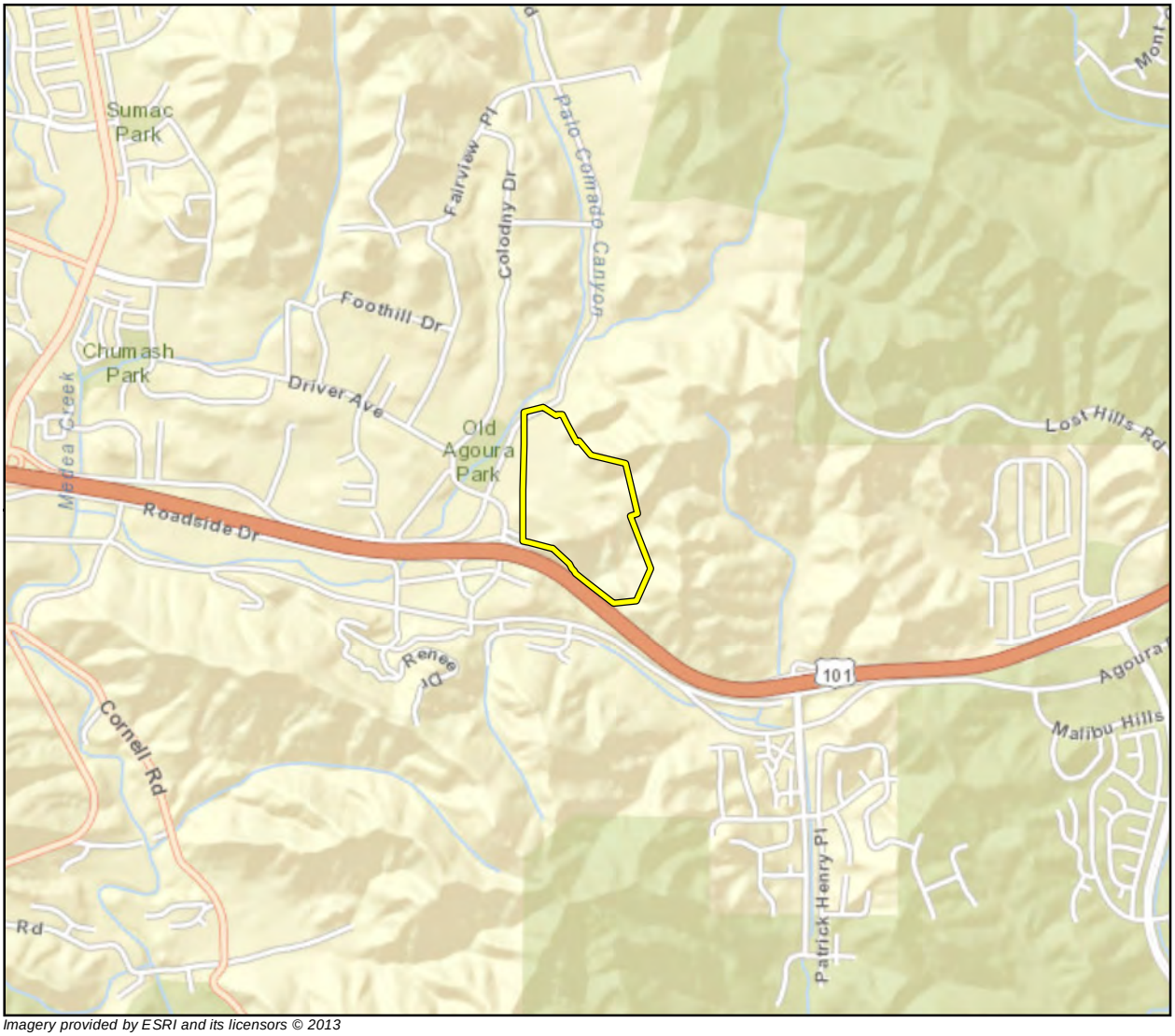
Location: The project site is located on the north side of U.S. Highway 101, adjacent to the eastern boundary of the City of Agoura Hills. Specifically, the site is located east of Chesebro Road, in a canyon formed by a series of ridgelines that bound the proposed development on the north, east and southern border. The project site, which is currently vacant, measures approximately 71 acres. Figure 1 illustrates the location of the project site in its regional context and Figure 2 shows the location of the project site adjacent to the City of Agoura Hills.

Assessor Parcel Numbers: The Agoura Equestrian Estates project site is identified by Assessor's Parcel Number (APN) 2052-009-270 (71.14 acres) and APN 2055-010-270 (0.25 acre).

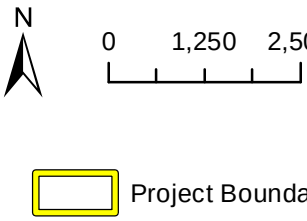
Existing General Plan Designation: The project site is currently outside of the City of Agoura Hills city limit. The City owns the parcel, but the parcel is located within unincorporated Los Angeles County. The existing land use designation in the County's North Area Plan (NAP) is N5 Mountain Lands (maximum residential density of one dwelling per 5 acres). The Agoura Equestrian Estates project involves annexation of the site to the City of Agoura Hills.

Existing Zoning: The project site is currently zoned A-1-5 (Light Agricultural, maximum residential density of one dwelling per 5 acres) in the County of Los Angeles.

Surrounding Land Uses: The project site is bordered on the west by low density residential homes in the Old Agoura community of the City of Agoura Hills, with some commercial services and high density residential adjacent to the U.S. Highway 101 corridor in the City of Agoura Hills. To the north and the east, the project site is surrounded by the Santa Monica Mountains open space owned by the State of California. The southern portion of the project site is bounded by U.S. Highway 101.



Imagery provided by ESRI and its licensors © 2013



Project Boundary

Regional Location

Figure 1

Imagery provided by ESRI and its licensors © 2013.

Site Location

Figure 2

DESCRIPTION OF THE PROJECT

The proposed Agoura Equestrian Estates project involves subdivision of the site into seventeen lots, including fifteen residential single-family lots; one lot (APN 2055-010-270) for permanent preservation of open space (to be zoned OS-DR-OA-EQ); and another lot for permanent preservation (APN 2052-009-270) (to be zoned OS-DR-OA-EQ). The project site is located on the former proposed Heschel West Day School site in unincorporated Los Angeles County. The proposed development also includes the construction of a private access road through the site, including rolled curb, trails, fencing and drainage improvements within the private road right-of-way, the relocation/construction of an existing multi-use informal trail located partially within and partially outside of the site boundaries to the east; earthen and rock drainage swale improvements and two vegetated biofiltration basins for runoff (with an option to place these basins underground or replace them with underground pipes); an equestrian trail and fence along the western side of the site, adjacent to the existing homes; and extension of utilities under the proposed private road from existing water and sewer lines in Chesebro Road, to the south of the site. No landscaping is proposed as part of the subdivision and drainage/utilities/road improvements. Although this Initial Study analyzes the impacts of future residential development, the actual approval for physical construction of the residences is not currently proposed. Individual residential construction would be subject to separate application review and permitting when such development is proposed in the future.

The entire project site encompasses approximately 71 acres: 23 acres for development, and 48 acres for preservation as open space. The site is currently owned by the City of Agoura Hills, and the project applicant is proposing to buy the site from the City to subdivide and annex it to the City, along with APN 2055-010-901 and a portion of the Caltrans ROW along U.S. 101. These latter two areas are proposed for annexation per initial discussion with the Los Angeles County Local Area Formation Commission (LAFCO) regarding the proper borders of the land annexation. The project site zoning is proposed to change to the following City of Agoura Hills zoning districts: Very Low Density Residential (RV) (<2 DU/acre)-Old Agoura Overlay (OA)-Equestrian Overlay (EQ) for the fifteen residential lots, and Open Space – Deed Restricted (OS-DR)-OA-EQ for the remaining parcels. Assessor Parcel Number 2055-010-901 and a portion of the Caltrans right-of-way, both to be annexed to the City, would be zoned OS-DR-OA-EQ. The City of Agoura Hills General Plan 2035 (2010) (City General Plan) land use designation would be Residential Very Low Density (RV) (0.2 – 1.0 DU/acre) - for the fifteen residential lots and Open Space – Deed Restricted (OS-DR) for the remaining parcels. Assessor Parcel Number 2055-010-901 and the portion of the Caltrans right-of-way would be designated OS-DR.

The City entitlement process would follow the Los Angeles County Local Agency Formation Commission's (LAFCO) annexation. The proposed project includes grading for construction of the infrastructure components, but not for residential pads or residences, with the exception of the pad grading for Lot 1. Lot 1 is within a FEMA floodplain, and excess dirt from the project grading would be used to elevate Lot 1 so that there would be no net export or import of soil from the Agoura Equestrian Estates Project site. However, no residence on Lot 1 would be constructed as part of the currently proposed project. Construction is proposed to begin within six months of entitlement and to take a total of twelve months. During project construction, staging and equipment storage areas would be at Lot 15 of the proposed subdivision, and outside of the protected zone of the existing off-site oak tree.

A Final Environmental Impact Report (Final EIR) was prepared for a previous proposal for the same site (the Heschel School project) in 2006. The adequacy of the Final EIR was challenged; however, that legal challenge has not been pursued by either party. Although the CEQA documentation for this proposed project will not tier off of the earlier EIR, technical data from the Heschel School EIR has been independently analyzed by the City and utilized as appropriate in the preparation of this Initial Study.

For the purpose of this analysis, the currently proposed project (subdivision; annexation; and private road, drainage, trails, utilities construction) is being assessed, as well as the ultimate construction of fifteen single family homes as part of a later project(s). As each single-family residence is proposed for development in the future, the individual development would require an individual permit process, such as Site Plan Review. All development, including the residential construction, would be required to be compliant with the Agoura Hills Municipal Code.

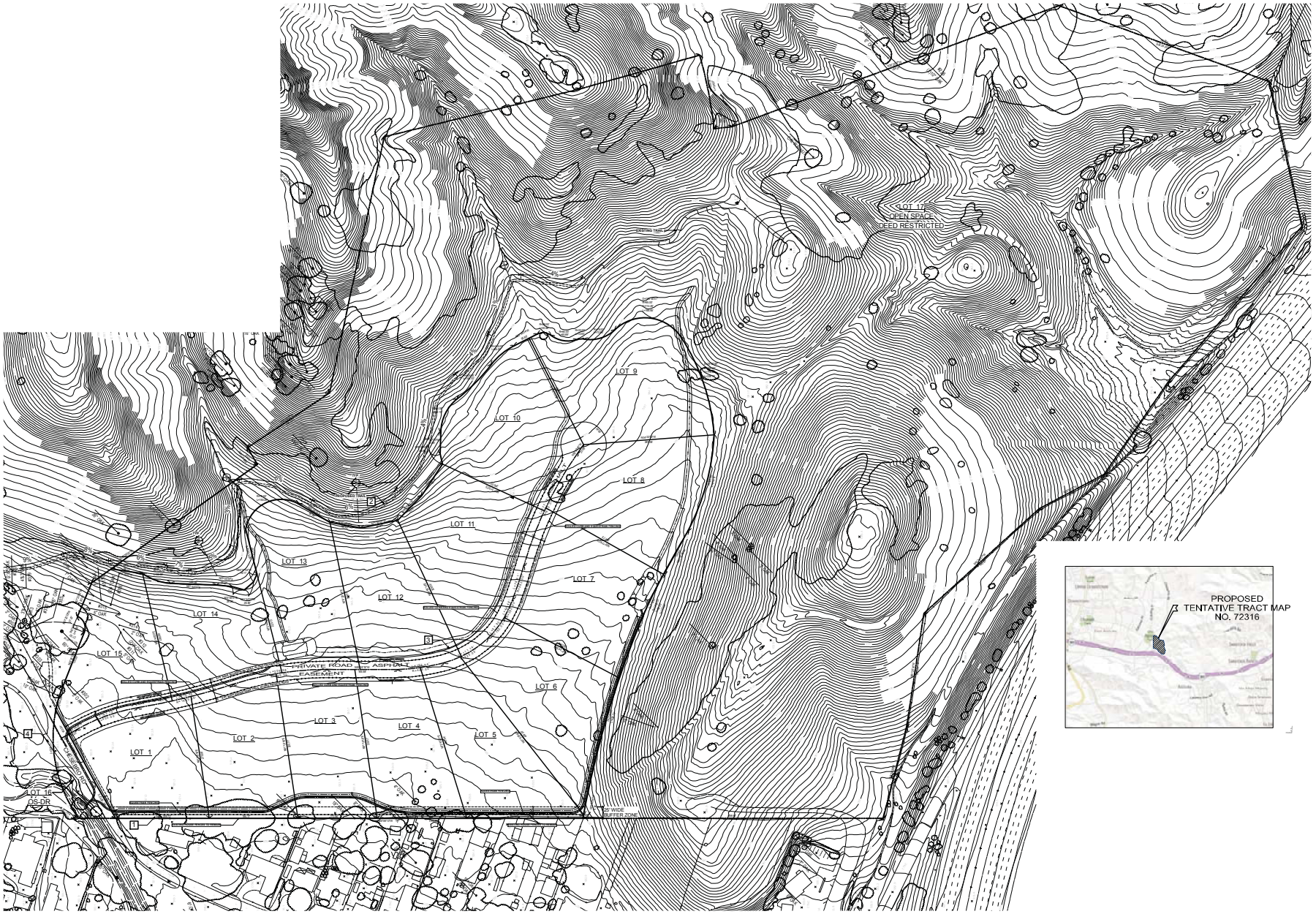
Figures 3 through 7 show details of the site plan including the trails, drainage design, grading plan, and lot layout.

PUBLIC AGENCIES WHOSE APPROVAL MAY BE REQUIRED FOR SUBSEQUENT ACTIONS (e.g. permits, financing approval, or participation agreement):

The applicant is requesting the following planning entitlements/approvals from the City of Agoura Hills:

- Vesting Tentative Tract Map to:
    - Divide approximately 71 acres (APN 2052-009-270) into sixteen lots: (1) open space, (2) fifteen residential lots
    - Retain the one parcel (about 0.25 acre) across Chesebro Road (APN 2055-010-270) as a separate open space lot.
- Development Agreement
- Purchase and Sale Agreement
- Pre-annexation Agreement
- Annexation and Sphere of Influence Change for the two project parcels plus a state-owned parcel (APN 2055-010-901) and a portion of the Caltrans right-of-way along U.S. Highway 101
- General Plan Amendment (for the annexation)
- Oak Tree Permit (to be determined based on final grading plans; based on the proximity of grading to the existing oak immediately off-site of the parcel, and any on- or off-site oaks)
- Conditional Use Permit for the overall project, given that the approximately 70-acre parcel is hillside, and that trails are proposed in the OS-DR zone)
- Pre-Zoning and Zone Change (From County zoning to Residential Very Low (RV)-Old Agoura Overlay (OA)-Equestrian Overlay (EQ) for fifteen residential lots and Open Space – Deed Restricted (OS-DR)-OA-EQ for the two open space lots.

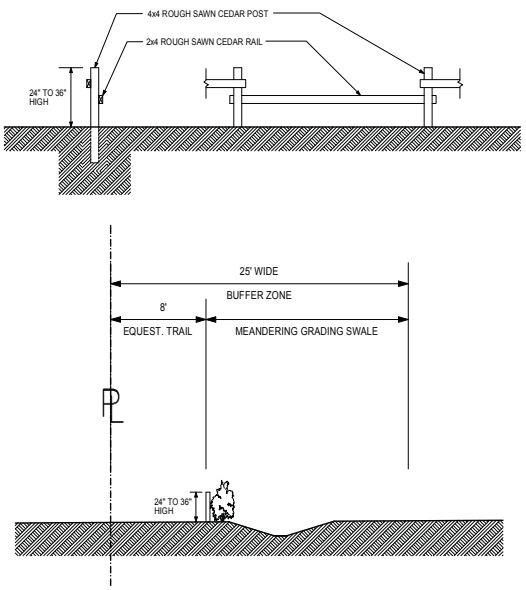
The proposed annexation to the City of Agoura Hills would also require approval of the Los Angeles County Local Agency Formation Commission (LAFCO).



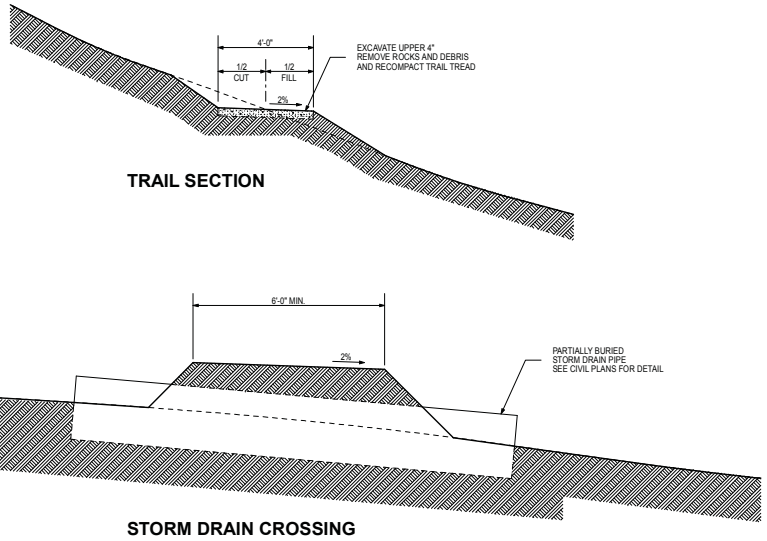
Site Plan with Equestrian Trails

Figure 3

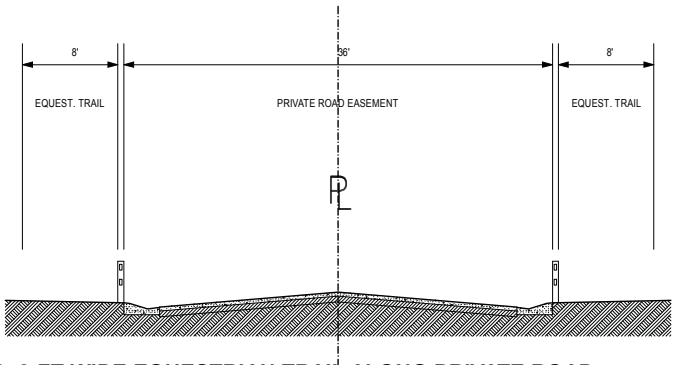
Source: Equine Estates, LLC



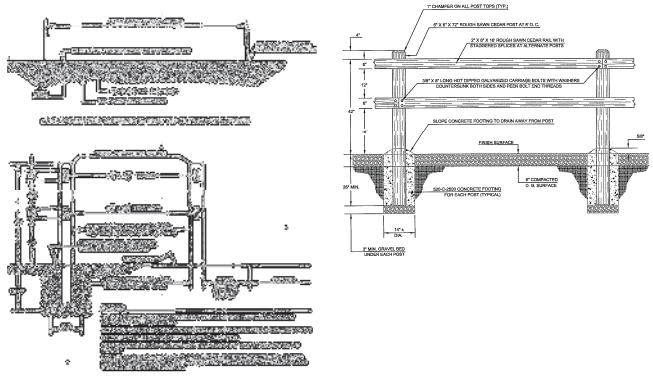
1. ADJACENT RESIDENT EQUESTRIAN TRAIL



2. 4-FT WIDE OPEN SPACE TRAIL
MULTI-USE TRAIL TO MEET NATIONAL PARK SERVICE (NPS) STANDARDS



3. 8-FT WIDE EQUESTRIAN TRAIL ALONG PRIVATE ROAD

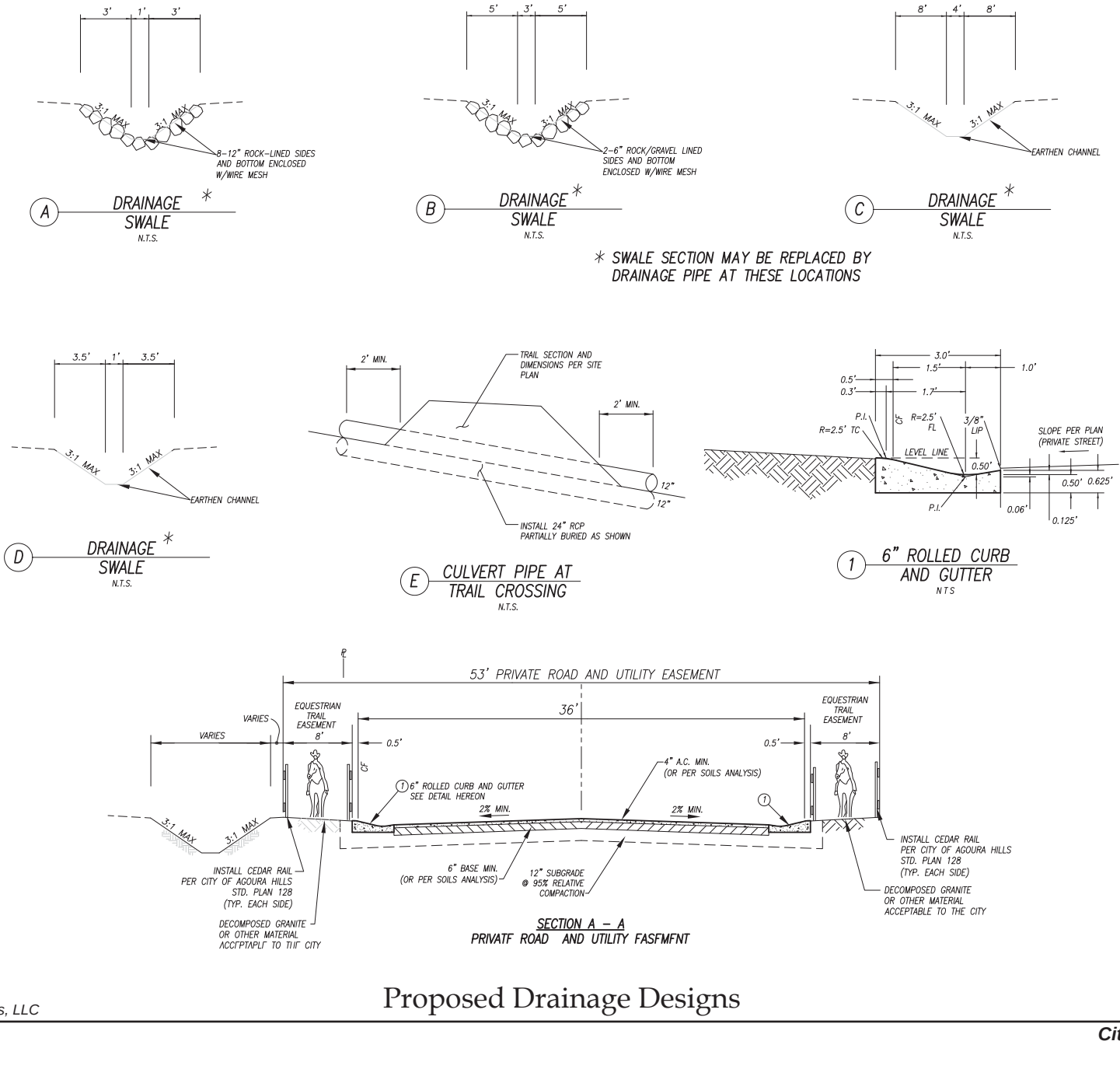


4. CITY OF AGOURA HILLS EQUESTRIAN TRAIL

Source: Equine Estates, LLC

Proposed Trail Details

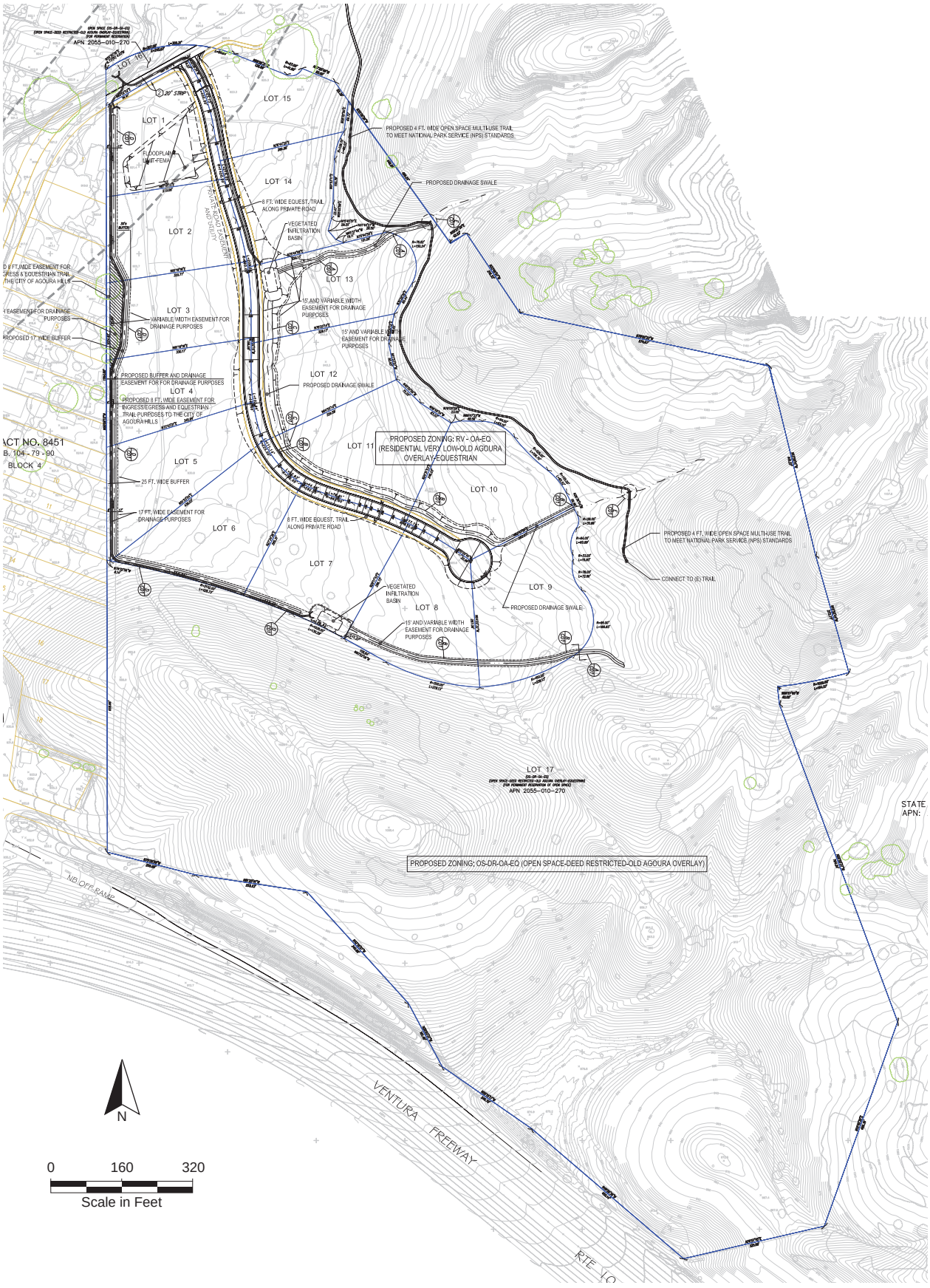
Figure 4



Source: Equine Estates, LLC

Proposed Drainage Designs

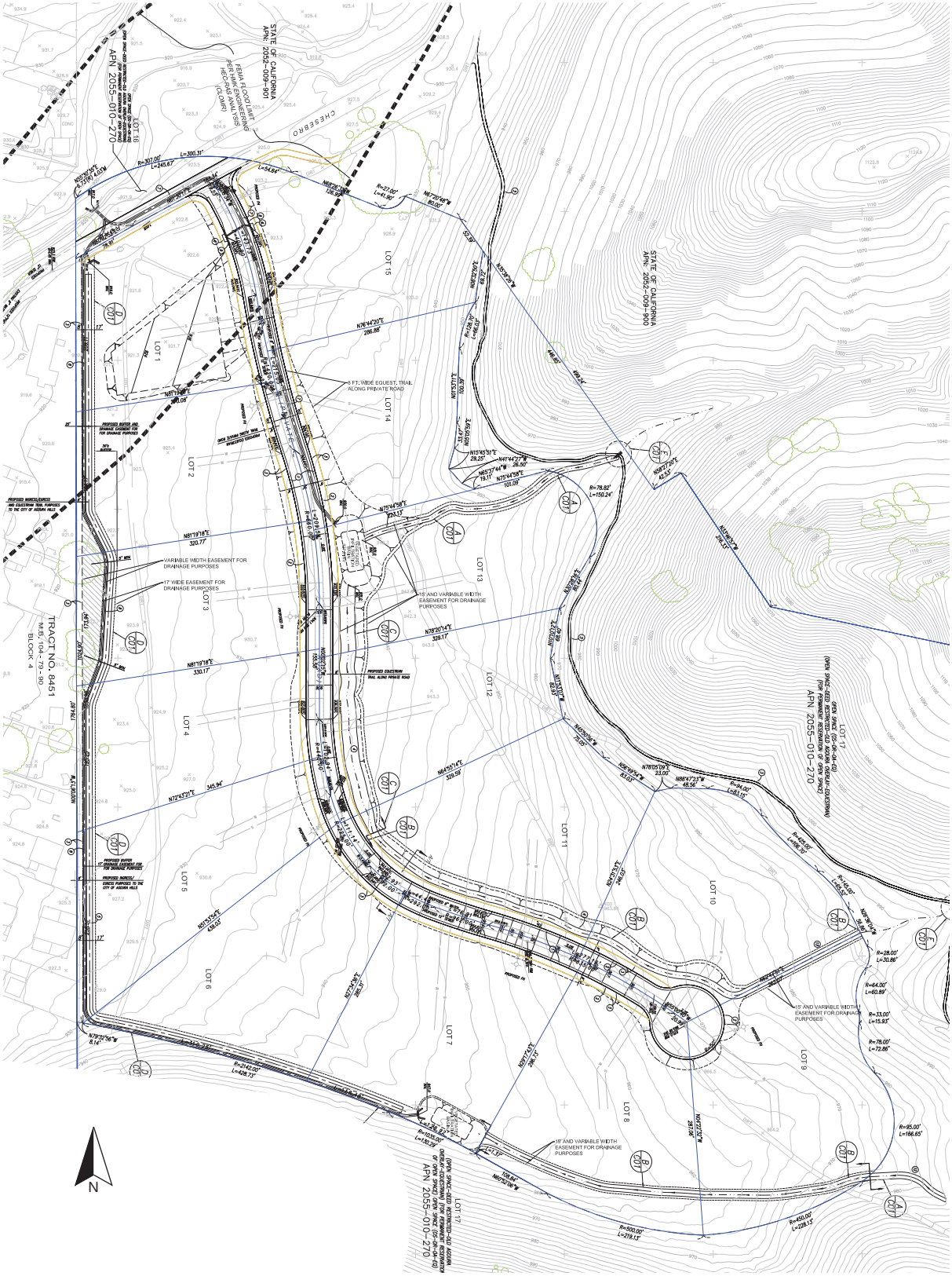
Figure 5



Source: Equine Estates, LLC

Proposed Lot Layout

Figure 6



Source: Equine Estates, LLC

Proposed Grading Plan

Figure 7

ENVIRONMENTAL FACTORS AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that will require further discussion in an EIR, or could be reduced to a less-than-significant level through incorporation of mitigation.

☒	Aesthetics	☐	Agriculture Resources	☐	Air Quality
☒	Biological Resources	☒	Cultural Resources	☒	Geology / Soils
☐	Greenhouse Gas Emissions	☒	Hazards & Hazardous Materials	☒	Hydrology / Water Quality
☐	Land Use / Planning	☐	Mineral Resources	☐	Noise
☐	Population / Housing	☐	Public Services	☐	Recreation
☐	Transportation/Traffic	☐	Utilities / Service Systems		

DETERMINATION

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION would be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there would not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION would be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Allison Cook
Principal Planner/Environmental Analyst
City of Agoura Hills

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

I. AESTHETICS – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

a, c) The proposed project would alter views from surrounding properties and transportation corridors, resulting in a change in the visual character of the project site and vicinity. All future residential development on the project site would be required to comply with the City Zoning Code, including the Old Agoura Overlay Zone, Equestrian Overlay Zone, Very Low Density Residential Zone, as well as the City's Architectural Design Standards and Guidelines, particularly Section VI. Old Agoura Design Guidelines. The Residential Very Low (RV) zone requires a minimum lot size of one acre and limits building height to two stories or 35 feet, whichever is less. The Old Agoura Overlay Zone requires promotion of a natural environment that is country like while allowing architecturally sensitive developments that perpetuate Old Agoura's unique rural character. For example, solid walls are prohibited in the residential front yard setback areas in favor of fences, while residential development in Old Agoura must embrace an eclectic, rural style that preserves the equestrian nature of the area and must not render the property untenable for horses and other farm animals. All future developments would also be subject to site plan review to ensure consistency with applicable standards. While implementation of existing City standards would likely ensure the change in visual character due to roadway, trail and fence development, and future residential development, would be visually compatible with that of existing development in the area as well as with the City's vision for the Old Agoura area, potential impacts will be further studied in an EIR**.**

b) The project site does not contain rock outcroppings, historic buildings or other substantial scenic resources. The site and immediate vicinity do contain three black walnut trees along the southeastern property boundary; however, the black walnut trees are located in the portion of the proposed development that would be dedicated to open space. Oak trees, both on- and off-site, may be impacted by the project, although most of these trees are located in the area to be dedicated as open space. The southern boundary of the project site borders U.S. Highway 101. U.S. Highway 101 is eligible for designation as a state scenic highway, but is not an official state scenic highway and so there would be no impacts to aesthetic resources in a state scenic highway. In any case, due to the topography of the project site, the proposed project and potential future development of the residences would not be visible from U.S. Highway 101.

Therefore, **no impact would occur and further analysis of this issue in an EIR is not warranted.**

d) Although no street lights are proposed, the project, particularly the potential future development of the fifteen homes, may create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Lighting of the future homes on the project site would need to comply with all City of Agoura Hills standards in the Old Agoura Overlay zone as well as the City's Architectural Design Standards and Guidelines. The exterior lighting standards contained in the Architectural Design Standards and Guidelines require lighting to be architecturally compatible with the overall project and limit light levels at the property line to one footcandle, and the OA overlay requires lighting to be directed away from adjacent properties. **While adherence to these standards would likely ensure compatibility with lighting levels on nearby properties, further analysis of this issue in an EIR will occur.**

II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) The project site is vacant land, and is not Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared by the Farmland Mapping and Monitoring Program (California Department of Conservation, 2008). Construction of the project would not result in the loss of farmland. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

b) The project site is currently zoned A-1-5 (Light Agricultural, Maximum residential density of one dwelling unit per five acres) and designated in the County's North Area Plan (NAP) as Mountain Lands 5 (N5,Not to exceed a maximum residential density of one dwelling per five acres) in unincorporated Los Angeles County. There are no active Williamson Act contracts on this parcel. Therefore, there would be no conflict with zoning for agricultural use or with a Williamson Act contract. **No impact would occur, and further analysis of this issue in an EIR is not warranted.**

c, d) The project site is previously undisturbed, vacant land and is not forested. The site is currently zoned A-1-5 in unincorporated Los Angeles County, and designated as Mountain Lands (N5) in the County NAP. The County does not have timberland zoning. Therefore, **no impact would occur and further analysis of this issue in an EIR is not warranted**.

e) The project site is previously undisturbed, vacant land. The currently proposed project (private street, drainage, utilities, trails) as well as the potential future development of fifteen single-family homes, would not result in the loss of existing farmland or forest land. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

The project site is within the South Coast Air Basin (the Basin), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, the SCAQMD is required to monitor air pollutant levels to ensure that

state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the Basin is classified as being in "attainment" or "nonattainment." The South Coast Air Basin is in nonattainment for both the federal and state standards for ozone and nitrogen dioxide as well as the state standard for PM_{10}. Thus, the Basin currently exceeds several state and federal ambient air quality standards and is required to implement strategies to reduce pollutant levels to recognized acceptable standards. This non-attainment status is a result of several factors, including the naturally adverse meteorological conditions that limit the dispersion and diffusion of pollutants, the limited capacity of the local air shed to eliminate pollutants from the air, and the number, type, and density of emission sources within the South Coast Air Basin.

The SCAQMD has adopted an Air Quality Management Plan (AQMP) that provides a strategy for the attainment of state and federal air quality standards. The SCAQMD has adopted the following regional thresholds for temporary construction-related pollutant emissions:

- *75 pounds per day of reactive organic gases (ROG)*
- *100 pounds per day nitrogen oxides (NO_X)*
- *550 pounds per day carbon monoxide (CO)*
- *150 pounds per day of sulfur oxides (SO_X)*
- *150 pounds per day of particulate matter less than 10 microns in diameter (PM_{10})*
- *55 pounds per day of particulate matter less than 2.5 microns in diameter ($PM_{2.5}$)*

The SCAQMD also has established the following regional significance thresholds for project operations within the South Coast Air Basin:

- *55 pounds per day of ROG*
- *55 pounds per day of NO_X*
- *550 pounds per day of CO*
- *150 pounds per day of SO_X*
- *150 pounds per day of PM_{10}*
- *55 pounds per day of $PM_{2.5}$*

SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that would not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during project construction, and are not applicable to mobile sources, such as cars on a roadway (Final Localized Significance Threshold Methodology, SCAQMD, June 2003). LSTs have been developed for emissions within areas up to five acres in size, with dispersion modeling recommended for activity within larger areas. The potential area of disturbance for construction of the currently proposed project, as well as for the potential future fifteen single-family units, measures approximately 23 acres, and construction activity would be dispersed over this area, rather than occurring within a fixed stationary location. In addition, the distance between construction activity and nearby receptors

(existing single-family residences to the east and southeast) would range from 50 feet to up to 1,500 feet; therefore, project construction would not result in exceedance of any federal or state ambient air quality standard at nearby receptors.

a) According to SCAQMD Guidelines, to be consistent with the Air Quality Management Plan (AQMP), a project must conform to the local General Plan and must not result in or contribute to an exceedance of the City's projected population growth forecast. Vehicle use, energy consumption, and associated air pollutant emissions are directly related to population growth. A project may be inconsistent with the AQMP if it would generate population, housing or employment growth exceeding the forecasts used in the development of the AQMP. The proposed project (subdivision; annexation; and private road, drainage, trails, utilities construction) would not be expected to cause a significant impact to air quality in terms of conflicting with an air quality plan, since no population would be directly associated with such improvements.

The Southern California Association of Governments (SCAG) projects that the population of Agoura Hills will be 21,400 by 2035 (SCAG, 2012), an increase of 884 over the current City population of 20,516 (California Department of Finance estimate, January 2013). The potential future development of fifteen residential units on the project site would cause a direct increase in the City's population. Using the California State Department of Finance average household size for Agoura Hills of 2.787 persons, the net increase of fifteen dwelling units would generate a resident population of approximately 42 persons (15 units x 2.787 persons/unit). Therefore, the proposed project would result in a citywide population of approximately 20,558 persons (20,516 + 42). This increase in population would be within SCAG's projected Agoura Hills 2035 population of 21,400. The City General Plan and General Plan Final EIR assume a theoretical buildout of 8,139 residential units by 2035, the General Plan horizon year. Assuming the 2.787 population per household factor, this equates to a population of 22,683 by 2035. Since project-related population growth would be within SCAG population growth forecasts and the City General Plan buildout estimates, the project would be consistent with the AQMP. **Impacts would be less than significant.**

b-d) Emissions generated by the proposed project would include temporary construction emissions and long-term operational emissions.

Construction Emissions

Project construction would generate temporary air pollutant emissions. These impacts are associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction vehicles, in addition to ROG that would be released during the drying phase upon application of architectural coatings. Assuming the development of the currently proposed project and the potential future development of fifteen homes, construction would generally consist of site preparation, grading, erection of the proposed buildings, paving and architectural coating.

Temporary emissions from construction of the specified street and infrastructure improvements were estimated using the California Emissions Estimator Model (CalEEMod) version 2013.2.2 (refer to Appendix A for air quality modeling assumptions and results). During project site preparation, the soils that underlie portions of the site could be turned over and pushed around, exposing the soil to wind erosion and dust entrainment by onsite operating equipment. The

majority of emissions associated with construction activities on site come from off-road construction equipment, but some emissions are also associated with construction worker trips. For the purposes of modeling, it was assumed that the project would comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and is required to be implemented at all construction sites located within the South Coast Air Basin. Therefore, the following conditions, which would be required to reduce fugitive dust in compliance with SCAQMD Rule 403, were included in the CalEEMod model for the site preparation and grading phases of construction.

1. **Minimization of Disturbance.** Construction contractors should minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.

2. **Soil Treatment.** Construction contractors should treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day.

3. **Soil Stabilization.** Construction contractors should monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction, and environmentally safe dust control materials, shall be applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area shall be seeded and watered until landscape growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust.

4. **No Grading During High Winds.** Construction contractors should stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).

5. **Street Sweeping.** Construction contractors should sweep all on-site driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

Table 1 summarizes the estimated maximum daily emissions of pollutants during each year of construction. Construction emissions would not exceed SCAQMD regional thresholds related to ROG, NO_X, CO and SO_X. With adherence to the conditions listed above that are required by SCAQMD Rule 403 to reduce fugitive dust during the grading phase of construction, maximum daily emissions of fugitive dust (PM_{10} and $PM_{2.5}$) would not exceed applicable regional thresholds. In addition, the non-attainment basin status and the cumulative impact of all construction suggests that all reasonably available control measures for diesel exhaust shall be implemented even if individual thresholds are not exceeded. Implementation of SCAQMD rules would reduce construction impacts to air quality to a **less than significant** level.

Long-term Emissions

Long-term emissions associated with project operation, as shown in Table 2, would include emissions from vehicle trips (Mobile), natural gas and electricity use (Energy), and landscape maintenance equipment, consumer products and architectural coating associated with onsite development (Area). Overall emissions would not exceed SCAQMD thresholds for any of the criteria pollutants. **Consequently, the project's regional air quality impacts under thresholds b, c, and d would be less than significant**.

Table 1
Estimated Construction Maximum Daily Emissions

Year	Maximum Daily Emissions (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
2016	10.9	74.9	50.4	10.8	7.0
Maximum Emissions	**10.9**	**74.9**	**50.4**	**10.8**	**7.0**
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**

All calculations were made using CalEEMod. See Appendix A for CalEEMod winter output.Based on estimated grading quantities provided by the project engineer on the preliminary project grading plan.

Table 2
Estimated Project Maximum Daily Operational Emissions

Sources	Estimated Emissions (lbs/day)				
	ROG	NO_x	CO	PM_{10}	$PM_{2.5}$
Area	4.6	0.1	8.8	1.2	1.2
Energy	<0.1	0.1	<0.1	<0.1	<0.1
Mobile	0.6	1.7	6.5	1.1	0.3
Total Emissions (lbs/day)	**5.1**	**1.9**	**15.3**	**2.3**	**1.5**
SCAQMD Thresholds	55	55	550	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**

See Appendix A for CalEEMod winter output, included here because it represents the "worst-case" scenario. Based on Traffic Impact Analysis for the project (KHA, November 2013)

e) The proposed zoning classification, RV-OA-EQ, for the portion of the site to be developed would allow agricultural uses, such as animal husbandry involving raising horses, pigs and chickens. Agriculture is identified in "land uses associated with odor complaints" of the 2005 SCAQMD's guidance document for addressing air quality issues in general plans and local planning. The project site is bounded by U.S. Highway 101 to the south, open space to the north and east, and open space, residential and commercial-retail uses on the west. Specifically, neighboring west of the project site are single-family residential areas, zoned low density residential (RS)-OA-EQ, which allow a small amount of livestock and poultry raising as an accessory use. The small portion of open space-restricted (OS-R)-OA-EQ area adjacent to the site allows for livestock and poultry raising. All of these zones have an equestrian overlay (EQ), the purpose of which is to create, enhance, and protect the equestrian and rural atmosphere. The project site is adjacent to the Old Agoura community of the city, and, upon its annexation, would become part of Old Agoura. Old Agoura is the primary location where animal keeping, including horse-keeping, is allowed. Therefore, the odors associated with possible horse-keeping on the project site would be consistent with those of adjacent uses, and vice-versa, and within the general character of the locale. Additionally, agricultural uses on the new RV-OA-EQ parcels would be subject to conformance with the City of Agoura Hills Municipal Code, which specifies allowable livestock species, quantities and enclosure requirements (Agoura Hills Municipal Code Section 9224.1). Therefore, the proposed project would not generate objectionable odors out of character with the surrounding land uses. **The impact would be less than significant and further analysis of this issue in an EIR is not warranted.**

IV. BIOLOGICAL RESOURCES – Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐

IV. BIOLOGICAL RESOURCES – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a, e) Biological surveys were prepared for the project site in 1998 in conjunction with the Heschel West School EIR. Those surveys found several special status plants and wildlife species, and communities are located within and adjacent to the project boundaries. A valley oak (*Quercus agrifolia*) is located just north and offsite of the residential subdivision, and other oaks are located further off-site, away from the residential subdivision. In addition, the 1998 survey found the Mulefat habitat series, which falls under the regulatory jurisdiction of U.S. Army Corp of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and Regional Water Quality Control Board (RWQCB). Areas of native grassland, coastal sage scrub, and mariposa lilies were also found.

The subdivision as proposed, with the residential lots congregated in a smaller, flatter portion of the overall property, would likely avoid impacts to many of the known sensitive biological species and communities. Nonetheless, biological resources located within and adjacent to the project site boundaries could be adversely affected by the project construction and operation, both the currently proposed project and the ultimate potential construction of fifteen single-family residences. The City's Oak Tree Preservation Ordinance regulates impacts to oak trees, and the project would need to comply with the Ordinance provisions. Further biological studies will be conducted to ascertain the current status and location of biological species as a part of the EIR. **Impacts to these biological resources would be potentially significant and will be studied in an EIR.**

b, c) According to the biological surveys prepared for the project site in 1998 (County of Los Angeles, Heschel West School Final EIR, June 2006), some areas on the roughly 71-acre project site may qualify as U.S. Army Corps of Engineers' (ACOE) "waters of the U.S." per sections 401-404 of the Federal Clean Water Act and "streambeds" per Section 1600-1603 of the California Fish and Game Code. There are also seven potential drainages on-site. Federally protected wetlands, and riparian areas subject to Section 1600-1603 of the Fish and Game Code, located within and adjacent to the project site boundaries could be adversely affected by the project construction and operation, both the currently proposed project and the potential future single-family homes. However, given the current subdivision plan, with the residential lots located in a smaller, flatter area of the overall site, the wetland and riparian resources would likely be avoided by construction. Nonetheless, further biological studies will be conducted to ascertain the current status and proximity of onsite jurisdictional resources and drainages and riparian areas as a part of the EIR. **Impacts to these areas would be potentially significant and will be studied in an EIR.**

d) The closest formal wildlife corridor is the Liberty Canyon Wildlife Corridor, at U.S. Highway 101 and Liberty Canyon Road (City of Agoura Hills General Plan, 2010), which borders the

project site to the east. The Palo Comado Canyon Significant Ecological Area (SEA), located about one mile north of the project site and which leads in the Liberty Canyon Wildlife Corridor, is also viewed as an area for wildlife travel.

The project would retain much of the site (48 acres) that is contiguous to other off-site open space areas and the Liberty Canyon Wildlife Corridor as permanent open space. This would preserve a buffer area between developed areas and the wildlife corridor. The proposed project development area of 23 acres is situated at the northwest corner of the site, adjacent to the existing single-family home development. **While the project would provide a substantial open space buffer from the wildlife corridor, given the project site's proximity to the corridor, impacts to wildlife movement will be analyzed in an EIR.**

f) The project site is not subject to an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan (City of Agoura Hills General Plan, March 2010). No such plans are located within or adjacent to the City of Agoura Hills. **No impact would occur and further analysis of this issue in an EIR is not warranted**.

V. CULTURAL RESOURCES – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

a) The project site is currently vacant, and is not known to have been previously developed, or have any historical resources present**. No impact to historical resources would occur and further analysis of this issue in an EIR is not warranted.**

b-d) A cultural resources records search for the entire project area and a 0.5-mile radius around it was conducted at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The records search identified 36 previous studies within a 0.5-mile radius of the site, with two of the studies located on the project site. Six archaeological sites have been identified within a 0.5-mile radius of the project site. However, no identified archaeological or paleontological sites are located within the project site.

The project site does not contain rock outcroppings, trees, knolls, or other features that may indicate archaeological or paleontological sensitivity (Heschel Revised Draft Volume 1 EIR, March 2005) or possible buried human remains. Neverthless, previously unknown resources may be discovered during construction of both the currently proposed project and future on-

site residences. Implementation of mitigation measures CR-1, CR-2, and CR-3 would reduce this impact to a less than significant level. Further analysis of this topic in an EIR is not warranted; however, measures CR-1, CR-2, and CR-3 will be referenced in the EIR and will be included in the project's Mitigation Monitoring and Reporting Program. **Impacts would be less than significant with mitigation incorporated and further analysis of this issue in an EIR is not warranted.**

Mitigation Measures

Implementation of mitigation measures **CR-1** through **CR-3** would reduce impacts to any unknown archaeological resources, paleontological resources, and human remains to a less than significant level.

CR-1 **Monitoring.** If artifacts are discovered during ground-disturbing construction activities, the developer shall notify the City of Agoura Hills' Environmental Analyst immediately, and construction activities shall cease until a City-approved archaeologist has documented and recovered the resources. If a Native American site is uncovered, construction in that area shall be suspended until a Native American monitor, along with the project archaeologist, can properly assess the resource. Equipment stoppages prescribed by the archaeologist shall only involve those pieces of equipment that have actually encountered significant or potentially significant resources, and shall not require stoppage of all equipment on the site unless the resources are thought by the archaeologist to be distributed throughout the entire site. The purpose of stopping the equipment is to protect cultural/scientific resources that would otherwise be affected, and said equipment may undertake work in other areas of the site away from the discovered resources. If the find is determined by the archaeologist to be a unique archaeological resource, as defined by Section 2103.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2 of the Public Resources Code, as appropriate. If the find is determined not to be a unique archaeological resource, no further action is necessary and construction may continue.

CR-2 **Evaluation and Notification.** Should archaeological resources be discovered and avoidance proves infeasible, the importance of the site shall be evaluated by an archaeologist and a Native American monitor, where applicable. The archeologist and Native American monitor shall be approved by the City's Environmental Analyst. Depending on the nature of the find, mitigation may include documentation, data collection or other appropriate actions to be determined by the archaeologist, and, where applicable, the Native American monitor.

CR-3 **Discovery of Human Remains.** In accordance with HSC Section 7050.5, PRC Section 5097.98, and the City's General Plan Policy HR-3.3, in the event of discovery of human remains, the City's Environmental Analyst and County Coroner shall be notified immediately by the developer, and no further disturbance shall occur until the County Coroner has determined the origin and disposition of the remains, and that no investigation of the cause of death is

required. If the human remains are determined to be prehistoric, the County Coroner shall notify the Native American Heritage Commission, which will determine and then notify the Most Likely Descendent (MLD) or MLDs. The MLD(s) shall complete and inspection and make a recommendation within 48 hours of the notification. If no recommendation is received, the remains shall be interred with appropriate dignity on the property in a location not subject to future development.

VI. GEOLOGY AND SOILS – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

a, c, d) No faults traverse the project site and no active faults have been mapped within the City of Agoura Hills (USGS mapping system, 2010). The site is not within an Alquist-Priolo mapping area. Active faults that could potentially cause ground-shaking in Agoura Hills are at a distance of seven miles or greater from the City, and include the San Andreas, Oak Ridge, Malibu Coast, San Cayetano, and the Simi-Santa Ana faults. In addition, the Thousand Oaks area contains segments of the potentially active Sycamore Canyon-Boney Mountain fault zone, which lies no closer than five miles from the City of Agoura Hills. The most likely earthquake-generating faults in the geographic region are the San Andreas, San Jacinto, Elsinore-Whittier, and the

Newport-Inglewood faults (City of Agoura Hills, General Plan 2035 EIR, 2010).

The California Building Code (CBC) and CityBuilding Code control building design and construction. The City of Agoura Hills, along with all of Southern California and the Central Coast, is within Seismic Zone 4, the area of greatest risk and subject to the strictest building standards. New development would conform to the CBC as required by law, as well as the City of Agoura Hills Building Code, and preparation of a geotechnical analysis to investigate the potential for landslide, lateral spreading, subsidence, collapse, expansive soil, and liquefaction would be required prior to project approval. Nevertheless, these geologic issues would remain **potentially significant, and will be addressed in an EIR.**

b) The currently proposed project involves annexation of land; subdivision of land for single-family homes and open space; and construction of a private road, drainage facilities, utilities, a trail on the south side of the property, and a newly aligned multi-use trail in the foothills. During construction of the specified infrastructure improvements, as well as for the potential future residences, soil may erode due to wind entrainment and sediment may travel into storm drainage facilities. To reduce these impacts, standard dust control measures (AQMD Rule 403) and a Stormwater Pollution Prevention Plan (SWPPP) pursuant to the Regional Water Quality Control Board , would be required for project development of the site (refer to sections II, *Air Quality,* and IX, *Hydrology and Water Quality*). **These standard requirements and project components would serve to reduce the potential for soil loss on the project site due to erosion to a less than significant level**.

e) The City and County provide sanitary sewer service, with the Las Virgenes Municipal Water District providing the major sewer trunk lines, and would continue to provide these services to development in the City (City of Agoura Hills, General Plan 2035 Final EIR, 2010). The future proposed residential development would connect to existing sewer service, and would not require the use of septic tanks or alternative wastewater disposal systems. **Therefore, no impact would occur and no further analysis of this issue is required**.

VII. GREENHOUSE GAS EMISSIONS – Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Greenhouse gases (GHGs) are emitted by both natural processes and human activities. Of these gases, carbon dioxide (CO_2) and methane (CH_4) are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Different types of

GHGs have varying global warming potentials. The global warming potential of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2E), and is the amount of a GHG emitted multiplied by its global warming potential.

According to the CalEPA's 2010 Climate Action Team Biennial Report, potential impacts of climate change in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CalEPA, April 2010). While these potential impacts identify the possible effects of climate change at a global and potentially statewide level, in general, scientific modeling tools are currently unable to precisely predict what impacts would occur locally.

The City of Agoura Hills is within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAQMD has not adopted GHG emissions thresholds that apply to land use projects where the SCAQMD is not the lead agency and the City has not adopted any specific GHG emissions reduction plan or GHG emissions thresholds. Therefore, the currently proposed project (private road, drainage, utilities, trails) and potential future residential development are evaluated based on the SCAQMD's recommended/preferred option threshold for all land use types of 3,000 metric tons CO_2E per year (SCAQMD, "Proposed Tier 3 Quantitative Thresholds – Option 1", September 2010), which has been used in past CEQA analyses prepared for projects in the City of Agoura Hills.

a) GHG emissions associated with short-term construction and long-term operation of the project were estimated using the California Emissions Estimator Model (CalEEMod) (see Appendix A for forecast assumptions and results). The estimates assume construction of the currently proposed project and fifteen future homes.

Construction Emissions

Based on the CalEEMod results, construction activity for the proposed project would result in an estimated 340.7 metric tons of CO_2E. Because climate change represents a long-term cumulative impact, emissions associated with construction activity are generally amortized over a 30-year period (the anticipated life of the project) in order to more accurately compare them to the annual threshold. Therefore, the project would result in approximately 11.4 metric tons of CO_2E per year.

Energy Use

Operation of the proposed project would consume both electricity and natural gas. The generation of electricity through combustion of fossil fuels typically yields CO_2, and to a smaller extent, N_2O and CH_4. Electricity and natural gas consumption would generate approximately 53.8 metric tons of CO_2E per year.

Area Sources

Area sources of GHG emissions include consumer products, landscape maintenance, and architectural coating. Area sources would result in approximately 5.0 metric tons of CO_2E per year.

Solid Waste

The proposed project would generate solid waste that would result in approximately 8.0 metric tons of CO_2E per year according to the CalEEMod output, which uses current waste disposal rates provided by CalRecycle.

Water Use

Based on the CalEEMod estimate, water transportation to serve on-site development would generate approximately 6.8 metric tons of CO_2E per year.

Transportation

Mobile source GHG emissions were estimated using total daily trips based on the Institute of Transportation Engineers' *Trip Generation*, 8th Edition, 2008, and by the total vehicle miles traveled (VMT) estimated in CalEEMod, which corresponds to the Traffic Impact Analysis prepared for the project (KHA, November 2013). Based on the CalEEMod model estimate, mobile emissions resulting from on site development would generate an estimated 215.9 metric tons CO_2E per year.

Combined Construction, Stationary and Mobile Source Emissions

Table 3 combines the construction, operational (energy use, area source, solid waste, and water use emissions), and mobile GHG emissions associated with the proposed project.

Table 3
Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2E)
Construction	11.4 metric tons
Operational	
Energy	53.8 metric tons
Area Sources	5.0 metric tons
Solid Waste	8.0 metric tons
Water	6.8 metric tons
Mobile	215.9 metric tons
Total	**300.9 metric tons**

Sources: See Appendix A for CalEEMod annual output.

The combined annual emissions would total approximately 301 metric tons CO_2E per year. This emissions estimate indicates that the majority of the project's GHG emissions are associated with vehicular travel (72 percent). **Based on the 3,000 metric tons CO_2E per year threshold, the project's emissions of approximately 301 metric tons of CO_2E per year would have a less than significant impact.**

b) CalEPA's Climate Action Team (CAT) published the 2006 CAT Report, which includes GHG emissions reduction strategies intended for projects emitting less than 10,000 tons CO2E/year. In addition, the California Attorney General's Office has developed Global Warming Measures (2010) and the State Office of Planning and Research's (OPR) 2008 technical advisory CEQA and Climate Change document includes GHG reduction measures intended to reduce GHG emissions in order to achieve statewide emissions reduction goals. These measures aim to curb the GHG emissions through suggestions pertaining to land use, transportation, renewable energy, and energy efficiency. Several of these actions are already required by California regulations, such as:

- *AB 1493 (Pavley) requires the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks.*
- *In 2004, the California Air Resources Board (ARB) adopted a measure to limit diesel-fueled commercial motor vehicle idling.*
- *The Integrated Waste Management Act of 1989, (AB 939, Sher, Chapter 1095, Statutes of 1989) established a 50% waste diversion mandate for California.*
- *Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).*
- *California's Renewable Portfolio Standard (RPS), established in 2002, requires that all load serving entities achieve a goal of 33 percent of retail electricity sales from renewable energy sources by 2020, within certain cost constraints.*
- *Green Building Executive Order, S-20-04 (CA 2004), sets a goal of reducing energy use in public and private buildings by 20 percent by the year 2015, as compared with 2003 levels.*

In addition, future residential development onsite would meet many objectives of the Attorney General and OPR through compliance with City standards. For example, the City enforces the 2010 California Green Building Standards Code on new development. In addition, curbside recycling and green waste services are provided to residential developments in the City.

The Southern California Association of Governments' (SCAG) 2012 Regional Transportation Plan/Sustainable Communities Strategy (2012 RTP/SCS) includes a commitment to reduce emissions from transportation sources by promoting compact and infill development in order to comply with SB 375 (Sustainable Communities and Climate Protection Act of 2008). A goal of the SCS is to, "promote the development of better places to live and work through measures that encourage more compact development, varied housing options, bike and pedestrian improvements, and efficient transportation infrastructure." The proposed project would be consistent with the RTP/SCS in that the subdivision would concentrate the single-family residential lots in the smaller, flatter portion of the overall site (23 acres), leaving the remaining southern and eastern portions of the site (48 acres) at the edge of the City, including hillside areas, as permanent open space. The subdivision, while not infill development, is proposed directly adjacent to existing residential use of a similar, or slightly greater density, so that the project can easily be served by existing infrastructure. Walking and equestrian trails would be created within the project to connect with existing facilities adjacent to the site.

The City of Agoura Hills General Plan 2035 (2010) identifies goals and policies generally related to greenhouse gases. The project would be consistent with these items, including

Policy LU-1.2, Development Locations (allowing for growth on the immediate periphery of existing development in limited areas); Policy LU-2.5, Sustainable Land Development Practices (concentrating development to protect open spaces); and Policy LU-4.8, Connectivity (providing for walking and equestrian trails that connect with existing trails).

The currently proposed project and fifteen future single-family homes would be consistent with policies and regulations pertaining to GHG reduction and, therefore, would not conflict with GHG emissions reduction goals. **Therefore, this impact would be less than significant.**

VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☒	☐

a, b) Neither the currently proposed project nor the potential future residential uses would involve the routine transport, use or disposal of hazardous substances, other than minor

amounts used for maintenance and landscaping characteristic of a single family residential development. As such, the project would not have the potential to release substantial quantities of hazardous materials into the environment. **Impacts would be less than significant and further analysis of these issues in an EIR is not warranted.**

c) The closest school is the Partners in Learning Pre-school and Kindergarten located at 5251 Chesebro Rd., 0.1 miles to the west of the proposed project parcel, beyond which is a Montessori school. However, as stated above, the proposed project and the future potential fifteen residences would result in a minor increase in typical household and landscaping chemicals commonly used in residential neighborhoods (including those currently existing in and around the nearest school), and would not involve the use, generation, storage, or transport of large quantities of hazardous materials, substances, or waste. Therefore, **impacts would be less than significant and further analysis of this issue in an EIR is not warranted.**

d) The eastern boundary of the project site is located 0.5 miles from the western boundary of the Calabasas Sanitary Landfill. The eastern edge of the portion of the site where the residential subdivision would occur is located more than one-half mile from the western boundary of the landfill. The Calabasas Sanitary Landfill, operated by the Los Angeles County Sanitation Districts, is located at 5300 Lost Hills Road in Calabasas. The total remaining capacity of the Calabasas Sanitary Landfill is 15.6 million cubic yards, or 7 million tons (Gwen Tantoco, February 2013). The facility is permitted to accept up to 3,500 tons per day. The average daily tonnage of waste received during the previous four quarters was 643 tons per day. Development of this site, which is located near the landfill, may result in potential human health issues related to both landfill gas emissions and potential surface and groundwater contamination associated with landfill runoff. **Therefore, impacts would be potentially significant and will be discussed further in an EIR.**

e, f) There are no airports or airstrips located within the project site vicinity. The closest airport is the Van Nuys Airport, situated about eighteen miles east of the project site. The site is not within an area covered by an airport land use plan, nor is it located in the vicinity of a private air strip. Therefore, **no impact would occur and further analysis of this issue in an EIR is not warranted.**

g) Implementation of the project would not interfere with existing emergency evacuation plans, or emergency response plans in the area. There is an emergency evacuation plan for the Old Agoura community, adjacent to the project site on the west, south and north. There are many identified pathways in the plan, and more than one exit area from the Old Agoura community. One of the pathways is adjacent to the project site on the west. The currently proposed project (annexation; subdivision; and development of a private road, drainage improvements, trails, and utilities) would not result in additional residences that would contribute to the demand for evacuation, and the design of the subdivision and proposed improvements, including the private road, would not impair or interfere with the existing evacuation plan. Additionally, potential future residential development on the site (as part of a separately reviewed and permitted project) is estimated to result in 42 persons (see Section XIII, *Population and Housing*), along with their potential horses and other animals, which would utilize the emergency evacuation plan. This additional demand for evacuation is not expected to impair or interfere with the plan. Moreover, the project would be required to comply with the State Fire Code, City Municipal Code, and Los Angeles County Fire Department (LACFD) standards, including

specific construction specifications, access design, location of fire hydrants, and other design requirements. **This impact would be less than significant, and further analysis of this issue in an EIR is not warranted.**

h) The City of Agoura Hills General Plan and Municipal Code classify the City as a "Very High Fire Hazard Severity Zone" (formerly Fire Zone 4). The City of Agoura Hills Uniform Fire Code, found in Section 8200 of the City of Agoura Hills Municipal Code, includes modifications to the California Building Code (CBC) that intend to prevent loss during a wildland fire, including design and installation standards. "Where required by the fire code official, a fuel modification plan, a landscape plan and an irrigation plan prepared by a registered landscape architect, landscape designer, landscape contractor, or an individual with expertise acceptable to the building official shall be submitted … prior to any new construction" (Agoura Hills Municipal Code Section 704A.6). The currently proposed project does not include any structures that would require preparation of a fuel modification plan. In the future, as individual homes are proposed and site plans are created as part of a separate project and permit process, a fuel modification plan would need to be prepared for each home and must be reviewed and approved by the Los Angeles County Fire Department Fuel Modification Unit. **Therefore, impacts related to wildland fire would be less than significant with mandatory compliance with the City's building standards and County of Los Angeles Fire Department fuel modification regulations. Further analysis of this issue in an EIR is not warranted.**

IX. HYDROLOGY AND WATER QUALITY – Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	☒	☐	☐	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☐

IX. HYDROLOGY AND WATER QUALITY – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☒	☐	☐	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☒	☐	☐	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☒	☐	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒

a) Construction activities and operation of the project (both the currently proposed project and the potential future construction of fifteen homes) could result in an increase in pollutants in runoff during storm events. If large amounts of bare soil are exposed during the rainy season, or in the event of a storm, finely grained soils could be entrained, eroded from the site, and transported to drainages. The amount of material that could potentially erode from the site during temporary construction activities would be greater than under existing conditions due to the loss of vegetation and movement of soils. The developer would be required to obtain a National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges associated with Construction and Disturbance Activities (Order No. 2009-0009-DWQ) (State Water Resources Control Board) (City of Agoura Hills Ordinance No. 97-272), which would require the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that addresses potential pollutants during construction, and a Standard Urban Storm Water Mitigation Plan (SUSMP) to address pollutants during the life of the project. Components of a SWPPP typically include, but are not limited to, Best Management Practices (BMPs) like silt fences; erosion control blankets; soil stabilizers; proper handling and disposal of wastes; and anti-tracking pads at site exits to prevent the offsite transport of materials. A SUSMP typically includes BMPs for source prevention and treatment control, such as catch basin filters and infiltration/detention basins, as well as minimizing impervious paving. Compliance with the required NPDES permit would ensure that potential impacts to water quality would be minimized. **Nevertheless, this impact remains potentially significant and will be evaluated further in an EIR.**

b, c) Development of both the currently proposed project and the future potential residences would increase impermeable surface area onsite, which may reduce groundwater recharge. In addition, the drainage pattern throughout the site would be modified by project development. Therefore, adverse erosion and sedimentation effects could occur. **These impacts would be potentially significant and will be evaluated further in an EIR.**

d-f) The 71-acre project site is currently vacant and contains entirely pervious surfaces. The proposed project's private road, and future development of potentially fifteen homes would increase the amount of impervious surfaces on the project site, and so would reduce the amount of water that percolates into the ground and increase the amount of water that is discharged to the storm drain system. Two vegetated biofiltration basins are proposed on-site as part of the drainage improvements (with an option to place those basins underground or replace them with underground pipes). Nonetheless, **impacts would be potentially significant and will be evaluated further in an EIR.**

g-i) The Flood Insurance Rate Map (FIRM) issued by the Federal Emergency Management Agency (FEMA) for the project site (FEMA, FIRM Map ID # 06037C1263F, accessed 2013) indicates that the upper northwest portion of the proposed project site is adjacent to Cheseboro Creek and is contained in Zone AE and Zone X of the 100-year flood hazard zone. Zone AE is designated as the base flood zone, and Zone X designates an area with a minimal risk of flooding (not within the 100 year flood zone). Zone AE also crosses Chesebro Road, one of the access roads to the project site, which could limit access to and from the site during a flood event. **Due to a portion of the site being within Zone AE, impacts would be potentially significant and will be evaluated further in an EIR.**

k) Seismic events can induce oscillations, called seiches, of the surface of an inland body of water that varies in period from a few minutes to several hours. Tsunamis are large sea waves produced by submarine earthquakes or volcanic eruptions. The project site is not located close to the ocean or an inland body of water (Lake Lindero is approximately three miles west of to the site) and is at an elevation sufficiently above sea level to be outside the zone of a tsunami or seiche. **Therefore, no impact would occur and further analysis of this issue in an EIR is not warranted.**

X. LAND USE AND PLANNING – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

a) The project site is bounded by U.S. Highway 101 on the south, open space to the north and east, and residential and commercial-retail uses on the west. The project involves development of a vacant site on the border of an urbanized area. On the west, the proposed very low density residential subdivision would be contiguous to existing low-density residential development, and, upon annexation, would become part of the City of Agoura Hills' Old Agoura community and consistent with the provisions of the OA overlay and EQ overlay that dictate land use and

development standards in this part of the City. Therefore, it would not physically divide an established community. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

b) The proposed project involves the subdivision of land for the construction of fifteen single-family residential dwellings on a vacant lot with a proposed zoning of Very Low Density-Residential (RV)-Old Agoura Overlay (OA)-Equestrian Overlay (EQ). This zone allows for a density of <2 dwelling units/acre, and is the lowest density residential zone in the City. Adjacent land uses in the City are zoned Low Density-Residential, one-two units per acre (RL)-OA-EQ, and Open Space-Restricted (OS-R)-OA-EQ (which allows one single-family unit per lot). The proposed project zoning of RV-OA-EQ would be compatible with the existing adjacent land use types and densities.

Currently, the project site is within the County of Los Angeles' North Area Plan (NAP). The project would establish fifteen single-family home lots, whereas the NAP allows fourteen single-family homes at a minimum density of five acres per lot. The proposed project has smaller residential lot sizes (less than five acres), as the project is designed to cluster residential lots into the flattest portion of the site in order to preserve open space and potential biological resources in the hillside areas. On average, the proposed density of the residential subdivision is 1.5 acres/unit (23 acres/15 units). When the entire 71-acre project site is taken into account, the density is 4.7 acres/unit (71 acres/15 units).

The Agoura Equestrian Estates Project would require:

- *Vesting Tentative Tract Map to:*
    - *Divide approximately 71 acres (APN 2052-009-270) into sixteen lots: (1) open space, (2) fifteen residential lots*
    - *Retain the parcel (about 0.25 acre) across Chesebro Road (APN 2055-010-270) as a separate open space lot.*
- *Development Agreement*
- *Purchase and Sale Agreement*
- *Pre-annexation Agreement*
- *Annexation and Sphere of Influence Change for the two project parcels plus a state-owned parcel (APN 2055-010-901) and a portion of the Caltrans right-of-way along U.S. Highway 101*
- *General Plan Amendment (for the annexation)*
- *Oak Tree Permit (to be determined based on final grading plans; based on the proximity of grading to the existing oak immediately off-site of the parcel, and any on- or off-site oaks)*
- *Conditional Use Permit for the overall project site, given that the approximately 70-acre parcel is hillside, and that trails are proposed in the OS-DR zone)*
- *Pre-Zoning and Zone Change (From County zoning to Residential Very Low (RV)-Old Agoura Overlay (OA)-Equestrian Overlay (EQ) for fifteen residential lots and Open Space – Deed Restricted (OS-DR)-OA-EQ for the two open space lots.*

Upon annexation and City approval of the General Plan amendment, zone change, Conditional Use Permit, and Tentative Tract Map changes, the project would be consistent with the City General Plan and City Municipal Code, including the Zoning Code. The proposed development

agreement would incorporate by reference the City's approvals and conditions on the developers' properties. I**mpacts to land use and planning would be less than significant and further discussion in an EIR is not warranted.**

c) The project site is within an urban area and is not subject to, or near, an adopted habitat conservation plan (HCP), natural community conservation plan (NCCP), or any other approved local, regional, or state habitat conservation plans (City of Agoura Hills, General Plan 2035 Final EIR, February 2010). The closest protected community is the Palo Comado Canyon portion of the Santa Monica Mountains Palo Comado Canyon Significant Ecological Area (SEA), located approximately 0.8 miles north of the project site across Chesebro Road. The closest formal wildlife corridor is the Liberty Canyon Wildlife Corridor, at U.S. Highway 101 and Liberty Canyon Road (General Plan, 2010), immediately east of the site. The Palo Comado Canyon SEA south of Agoura Road is also viewed as an area for wildlife travel. The project would not interfere with an adopted HCP or NCCP, as there are none in, or near, the City of Agoura Hills. The project would not interfere with any sensitive ecological area or any wildlife corridor or travel area (See Section IV, *Biological Resources*). Moreover, the project would preserve much of the site (48 acres) that is contiguous to other off-site open space areas as permanent open space, thereby preserving a buffer area between developed areas and the wildlife corridor. **Therefore, no impact would occur and further analysis in an EIR is not warranted**.

XI. MINERAL RESOURCES -- Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☒	☐

a, b) The project site is currently proposed for subdivision and for private street, utility, drainage and trail improvements. The site may be developed ultimately (under separate application and permit) with fifteen single family residences. The main parcel is bordered on the west by the Old Agoura residential neighborhood, and on the north and east by open spaces, and to the south by U.S. Highway 101. According to the California Division of Mines and Geology (DMG), no significant mineral deposits are present within the City of Agoura Hills (City of Agoura Hills, General Plan March 2010). The majority of the City north of Agoura Road is classified as MRZ-1. This classification is used to delineate areas where adequate information is available to determine that no mineral deposits are present, and/or there is little likelihood for significant deposits to be present. Due to the nature of the proposed project, and the surrounding land uses, conversion of the project site to mining is unlikely.

The project site is directly adjacent to the Old Agoura neighborhood of the City, and according to the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) mapping application, there have been no new locations of drill, rework and plugging and abandonment notices received by the Division in the last 365 days in and around the

proposed project area. **Impacts would be less than significant and further analysis of these issues in an EIR is not warranted.**

XII. NOISE – Would the project result in:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity due to construction activities above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz). For the most sensitive uses, such as single-family residential, 60 dBA Day-Night average level (Ldn) is the maximum normally acceptable exterior level. Ldn is the time average of all A-weighted levels for a 24-hour period, with a 10 dBA upward adjustment added to those noise levels occurring between 10:00 p.m. and 7:00 a.m. to account for the general increased sensitivity of people to nighttime noise levels. The Community Noise Equivalent Level (CNEL) is similar to the Ldn except that it adds five additional dBA to evening noise levels (7:00 p.m. to 10:00 p.m.). The City of Agoura Hills utilizes the CNEL for measuring noise levels.

a, c) The currently proposed project includes a subdivision to allow for the construction of fifteen residential single-family homes (development of the homes to potentially occur in the future as part of a separate application and permit process), specified private street, trail and infrastructure/utility improvements on the parcel adjacent to the existing residential low density (RL) single family homes that front Chesebro Road. The proposed project and

development of the homes and any associated horse-keeping would be consistent with existing noise-generating uses in the vicinity, which are primarily low-density residential with some animal-keeping uses and trails, and further west, commercial retail service uses, and are expected to generate a minor amount of noise typical of single-family homes, a private road, and trails, consistent with that of the surrounding area. The future residences would not be expected to generate high levels of noise and would be similar to other residential uses in the area.

Based on the General Plan noise contours, the southern portion of the project site and neighboring RL land uses are currently subject to noise levels between 60 and 70 CNEL, depending on proximity to U.S. Highway 101 (City of Agoura Hills, General Plan Figure N-1, March 2010). Specifically, portions of the project are situated in a area of 60 and 65 CNEL, while the northern portion of the site is within a CNEL of less than 60. Note that these contours represent line-of-sight attenuation, and do not account for additional attenuation from topography and other barriers. Table N-1 of the General Plan indicates that a CNEL of 60-70 is considered "normally compatible" for locating single-family residences. A weekday afternoon 20-minute ambient noise measurement was taken on the project site at the approximate southern edge of where the potential future residences would be located (approximately 500 feet north of U.S. Highway 101) using an ANSI Type II integrating sound level meter in accordance with standard protocols on October 23, 2013. This measurement indicated an ambient noise level of approximately 42 dBA. Thus, actual noise levels in the area proposed for residential development are considerably lower than shown in the Agoura Hills General Plan, due primarily to the presence of intervening topography between Highway 101 and the project site.

Fifteen new single-family homes would generate a limited number of new vehicle trips (approximately 144, based on the Traffic Impact Assessment for the project prepared by Kimley-Horn Associates, November 2013). These trips would constitute a small fraction of the overall trips on area roadways. The majority of project-generated trips would be between the project site and U.S. 101 and would affect a limited number of sensitive receptors. Thus, project-generated traffic would not add substantially to existing traffic noise on local roadways.

Based on the above, the project would not expose residential land uses to noise exceeding the City's noise standards or otherwise contribute to a long-term increase in noise in the project vicinity. **Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.**

b) The project site is not located in an area of excessive groundborne vibration and would not expose people to excessive levels of groundborne vibration. Because construction of the proposed project and potential future single-family home development are not expected to involve pile driving or other activities that generate high levels of vibration, substantial groundborne vibration is not anticipated. Based on the distance to the nearest sensitive receivers (about 20 feet to the nearest single family residences), maximum vibration levels associated with equipment expected to be used during construction (bulldozers, trucks, jackhammers) would range from about 59 to 88 vibration decibels (VdB) (Federal Railroad Administration, 2012). The maximum vibration levels would potentially exceed the groundborne velocity threshold level of 80 VdB established by the Federal Railroad Administration for sensitive buildings, residences,

and institutional land uses where people normally sleep, but would not approach the 100 VdB, level, which is the general threshold where minor damage can occur in fragile buildings. Consequently, vibration would not be expected to cause any structural damage and mandatory compliance with the City's construction noise ordinance, which limits the days and hours of construction to between 7:00 AM and 7:00 PM, Monday through Saturday, would eliminate the potential for disturbance during nighttime hours when people normally sleep. **Impacts related to construction-related groundborne noise and vibration would therefore be less than significant and further analysis of this issue in an EIR is not warranted.**

d) Grading and construction of the project would generate a temporary increase in noise in the site vicinity. As shown in Table 4, maximum noise levels relating to construction range from 78-88 decibels (dB) at a distance of 50 feet (US EPA, 1971).

Sensitive noise receptors include residential units, child care centers, libraries, hospitals, and nursing homes. The sensitive receptors closest to the project site are the single-family residential units located as close as 20 feet from the western project site boundary, and a pre-school/kindergarten and Montessori school located approximately 600 feet west of the western project boundary. Construction noise generally attenuates by about 6 dBA per doubling of distance. Due to the proximity to the project site boundary, the nearest existing single-family residences could experience periodic maximum noise levels as high as about 90 dBA. Noise levels at the pre-school/kindergarten and Montessori school would be lower due to the greater distance from the project site and would be expected to be within 57-66 dBA range.

Table 4
Typical Noise Levels at Construction Sites

Construction Phase	Average Noise Level at 50 Feet	
	Minimum Required Equipment On-Site	All Pertinent Equipment On-Site
Clearing	84 dBA	84 dBA
Excavation	78 dBA	88 dBA
Foundation/Conditioning	88 dBA	88 dBA
Laying Subbase, Paving	78 dBA	79 dBA
Finishing and Cleanup	84 dBA	84 dBA

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the U.S. Environmental Protection Agency, 1971.

Grading and construction activity could cause periodic disturbance to adjacent residences. However, grading and construction would be required to comply with Article IV, Chapter 1, of the City's Municipal Code, which limits the use of construction equipment that generates noise in excess of 60 dBA to between the hours of 7:00 AM and 7:00 PM, Monday through Saturday. No construction activity is permitted between 7:00 PM and 7:00 AM that generates noise in

excess of the 50 dBA nighttime standard, and no construction activity is permitted on Sundays or legal holidays. **With conformance to Article IV, Chapter 1, the City's Municipal Code, temporary construction noise impacts would be less than significant and further analysis of this issue in an EIR is not warranted**.

e, f) The project site is not located within the vicinity of an airport or private airstrip. The closest airport is the Van Nuys Airport, about eighteen miles east of the site. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

XIII. POPULATION AND HOUSING – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) Development of the currently proposed project (annexation, subdivision, private road, drainage, utilities, trails) would not result in an increase in population. However, the future potential development of fifteen new residential units on the project site would cause a direct increase in the City's population. Using the California State Department of Finance average household size for Agoura Hills of 2.787 persons, the net increase of fifteen dwelling units would generate a resident population of approximately 42 persons (15 units x 2.787 persons/unit). The current City population is approximately 20,516, according to the most recent (January 2013) California Department of Finance estimate. Therefore, the proposed project would result in a citywide population of approximately 20,558 persons (20,516 + 42). The Southern California Association of Governments (SCAG) projects that the population of Agoura Hills will be 21,400 by 2035 (SCAG, 2012). The level of population increase associated with the fifteen homes is within the population forecast, and the physical environmental impacts associated with this increased population growth have been addressed in the individual resources sections of this Initial Study.

The proposed project would provide for the extension of utilities, including sewer system, and private road construction, to serve the fifteen residential lots. However, this infrastructure would not induce population growth beyond the fifteen single-family residential lots, as all vacant land surrounding the site would be zoned and designated for OS-DR, which is deed restricted and no development of buildings is allowed. The project would include transferring the open space areas to the south and east of the site (as well as the small parcel across Chesebro Road) to a public entity for permanent open space preservation, and the existing open space parcel to the north of the site is owned by the State of California and is used for state park

access. Consequently, adjacent vacant lands would be protected from additional urban development.

The project would not substantially increase population, and the physical environmental impacts associated with the project have been addressed in the individual resources sections of this Initial Study. **Therefore, impacts relating to population growth would be less than significant and further analysis of this issue in an EIR is not warranted.**

b, c) The project site is currently vacant. Thus, project implementation would not displace existing residents or housing. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

XIV. PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i. Fire protection?	☐	☐	☒	☐
ii. Police protection?	☐	☐	☒	☐
iii. Schools?	☐	☐	☒	☐
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☐	☒

The City of Agoura Hills 2035 General Plan Goal LU-1 and Land Use Policy 1.1 anticipates sustainable growth and change through well-planned development, which would in turn provide for the needs of existing and future residents and businesses, ensure the effective and equitable provision of public services, and make efficient use of land and infrastructure. The current standards and land use specifications contained within the City of Agoura Hills Municipal Code and the General Plan indicate that cumulative development (buildout of the City by the horizon year 2035) shall not exceed 8,319 housing units, 1,850,907 square feet of retail services, 3,341,448 square feet of business park/office uses, and 1,118,126 square feet of business park-manufacturing uses. The potential future fifteen single-family homes represent about 0.2 percent of anticipated residential development.

a (i) The City of Agoura Hills is served by the Los Angeles County Fire Department (LACFD). Fire Station #89, located at 29575 Canwood Street in Agoura Hills, approximately 1.75 miles west of the project site, serves the project site and surrounding areas. The station is staffed with a three-person engine company and a two-person paramedic squad. Fire Station #65, at 4206 Cornell Road in unincorporated Los Angeles County, also serves the City.

The currently proposed project (annexation, subdivision, private road, drainage, utilities, trails) would not increase the demand for fire protection services, but the potential future fifteen single-family homes would incrementally increase such demand. However, the proposed project would be required to pay standard development impact mitigation fees to the LACFD. In addition, the project site is currently adjacent to a residentially developed area of similar density currently served by the LACFD, and the project would be required to comply with Fire Code and LACFD standards, including specific construction specifications, access design, location of fire hydrants, and other design requirements. As a result, the project would not require substantial new or expanded fire protection facilities, and any impacts to fire protection services from implementation of this project would not be significant. **Therefore, impacts related to fire service would be less than significant and further analysis of this issue in an EIR is not warranted**.

a (ii) The Los Angeles County Sheriff's Department (LACSD) provides police protection in the City of Agoura Hills. The Malibu/Lost Hills Station, located at 27050 Agoura Road in the City of Calabasas, approximately 1.35 miles east of the project site, serves the project site and surrounding areas. The station patrols the cities of Agoura Hills, Calabasas, Hidden Hills, Westlake Village, and Malibu, as well as adjacent unincorporated areas. The Lost Hills Station participates in a reciprocal aid agreement with the nearby communities of Westlake Village and Calabasas, which enables these stations to be called upon for assistance, if necessary.
The currently proposed project and the potential future fifteen homes would result in only a minor increase in demand for protection services and would not require additional police services based upon a review of the City of Agoura Hills General Plan EIR. The analysis contained within that EIR states that the current ratio of 1 deputy per 1,722 residents is an acceptable service ratio (Smith, 2009). In addition, the average emergency response time from the Malibu/Lost Hills Sheriff Station for the month of February 2009 was 4.8 minutes. The average non-emergency response time for the same period was 17.7 minutes. Both of these times are considered acceptable (Agoura Hills General Plan EIR, Section 4.11.5, Levels of Service). The City's General Plan EIR (February 2010) states that there are no current plans for future expansion of the existing police facility, staff, or general equipment inventory. **Therefore, impacts related to police protection would be less than significant and further analysis of this issue in an EIR is not warranted**.

a (iii) The Las Virgenes Unified School District (LVUSD) provides primary and secondary public education services to the project site. LVUSD manages three schools located within the attendance area of the project site: Agoura High School, A.E. Wright Middle School, and Sumac Elementary School. While the proposed project would not increase demand on schools, the potential future fifteen single-family homes could incrementally increase school enrollment and could result in exceedance of capacity at LVUSD schools.

The potential fifteen residential dwellings may be occupied by families with school aged children. According to the City's General Plan EIR (February 2010) a student generation factor of 0.66 elementary school children per household, 0.12 middle school children per household, and 0.1367 high school children per household was used to calculate the anticipated number of new students in the City. Based on these factors, the project would result in approximately ten new elementary school students, two new middle school students, and two new high-school students.

At the time of residential unit development, the project applicant would be required to pay state-mandated school impact fees. Pursuant to Section 65995 (3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory fees "...is deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." **Thus, impacts related to schools would be less than significant and further analysis of this issue in an EIR is not warranted**.

a (iv) Given the nature of the currently proposed project and that it would not increase population, it would not contribute to a demand for parks. However, development of the future fifteen homes could increase the park demand in the City. According to the amount of land to be dedicated formula provided in the Agoura Hills Municipal Code Section 10800 et seq., the project would need to provide 0.017 acres of parkland or pay an in-lieu fee. However, the proposed project would provide 48 acres of dedicated open space to the City's open space network in excess of the required 0.017 acres of parkland, as well as trails in the open space areas and on the project site. In addition, the project developer would be required to pay Quimby Act fees (Section 10800 of the Agoura Hills Municipal Code) upon recordation of the final vesting tract map to offset impacts associated with new residential units on affected park facilities. Therefore, the proposed project, and the potential future development of fifteen single-family homes, would not cause adverse impacts to parks. **Consequently, a less than significant impact to parks would occur and further analysis of this issue in an EIR is not warranted.**

a (v) Other public services include library services. Library services in the City of Agoura Hills are provided by the County of Los Angeles Public Library System. The Agoura Hills Library is located at the City Hall Civic Center, 30001 Ladyface Court, Agoura Hills, CA 91301. According to the City's General Plan Final EIR, no new library facilities are expected to be necessary to accommodate the growth proposed under the General Plan Update (Agoura Hills General Plan EIR, Section 4.11.15, Project Impacts and Mitigation). As stated in this document, Section X. Land Use and Planning, this project does not conflict with the General Plan, and would have a less than significant impact. **Therefore, no impact to other public facilities would occur and further analysis of this issue in an EIR is not warranted.**

XV. RECREATION	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

a) The currently proposed project would not add to the demand for recreation, since it involves construction of a private road, drainage facilities, utilities and trails. However, the potential future fifteen new residential units on the site would increase population and could increase the demand for recreational services. As described in Section XIV, *Public Services*, the project applicant/developer would be required to pay Quimby Act fees (Section 10800 of the Agoura Hills Municipal Code) upon recordation of the final vesting tract map to offset impacts associated with new residential units on affected park facilities. Refer also to the discussion of Parks in Section XIV, *Public Services*, subsection a) iv). The relatively minor number of additional homes is not expected to adversely affect other recreational facilities found in the City. The City is currently constructing a new Recreation Center at Ladyface Court, which is an expanded facility from what now exists in the current building along Thousand Oaks Boulevard. Any increase in the demand for recreation from the additional fifteen homes is expected to be accommodated by this new facility. **Therefore, this impact would be less than significant, and further discussion in an EIR is not warranted.**

b) The currently proposed project includes the construction of a multi-use trail within the subdivision of the residential lots and the reconstruction of a trail on the open space property east of the site. The environmental impacts of these trails are assessed in the various environmental issue sections of this Initial Study. The trails would be sited on both RV-OA-EQ zoned land, and on OS-DR-OA-EQ zoned land.

The open space portions of the site would be zoned Open Space – Deed Restricted (OS-DR)-Old Agoura (OA)-Equestrian Overlay (EQ), for permanent open space preservation. The zoning designation has strict requirements for the preservation of natural features. Under the OS-DR zone, no uses are permitted except the following with a Conditional Use Permit: parks and trails; wildlife preserves; and public passive recreation uses that bear a reasonable relationship to open spaces.

As such, the project would have no adverse physical effect on recreation or the environment from the provision of recreational facilities, and **this impact would be less than significant.**

XVI. TRANSPORTATION/TRAFFIC – Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐

XVI. TRANSPORTATION/TRAFFIC – Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
e) Result in inadequate emergency access?	☐	☐	☒	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☒

The transportation/traffic analysis is based in part on a Traffic Impact Analysis (TIA) prepared for the project by Kimley-Horn and Associates, Inc. The TIA, dated November 2013, is included in its entirety in Appendix B to this Initial Study.

Two unsignalized intersections were analyzed in the Kimley-Horn TIA:

1. Chesebro Road at Palo Comado Canyon Road/Driver Avenue/Canwood Street
2. Palo Comado Canyon Road at U.S. 101 NB Ramps

In accordance with the City's TIA guidelines, this study provides analysis of the following scenarios:

- Existing (2013) Conditions
- Existing (2013) With Project Conditions
- Near Term (2015) (Project Opening Year) Conditions
- Near Term (2015) (Project Opening Year) Conditions With Project
- Long Term (2035) (Cumulative) Conditions

Based upon the City of Agoura Hills impact criteria, a proposed project is considered to result in a significant impact if it results in any of the following:

- Degrades the LOS at an unsignalized intersection to an unacceptable level of D or worse, unless special circumstances justify otherwise; or
- Results in satisfying the most recent California Manual on Uniform Traffic Control Devices (CAMUTCD) peak-hour volume warrant or other warrants for traffic signal installation at the intersection; or
- Increases delay at an unsignalized intersection operating at an unacceptable level by five or more seconds; or
- Increases the volume-to-capacity ratio on a roadway segment operating at an unacceptable level by 0.05 or more; or

- The project is inconsistent with planned bicycle/pedestrian/transit facilities within the study area.

a) At full buildout, the fifteen residential units accommodated by the proposed project would generate an estimated 144 daily vehicle trips, including eleven AM peak hour trips, and fifteen PM peak hour trips. The project impact on the study area intersections was assessed by comparing two different scenarios. The first compares the existing (2013) conditions with the existing (2013) with project conditions. The second compares the near term – 2015 without project to near term - 2015 with project conditions. The near term – 2015 scenario accounts for trips anticipated to be generated by planned and pending development in the project site vicinity. As shown in Table 4 of the Kimley-Horn TIA, planned and pending development will add an estimated 3,736 daily trips, including 208 AM peak hour trips and 314 PM peak hour trips, to the local road network.

As shown in tables 5 and 6 of the Kimley-Horn TIA, significant project impacts would not occur at either study intersection under either of the above scenarios. Project traffic would increase vehicle delays at the study intersections by 0.3 to 0.5 seconds when added to the 2013 baseline and would increase vehicle delays by 0.3 to 0.7 seconds when added to the near term – 2015 condition. These changes are all less than the City's five second threshold for unsignalized intersections. As shown in Table 7 of the TIA, long-term cumulative traffic increases would incrementally degrade service levels on the local road network, but the project's contribution to this cumulative impact would not be considerable since project impacts would not be significant. **Therefore, project traffic impacts would be less than significant and further analysis of this issue in an EIR is not warranted.**

b) The Los Angeles County Congestion Management Program (CMP) was developed in response to California Proposition 111, approved June 1990, and is intended to address regional congestion by linking land use, transportation, and air quality decisions. The CMP document identifies the County's CMP Highway System, and requires that Level of Service E or better be maintained on this network. Highway 101 is the nearest CMP facility in the study area.

Analysis of a project's impact on a freeway segment would be required of any project that would add 150 trips or more in either direction during the AM or PM weekday peak hours. The project would not generate this level of traffic in either peak hour; therefore, further analysis of CMP facilities is not required for CMP purposes.

An analysis of CMP monitored intersections is required if a project contributes 50 or more peak hour trips to the CMP monitored intersections. The project would not contribute 50 or more peak hour trips to this intersection; therefore, additional evaluation for CMP purposes is not needed.

Based on the above, impacts related to the CMP would be less than significant and further analysis of this issue in an EIR is not warranted.

c) The project site is not within the vicinity of an airport. The nearest airport is Van Nuys Airport, located approximately eighteen miles to the east. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

d, e) The proposed project does not involve any design features or changes to road alignments that would create traffic-related hazards or adversely affect emergency access, nor would the project generate an increase in traffic that would exceed City significance thresholds (See Item a), above). **Impacts would be less than significant and further analysis of this issue in an EIR is not warranted.**

f) The proposed project involves subdivision of the project site for future residential development, and creation of a private road to serve the subdivision. This action would not adversely affect the operation of any existing transit, bicycle, or pedestrian facilities or conflict with City plans or policies related to these facilities, as no such facilities are located adjacent to the project site. **No impact would occur and further analysis of this issue in an EIR is not warranted.**

XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:	**Potentially Significant Impact**	**Less Than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

The City of Agoura Hills 2035 General Plan Goal LU-1 and Land Use Policy 1.1 anticipates sustainable growth and change through well-planned development, which would in turn provide for the needs of existing and future residents and businesses, ensure the effective and equitable provision of public services, and makes efficient use of land and infrastructure. Pursuant to the current standards and land use specifications contained within the City of

Agoura Hills Municipal Code, the General Plan indicates that cumulative development (assuming full buildout of the City by horizon year 2035) shall not exceed 8,319 housing units, 1,850,907 square feet of retail services, 3,341,448 square feet of business park/office uses, and 1,118,126 square feet of business park manufacturing uses. The potential future fifteen dwelling units represents about 0.2 percent of anticipated residential development.

a, b, e) Wastewater generated by the City of Agoura Hills is treated at the Tapia Water Reclamation Facility, operated by the Las Virgenes Municipal Water District (LVMWD). The Tapia Water Reclamation Facility has a capacity of 16 million gallons per day (mgd), but is slated to reduce capacity to an average 12 mgd to improve nutrient removal. This facility treats an average of 9.5 mgd (LVMWD, 2014). Therefore, there is an available capacity of 2.5 mgd after the expected reduction in capacity.

The currently proposed project (annexation, subdivision, private road, drainage, utilities, trails) would not generate demand for wastewater treatment. However, the construction of potentially fifteen homes in the future would increase the need for wastewater services. According to the City of Agoura Hills General Plan Final EIR, the wastewater generation factor for a single-family residential dwelling unit is 330 gallons per day per dwelling. Based on this generation factor, the proposed project would generate approximately 4,950 gallons per day or 0.00495 mgd (City of Agoura Hills General Plan Final EIR, 2010). Wastewater generated by the residential development would be relatively minor and would account for approximately 0.06 percent of the Tapia Water Reclamation Facility's surplus treatment capacity. The reclamation facility capacity appears to be able to accommodate the project, and no expansion of the reclamation facility is expected to be needed. **Therefore, impacts to wastewater treatment systems would be less than significant and further analysis of this issue in an EIR is not warranted.**

c) The currently proposed project involves the construction of new storm drain infrastructure to convey off-site debris laden runoff as well as on-site runoff. Refer to Section IX, *Hydrology and Water Quality*, for discussion of runoff from the project site. The proposed storm drain facilities would be constructed to adequately accommodate the site and surrounding area's runoff. **Nevertheless, impacts related to hydrological changes would be potentially significant and will be studies further in an EIR.**

d) The Las Virgenes Municipal Water District (LVMWD) supplies potable water in the City of Agoura Hills. The LVMWD has no local sources of water and obtains all of its potable water from the Metropolitan Water District of Southern California (MWD), which in turn receives water from the State Water Project. The LVMWD's potable water system currently operates with a storage deficit in the Jed Smith Zone and pumping deficits at the Twin Lakes, Mulwood, and Seminole zones (LVMWD Potable Water Updated Master Plan, 2007). The Jed Smith and Mulwood zones are in Calabasas, the Seminole Zone is southwest of Agoura Hills/Westlake Village, and the Twin Lakes Zone is isolated from the rest of the system.

The currently proposed project would generate only a nominal amount of water use during construction of the private road, drainage improvements, utilities and trails, and would not result in long-term demand for water. With regard to the potential development of fifteen homes in the future on the site, according to the City of Agoura Hills General Plan Final EIR

(2010), water use for a single-family residential dwelling unit is 532 gallons per day per dwelling. Based on this factor, the residences would generate demand for 7,980 gpd or 8.9 AFY.

The LVMWD's 2010 Urban Water Management Plan (UWMP) provides scenarios for water supply in the District. These scenarios include a "multiple dry year" scenario in which drought conditions exist for consecutive years and water supply is diminished. As shown in Table 5, LVMWD's total surplus water supply is anticipated to be 147 AFY in 2017 during the multiple dry year scenario, and is anticipated to increase to 2,755 AFY in 2022 and increase to 2,823 AFY in 2027, followed by smaller surpluses in 2032 and 2037. The water demand anticipated from the potential fifteen homes would represent approximately six percent of the total 2017 regional surplus water supply. The demand from the homes as a percentage of overall 2022 supply would be 0.3 percent.

In its 2010 Regional UWMP, MWD has found that its existing water supplies, when managed according to its water resource plans, will be sufficient to meet projected demand through 2035.

The anticipated demand of 8.9 AFY from the fifteen homes is relatively minor, and would not exceed available water supplies shown in Table 5. **Therefore, impacts related to water supply would be less than significant and further analysis of this issue in an EIR is not warranted.**

Table 5
LVMWD Water Supply and Demand – Multiple Dry Year

Water Sources	2017	2022	2027	2032	2037
Imported – MWD (AFY)	27,474	29,081	30,020	29,465	29,037
Recycled (AFY)	6,366	7,907	9,488	10,496	10,808
Groundwater	0	0	0	0	0
Total Water Supply (AFY)	*33,839*	*36,988*	*39,468*	*39,961*	*39,864*
Total Water Demand"(AFY)	*33,639*	*34,233*	*36,645*	*38,523*	*39,653*
Difference	**147**	**2,755**	**2,823**	**1,438**	**192**

Source: 2010 Urban Water Management Plan, LVMWD, 2011.

f, g) There are two landfills at which waste from the proposed project and the potential future fifteen residences could be disposed. The Calabasas Sanitary Landfill, operated by the Los Angeles County Sanitation Districts, is located at 5300 Lost Hills Road in Calabasas. The Simi Valley Landfill, privately operated, is located at 2801 Madera Road in Simi Valley. Both landfills serve the City of Agoura Hills, as well as other communities. The total remaining capacity of the Calabasas Sanitary Landfill is 15.6 million cubic yards, or 7 million tons (Gwen Tantoco, February 2013). The facility is permitted to accept up to 3,500 tons per day. The average daily tonnage of waste received during 2012 was 643 tons per day. The expected

remaining life of the landfill is to 2048. The Simi Valley Landfill is permitted to accept up to 6,000 tons per day of refuse. It currently receives about 2,500 tons per day. The landfill has a remaining capacity of 120 million cubic yards (Mike Smith, February 2013), and a remaining life of an estimated 50 years.

According to Table 4.14-5 of the City General Plan Final EIR (2010), a single-family residential dwelling unit generates approximately ten pounds of solid waste per household per day. Therefore, assuming no recycling of refuse, the potential future fifteen single-family residential units would generate an estimated 0.075 tons of solid waste per day. This is approximately 0.0021 percent of the daily capacity (3,500 tons) permitted at the Calabasas Sanitary Landfill and 0.00125 percent of the daily capacity (6,000 tons) at the Simi Valley Landfill. Based on a diversion rate of 58 percent (recycling of waste not including construction and demolition debris), which the City achieved for the year 2012 (the latest year for which data is available) through various programs and policies, the solid waste would equate to 0.0009 percent of the allowed tonnage per day at the Calabasas Landfill, and 0.000525 percent of the allowed daily tonnage at the Simi Valley Sanitary Landfill. Furthermore, the proposed project and the potential future construction of the fifteen homes would be subject to the requirements of the City's Construction and Demolition Debris Recycling Program, which would further reduce the amount of waste entering the landfills during the construction phase of the project. **As both landfills have sufficient capacity for the next 35-50 years, and solid waste generated by the project would have a less than significant impact on the permitted remaining capacity of either landfill and further analysis of this issue in an EIR is not warranted**.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

a) As discussed in Section V, *Cultural Resources*, Mitigation Measures CR-1 through CR-3 would be required to reduce impacts to cultural resources to a less than significant level. With the

implementation of these measures, impacts to examples of California history or prehistory would be reduced to a less than significant level. As discussed in Section IV, *Biological Resources*, the proposed project would potentially affect various plant and animal communities. **Therefore, biological resource impacts would be potentially significant and will be studied further in an EIR.**

b) The project's contribution to cumulative impacts would be potentially significant with respect to the issues for which project impacts were identified as potentially significant. **Cumulative impacts would be potentially significant and will be studied further in an EIR.**

c) As discussed in Section VIII, *Hazards and Hazardous Materials*, development of the project site may result in potential human health issues related to both gas emissions from the nearby Calabasas Landfill and potential surface and groundwater contamination associated with landfill runoff. As discussed in sections VI, *Geology and Soils*, and IX, *Hydrology and Water Quality*, the project would also have potentially significant impacts related to exposure to geologic hazards and adverse water quality. As such, impacts to human beings would be **potentially significant and will be studied further in an EIR**.

REFERENCES

Agoura Hills, City of. City of Agoura Hills Municipal Code. Accessed August 23, 2013. Available online at: http://library.municode.com/index.aspx?clientId=11934.

Agoura Hills, City of. City of Agoura Hills General Plan. March 2010.

Agoura Hills, City of. General Plan 2035 EIR. Volume I, II and III. February 2010.

Agoura Hills, City of. *City of Agoura Hills Zoning Map*. Revised June 30, 2011.

Calabasas, City of. IS/MND Calabasas Landfill Expansion. July 2013. Accessed August 16, 2013. Available at: http://www.ci.calabasas.ca.us/projects/landfill-expansion.html

California Environmental Protection Agency. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*, March 2006. Available online at: http://www.climatechange.ca.gov/climate_action_team/reports/2006report/2006-04-03_FINAL_CAT_REPORT.PDF

California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, 2008.

California Department of Conservation, Division of Oil, Gas, and Geothermal Resources. *California Notices Received (CalNR) mapping application*. Accessed August 2, 2013

California Department of Finance. Population and Housing Estimates for Cities, Counties, and the State, 2013. January 2013. Accessed October 2013 at: http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php

California Environmental Protection Agency. *Climate Action Team Biennial Report*. Final Report. April 2010.

Federal Emergency Management Agency Map Service Center. FIRM Map ID # 06037C1263F, September 26, 2008. Accessed August 2013. Available online at: https://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1

Federal Railroad Administration, High-Speed Ground Transportation Noise and Vibration Impact Assessment Final Report, September 2012.

Governor's Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change Through California's Environmental Quality Act (CEQA) Review*. June 19, 2008. Available online at: http://opr.ca.gov/docs/june08-ceqa.pdf

Las Virgenes Municipal Water District. *Integrated Water System Master Plan Update 2007*. October 2007.

Las Virgenes Municipal Water District. *Potable Water System Master Plan Update 2007.* October 2007.

Las Virgenes Municipal Water District. 2010 Urban Water Management Plan, June 2011. Accessed online August 2013. Available online at: http://www.lvmwd.com/home/showdocument?id=1390

Las Virgenes Municipal Water District Website, http://www.lvmwd.com/your-water/wastewater-services/tapia-water-reclamation-facility, accessed January 2014.

Los Angeles, County of, Planning Department. Revised Draft Environmental Impact Report Volume 1, Heschel West School. March 2005.

Los Angeles, County of, Planning Department. Final Environmental Impact Report, Heschel West School. June 2006.

Metropolitan Water District of Southern California, Regional Urban Water Management Plan, November 2010.

South Coast Air Quality Management District. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. May 6, 2005. Accessed August 16, 2013. Available online at: http://www.aqmd.gov/prdas/aqguide/aqguide.html

South Coast Air Quality Management District. Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15, September 2010.

State of California Department of Justice, Office of the Attorney General. Addressing Climate Change at the Project Level, Revised January 6, 2010. Available online at: http://www.ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf

Southern California Association of Governments (SCAG). *Regional Transportation Plan 2012-2035, Growth Forecast Appendix.* April 2012.

United States, Environmental Protection Agency. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, prepared by Bolt, Beranek, 1971.

United States Geologic Survey, 2010. Accessed online August 13, 2013.

PERSONS CONTACTED

Smith, Mike, Waste Management/GI, February 2013
Tantoco, Gwen, Sanitation Districts of Los Angeles County, February 2013
Zhao, John, Las Virgenes Municipal Water District, February 2013

Appendix A

Air Quality and Greenhouse Gas Emissions Forecast

Agoura Equestrian Estates

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	15.00	Dwelling Unit	8.05	27,000.00	43

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - From Project Description. Acreage assumed to be .5 acre per du, plus 24,000 sf (0.55 acres) for roadway.

Construction Phase - Construction schedule approx from Project Descript (start 2016, approx 1 year)

Grading - Soil cut/fill is assumed to be balanced on site. Acreage from Land Use tab.

Construction Off-road Equipment Mitigation - Mitigation consistent with SCAQMD Rule 403 assumed.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	16
tblConstructionPhase	NumDays	230.00	150.00
tblGrading	AcresOfGrading	37.50	8.05
tblLandUse	LotAcreage	4.87	8.05
tblProjectCharacteristics	OperationalYear	2014	2017

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5300	3.9879	2.7031	3.7100e-003	0.1514	0.2399	0.3912	0.0780	0.2237	0.3018	0.0000	338.8751	338.8751	0.0886	0.0000	340.7352
Total	**0.5300**	**3.9879**	**2.7031**	**3.7100e-003**	**0.1514**	**0.2399**	**0.3912**	**0.0780**	**0.2237**	**0.3018**	**0.0000**	**338.8751**	**338.8751**	**0.0886**	**0.0000**	**340.7352**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.5300	3.9879	2.7031	3.7100e-003	0.0698	0.2399	0.3096	0.0348	0.2237	0.2585	0.0000	338.8747	338.8747	0.0886	0.0000	340.7348
Total	**0.5300**	**3.9879**	**2.7031**	**3.7100e-003**	**0.0698**	**0.2399**	**0.3096**	**0.0348**	**0.2237**	**0.2585**	**0.0000**	**338.8747**	**338.8747**	**0.0886**	**0.0000**	**340.7348**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**53.91**	**0.00**	**20.86**	**55.47**	**0.00**	**14.35**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1621	3.0700e-003	0.2505	1.6000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	5.0100e-003	1.1000e-004	5.0464
Energy	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	53.5524	53.5524	1.8400e-003	7.1000e-004	53.8122
Mobile	0.0939	0.2991	1.1277	2.7800e-003	0.1851	4.1400e-003	0.1893	0.0496	3.8100e-003	0.0534	0.0000	215.7499	215.7499	8.8000e-003	0.0000	215.9347
Waste						0.0000	0.0000		0.0000	0.0000	3.5787	0.0000	3.5787	0.2115	0.0000	8.0202
Water						0.0000	0.0000		0.0000	0.0000	0.3101	5.6005	5.9106	0.0321	8.1000e-004	6.8343
Total	**0.2583**	**0.3221**	**1.3867**	**3.0700e-003**	**0.1851**	**0.0209**	**0.2060**	**0.0496**	**0.0206**	**0.0702**	**5.4821**	**278.2173**	**283.6994**	**0.2593**	**1.6300e-003**	**289.6478**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1621	3.0700e-003	0.2505	1.6000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	5.0100e-003	1.1000e-004	5.0464
Energy	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	53.5524	53.5524	1.8400e-003	7.1000e-004	53.8122
Mobile	0.0939	0.2991	1.1277	2.7800e-003	0.1851	4.1400e-003	0.1893	0.0496	3.8100e-003	0.0534	0.0000	215.7499	215.7499	8.8000e-003	0.0000	215.9347
Waste						0.0000	0.0000		0.0000	0.0000	3.5787	0.0000	3.5787	0.2115	0.0000	8.0202
Water						0.0000	0.0000		0.0000	0.0000	0.3101	5.6005	5.9106	0.0321	8.0000e-004	6.8339
Total	**0.2583**	**0.3221**	**1.3867**	**3.0700e-003**	**0.1851**	**0.0209**	**0.2060**	**0.0496**	**0.0206**	**0.0702**	**5.4821**	**278.2173**	**283.6994**	**0.2593**	**1.6200e-003**	**289.6473**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.61**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
2	Grading	Grading	2/12/2016	3/31/2016	5	35	
3	Building Construction	Building Construction	4/1/2016	10/27/2016	5	150	
4	Paving	Paving	10/28/2016	11/24/2016	5	20	
5	Architectural Coating	Architectural Coating	11/25/2016	12/22/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.05

Acres of Paving: 0

Residential Indoor: 54,675; Residential Outdoor: 18,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4386	18.4386	5.5600e-003	0.0000	18.5554
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0903**	**0.0147**	**0.1050**	**0.0497**	**0.0135**	**0.0632**	**0.0000**	**18.4386**	**18.4386**	**5.5600e-003**	**0.0000**	**18.5554**

3.2 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	5.7000e-004	5.9900e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.9624	0.9624	5.0000e-005	0.0000	0.9635
Total	**3.9000e-004**	**5.7000e-004**	**5.9900e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**0.9624**	**0.9624**	**5.0000e-005**	**0.0000**	**0.9635**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0386	0.0000	0.0386	0.0212	0.0000	0.0212	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0254	0.2732	0.2055	2.0000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	18.4385	18.4385	5.5600e-003	0.0000	18.5553
Total	**0.0254**	**0.2732**	**0.2055**	**2.0000e-004**	**0.0386**	**0.0147**	**0.0533**	**0.0212**	**0.0135**	**0.0348**	**0.0000**	**18.4385**	**18.4385**	**5.5600e-003**	**0.0000**	**18.5553**

3.2 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	5.7000e-004	5.9900e-003	1.0000e-005	8.5000e-004	1.0000e-005	8.6000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	0.9624	0.9624	5.0000e-005	0.0000	0.9635
Total	**3.9000e-004**	**5.7000e-004**	**5.9900e-003**	**1.0000e-005**	**8.5000e-004**	**1.0000e-005**	**8.6000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**0.9624**	**0.9624**	**5.0000e-005**	**0.0000**	**0.9635**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0494	0.0000	0.0494	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1134	1.3092	0.8599	1.0800e-003		0.0627	0.0627		0.0577	0.0577	0.0000	101.8425	101.8425	0.0307	0.0000	102.4876
Total	**0.1134**	**1.3092**	**0.8599**	**1.0800e-003**	**0.0494**	**0.0627**	**0.1122**	**0.0253**	**0.0577**	**0.0830**	**0.0000**	**101.8425**	**101.8425**	**0.0307**	**0.0000**	**102.4876**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5300e-003	2.2300e-003	0.0233	5.0000e-005	3.8400e-003	4.0000e-005	3.8700e-003	1.0200e-003	3.0000e-005	1.0500e-003	0.0000	3.7425	3.7425	2.1000e-004	0.0000	3.7469
Total	**1.5300e-003**	**2.2300e-003**	**0.0233**	**5.0000e-005**	**3.8400e-003**	**4.0000e-005**	**3.8700e-003**	**1.0200e-003**	**3.0000e-005**	**1.0500e-003**	**0.0000**	**3.7425**	**3.7425**	**2.1000e-004**	**0.0000**	**3.7469**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0211	0.0000	0.0211	0.0108	0.0000	0.0108	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1134	1.3092	0.8599	1.0800e-003		0.0627	0.0627		0.0577	0.0577	0.0000	101.8424	101.8424	0.0307	0.0000	102.4875
Total	**0.1134**	**1.3092**	**0.8599**	**1.0800e-003**	**0.0211**	**0.0627**	**0.0839**	**0.0108**	**0.0577**	**0.0685**	**0.0000**	**101.8424**	**101.8424**	**0.0307**	**0.0000**	**102.4875**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5300e-003	2.2300e-003	0.0233	5.0000e-005	3.3000e-003	4.0000e-005	3.3400e-003	8.9000e-004	3.0000e-005	9.2000e-004	0.0000	3.7425	3.7425	2.1000e-004	0.0000	3.7469
Total	**1.5300e-003**	**2.2300e-003**	**0.0233**	**5.0000e-005**	**3.3000e-003**	**4.0000e-005**	**3.3400e-003**	**8.9000e-004**	**3.0000e-005**	**9.2000e-004**	**0.0000**	**3.7425**	**3.7425**	**2.1000e-004**	**0.0000**	**3.7469**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2555	2.1380	1.3880	2.0100e-003		0.1476	0.1476		0.1386	0.1386	0.0000	181.6152	181.6152	0.0450	0.0000	182.5611
Total	**0.2555**	**2.1380**	**1.3880**	**2.0100e-003**		**0.1476**	**0.1476**		**0.1386**	**0.1386**	**0.0000**	**181.6152**	**181.6152**	**0.0450**	**0.0000**	**182.5611**

3.4 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	0.0137	0.0178	3.0000e-005	9.2000e-004	2.1000e-004	1.1300e-003	2.6000e-004	1.9000e-004	4.5000e-004	0.0000	2.9863	2.9863	2.0000e-005	0.0000	2.9867
Worker	1.6400e-003	2.3900e-003	0.0249	5.0000e-005	4.1100e-003	4.0000e-005	4.1500e-003	1.0900e-003	4.0000e-005	1.1300e-003	0.0000	4.0098	4.0098	2.3000e-004	0.0000	4.0146
Total	**2.9900e-003**	**0.0161**	**0.0428**	**8.0000e-005**	**5.0300e-003**	**2.5000e-004**	**5.2800e-003**	**1.3500e-003**	**2.3000e-004**	**1.5800e-003**	**0.0000**	**6.9961**	**6.9961**	**2.5000e-004**	**0.0000**	**7.0013**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2555	2.1380	1.3880	2.0100e-003		0.1476	0.1476		0.1386	0.1386	0.0000	181.6150	181.6150	0.0450	0.0000	182.5609
Total	**0.2555**	**2.1380**	**1.3880**	**2.0100e-003**		**0.1476**	**0.1476**		**0.1386**	**0.1386**	**0.0000**	**181.6150**	**181.6150**	**0.0450**	**0.0000**	**182.5609**

3.4 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3500e-003	0.0137	0.0178	3.0000e-005	8.1000e-004	2.1000e-004	1.0200e-003	2.4000e-004	1.9000e-004	4.3000e-004	0.0000	2.9863	2.9863	2.0000e-005	0.0000	2.9867
Worker	1.6400e-003	2.3900e-003	0.0249	5.0000e-005	3.5400e-003	4.0000e-005	3.5800e-003	9.5000e-004	4.0000e-005	9.9000e-004	0.0000	4.0098	4.0098	2.3000e-004	0.0000	4.0146
Total	**2.9900e-003**	**0.0161**	**0.0428**	**8.0000e-005**	**4.3500e-003**	**2.5000e-004**	**4.6000e-003**	**1.1900e-003**	**2.3000e-004**	**1.4200e-003**	**0.0000**	**6.9961**	**6.9961**	**2.5000e-004**	**0.0000**	**7.0013**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

3.5 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	9.6000e-004	9.9800e-003	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.6039	1.6039	9.0000e-005	0.0000	1.6058
Total	**6.6000e-004**	**9.6000e-004**	**9.9800e-003**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.6039**	**1.6039**	**9.0000e-005**	**0.0000**	**1.6058**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0209	0.2239	0.1482	2.2000e-004		0.0126	0.0126		0.0116	0.0116	0.0000	21.0138	21.0138	6.3400e-003	0.0000	21.1469
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0209**	**0.2239**	**0.1482**	**2.2000e-004**		**0.0126**	**0.0126**		**0.0116**	**0.0116**	**0.0000**	**21.0138**	**21.0138**	**6.3400e-003**	**0.0000**	**21.1469**

3.5 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.6000e-004	9.6000e-004	9.9800e-003	2.0000e-005	1.4200e-003	2.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	4.0000e-004	0.0000	1.6039	1.6039	9.0000e-005	0.0000	1.6058
Total	**6.6000e-004**	**9.6000e-004**	**9.9800e-003**	**2.0000e-005**	**1.4200e-003**	**2.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**4.0000e-004**	**0.0000**	**1.6039**	**1.6039**	**9.0000e-005**	**0.0000**	**1.6058**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1056					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**0.1093**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.7000e-004	0.0000	1.1000e-004	0.0000	1.1000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1069	0.1069	1.0000e-005	0.0000	0.1071
Total	**4.0000e-005**	**6.0000e-005**	**6.7000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1069**	**0.1069**	**1.0000e-005**	**0.0000**	**0.1071**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1056					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.6800e-003	0.0237	0.0188	3.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	2.5533	2.5533	3.0000e-004	0.0000	2.5596
Total	**0.1093**	**0.0237**	**0.0188**	**3.0000e-005**		**1.9700e-003**	**1.9700e-003**		**1.9700e-003**	**1.9700e-003**	**0.0000**	**2.5533**	**2.5533**	**3.0000e-004**	**0.0000**	**2.5596**

3.6 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.7000e-004	0.0000	9.0000e-005	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1069	0.1069	1.0000e-005	0.0000	0.1071
Total	**4.0000e-005**	**6.0000e-005**	**6.7000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1069**	**0.1069**	**1.0000e-005**	**0.0000**	**0.1071**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0939	0.2991	1.1277	2.7800e-003	0.1851	4.1400e-003	0.1893	0.0496	3.8100e-003	0.0534	0.0000	215.7499	215.7499	8.8000e-003	0.0000	215.9347
Unmitigated	0.0939	0.2991	1.1277	2.7800e-003	0.1851	4.1400e-003	0.1893	0.0496	3.8100e-003	0.0534	0.0000	215.7499	215.7499	8.8000e-003	0.0000	215.9347

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	143.55	151.20	131.55	488,409	488,409
Total	143.55	151.20	131.55	488,409	488,409

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.4324	30.4324	1.4000e-003	2.9000e-004	30.5515
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	30.4324	30.4324	1.4000e-003	2.9000e-004	30.5515
NaturalGas Mitigated	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.1200	23.1200	4.4000e-004	4.2000e-004	23.2607
NaturalGas Unmitigated	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.1200	23.1200	4.4000e-004	4.2000e-004	23.2607

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	433253	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.1200	23.1200	4.4000e-004	4.2000e-004	23.2607
Total		**2.3400e-003**	**0.0200**	**8.5000e-003**	**1.3000e-004**		**1.6100e-003**	**1.6100e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**23.1200**	**23.1200**	**4.4000e-004**	**4.2000e-004**	**23.2607**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Single Family Housing	433253	2.3400e-003	0.0200	8.5000e-003	1.3000e-004		1.6100e-003	1.6100e-003		1.6100e-003	1.6100e-003	0.0000	23.1200	23.1200	4.4000e-004	4.2000e-004	23.2607
Total		**2.3400e-003**	**0.0200**	**8.5000e-003**	**1.3000e-004**		**1.6100e-003**	**1.6100e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**23.1200**	**23.1200**	**4.4000e-004**	**4.2000e-004**	**23.2607**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	106345	30.4324	1.4000e-003	2.9000e-004	30.5515
Total		**30.4324**	**1.4000e-003**	**2.9000e-004**	**30.5515**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Single Family Housing	106345	30.4324	1.4000e-003	2.9000e-004	30.5515
Total		**30.4324**	**1.4000e-003**	**2.9000e-004**	**30.5515**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1621	3.0700e-003	0.2505	1.6000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	5.0100e-003	1.1000e-004	5.0464
Unmitigated	0.1621	3.0700e-003	0.2505	1.6000e-004		0.0152	0.0152		0.0152	0.0152	1.5933	3.3144	4.9077	5.0100e-003	1.1000e-004	5.0464

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0491	1.2500e-003	0.0943	1.5000e-004		0.0143	0.0143		0.0143	0.0143	1.5933	3.0618	4.6550	4.7500e-003	1.1000e-004	4.7883
Landscaping	4.8600e-003	1.8200e-003	0.1563	1.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	0.2527	0.2527	2.5000e-004	0.0000	0.2580
Total	**0.1621**	**3.0700e-003**	**0.2505**	**1.6000e-004**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**1.5933**	**3.3144**	**4.9077**	**5.0000e-003**	**1.1000e-004**	**5.0464**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0106					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0976					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0491	1.2500e-003	0.0943	1.5000e-004		0.0143	0.0143		0.0143	0.0143	1.5933	3.0618	4.6550	4.7500e-003	1.1000e-004	4.7883
Landscaping	4.8600e-003	1.8200e-003	0.1563	1.0000e-005		8.5000e-004	8.5000e-004		8.5000e-004	8.5000e-004	0.0000	0.2527	0.2527	2.5000e-004	0.0000	0.2580
Total	**0.1621**	**3.0700e-003**	**0.2505**	**1.6000e-004**		**0.0152**	**0.0152**		**0.0152**	**0.0152**	**1.5933**	**3.3144**	**4.9077**	**5.0000e-003**	**1.1000e-004**	**5.0464**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.9106	0.0321	8.0000e-004	6.8339
Unmitigated	5.9106	0.0321	8.1000e-004	6.8343

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.97731 / 0.61613	5.9106	0.0321	8.1000e-004	6.8343
Total		**5.9106**	**0.0321**	**8.1000e-004**	**6.8343**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Single Family Housing	0.97731 / 0.61613	5.9106	0.0321	8.0000e-004	6.8339
Total		**5.9106**	**0.0321**	**8.0000e-004**	**6.8339**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	3.5787	0.2115	0.0000	8.0202
Unmitigated	3.5787	0.2115	0.0000	8.0202

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	17.63	3.5787	0.2115	0.0000	8.0202
Total		**3.5787**	**0.2115**	**0.0000**	**8.0202**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Single Family Housing	17.63	3.5787	0.2115	0.0000	8.0202
Total		**3.5787**	**0.2115**	**0.0000**	**8.0202**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Agoura Equestrian Estates

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	15.00	Dwelling Unit	8.05	27,000.00	43

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - From Project Description. Acreage assumed to be .5 acre per du, plus 24,000 sf (0.55 acres) for roadway.

Construction Phase - Construction schedule approx from Project Descript (start 2016, approx 1 year)

Grading - Soil cut/fill is assumed to be balanced on site. Acreage from Land Use tab.

Construction Off-road Equipment Mitigation - Mitigation consistent with SCAQMD Rule 403 assumed.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	16
tblConstructionPhase	NumDays	230.00	150.00
tblGrading	AcresOfGrading	37.50	8.05
tblLandUse	LotAcreage	4.87	8.05
tblProjectCharacteristics	OperationalYear	2014	2017

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	10.9320	74.9259	50.5248	0.0646	18.2675	3.5864	21.2080	9.9840	3.2995	12.6894	0.0000	6,660.7850	6,660.7850	1.9484	0.0000	6,701.7007
Total	**10.9320**	**74.9259**	**50.5248**	**0.0646**	**18.2675**	**3.5864**	**21.2080**	**9.9840**	**3.2995**	**12.6894**	**0.0000**	**6,660.7850**	**6,660.7850**	**1.9484**	**0.0000**	**6,701.7007**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	10.9320	74.9259	50.5248	0.0646	7.8965	3.5864	10.8371	4.2919	3.2995	6.9972	0.0000	6,660.7850	6,660.7850	1.9484	0.0000	6,701.7007
Total	**10.9320**	**74.9259**	**50.5248**	**0.0646**	**7.8965**	**3.5864**	**10.8371**	**4.2919**	**3.2995**	**6.9972**	**0.0000**	**6,660.7850**	**6,660.7850**	**1.9484**	**0.0000**	**6,701.7007**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.77**	**0.00**	**48.90**	**57.01**	**0.00**	**44.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345
Energy	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Mobile	0.5480	1.6180	6.5433	0.0167	1.0972	0.0241	1.1212	0.2934	0.0221	0.3155		1,428.9484	1,428.9484	0.0564		1,430.1334
Total	**5.1227**	**1.8417**	**15.3795**	**0.0295**	**1.0972**	**1.1855**	**2.2827**	**0.2934**	**1.1834**	**1.4768**	**140.5038**	**1,840.8229**	**1,981.3267**	**0.4804**	**0.0121**	**1,995.1640**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345
Energy	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Mobile	0.5480	1.6180	6.5433	0.0167	1.0972	0.0241	1.1212	0.2934	0.0221	0.3155		1,428.9484	1,428.9484	0.0564		1,430.1334
Total	**5.1227**	**1.8417**	**15.3795**	**0.0295**	**1.0972**	**1.1855**	**2.2827**	**0.2934**	**1.1834**	**1.4768**	**140.5038**	**1,840.8229**	**1,981.3267**	**0.4804**	**0.0121**	**1,995.1640**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
2	Grading	Grading	2/12/2016	3/31/2016	5	35	
3	Building Construction	Building Construction	4/1/2016	10/27/2016	5	150	
4	Paving	Paving	10/28/2016	11/24/2016	5	20	
5	Architectural Coating	Architectural Coating	11/25/2016	12/22/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.05

Acres of Paving: 0

Residential Indoor: 54,675; Residential Outdoor: 18,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.2 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.1009	1.2487	2.6200e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		221.2238	221.2238	0.0120		221.4767
Total	**0.0802**	**0.1009**	**1.2487**	**2.6200e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7500e-003**	**0.0551**		**221.2238**	**221.2238**	**0.0120**		**221.4767**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7233	0.0000	7.7233	4.2454	0.0000	4.2454			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**7.7233**	**2.9387**	**10.6620**	**4.2454**	**2.7036**	**6.9490**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.2 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0802	0.1009	1.2487	2.6200e-003	0.1732	1.9000e-003	0.1751	0.0465	1.7500e-003	0.0482		221.2238	221.2238	0.0120		221.4767
Total	**0.0802**	**0.1009**	**1.2487**	**2.6200e-003**	**0.1732**	**1.9000e-003**	**0.1751**	**0.0465**	**1.7500e-003**	**0.0482**		**221.2238**	**221.2238**	**0.0120**		**221.4767**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8248	0.0000	2.8248	1.4450	0.0000	1.4450			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**2.8248**	**3.5842**	**6.4091**	**1.4450**	**3.2975**	**4.7425**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0891	0.1121	1.3874	2.9100e-003	0.2236	2.1100e-003	0.2257	0.0593	1.9400e-003	0.0612		245.8043	245.8043	0.0134		246.0853
Total	**0.0891**	**0.1121**	**1.3874**	**2.9100e-003**	**0.2236**	**2.1100e-003**	**0.2257**	**0.0593**	**1.9400e-003**	**0.0612**		**245.8043**	**245.8043**	**0.0134**		**246.0853**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2076	0.0000	1.2076	0.6177	0.0000	0.6177			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**1.2076**	**3.5842**	**4.7919**	**0.6177**	**3.2975**	**3.9152**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0891	0.1121	1.3874	2.9100e-003	0.1925	2.1100e-003	0.1946	0.0517	1.9400e-003	0.0536		245.8043	245.8043	0.0134		246.0853
Total	**0.0891**	**0.1121**	**1.3874**	**2.9100e-003**	**0.1925**	**2.1100e-003**	**0.1946**	**0.0517**	**1.9400e-003**	**0.0536**		**245.8043**	**245.8043**	**0.0134**		**246.0853**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0169	0.1750	0.2033	4.4000e-004	0.0125	2.7400e-003	0.0152	3.5500e-003	2.5200e-003	6.0600e-003		44.0441	44.0441	3.2000e-004		44.0509
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		61.4511	61.4511	3.3500e-003		61.5213
Total	**0.0391**	**0.2031**	**0.5502**	**1.1700e-003**	**0.0684**	**3.2700e-003**	**0.0716**	**0.0184**	**3.0100e-003**	**0.0214**		**105.4952**	**105.4952**	**3.6700e-003**		**105.5722**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0169	0.1750	0.2033	4.4000e-004	0.0110	2.7400e-003	0.0138	3.1900e-003	2.5200e-003	5.7100e-003		44.0441	44.0441	3.2000e-004		44.0509
Worker	0.0223	0.0280	0.3469	7.3000e-004	0.0481	5.3000e-004	0.0486	0.0129	4.9000e-004	0.0134		61.4511	61.4511	3.3500e-003		61.5213
Total	**0.0391**	**0.2031**	**0.5502**	**1.1700e-003**	**0.0591**	**3.2700e-003**	**0.0624**	**0.0161**	**3.0100e-003**	**0.0191**		**105.4952**	**105.4952**	**3.6700e-003**		**105.5722**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0668	0.0841	1.0406	2.1800e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		184.3532	184.3532	0.0100		184.5639
Total	**0.0668**	**0.0841**	**1.0406**	**2.1800e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**184.3532**	**184.3532**	**0.0100**		**184.5639**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0668	0.0841	1.0406	2.1800e-003	0.1443	1.5900e-003	0.1459	0.0387	1.4600e-003	0.0402		184.3532	184.3532	0.0100		184.5639
Total	**0.0668**	**0.0841**	**1.0406**	**2.1800e-003**	**0.1443**	**1.5900e-003**	**0.1459**	**0.0387**	**1.4600e-003**	**0.0402**		**184.3532**	**184.3532**	**0.0100**		**184.5639**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.5591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**10.9276**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.4500e-003	5.6100e-003	0.0694	1.5000e-004	0.0112	1.1000e-004	0.0113	2.9600e-003	1.0000e-004	3.0600e-003		12.2902	12.2902	6.7000e-004		12.3043
Total	**4.4500e-003**	**5.6100e-003**	**0.0694**	**1.5000e-004**	**0.0112**	**1.1000e-004**	**0.0113**	**2.9600e-003**	**1.0000e-004**	**3.0600e-003**		**12.2902**	**12.2902**	**6.7000e-004**		**12.3043**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.5591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**10.9276**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.4500e-003	5.6100e-003	0.0694	1.5000e-004	9.6200e-003	1.1000e-004	9.7300e-003	2.5800e-003	1.0000e-004	2.6800e-003		12.2902	12.2902	6.7000e-004		12.3043
Total	**4.4500e-003**	**5.6100e-003**	**0.0694**	**1.5000e-004**	**9.6200e-003**	**1.1000e-004**	**9.7300e-003**	**2.5800e-003**	**1.0000e-004**	**2.6800e-003**		**12.2902**	**12.2902**	**6.7000e-004**		**12.3043**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5480	1.6180	6.5433	0.0167	1.0972	0.0241	1.1212	0.2934	0.0221	0.3155		1,428.9484	1,428.9484	0.0564		1,430.1334
Unmitigated	0.5480	1.6180	6.5433	0.0167	1.0972	0.0241	1.1212	0.2934	0.0221	0.3155		1,428.9484	1,428.9484	0.0564		1,430.1334

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	143.55	151.20	131.55	488,409	488,409
Total	143.55	151.20	131.55	488,409	488,409

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
NaturalGas Unmitigated	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	1186.99	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Total		**0.0128**	**0.1094**	**0.0466**	**7.0000e-004**		**8.8400e-003**	**8.8400e-003**		**8.8400e-003**	**8.8400e-003**		**139.6463**	**139.6463**	**2.6800e-003**	**2.5600e-003**	**140.4961**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	1.18699	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Total		**0.0128**	**0.1094**	**0.0466**	**7.0000e-004**		**8.8400e-003**	**8.8400e-003**		**8.8400e-003**	**8.8400e-003**		**139.6463**	**139.6463**	**2.6800e-003**	**2.5600e-003**	**140.4961**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345
Unmitigated	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.0997	7.5396	0.0120		1.1458	1.1458		1.1456	1.1456	140.5038	270.0000	410.5038	0.4190	9.5400e-003	422.2593
Landscaping	0.0389	0.0146	1.2500	7.0000e-005		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003		2.2283	2.2283	2.2400e-003		2.2753
Total	**4.5619**	**0.1143**	**8.7896**	**0.0121**		**1.1526**	**1.1526**		**1.1524**	**1.1524**	**140.5038**	**272.2283**	**412.7321**	**0.4213**	**9.5400e-003**	**424.5345**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.0997	7.5396	0.0120		1.1458	1.1458		1.1456	1.1456	140.5038	270.0000	410.5038	0.4190	9.5400e-003	422.2593
Landscaping	0.0389	0.0146	1.2500	7.0000e-005		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003		2.2283	2.2283	2.2400e-003		2.2753
Total	**4.5619**	**0.1143**	**8.7896**	**0.0121**		**1.1526**	**1.1526**		**1.1524**	**1.1524**	**140.5038**	**272.2283**	**412.7321**	**0.4213**	**9.5400e-003**	**424.5345**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Agoura Equestrian Estates

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	15.00	Dwelling Unit	8.05	27,000.00	43

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	8			**Operational Year**	2017
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	630.89	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - From Project Description. Acreage assumed to be .5 acre per du, plus 24,000 sf (0.55 acres) for roadway.

Construction Phase - Construction schedule approx from Project Descript (start 2016, approx 1 year)

Grading - Soil cut/fill is assumed to be balanced on site. Acreage from Land Use tab.

Construction Off-road Equipment Mitigation - Mitigation consistent with SCAQMD Rule 403 assumed.

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	16
tblConstructionPhase	NumDays	230.00	150.00
tblGrading	AcresOfGrading	37.50	8.05
tblLandUse	LotAcreage	4.87	8.05
tblProjectCharacteristics	OperationalYear	2014	2017

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	10.9322	74.9381	50.4402	0.0645	18.2675	3.5864	21.2080	9.9840	3.2995	12.6894	0.0000	6,646.9869	6,646.9869	1.9484	0.0000	6,687.9026
Total	**10.9322**	**74.9381**	**50.4402**	**0.0645**	**18.2675**	**3.5864**	**21.2080**	**9.9840**	**3.2995**	**12.6894**	**0.0000**	**6,646.9869**	**6,646.9869**	**1.9484**	**0.0000**	**6,687.9026**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	10.9322	74.9381	50.4402	0.0645	7.8965	3.5864	10.8371	4.2919	3.2995	6.9972	0.0000	6,646.9869	6,646.9869	1.9484	0.0000	6,687.9026
Total	**10.9322**	**74.9381**	**50.4402**	**0.0645**	**7.8965**	**3.5864**	**10.8371**	**4.2919**	**3.2995**	**6.9972**	**0.0000**	**6,646.9869**	**6,646.9869**	**1.9484**	**0.0000**	**6,687.9026**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**56.77**	**0.00**	**48.90**	**57.01**	**0.00**	**44.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345
Energy	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Mobile	0.5737	1.7057	6.5207	0.0160	1.0972	0.0241	1.1213	0.2934	0.0222	0.3156		1,366.7420	1,366.7420	0.0565		1,367.9280
Total	**5.1484**	**1.9294**	**15.3568**	**0.0287**	**1.0972**	**1.1856**	**2.2828**	**0.2934**	**1.1835**	**1.4769**	**140.5038**	**1,778.6166**	**1,919.1203**	**0.4804**	**0.0121**	**1,932.9586**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345
Energy	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Mobile	0.5737	1.7057	6.5207	0.0160	1.0972	0.0241	1.1213	0.2934	0.0222	0.3156		1,366.7420	1,366.7420	0.0565		1,367.9280
Total	**5.1484**	**1.9294**	**15.3568**	**0.0287**	**1.0972**	**1.1856**	**2.2828**	**0.2934**	**1.1835**	**1.4769**	**140.5038**	**1,778.6166**	**1,919.1203**	**0.4804**	**0.0121**	**1,932.9586**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/29/2016	2/11/2016	5	10	
2	Grading	Grading	2/12/2016	3/31/2016	5	35	
3	Building Construction	Building Construction	4/1/2016	10/27/2016	5	150	
4	Paving	Paving	10/28/2016	11/24/2016	5	20	
5	Architectural Coating	Architectural Coating	11/25/2016	12/22/2016	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 8.05

Acres of Paving: 0

Residential Indoor: 54,675; Residential Outdoor: 18,225; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	162	0.38
Grading	Graders	1	8.00	174	0.41
Grading	Rubber Tired Dozers	1	8.00	255	0.40
Grading	Scrapers	2	8.00	361	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	226	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	125	0.42
Paving	Paving Equipment	2	8.00	130	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	5.00	2.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Clean Paved Roads

3.2 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036		4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**18.0663**	**2.9387**	**21.0049**	**9.9307**	**2.7036**	**12.6343**		**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.2 Site Preparation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0834	0.1119	1.1725	2.4700e-003	0.2012	1.9000e-003	0.2031	0.0534	1.7500e-003	0.0551		208.8056	208.8056	0.0120		209.0585
Total	**0.0834**	**0.1119**	**1.1725**	**2.4700e-003**	**0.2012**	**1.9000e-003**	**0.2031**	**0.0534**	**1.7500e-003**	**0.0551**		**208.8056**	**208.8056**	**0.0120**		**209.0585**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.7233	0.0000	7.7233	4.2454	0.0000	4.2454			0.0000			0.0000
Off-Road	5.0771	54.6323	41.1053	0.0391		2.9387	2.9387		2.7036	2.7036	0.0000	4,065.0053	4,065.0053	1.2262		4,090.7544
Total	**5.0771**	**54.6323**	**41.1053**	**0.0391**	**7.7233**	**2.9387**	**10.6620**	**4.2454**	**2.7036**	**6.9490**	**0.0000**	**4,065.0053**	**4,065.0053**	**1.2262**		**4,090.7544**

3.2 Site Preparation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0834	0.1119	1.1725	2.4700e-003	0.1732	1.9000e-003	0.1751	0.0465	1.7500e-003	0.0482		208.8056	208.8056	0.0120		209.0585
Total	**0.0834**	**0.1119**	**1.1725**	**2.4700e-003**	**0.1732**	**1.9000e-003**	**0.1751**	**0.0465**	**1.7500e-003**	**0.0482**		**208.8056**	**208.8056**	**0.0120**		**209.0585**

3.3 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.8248	0.0000	2.8248	1.4450	0.0000	1.4450			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975		6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**2.8248**	**3.5842**	**6.4091**	**1.4450**	**3.2975**	**4.7425**		**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0927	0.1243	1.3028	2.7400e-003	0.2236	2.1100e-003	0.2257	0.0593	1.9400e-003	0.0612		232.0062	232.0062	0.0134		232.2872
Total	**0.0927**	**0.1243**	**1.3028**	**2.7400e-003**	**0.2236**	**2.1100e-003**	**0.2257**	**0.0593**	**1.9400e-003**	**0.0612**		**232.0062**	**232.0062**	**0.0134**		**232.2872**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.2076	0.0000	1.2076	0.6177	0.0000	0.6177			0.0000			0.0000
Off-Road	6.4795	74.8137	49.1374	0.0617		3.5842	3.5842		3.2975	3.2975	0.0000	6,414.9807	6,414.9807	1.9350		6,455.6154
Total	**6.4795**	**74.8137**	**49.1374**	**0.0617**	**1.2076**	**3.5842**	**4.7919**	**0.6177**	**3.2975**	**3.9152**	**0.0000**	**6,414.9807**	**6,414.9807**	**1.9350**		**6,455.6154**

3.3 Grading - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0927	0.1243	1.3028	2.7400e-003	0.1925	2.1100e-003	0.1946	0.0517	1.9400e-003	0.0536		232.0062	232.0062	0.0134		232.2872
Total	**0.0927**	**0.1243**	**1.3028**	**2.7400e-003**	**0.1925**	**2.1100e-003**	**0.1946**	**0.0517**	**1.9400e-003**	**0.0536**		**232.0062**	**232.0062**	**0.0134**		**232.2872**

3.4 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485		2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**		**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0186	0.1794	0.2476	4.4000e-004	0.0125	2.7700e-003	0.0152	3.5500e-003	2.5400e-003	6.0900e-003		43.6784	43.6784	3.3000e-004		43.6854
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0559	5.3000e-004	0.0564	0.0148	4.9000e-004	0.0153		58.0016	58.0016	3.3500e-003		58.0718
Total	**0.0418**	**0.2105**	**0.5733**	**1.1300e-003**	**0.0684**	**3.3000e-003**	**0.0717**	**0.0184**	**3.0300e-003**	**0.0214**		**101.6800**	**101.6800**	**3.6800e-003**		**101.7572**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.4062	28.5063	18.5066	0.0268		1.9674	1.9674		1.8485	1.8485	0.0000	2,669.2864	2,669.2864	0.6620		2,683.1890
Total	**3.4062**	**28.5063**	**18.5066**	**0.0268**		**1.9674**	**1.9674**		**1.8485**	**1.8485**	**0.0000**	**2,669.2864**	**2,669.2864**	**0.6620**		**2,683.1890**

3.4 Building Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0186	0.1794	0.2476	4.4000e-004	0.0110	2.7700e-003	0.0138	3.1900e-003	2.5400e-003	5.7300e-003		43.6784	43.6784	3.3000e-004		43.6854
Worker	0.0232	0.0311	0.3257	6.9000e-004	0.0481	5.3000e-004	0.0486	0.0129	4.9000e-004	0.0134		58.0016	58.0016	3.3500e-003		58.0718
Total	**0.0418**	**0.2105**	**0.5733**	**1.1300e-003**	**0.0591**	**3.3000e-003**	**0.0624**	**0.0161**	**3.0300e-003**	**0.0191**		**101.6800**	**101.6800**	**3.6800e-003**		**101.7572**

3.5 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601		2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**		**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0695	0.0932	0.9771	2.0600e-003	0.1677	1.5900e-003	0.1693	0.0445	1.4600e-003	0.0459		174.0047	174.0047	0.0100		174.2154
Total	**0.0695**	**0.0932**	**0.9771**	**2.0600e-003**	**0.1677**	**1.5900e-003**	**0.1693**	**0.0445**	**1.4600e-003**	**0.0459**		**174.0047**	**174.0047**	**0.0100**		**174.2154**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0898	22.3859	14.8176	0.0223		1.2610	1.2610		1.1601	1.1601	0.0000	2,316.3767	2,316.3767	0.6987		2,331.0495
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.0898**	**22.3859**	**14.8176**	**0.0223**		**1.2610**	**1.2610**		**1.1601**	**1.1601**	**0.0000**	**2,316.3767**	**2,316.3767**	**0.6987**		**2,331.0495**

3.5 Paving - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0695	0.0932	0.9771	2.0600e-003	0.1443	1.5900e-003	0.1459	0.0387	1.4600e-003	0.0402		174.0047	174.0047	0.0100		174.2154
Total	**0.0695**	**0.0932**	**0.9771**	**2.0600e-003**	**0.1443**	**1.5900e-003**	**0.1459**	**0.0387**	**1.4600e-003**	**0.0402**		**174.0047**	**174.0047**	**0.0100**		**174.2154**

3.6 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.5591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966		281.4481	281.4481	0.0332		282.1449
Total	**10.9276**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**		**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.6300e-003	6.2200e-003	0.0651	1.4000e-004	0.0112	1.1000e-004	0.0113	2.9600e-003	1.0000e-004	3.0600e-003		11.6003	11.6003	6.7000e-004		11.6144
Total	**4.6300e-003**	**6.2200e-003**	**0.0651**	**1.4000e-004**	**0.0112**	**1.1000e-004**	**0.0113**	**2.9600e-003**	**1.0000e-004**	**3.0600e-003**		**11.6003**	**11.6003**	**6.7000e-004**		**11.6144**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	10.5591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.3685	2.3722	1.8839	2.9700e-003		0.1966	0.1966		0.1966	0.1966	0.0000	281.4481	281.4481	0.0332		282.1449
Total	**10.9276**	**2.3722**	**1.8839**	**2.9700e-003**		**0.1966**	**0.1966**		**0.1966**	**0.1966**	**0.0000**	**281.4481**	**281.4481**	**0.0332**		**282.1449**

3.6 Architectural Coating - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.6300e-003	6.2200e-003	0.0651	1.4000e-004	9.6200e-003	1.1000e-004	9.7300e-003	2.5800e-003	1.0000e-004	2.6800e-003		11.6003	11.6003	6.7000e-004		11.6144
Total	**4.6300e-003**	**6.2200e-003**	**0.0651**	**1.4000e-004**	**9.6200e-003**	**1.1000e-004**	**9.7300e-003**	**2.5800e-003**	**1.0000e-004**	**2.6800e-003**		**11.6003**	**11.6003**	**6.7000e-004**		**11.6144**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.5737	1.7057	6.5207	0.0160	1.0972	0.0241	1.1213	0.2934	0.0222	0.3156		1,366.7420	1,366.7420	0.0565		1,367.9280
Unmitigated	0.5737	1.7057	6.5207	0.0160	1.0972	0.0241	1.1213	0.2934	0.0222	0.3156		1,366.7420	1,366.7420	0.0565		1,367.9280

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Single Family Housing	143.55	151.20	131.55	488,409	488,409
Total	143.55	151.20	131.55	488,409	488,409

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Single Family Housing	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.532559	0.058242	0.178229	0.125155	0.038934	0.006273	0.016761	0.032323	0.002478	0.003154	0.003685	0.000544	0.001663

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
NaturalGas Unmitigated	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	1186.99	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Total		**0.0128**	**0.1094**	**0.0466**	**7.0000e-004**		**8.8400e-003**	**8.8400e-003**		**8.8400e-003**	**8.8400e-003**		**139.6463**	**139.6463**	**2.6800e-003**	**2.5600e-003**	**140.4961**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Single Family Housing	1.18699	0.0128	0.1094	0.0466	7.0000e-004		8.8400e-003	8.8400e-003		8.8400e-003	8.8400e-003		139.6463	139.6463	2.6800e-003	2.5600e-003	140.4961
Total		**0.0128**	**0.1094**	**0.0466**	**7.0000e-004**		**8.8400e-003**	**8.8400e-003**		**8.8400e-003**	**8.8400e-003**		**139.6463**	**139.6463**	**2.6800e-003**	**2.5600e-003**	**140.4961**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345
Unmitigated	4.5619	0.1143	8.7896	0.0121		1.1526	1.1526		1.1524	1.1524	140.5038	272.2283	412.7321	0.4213	9.5400e-003	424.5345

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.0997	7.5396	0.0120		1.1458	1.1458		1.1456	1.1456	140.5038	270.0000	410.5038	0.4190	9.5400e-003	422.2593
Landscaping	0.0389	0.0146	1.2500	7.0000e-005		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003		2.2283	2.2283	2.2400e-003		2.2753
Total	**4.5619**	**0.1143**	**8.7896**	**0.0121**		**1.1526**	**1.1526**		**1.1524**	**1.1524**	**140.5038**	**272.2283**	**412.7321**	**0.4213**	**9.5400e-003**	**424.5345**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0579					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.5346					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	3.9305	0.0997	7.5396	0.0120		1.1458	1.1458		1.1456	1.1456	140.5038	270.0000	410.5038	0.4190	9.5400e-003	422.2593
Landscaping	0.0389	0.0146	1.2500	7.0000e-005		6.7900e-003	6.7900e-003		6.7900e-003	6.7900e-003		2.2283	2.2283	2.2400e-003		2.2753
Total	**4.5619**	**0.1143**	**8.7896**	**0.0121**		**1.1526**	**1.1526**		**1.1524**	**1.1524**	**140.5038**	**272.2283**	**412.7321**	**0.4213**	**9.5400e-003**	**424.5345**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Appendix B

Traffic Impact Analysis

Final Report

Agoura Equestrian Estates Project

Traffic Impact Analysis

Prepared for:
City of Agoura Hills

099083024

Kimley-Horn
and Associates, Inc.

FINAL REPORT
TRAFFIC IMPACT ANALYSIS

AGOURA EQUESTRIAN ESTATES PROJECT

Prepared for:
City of Agoura Hills
30001 Ladyface Court
Agoura Hills, CA 91301

Prepared by:
Kimley-Horn and Associates, Inc.
6800 Owensmouth Ave., Suite 410
Canoga Park, California 91303

November, 2013
099083024

AGOURA EQUESTRIAN ESTATES PROJECT
CHESEBRO ROAD

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

TRAFFIC IMPACT ANALYSIS
FOR
AGOURA EQUESTRIAN ESTATES PROJECT
AT CHESEBRO ROAD
IN AGOURA HILLS (COUNTY OF LOS ANGELES)

EXECUTIVE SUMMARY

The Agoura Equestrian Estates Project includes the creation of 15 single family residential lots and two open space lots for a total of 17 lots. The immediate project currently being proposed consists of grading for construction of a private road, rolled curb, fencing, trails, infrastructure utilities, and drainage improvements. At a later date, and under separate application and entitlement, the project applicant plans to construct 15 single family homes. For the purpose of this Traffic Impact Analysis (TIA) 15 single family residential homes were considered. Although each lot may be developed over time, a conservative scenario that all lots will be developed by 2015, prior to the implementation of the proposed Palo Comado Canyon Road/U.S. Hwy 101 interchange implementation was assumed for the purpose of this analysis. The currently proposed project (no single family homes) is expected to generate a limited number of trips.

The proposed site would provide access to the surrounding roadway system via one full access driveway located at the east end of Chesebro Road. The project is expected to generate 144 daily trips, with 11 trips during the AM peak period and 15 trips during the PM peak period.

This Traffic Impact Analysis (TIA) provides analysis of two study intersections in the immediate vicinity of the project site: Chesebro Road at Palo Comado Canyon Road/Driver Avenue/Canwood Street and Palo Comado Canyon Road at US 101 NB Ramps.

In accordance with the TIA guidelines of the City of Agoura Hills, this study provides analysis of the following scenarios:

- Existing (2013) Conditions
- Existing (2013) With Project Conditions
- Near Term (2015) (Project Opening Year) Without Project Conditions
- Near Term (2015) (Project Opening Year) With Project Conditions
- Long Term (2035) (Cumulative) Conditions

The intersection analysis for existing conditions indicates that:

- The LOS remains the same at both study intersections during the Existing (2013) AM and PM peak periods when compared with the Existing (2013) With Project Conditions.

- The LOS remains the same at both study intersections during the Existing (2013) with Project Condtions AM and PM peak periods when compared with the Near Term (2015) with Project Conditions.

- The intersection analysis for the Existing (2013) with Project Conditions as well as Near Term (2015) With Project Conditions scenarios indicate that the project would not have significant project impacts. Therefore, no mitigation is necessary.

TRAFFIC IMPACT ANALYSIS FOR AGOURA EQUESTRIAN ESTATES PROJECT AT CHESEBRO ROAD IN AGOURA HILLS (COUNTY OF LOS ANGELES)

INTRODUCTION

The Agoura Equestrian Estates Project includes the creation of 15 single family residential lots and two open space lots for a total of 17 lots. The immediate project currently being proposed consists of grading for construction of a private road, rolled curb, fencing, trails, infrastructure utilities, and drainage improvements. At a later date, and under separate application and entitlement, the project applicant plans to construct 15 single family homes. For the purpose of this Traffic Impact Analysis (TIA) 15 single family residential homes were considered. Although each lot may be developed over time, a conservative scenario that all lots will be developed by 2015, prior to the implementation of the proposed Palo Comado Canyon Road/U.S. Hwy 101 interchange implementation was assumed for the purpose of this analysis. The currently proposed project (no single family homes) is expected to generate a limited number of trips.

Kimley-Horn and Associates, Inc. (KHA) has been retained to prepare a traffic impact analysis for the proposed development. The study will address existing traffic conditions in the area, including regional growth, project-related and cumulative project traffic impacts on the surrounding street system, and project access.

The project is shown in its regional setting on the vicinity map in **Figure 1**. A site plan is shown on **Figure 2**.

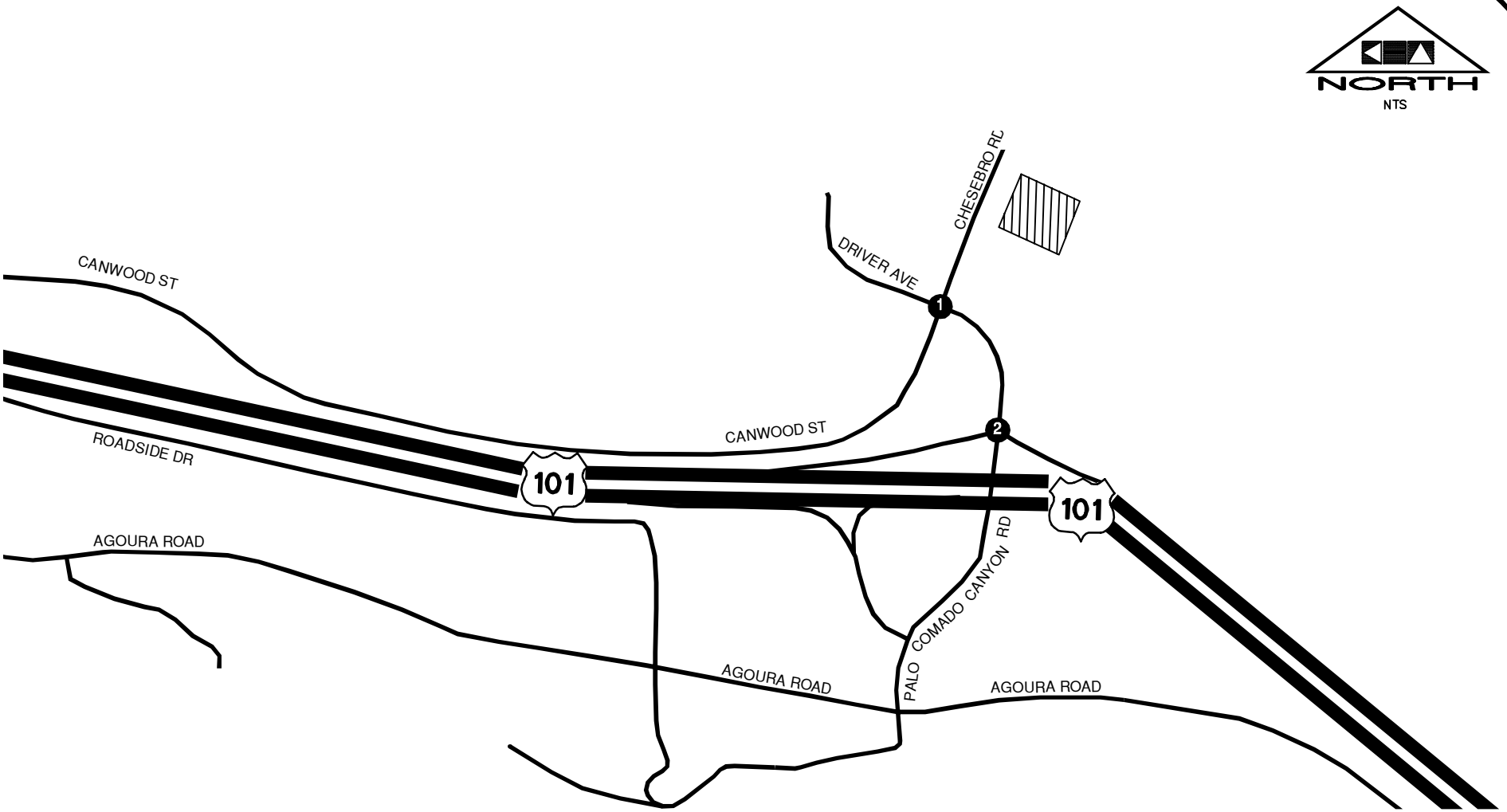


FIGURE 1
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
VICINITY MAP

LEGEND

- X — Study Area Intersection
- Project Site

REVISIONS

CLIVE DAWSON A.I.A.
architecture and planning
28925 Pacific Coast Highway, Malibu, California 90263 310.589.1921

PROPOSED AGOURA EQUESTRIAN ESTATES:
CHESEBRO ROAD, AGOURA HILLS, CA. 91301
FOR: EQUINE ESTATES
5423 VILLAGE RD., LONG BEACH, CA. 90808

DRAWN
EMA
CHECKED
DATE
07-12-13
SCALE
1" = 80'-0"
JOB NO.
SHEET
A01

Study Methodology

The format of the traffic analysis follows City of Agoura Hills and Congestion Management Program Congestion Management Program (CMP) guidelines. The study area and the intersections for this project were identified in consultation with the City of Agoura Hills staff.

Two study intersections were analyzed in this study:

1. Chesebro Road at Palo Comado Canyon Road/Driver Avenue/Canwood Street
2. Palo Comado Canyon Road at US 101 NB Ramps

In accordance with the City's TIA guidelines, this study provides analysis of the following scenarios:

- Existing (2013) Conditions
- Existing (2013) With Project Conditions
- Near Term (2015) (Project Opening Year) Conditions
- Near Term (2015) (Project Opening Year) Conditions With Project
- Long Term (2035) (Cumulative) Conditions

KHA obtained a list of related projects from the City's Planning and Community Development Department. The related projects included all pending, approved, or constructed projects that are not yet occupied.

Unsignalized Intersection Analysis Methodology

Project impact is evaluated by conducting "before" and "after" Level of Service analysis for the proposed opening year of the project, using the Highway Capacity Manual (HCM) methodology for unsignalized intersections. The HCM methodology uses delay (seconds/vehicle) values to determine level of service (LOS) for intersections. **Table 1** provides LOS definitions for signalized and unsignalized intersections.

Technical analysis of the intersection operating conditions will provide a qualitative assessment of the operating conditions of that intersection. LOS definitions range from LOS "A" to "F," with LOS "A" representing comfortable, free-flowing traffic conditions with minimal delays and LOS "F" representing congested conditions with long delays. A qualitative description of each Level of Service is presented in Table 1 below.

Table 1: HCM and Level of Service Definitions

Level of Service (LOS)	HCM Method Unsignalized Intersection Delay (sec/veh)	Description
A	≤10.0	Free flow conditions; low traffic volumes and density; high speeds; no restriction to maneuver pass; drivers can maintain desired speeds with little or no delay
B	>10.0 and ≤15.0	Stable flow; operating speeds beginning to be restricted; drivers still have some freedom to select speed and lane of operation
C	>15.0 and ≤25.0	Still in the stable flow zone; Speeds and maneuverability closely controlled by higher volumes; most drivers' freedom restricted to select their own speed and lane; relatively satisfactory operating speed is still obtained
D	>25.0 and ≤35.0	approaches unstable flow; tolerable operating speeds still maintained; fluctuations in volume and temporary restrictions to flow may substantially drop operating speeds; drivers have little freedom to maneuver
E	>35.0 and ≤50.0	Unstable flow at or near capacity; lower operating speeds typically, but not always, 30 mph; stoppages for momentary duration
F	>50.0	Forced flow operation at low speeds; volumes are below capacity; in extreme cases both speed and volume can drop to zero; stoppages may occur for short or long periods of time due to downstream congestion

Significant Impact Thresholds

Based upon the City of Agoura Hills impact criteria a proposed project is considered to result in a significant impact if the proposed project results in any of the following:

i. Degrades the LOS at an unsignalized intersection to an unacceptable level to D or worse, unless special circumstances justify otherwise; or
ii. Results in satisfying the most recent *California Manual on Uniform Traffic Control Devices* (CAMUTCD) peak-hour volume warrant or other warrants for traffic signal installation at the intersection; or
iii. Increases delay at an unsignalized intersection operating at an unacceptable level by five or more seconds; or
iv. Increases the volume-to-capacity ratio on a roadway segment operating at an unacceptable level by 0.05 or more; or
v. The project is inconsistent with planned bicycle/pedestrian/transit facilities within the study area.

EXISTING (2013) CONDITIONS

Existing traffic conditions on the area road and street system are described and analyzed in this section. The physical characteristics of the roadway system serving the project site are shown on **Figure 3**.

Existing Roadway System

Local access to the project is provided by Chesebro Road.

Chesebro Road is a north-south minor street that connects to Driver Avenue to the west and Palo Comado Canyon Road to the east. Chesebro Road provides residential access to the Old Agoura community and to US 101 to the south via Palo Comado Canyon Road.

Palo Comado Canyon Road/Driver Avenue is an east-west minor collector that provides residential access as well as access to the US 101. This roadway connects to Agoura Road to the south.

Existing Traffic Conditions

The following two intersections were evaluated for weekday peak-hour operations:

1. Palo Comado Canyon Road/Driver Avenue/Canwood Street at Chesebro Road
2. Palo Comado Canyon Road at US 101 NB Ramps

Existing morning and evening peak hour traffic counts were collected at the two study intersections, and are presented on **Figure 4.** The counts were made during the weekday morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak periods September 2013. Copies of traffic data collection worksheets are provided in ***Appendix A.*** The results of the existing conditions analysis for the study intersections are summarized on **Table 2.**

Table 2: Summary of Intersection Operations – Existing (2013) Conditions

No.	Signalized Intersection	AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
1	Palo Comado Canyon Road/Driver Avenue/Canwood Street at Chesebro Road	48.4	E	16.6	C
2	Palo Comado Canyon Road at US 101 NB Ramps	27.6	D	18.8	C

Kimley-Horn and Associates, Inc. October 2013

The level of service analysis results presented in Table 2 indicate that the intersection of Palo Comado Canyon Road/Driver Avenue/Canwood Street at Chesebro Road operates at LOS "E" during the AM Peak Hour period, and at an acceptable level of "C" during the PM Peak Hour. The intersection of Palo Comado Canyon Road at US 101 NB Ramps operates at LOS "D" during the AM Peak Hour period and at an acceptable LOS C during the PM Peak Hour period.

Intersection analysis worksheets for this scenario are provided in ***Appendix B.***

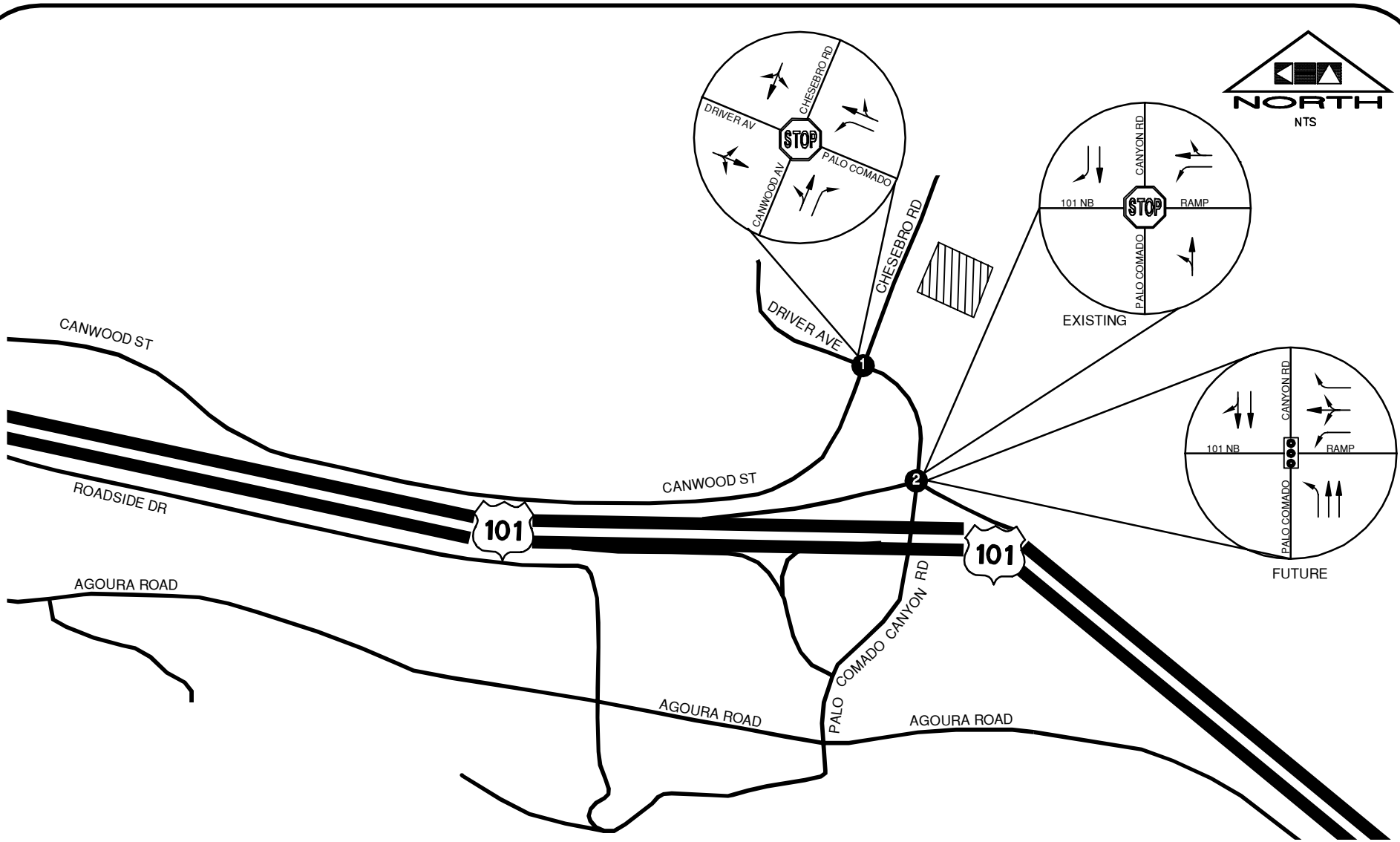


FIGURE 3
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
EXISTING (2013) ROADWAY CONFIGURATION

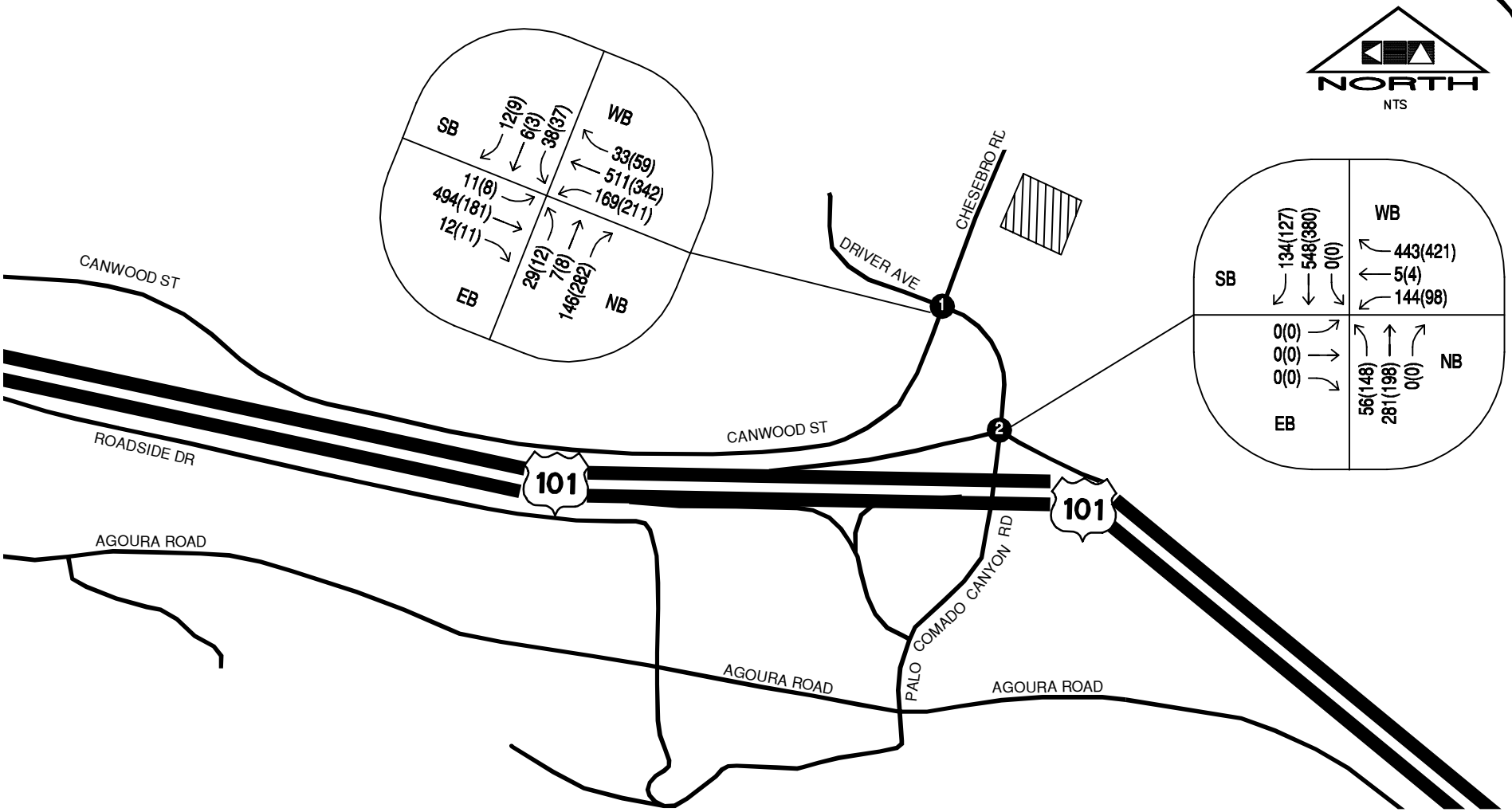


FIGURE 4
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
EXISTING (2013) WEEKDAY PEAK HOUR TRAFFIC VOLUMES

LEGEND

←XX(XX) AM(PM) Peak Hour Traffic Volumes
X Study Area Intersection
Project Site

PROJECT CONDITIONS

Project Traffic

In order to determine the potential traffic impacts of the proposed project on the study area intersections, trip generation estimates were calculated for the proposed development. The following paragraphs describe trip generation, distribution, and assignment for the project.

Project Trip Generation

Weekday daily, morning and evening peak hour trips were estimated for the project using trip generation rates from the ITE publication entitled *Trip Generation, 9th Edition.* The morning and evening peak hours correspond to the peak hours of the adjacent street system. The ITE Land Use Categories labeled the project as 210 - Single Family Detached Housing. Trip generation rates and the resulting trips that would be generated are presented on **Table 3**. Table 3 indicates that the project would generate approximately 144 trips on a daily basis, with 11 trips during the morning peak hour (3 inbound and 8 outbound trips) and 15 trips during the evening peak hour (9 inbound and 15 outbound trips).

Table 3: Summary of Project Trip Generation

Project Component	ITE Land Use	Units	Project Generated Trips					
		Daily	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Equestrian Estates	210 (Single Family Detached Housing)	144	3	8	11	9	6	15
TOTAL NET TRIPS GENERATED		**144**	**3**	**8**	**11**	**9**	**6**	**15**

Source: City of Agoura Hills *October 2013*
Source: ITE Trip Generation Manual, 9th Edition, 20012.

Project Trip Distribution

Trip distribution assumptions for the project trips were developed based on the roadway system and land uses in the vicinity of the project, input from the City staff, and using the methodology and distribution percentages published in the Los Angeles County Congestion Management Program (CMP) document. Trip distribution percentages for the project are shown on **Figure 5**.

Project Trip Assignment

The project traffic shown on Table 3 was distributed to the study intersections based on the trip distribution percentages shown on Figure 6. The resulting project-related peak hour turning movements are shown on Figure 6. Project Peak Hour Turn Movements are presented on **Figure 6.**

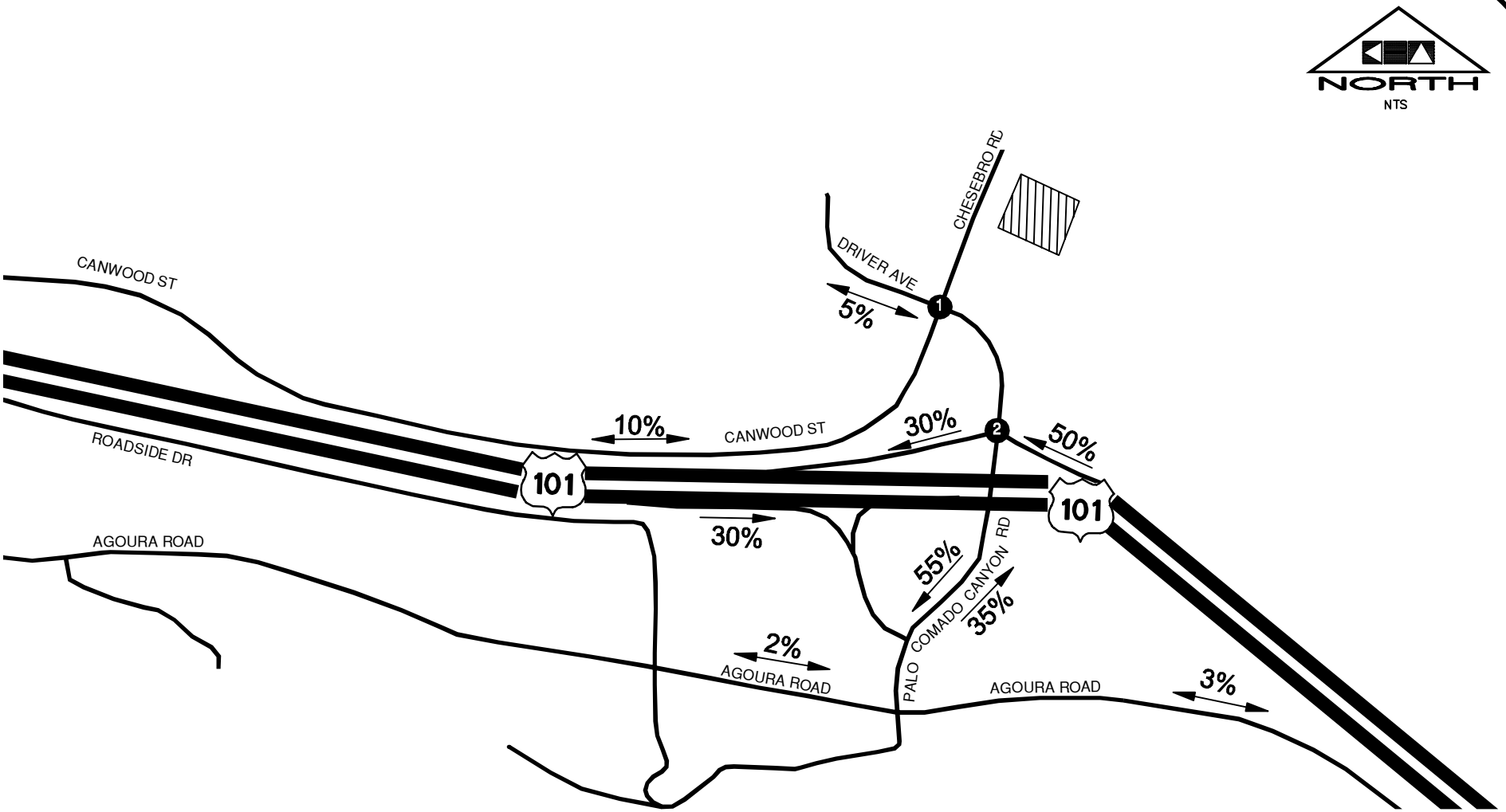


FIGURE 5
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
PROJECT TRIP DISTRIBUTION

LEGEND
XX% % of Project Traffic
X Study Area Intersection
Project Site

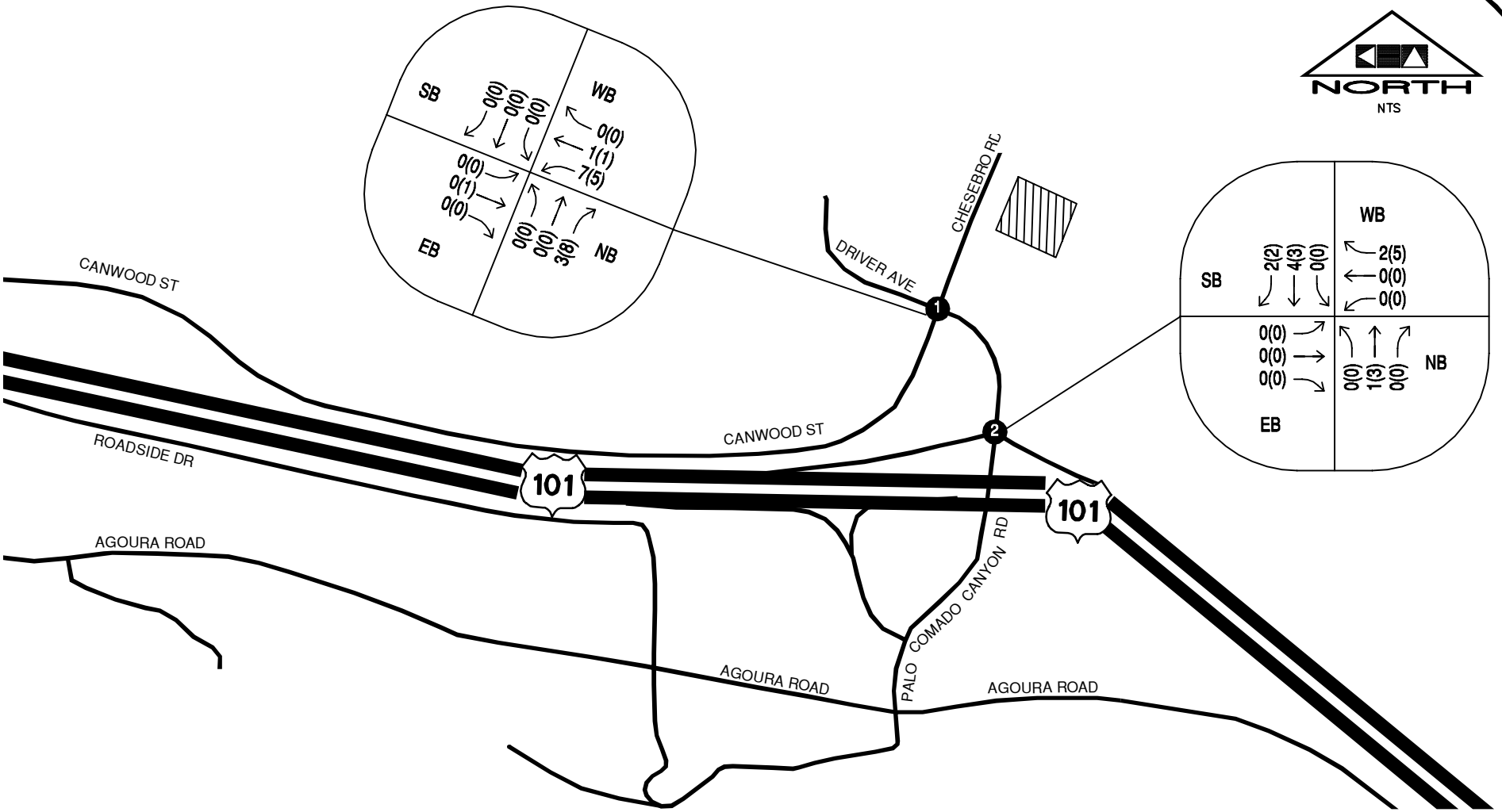


FIGURE 6
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
PROJECT WEEKDAY PEAK HOUR TRAFFIC VOLUMES

LEGEND	
←XX(XX)	AM(PM) Peak Hour Traffic Volumes
X	Study Area Intersection
	Project Site

Kimley-Horn and Associates, Inc. ©2008

NEAR TERM (2015) TRAFFIC CONDITIONS

Traffic conditions with and without the project were analyzed for two near term (2015) scenarios. First, ambient traffic growth and traffic from approved and pending (cumulative) projects that will be completed by 2015 in the immediate area was added to the existing conditions. Second, the same scenario with existing conditions, ambient growth and near term projects was added to the projected project volumes. A summary of each scenario is provided below.

Near Term (2015) and Cumulative Traffic Volumes

An ambient annual traffic growth rate of 0.75% was applied to the existing traffic volumes at each of the study area intersections. The growth rate was based on growth rate factors published in the Los Angeles County Congestion Management Program (CMP). This analysis is based on all the residences being constructed by the year 2015 to represent a conservative analysis scenario.

Cumulative volumes represent existing traffic volumes with the ambient growth described above, with traffic attributed to approved and pending developments (cumulative projects) in the area. Project traffic was added to these volumes to evaluate the Cumulative with Project Scenario.

Information about cumulative projects (approved and pending projects) in the Agoura Hills area was obtained from the City of Agoura Hills. All recent related projects that are pending, have been approved but are not yet constructed, or are constructed but not yet occupied, have been included in the Cumulative analysis. A list of related projects is provided in **Table 4**. The location and address of the surrounding projects is presented on **Figure 7.**

Trip generation estimates were developed using trip rates from the Institute of Transportation Engineers (ITE) publication *Trip Generation, 9th Edition*. The resulting trips that would be generated by each related project are also summarized in Table 4. There are 7 projects located within a 1.5 mile radius that could affect the traffic in the two intersections.

Table 4: Surrounding Projects Trip Generation Summary

Project #	Project Name	Address	ITE Land Use	Units and/or (1,000 Sq Ft)	Project Generated Trips						
					Daily	AM Peak Hr			PM Peak Hr		
						In	*Out*	*Total*	*In*	*Out*	*Total*
1	Whizin Market	28888 through 28914 Roadside Dr.	814 (Specialty Retail Center)	14.9	662	0	0	0	18	22	40
			932 (High-turnover (Sit-Down) Restaurant)	5.8	738	35	32	67	38	27	65
2	Santorini Mall/Villa	Agoura Rd.	220 (Apartment)	5	34	1	2	3	2	1	3
			230 (Residential Condominium/ Townhouse)	11	64	1	4	5	4	2	6
			710 (General Office Building)	1.4	16	2	0	2	0	2	2
			932 (High-Turnover (Sit-Down) Restaurant)	1.29	166	8	7	15	8	6	14
3	Shirvanian Family Investment	Lots between 28700 and 28811 Canwood St.	130 (Industrial Park)	103	718	71	16	878	19	70	89
4	Ware Malcomb for Agoura Business Center West	Northwest corner of Canwood St. and Derry Ave.	814 (Specialty Retail Center)	21.8	968	0	0	0	26	33	59
5	Riopharm USA, Inc.	27650 Agoura Rd.	210 (Single-Family Detached Housing)	24	230	5	13	18	15	9	24
6	Aitan Hillel	6021 Colodny Dr.	230 (Residential Condominium/ Townhouse)	18	106	1	7	8	6	3	9
7	Tracy Hrach	5310 Colodny Dr.	220 (Apartment)	5	34	1	2	3	2	1	3
TOTAL NET TRIPS GENERATED					**3,736**	**125**	**83**	**208**	**138**	**176**	**314**

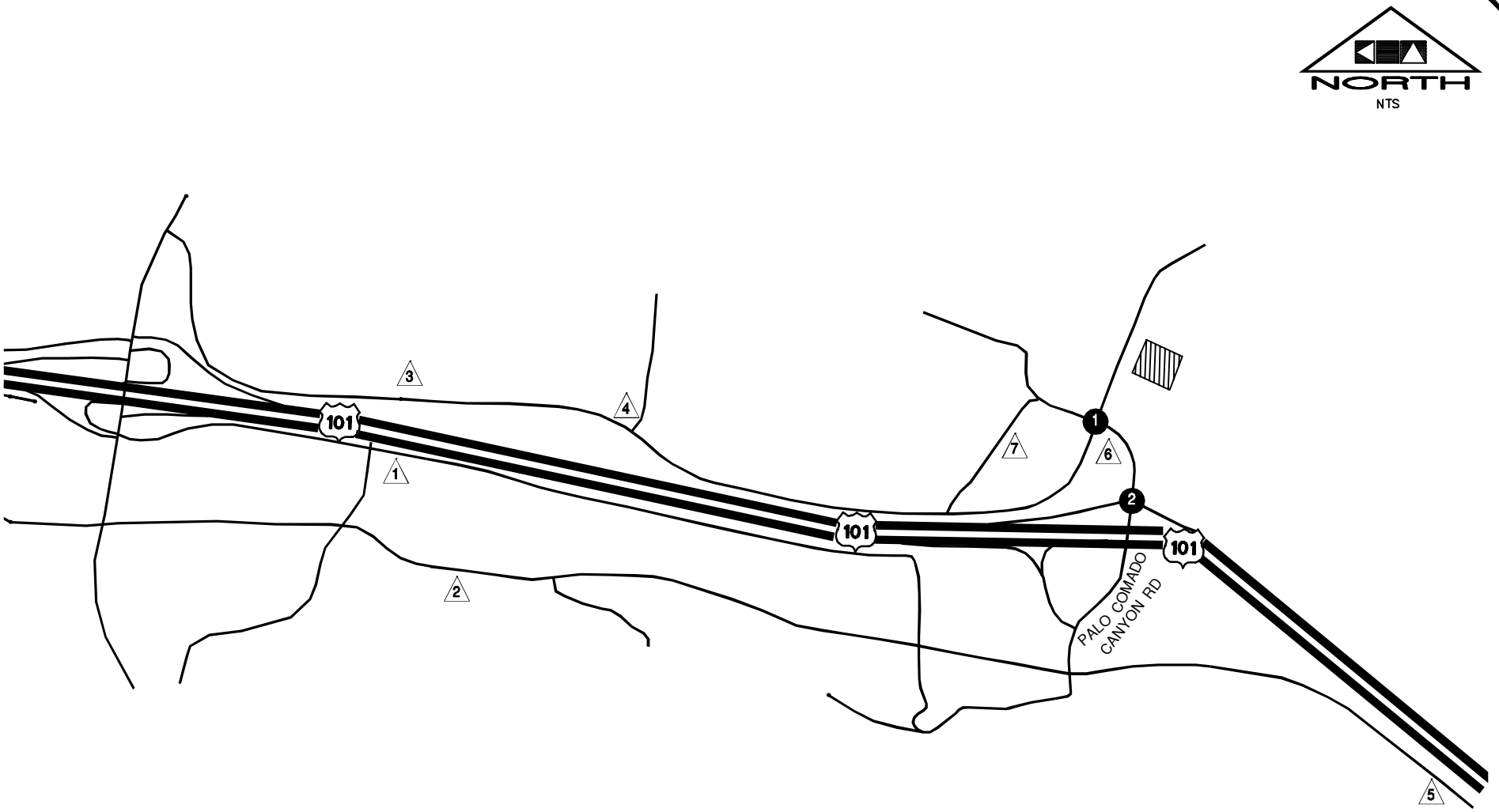


FIGURE 7
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
SURROUNDING PROJECTS LOCATION

Project Impact

The project impact on the study area intersections was assessed by comparing two different scenarios. The first compares the Existing (2013) conditions with the Existing (2013) with Project conditions. The second compares the Near Term – 2015 without project to Near Term - 2015 with Project conditions. An additional scenario was analyzed, Long Term – 2035 conditions which includes future intersection improvements and is described in the next section.

Existing (2013) with Project Conditions

Table 5 presents the results of Existing (2013) with Project conditions. The peak hour volumes of this scenario are illustrated on **Figure 8**.

Table 5: Summary of Intersection Operations – Existing (2013) With Project Conditions

	Intersection	**LOS Analysis Results**					
		Existing (2013)		***Existing (2013) with Project***			
		Delay (sec/veh)	*LOS*	*Delay (sec/veh)*	*LOS*	*Change in Delay (sec/veh)*	**Project Impact**
AM Peak Hour							
1	Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street	48.4	E	48.9	E	0.5	No
2	Palo Comado Canyon Road at US 101 NB Ramps	27.6	D	28.0	D	0.4	No
PM Peak Hour							
1	Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street	16.6	C	17.0	C	0.4	No
2	Palo Comado Canyon Road at US 101 NB Ramps	18.8	C	19.1	C	0.3	No

Kimley-Horn and Associates, Inc. October 2013

Table 5 indicates that the LOS remains the same for both the AM and the PM Peak Hour periods at both intersections. The change in delay (sec/veh) ranges from 0.3 – 0.5 sec/veh. Based on City of Agoura Hills impact criteria with 5 or more seconds of delay being the threshold, there is no impact.

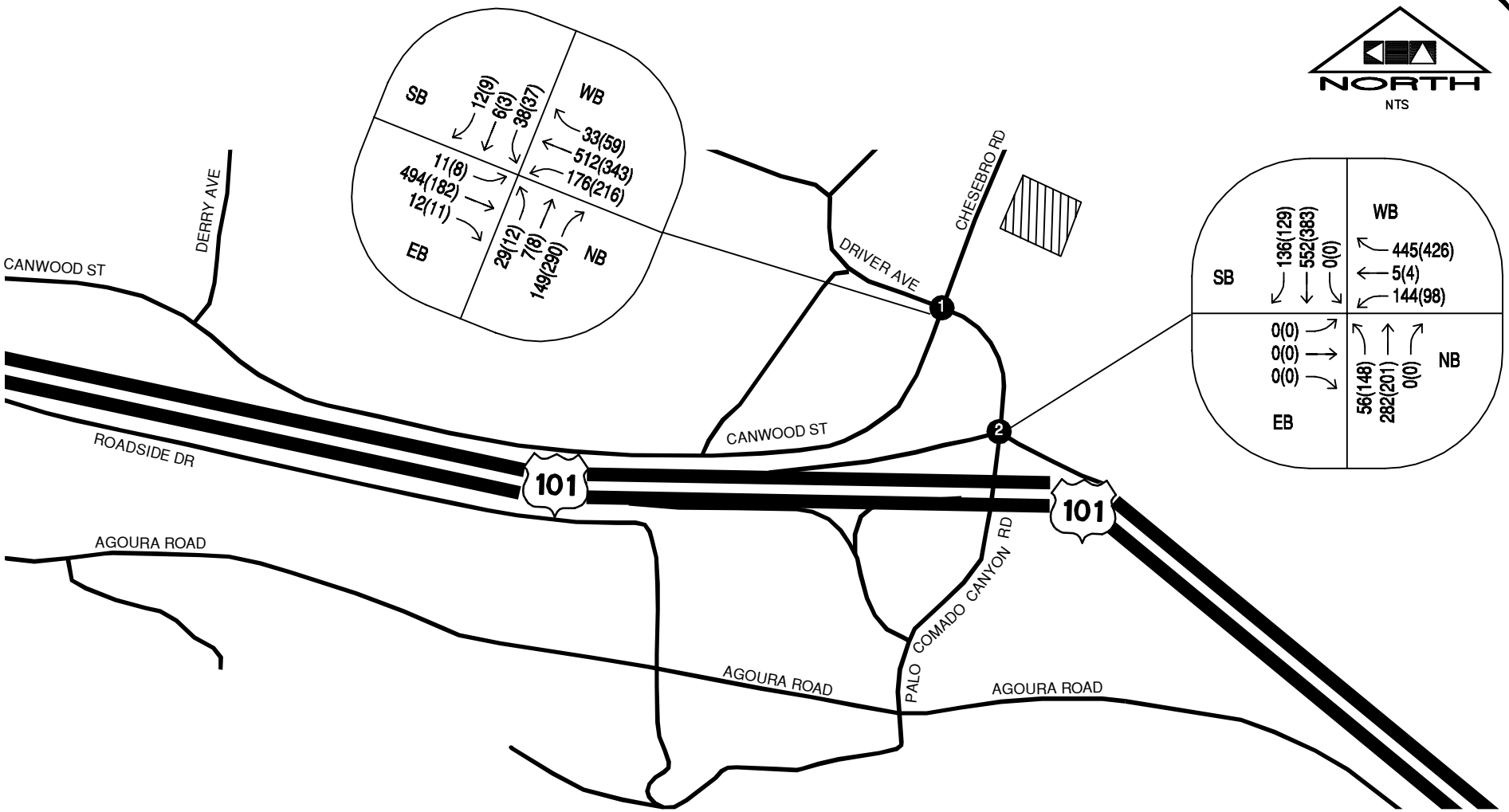


FIGURE 8
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
EXISTING (2013) WITH PROJECT
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

LEGEND

←XX(XX) AM(PM) Peak Hour Traffic Volumes
X Study Area Intersection
Project Site

Near Term - 2015 without and with Project Conditions

The results of the Near Term (2015) comparison analysis are presented in **Table 6.** Peak hour traffic volumes for Near Term (2015) without project are presented on **Figure 9.** Peak hour traffic volumes for Near Term (2015) with project conditions are illustrated in **Figure 10.**

Table 6: Summary of Intersection Operations
Near Term (2015) (Project Opening Year) Conditions

Intersection		LOS Analysis Results					
		Ambient Growth W/ Near Term (2015)		***Ambient Growth W/ Near Term (2015) With Project***			
		Delay (sec/veh)	*LOS*	*Delay (sec/veh)*	*LOS*	*Change*	**Project Impact**
AM Peak Hour							
1	Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street	56.0	F	56.4	F	0.4	No
2	Palo Comado Canyon Road at US 101 NB Ramps	31.2	D	31.7	D	0.5	No
PM Peak Hour							
1	Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street	17.8	C	18.1	C	0.3	No
2	Palo Comado Canyon Road at US 101 NB Ramps	20.7	C	21.0	C	0.7	No

Kimley-Horn and Associates, Inc. October 2013

Table 6 indicates that the LOS remains the same at both study intersections during the AM and PM Peak Hour periods and the change in delay (sec./veh.) ranges from 0.3 – 0.7, which does not exceed the threshold of 5 seconds. Therefore, the project does not result in any significant traffic impacts.

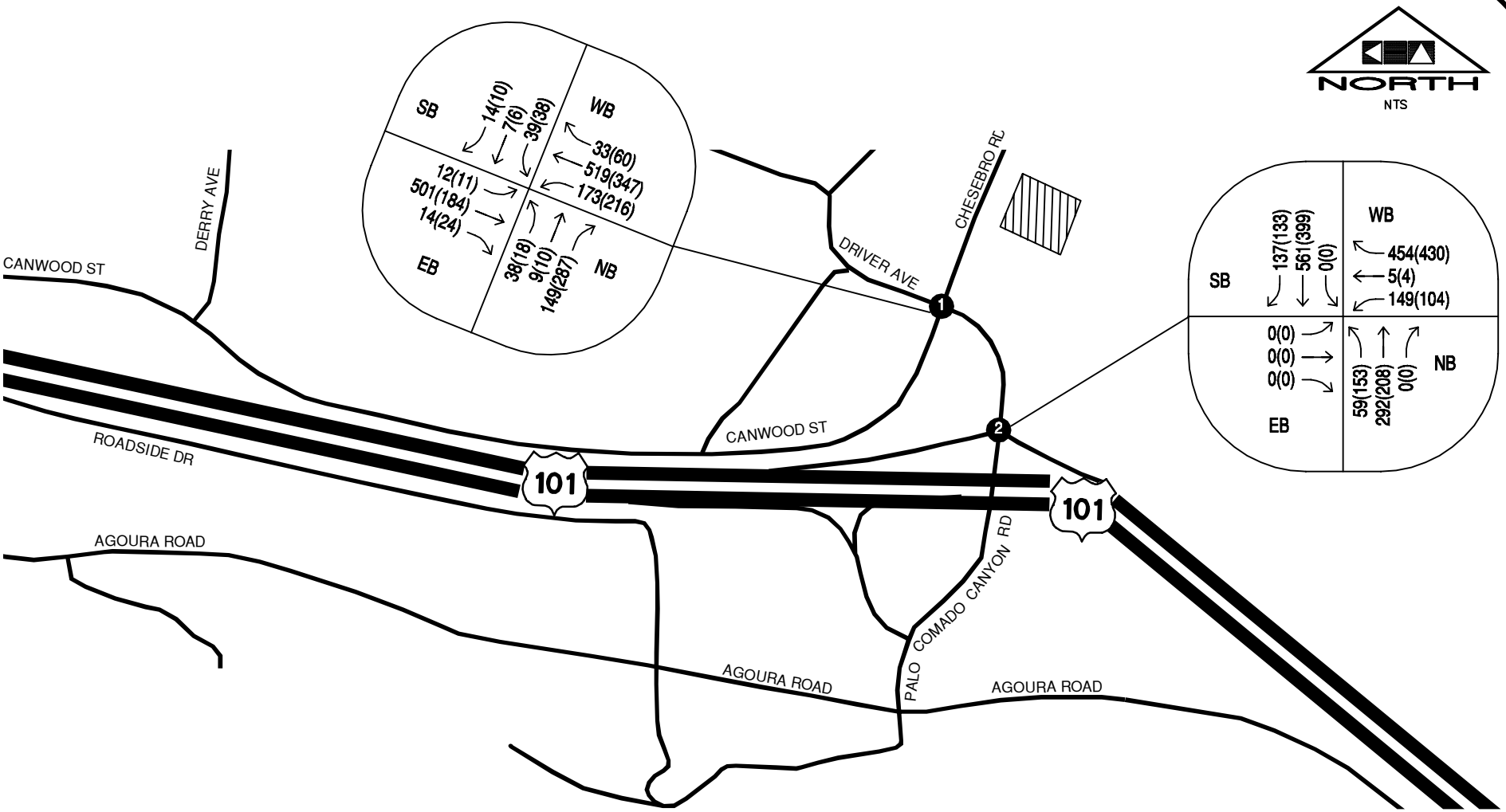


FIGURE 9
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
NEAR TERM (2015) (PROJECT OPENING YEAR)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

LEGEND

- ←XX(XX) AM(PM) Peak Hour Traffic Volumes
- X Study Area Intersection
- Project Site

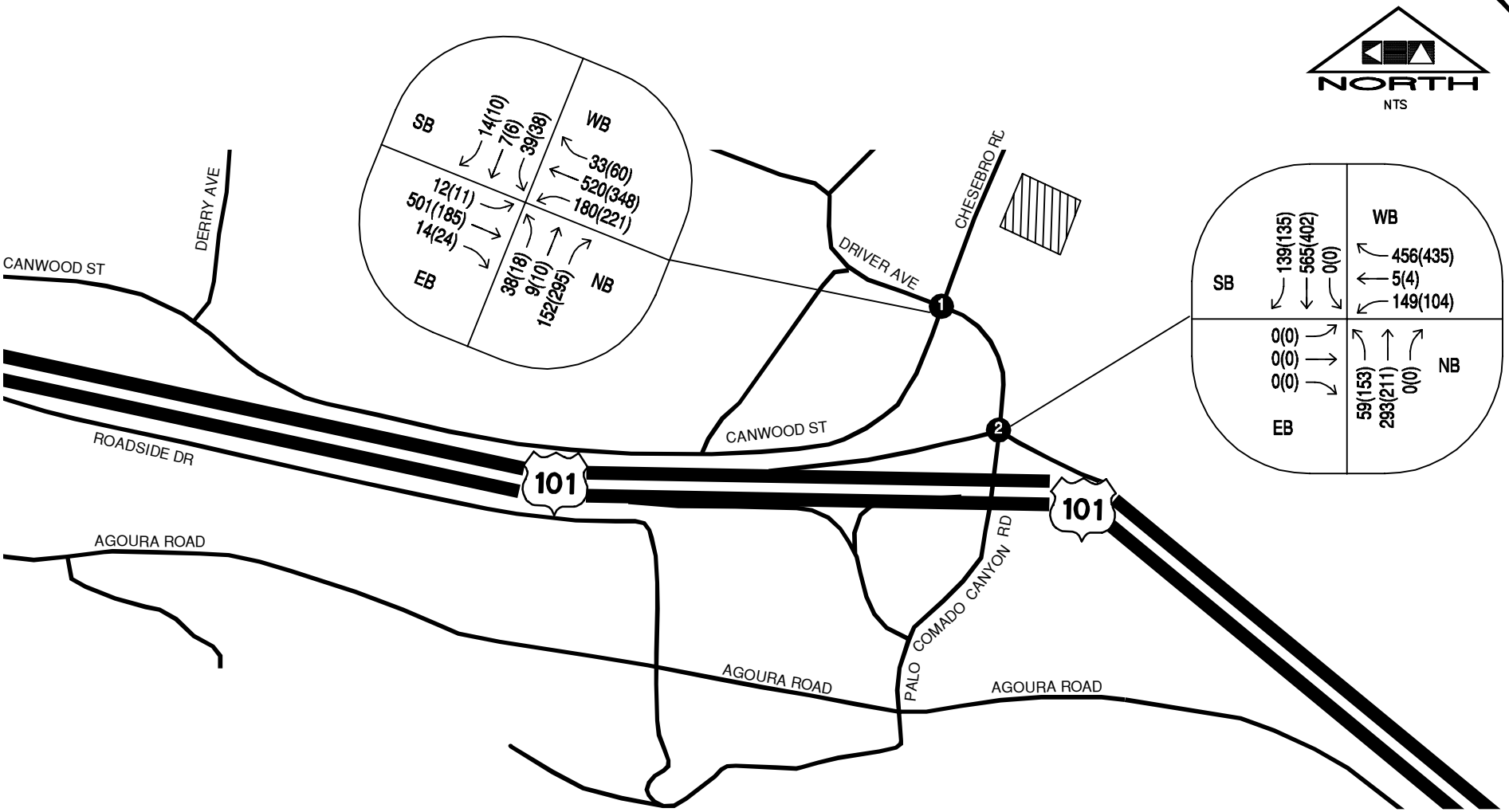


FIGURE 10
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
NEAR TERM (2015) (PROJECT OPENING YEAR) WITH PROJECT
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

LEGEND

- ←XX(XX) AM(PM) Peak Hour Traffic Volumes
- X Study Area Intersection
- Project Site

LONG TERM (2035) TRAFFIC CONDITIONS

The long term (2035) scenario assumes buildout of the entire City, per the General Plan, by 2035, as an ultimate horizon year and indicates the overall growth in Agoura Hills including the proposed project. The scenario assumes ambient annual traffic growth and other cumulative projects that would occur by the general plan build out year and therefore, a separate "without" project scenario for long-term conditions is typically not included. The scenario includes planned improvements as presented on **Figure 3**. The planned interchange improvements include widening the Palo Comado Canyon Road overpass at U.S. Highway 101, improving the NB off-Ramp, installing a traffic signal, and other associated improvements.

The results of the Long Term (2035) (Cumulative) conditions analysis are presented in **Table 7.** Peak hour traffic volumes for Long Term (2035) (Cumulative) Conditions are illustrated in **Figure 11.**

Table 7: Summary of Intersection Operations - Long Term (2035) (Cumulative) Conditions

Intersection		LOS Analysis Results	
		Ambient Growth W/ Long Term (2035) With Project	
		Delay (sec/veh)	*LOS*
AM Peak Hour			
1	Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street	75.9	F
2	Palo Comado Canyon Road at US 101 NB Ramps	15.2	B
PM Peak Hour			
1	Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street	21.2	C
2	Palo Comado Canyon Road at US 101 NB Ramps	14.3	B

Kimley-Horn and Associates, Inc. October 2013

Table 7 indicates that the intersection of Palo Comado Canyon Road/Driver Avenue at Chesebro Road/Canwood Street would operate at LOS F during the AM Peak Hour and at an LOS C during the PM Peak Hour conditions. The intersection of Palo Comado Canyon Road at US 101 NB Ramps would operate at LOS B during the AM and PM Peak Hour periods.

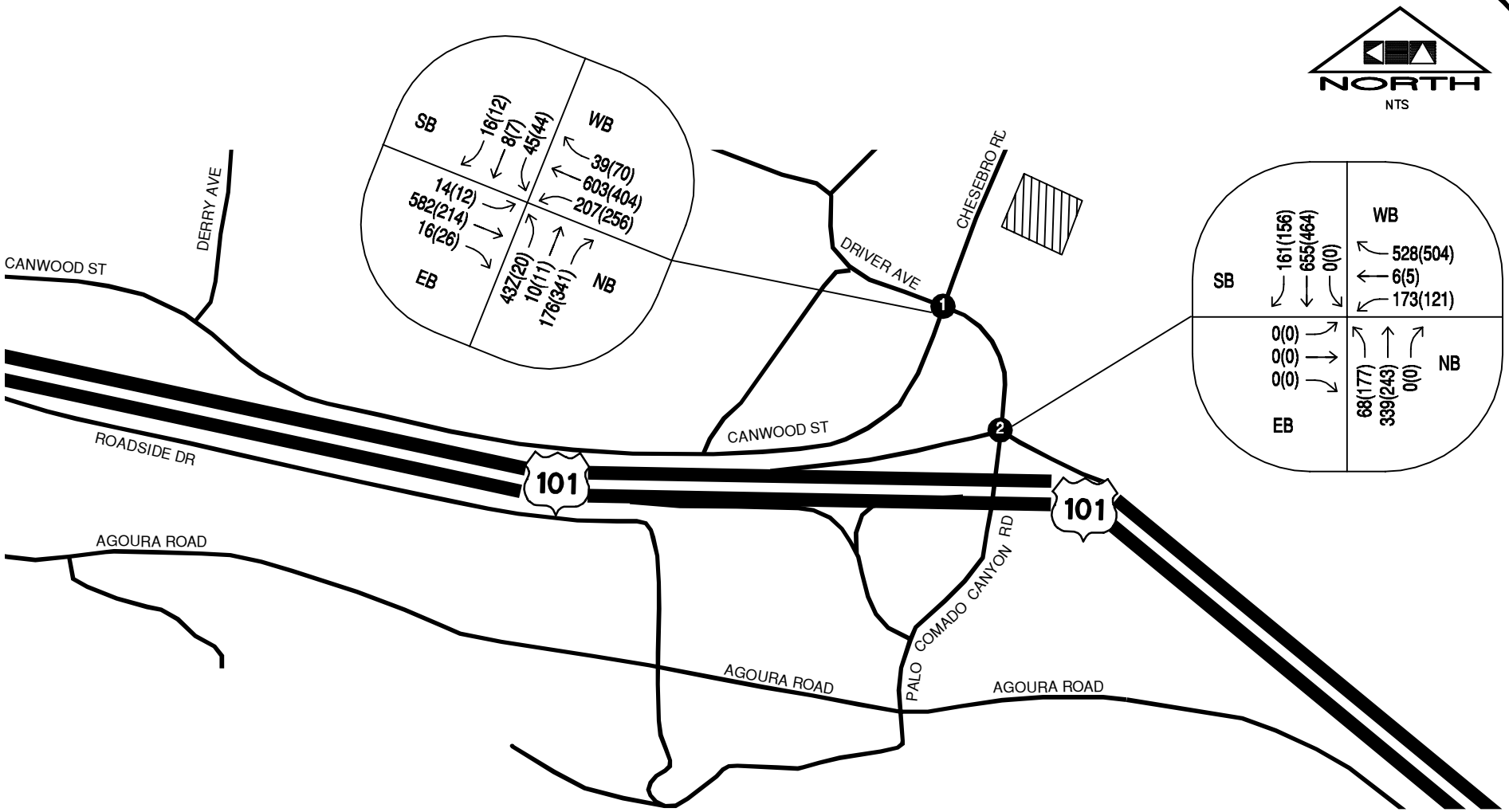


FIGURE 11
AGOURA HILLS
AGOURA EQUESTRIAN ESTATES PROJECT
LONG TERM (2035) (CUMULATIVE)
WEEKDAY PEAK HOUR TRAFFIC VOLUMES

LEGEND

←XX(XX) AM(PM) Peak Hour Traffic Volumes
X Study Area Intersection
Project Site

Kimley-Horn ©2008 and Associates, Inc.

CONGESTION MANAGEMENT PROGRAM COMPLIANCE

The Los Angeles County Congestion Management Program (CMP) was developed in response to California Proposition 111, approved June 1990, and is intended to address regional congestion by linking land use, transportation, and air quality decisions.

Among the elements of the CMP is a land use analysis program which "requires local jurisdictions to analyze the impacts of land use decisions on the regional transportation system, for projects preparing an Environmental Impact Report (EIR)."

The CMP document identifies the County's CMP Highway System, and requires that Level of Service E or better be maintained on this network. The SR-101 Freeway is the nearest CMP facility in the study area.

Analysis of a project's impact on a freeway segment would be required of any project that would add 150 trips or more in either direction during the AM or PM weekday peak hours. The project will not generate this level of traffic in either peak hour. Therefore, further analysis of CMP facilities is not required for CMP purposes.

An analysis of CMP monitored intersections is required if a project contributes 50 or more peak hour trips to the CMP monitored intersections. The project will not contribute 50 or more peak hour trips to this intersection, and therefore, additional evaluation for CMP purposes is not needed.

APPENDIX A - TRAFFIC COUNT SHEETS

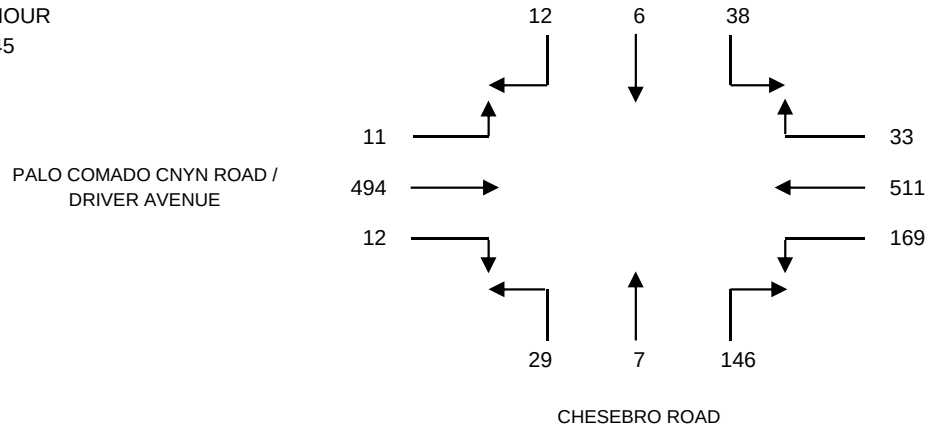
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KIMLEY HORN & ASSOCIATES, INC.
PROJECT: CITY OF AGOURA HILLS
DATE: TUESDAY, SEPTEMBER 24, 2013
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S CHESEBRO ROAD
E/W PALO COMADO CANYON ROAD / DRIVER AVENUE
FILE NUMBER: 1-AM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	3	0	7	3	43	31	22	0	1	1	86	0
0715-0730	1	0	8	2	35	31	20	0	1	0	53	0
0730-0745	2	0	8	4	67	49	30	0	0	0	71	2
0745-0800	2	1	9	7	110	39	20	0	2	2	100	0
0800-0815	2	2	10	7	167	49	31	2	3	4	134	2
0815-0830	5	0	7	9	144	41	42	2	18	2	139	2
0830-0845	3	3	12	10	90	40	53	3	6	4	121	7
0845-0900	2	2	10	10	43	39	39	1	3	2	65	3

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0700-0800	8	1	32	16	255	150	92	0	4	3	310	2	873
0715-0815	7	3	35	20	379	168	101	2	6	6	358	4	1089
0730-0830	11	3	34	27	488	178	123	4	23	8	444	6	1349
0745-0845	12	6	38	33	511	169	146	7	29	12	494	11	1468
0800-0900	12	7	39	36	444	169	165	8	30	12	459	14	1395

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

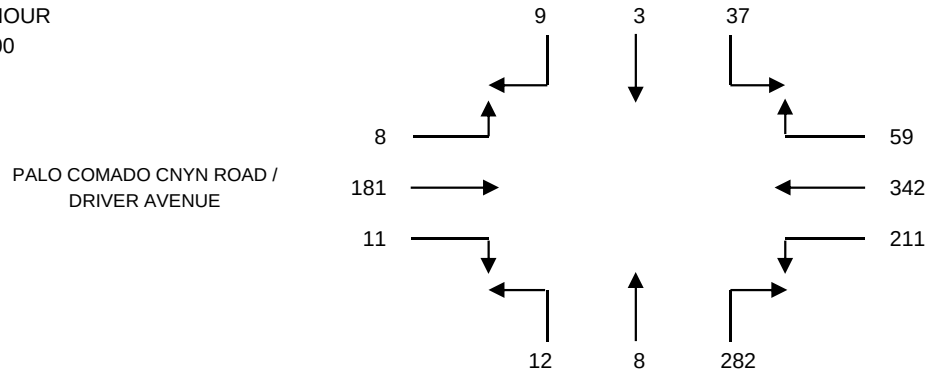
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KIMLEY HORN & ASSOCIATES, INC.
PROJECT: CITY OF AGOURA HILLS
DATE: TUESDAY, SEPTEMBER 24, 2013
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S CHESEBRO ROAD
E/W PALO COMADO CANYON ROAD / DRIVER AVENUE
FILE NUMBER: 1-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0400-0415	3	2	9	19	67	52	50	1	3	1	44	2
0415-0430	0	1	10	13	58	43	70	0	1	1	53	2
0430-0445	1	0	10	7	65	46	47	1	2	1	51	6
0445-0500	5	3	10	13	88	41	65	2	2	2	52	2
0500-0515	2	0	8	13	63	72	60	3	3	3	50	3
0515-0530	2	0	11	19	87	47	89	0	3	1	53	1
0530-0545	2	3	8	16	86	42	57	1	3	2	36	3
0545-0600	3	0	10	11	106	50	76	4	3	5	42	1

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
0400-0500	9	6	39	52	278	182	232	4	8	5	200	12	1027
0415-0515	8	4	38	46	274	202	242	6	8	7	206	13	1054
0430-0530	10	3	39	52	303	206	261	6	10	7	206	12	1115
0445-0545	11	6	37	61	324	202	271	6	11	8	191	9	1137
0500-0600	9	3	37	59	342	211	282	8	12	11	181	8	1163

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877

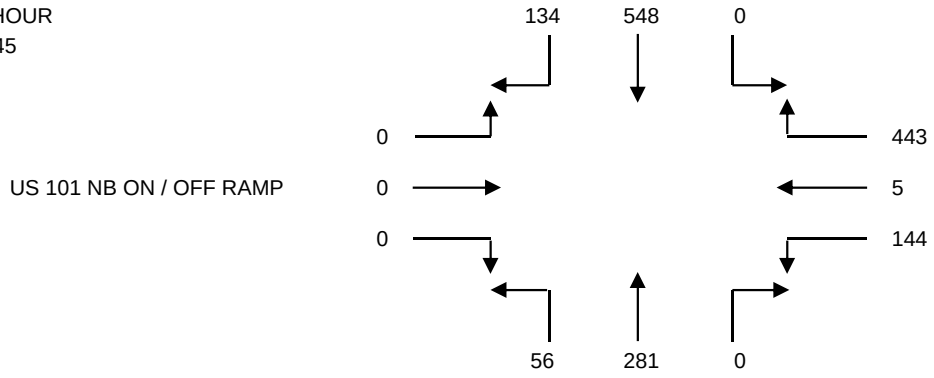
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KIMLEY HORN & ASSOCIATES, INC.
PROJECT: CITY OF AGOURA HILLS
DATE: TUESDAY, SEPTEMBER 24, 2013
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S PALO COMADO CANYON ROAD
E/W US 101 NB ON / OFF RAMP
FILE NUMBER: 2-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0700-0715	22	77	0	50	1	14	0	22	2	0	0	0
0715-0730	20	70	0	55	0	26	0	26	6	0	0	0
0730-0745	30	72	0	76	0	21	0	31	8	0	0	0
0745-0800	35	100	0	112	0	24	0	60	14	0	0	0
0800-0815	26	131	0	136	2	36	0	76	19	0	0	0
0815-0830	39	157	0	122	0	43	0	94	13	0	0	0
0830-0845	34	160	0	73	3	41	0	51	10	0	0	0
0845-0900	36	86	0	50	0	40	0	41	17	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0700-0800	107	319	0	293	1	85	0	139	30	0	0	0	974
0715-0815	111	373	0	379	2	107	0	193	47	0	0	0	1212
0730-0830	130	460	0	446	2	124	0	261	54	0	0	0	1477
0745-0845	134	548	0	443	5	144	0	281	56	0	0	0	1611
0800-0900	135	534	0	381	5	160	0	262	59	0	0	0	1536

A.M. PEAK HOUR
0745-0845



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

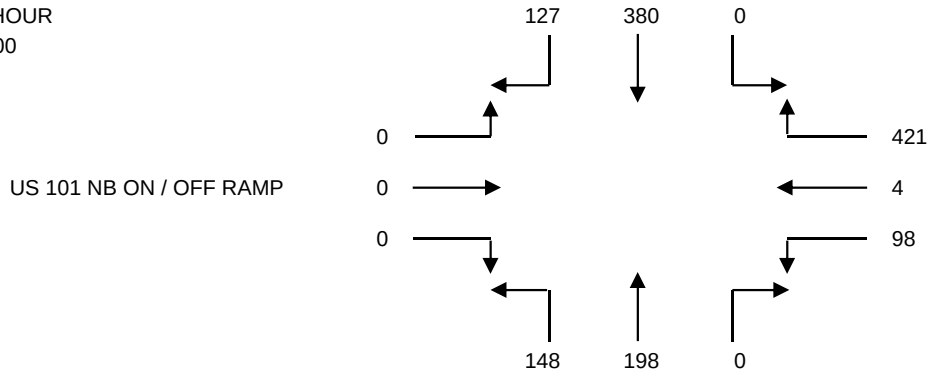
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KIMLEY HORN & ASSOCIATES, INC.
PROJECT: CITY OF AGOURA HILLS
DATE: TUESDAY, SEPTEMBER 24, 2013
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S PALO COMADO CANYON ROAD
E/W US 101 NB ON / OFF RAMP
FILE NUMBER: 2-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
0400-0415	41	70	0	91	0	25	0	49	22	0	0	0
0415-0430	35	105	0	83	0	27	0	36	32	0	0	0
0430-0445	28	85	0	88	1	29	0	54	24	0	0	0
0445-0500	36	75	0	73	0	22	0	44	29	0	0	0
0500-0515	24	105	0	105	1	29	0	54	20	0	0	0
0515-0530	39	120	0	103	1	22	0	53	53	0	0	0
0530-0545	34	66	0	113	2	26	0	50	34	0	0	0
0545-0600	30	89	0	100	0	21	0	41	41	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
0400-0500	140	335	0	335	1	103	0	183	107	0	0	0	1204
0415-0515	123	370	0	349	2	107	0	188	105	0	0	0	1244
0430-0530	127	385	0	369	3	102	0	205	126	0	0	0	1317
0445-0545	133	366	0	394	4	99	0	201	136	0	0	0	1333
0500-0600	127	380	0	421	4	98	0	198	148	0	0	0	1376

P.M. PEAK HOUR
0500-0600



DATA PROVIDED BY:

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91005
PH: 626-446-7978
FAX: 626-446-2877
.

APPENDIX B - EXISTING (2013) CONDITIONS INTERSECTION ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Existing AM
Command:	Existing AM
Volume:	Existing AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	none
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
none

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	29	7	146	38	6	12	11	494	12	169	511	33	1468
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	29	7	146	38	6	12	11	494	12	169	511	33	1468
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	56	281	0	0	548	134	0	0	0	144	5	443	1611
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	56	281	0	0	548	134	0	0	0	144	5	443	1611

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	29	7	146	38	6	12	11	494	12	169	511	33
2	Palo Comado a	56	281	0	0	548	134	0	0	0	144	5	443

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	E	48.4	1.008	E	48.4	1.008	+ 0.000 V/C
# 2 Palo Comado at 101 Fwy On/Off	D	27.6	0.695	D	27.6	0.695	+ 0.000 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.008
Loss Time (sec):	0	Average Delay (sec/veh):	48.4
Optimal Cycle:	0	Level Of Service:	E

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	0 1!	0	0	1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
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:	29	7	146	38	6	12	11	494	12	169	511	33
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	31	8	158	41	6	13	12	534	13	183	552	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	8	158	41	6	13	12	534	13	183	552	36
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:	31	8	158	41	6	13	12	534	13	183	552	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	353	85	506	289	46	91	12	539	13	536	548	35
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.31	0.14	0.14	0.14	0.99	0.99	0.99	0.34	1.01	1.01
Crit Moves:			****	****				****			****	
Delay/Veh:	11.6	11.6	12.9	12.6	12.6	12.6	60.9	60.9	60.9	12.8	63.2	63.2
Delay 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
AdjDel/Veh:	11.6	11.6	12.9	12.6	12.6	12.6	60.9	60.9	60.9	12.8	63.2	63.2
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.6			12.6			60.9			51.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.6			12.6			60.9			51.3		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.4	0.2	0.2	0.2	8.1	8.1	8.1	0.5	8.8	8.8

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.008
Loss Time (sec):	0	Average Delay (sec/veh):	48.4
Optimal Cycle:	0	Level Of Service:	E

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1 0	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
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:	29	7	146	38	6	12	11	494	12	169	511	33
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	7	146	38	6	12	11	494	12	169	511	33
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	31	8	158	41	6	13	12	534	13	183	552	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	8	158	41	6	13	12	534	13	183	552	36
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:	31	8	158	41	6	13	12	534	13	183	552	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	353	85	506	289	46	91	12	539	13	536	548	35
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.31	0.14	0.14	0.14	0.99	0.99	0.99	0.34	1.01	1.01
Crit Moves:			****	****				****			****	
Delay/Veh:	11.6	11.6	12.9	12.6	12.6	12.6	60.9	60.9	60.9	12.8	63.2	63.2
Delay 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
AdjDel/Veh:	11.6	11.6	12.9	12.6	12.6	12.6	60.9	60.9	60.9	12.8	63.2	63.2
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.6			12.6			60.9			51.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.6			12.6			60.9			51.3		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.4	0.2	0.2	0.2	8.1	8.1	8.1	0.5	8.8	8.8

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 10.5 Worst Case Level Of Service: D[27.6]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0 1	0 1		0 0 0	0 0		1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56 281	0		0 548	134		0 0	0		144	5	443
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:	56 281	0		0 548	134		0 0	0		144	5	443
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:	61 305	0		0 596	146		0 0	0		157	5	482
Reduct Vol:	0 0	0		0 0	0		0 0	0		0	0	0
FinalVolume:	61 305	0		0 596	146		0 0	0		157	5	482
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		6.4	6.5	6.2
FollowUpTim:	2.2 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	741 xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		1096	1168	305
Potent Cap.:	875 xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		238	195	739
Move Cap.:	875 xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		225	181	739
Volume/Cap:	0.07 xxxx xxxx	xxxx		xxxx xxxx	xxxx		xxxx xxxx	xxxx		0.70	0.03	0.65
Level Of Service Module:												
2Way95thQ:	0.2 xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		xxxx xxxxx	xxxx		4.5	xxxx	xxxxx
Control Del:	9.4 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		50.9	xxxx	xxxxx
LOS by Move:	A *	*		* *	*		* *	*		F	*	*
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	715
SharedQueue:	0.2 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxxx	xxxx	5.4
Shrd ConDel:	9.4 xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxx xxxxx	xxxxx		xxxxx	xxxx	20.1
Shared LOS:	A *	*		* *	*		* *	*		*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			27.6		
ApproachLOS:	*			*			*			D		

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 10.5 Worst Case Level Of Service: D[27.6]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0	0	0	0 1	0	0	0	0 0	1	0	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56 281	0	0	548	134	0	0	0		144	5	443
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:	56 281	0	0	548	134	0	0	0		144	5	443
Added Vol:	0 0	0	0	0	0	0	0	0		0	0	0
PasserByVol:	0 0	0	0	0	0	0	0	0		0	0	0
Initial Fut:	56 281	0	0	548	134	0	0	0		144	5	443
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:	61 305	0	0	596	146	0	0	0		157	5	482
Reduct Vol:	0 0	0	0	0	0	0	0	0		0	0	0
FinalVolume:	61 305	0	0	596	146	0	0	0		157	5	482
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			6.4	6.5	6.2
FollowUpTim:	2.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	741 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			1096	1168	305
Potent Cap.:	875 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			238	195	739
Move Cap.:	875 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			225	181	739
Volume/Cap:	0.07 xxxx xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			0.70	0.03	0.65
Level Of Service Module:												
2Way95thQ:	0.2 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			4.5	xxxx	xxxxx
Control Del:	9.4 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx			50.9	xxxx	xxxxx
LOS by Move:	A *	*	*	*	*	*	*	*		F	*	*
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	715
SharedQueue:	0.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		xxxxx	xxxx	5.4
Shrd ConDel:	9.4 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx		xxxxx	xxxx	20.1
Shared LOS:	A *	*	*	*	*	*	*	*		*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			27.6		
ApproachLOS:	*			*			*			D		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.4	0.2	0.2	0.2	8.1	8.1	8.1	0.5	8.8	8.8
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.5	5.4	5.4

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.4	0.2	0.2	0.2	8.1	8.1	8.1	0.5	8.8	8.8
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.5	5.4	5.4

Scenario Report

Scenario:	Existing PM
Command:	Existing PM
Volume:	Existing PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	None
Trip Distribution:	none
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
none

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	12	8	282	37	3	9	8	181	11	211	342	59	1163
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	12	8	282	37	3	9	8	181	11	211	342	59	1163
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	148	198	0	0	380	127	0	0	0	98	4	421	1376
Added	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	148	198	0	0	380	127	0	0	0	98	4	421	1376

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	12	8	282	37	3	9	8	181	11	211	342	59
2	Palo Comado a	148	198	0	0	380	127	0	0	0	98	4	421

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	C	16.6	0.720	C	16.6	0.720	+ 0.000 V/C
# 2 Palo Comado at 101 Fwy On/Off	C	18.8	0.551	C	18.8	0.551	+ 0.000 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	0	Average Delay (sec/veh):	16.6
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1 0	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
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:	12	8	282	37	3	9	8	181	11	211	342	59
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	13	9	305	40	3	10	9	196	12	228	370	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	9	305	40	3	10	9	196	12	228	370	64
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:	13	9	305	40	3	10	9	196	12	228	370	64
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.91	0.05	1.00	0.85	0.15
Final Sat.:	291	194	565	336	27	82	21	483	29	544	513	89
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.54	0.12	0.12	0.12	0.40	0.40	0.40	0.42	0.72	0.72
Crit Moves:			****		****			****			****	
Delay/Veh:	10.1	10.1	15.1	11.2	11.2	11.2	13.6	13.6	13.6	13.7	21.7	21.7
Delay 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
AdjDel/Veh:	10.1	10.1	15.1	11.2	11.2	11.2	13.6	13.6	13.6	13.7	21.7	21.7
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	14.8			11.2			13.6			19.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.8			11.2			13.6			19.0		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.0	0.0	1.0	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.2	2.2

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	0	Average Delay (sec/veh):	16.6
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1 0	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
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:	12	8	282	37	3	9	8	181	11	211	342	59
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	8	282	37	3	9	8	181	11	211	342	59
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	13	9	305	40	3	10	9	196	12	228	370	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	9	305	40	3	10	9	196	12	228	370	64
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:	13	9	305	40	3	10	9	196	12	228	370	64
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.91	0.05	1.00	0.85	0.15
Final Sat.:	291	194	565	336	27	82	21	483	29	544	513	89
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.54	0.12	0.12	0.12	0.40	0.40	0.40	0.42	0.72	0.72
Crit Moves:			****		****			****			****	
Delay/Veh:	10.1	10.1	15.1	11.2	11.2	11.2	13.6	13.6	13.6	13.7	21.7	21.7
Delay 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
AdjDel/Veh:	10.1	10.1	15.1	11.2	11.2	11.2	13.6	13.6	13.6	13.7	21.7	21.7
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	14.8			11.2			13.6			19.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.8			11.2			13.6			19.0		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.0	0.0	1.0	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.2	2.2

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.1 Worst Case Level Of Service: C[18.8]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0	0	0 0 1	0	1	0 0 0	0	0	1 0 0	1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148 198	0	0	380	127	0	0	0	98	4	421	
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
Initial Bse:	148 198	0	0	380	127	0	0	0	98	4	421	
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
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	0.92
PHF Volume:	161 215	0	0	413	138	0	0	0	107	4	458	
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	161 215	0	0	413	138	0	0	0	107	4	458	
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4	6.5	6.2	
FollowUpTim:	2.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5	4.0	3.3	
Capacity Module:												
Cnflict Vol:	551 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1019	1088	215	
Potent Cap.:	1029 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		265	217	830	
Move Cap.:	1029 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		229	180	830	
Volume/Cap:	0.16 xxxx xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.46	0.02	0.55	
Level Of Service Module:												
2Way95thQ:	0.6 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	
Control Del:	9.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		33.6	xxxx	xxxxx	
LOS by Move:	A *	*	*	*	*	*	*	*	D	*	*	
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	802	
SharedQueue:	0.6 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.7		
Shrd ConDel:	9.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.4		
Shared LOS:	A *	*	*	*	*	*	*	*	*	*	C	
ApproachDel:	xxxxxx		xxxxxx		xxxxxx			18.8				
ApproachLOS:	*		*		*			C				

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.1 Worst Case Level Of Service: C[18.8]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
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:	148	198	0	0	380	127	0	0	0	98	4	421
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	148	198	0	0	380	127	0	0	0	98	4	421
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:	161	215	0	0	413	138	0	0	0	107	4	458
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	161	215	0	0	413	138	0	0	0	107	4	458
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	551	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1019	1088	215
Potent Cap.:	1029	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	265	217	830
Move Cap.:	1029	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	229	180	830
Volume/Cap:	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.46	0.02	0.55
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.3	xxxx	xxxxx
Control Del:	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	33.6	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	D	*	*
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	802
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.7
Shrd ConDel:	9.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.4
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			18.8		
ApproachLOS:	*			*			*			C		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.0	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.2	2.2
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.3	3.7	3.7

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.0	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.2	2.2
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.3	3.7	3.7

APPENDIX C - EXISTING (2013) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Existing AM + Project
Command:	Existing AM+Project
Volume:	Existing AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
Project AM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	29	7	146	38	6	12	11	494	12	169	511	33	1468
Added	0	0	3	0	0	0	0	0	0	7	1	0	11
Total	29	7	149	38	6	12	11	494	12	176	512	33	1479
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	56	281	0	0	548	134	0	0	0	144	5	443	1611
Added	0	1	0	0	4	2	0	0	0	0	0	2	9
Total	56	282	0	0	552	136	0	0	0	144	5	445	1620

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	29	7	146	38	6	12	11	494	12	169	511	33
2	Palo Comado a	56	281	0	0	548	134	0	0	0	144	5	443

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	29	7	149	38	6	12	11	494	12	176	512	33
2	Palo Comado a	56	282	0	0	552	136	0	0	0	144	5	445

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	E	48.4	1.008	E	48.9	1.012	+ 0.005 V/C
# 2 Palo Comado at 101 Fwy On/Off	D	27.6	0.695	D	28.0	0.702	+ 0.388 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.008
Loss Time (sec):	0	Average Delay (sec/veh):	48.4
Optimal Cycle:	0	Level Of Service:	E

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
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:	29	7	146	38	6	12	11	494	12	169	511	33
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	31	8	158	41	6	13	12	534	13	183	552	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	8	158	41	6	13	12	534	13	183	552	36
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:	31	8	158	41	6	13	12	534	13	183	552	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	353	85	506	289	46	91	12	539	13	536	548	35
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.31	0.14	0.14	0.14	0.99	0.99	0.99	0.34	1.01	1.01
Crit Moves:			****	****				****			****	
Delay/Veh:	11.6	11.6	12.9	12.6	12.6	12.6	60.9	60.9	60.9	12.8	63.2	63.2
Delay 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
AdjDel/Veh:	11.6	11.6	12.9	12.6	12.6	12.6	60.9	60.9	60.9	12.8	63.2	63.2
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.6			12.6			60.9			51.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.6			12.6			60.9			51.3		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.4	0.2	0.2	0.2	8.1	8.1	8.1	0.5	8.8	8.8

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.012
Loss Time (sec):	0	Average Delay (sec/veh):	48.9
Optimal Cycle:	0	Level Of Service:	E

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	1	0	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
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:	29	7	146	38	6	12	11	494	12	169	511	33
Added Vol:	0	0	3	0	0	0	0	0	0	7	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	7	149	38	6	12	11	494	12	176	512	33
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	31	8	161	41	6	13	12	534	13	190	554	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	31	8	161	41	6	13	12	534	13	190	554	36
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:	31	8	161	41	6	13	12	534	13	190	554	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	353	85	507	288	46	91	12	538	13	534	547	35
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.32	0.14	0.14	0.14	0.99	0.99	0.99	0.36	1.01	1.01
Crit Moves:			****	****				****			****	
Delay/Veh:	11.6	11.6	13.0	12.6	12.6	12.6	61.5	61.5	61.5	13.1	64.5	64.5
Delay 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
AdjDel/Veh:	11.6	11.6	13.0	12.6	12.6	12.6	61.5	61.5	61.5	13.1	64.5	64.5
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.7			12.6			61.5			52.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			12.6			61.5			52.0		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	8.1	8.1	8.1	0.5	9.0	9.0

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 10.5 Worst Case Level Of Service: D[27.6]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
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:	56	281	0	0	548	134	0	0	0	144	5	443
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:	61	305	0	0	596	146	0	0	0	157	5	482
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	305	0	0	596	146	0	0	0	157	5	482
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	741	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1096	1168	305
Potent Cap.:	875	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	238	195	739
Move Cap.:	875	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	225	181	739
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.70	0.03	0.65
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.5	xxxx	xxxxx
Control Del:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	50.9	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	F	*	*
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	715
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	5.4
Shrd ConDel:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.1
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			27.6		
ApproachLOS:	*			*			*			D		

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 10.6 Worst Case Level Of Service: D[28.0]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
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:	56	281	0	0	548	134	0	0	0	144	5	443
Added Vol:	0	1	0	0	4	2	0	0	0	0	0	2
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	56	282	0	0	552	136	0	0	0	144	5	445
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:	61	307	0	0	600	148	0	0	0	157	5	484
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	61	307	0	0	600	148	0	0	0	157	5	484
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	748	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1102	1176	307
Potent Cap.:	870	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	236	193	738
Move Cap.:	870	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	223	179	738
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.70	0.03	0.66
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.6	xxxx	xxxxx
Control Del:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	52.0	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	F	*	*
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	713
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	5.5
Shrd ConDel:	9.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.3
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			28.0		
ApproachLOS:	*			*			*			D		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.4	0.2	0.2	0.2	8.1	8.1	8.1	0.5	8.8	8.8
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.5	5.4	5.4

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	8.1	8.1	8.1	0.5	9.0	9.0
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.6	5.5	5.5

Scenario Report

Scenario:	Existing PM + Project
Command:	Existing PM+Project
Volume:	Existing PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
Project PM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	12	8	282	37	3	9	8	181	11	211	342	59	1163
Added	0	0	8	0	0	0	0	1	0	5	1	0	15
Total	12	8	290	37	3	9	8	182	11	216	343	59	1178
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	148	198	0	0	380	127	0	0	0	98	4	421	1376
Added	0	3	0	0	3	2	0	0	0	0	0	5	13
Total	148	201	0	0	383	129	0	0	0	98	4	426	1389

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	12	8	282	37	3	9	8	181	11	211	342	59
2	Palo Comado a	148	198	0	0	380	127	0	0	0	98	4	421

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	12	8	290	37	3	9	8	182	11	216	343	59
2	Palo Comado a	148	201	0	0	383	129	0	0	0	98	4	426

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	C	16.6	0.720	C	17.0	0.726	+ 0.006 V/C
# 2 Palo Comado at 101 Fwy On/Off	C	18.8	0.551	C	19.1	0.560	+ 0.285 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.720
Loss Time (sec):	0	Average Delay (sec/veh):	16.6
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1!	0	0 0	0	0	0 0	1!	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
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:	12	8	282	37	3	9	8	181	11	211	342	59
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	13	9	305	40	3	10	9	196	12	228	370	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	9	305	40	3	10	9	196	12	228	370	64
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:	13	9	305	40	3	10	9	196	12	228	370	64
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.91	0.05	1.00	0.85	0.15
Final Sat.:	291	194	565	336	27	82	21	483	29	544	513	89
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.54	0.12	0.12	0.12	0.40	0.40	0.40	0.42	0.72	0.72
Crit Moves:			****		****			****			****	
Delay/Veh:	10.1	10.1	15.1	11.2	11.2	11.2	13.6	13.6	13.6	13.7	21.7	21.7
Delay 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
AdjDel/Veh:	10.1	10.1	15.1	11.2	11.2	11.2	13.6	13.6	13.6	13.7	21.7	21.7
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	14.8			11.2			13.6			19.0		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	14.8			11.2			13.6			19.0		
LOS by Appr:	B			B			B			C		
AllWayAvgQ:	0.0	0.0	1.0	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.2	2.2

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.726
Loss Time (sec):	0	Average Delay (sec/veh):	17.0
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1	0 0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
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:	12	8	282	37	3	9	8	181	11	211	342	59
Added Vol:	0	0	8	0	0	0	0	1	0	5	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	8	290	37	3	9	8	182	11	216	343	59
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:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	13	9	314	40	3	10	9	197	12	234	371	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	9	314	40	3	10	9	197	12	234	371	64
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:	13	9	314	40	3	10	9	197	12	234	371	64
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.91	0.05	1.00	0.85	0.15
Final Sat.:	291	194	564	334	27	81	21	480	29	541	511	88
Capacity Analysis Module:												
Vol/Sat:	0.04	0.04	0.56	0.12	0.12	0.12	0.41	0.41	0.41	0.43	0.73	0.73
Crit Moves:			****		****			****			****	
Delay/Veh:	10.1	10.1	15.6	11.3	11.3	11.3	13.7	13.7	13.7	14.0	22.2	22.2
Delay 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
AdjDel/Veh:	10.1	10.1	15.6	11.3	11.3	11.3	13.7	13.7	13.7	14.0	22.2	22.2
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	15.2			11.3			13.7			19.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.2			11.3			13.7			19.3		
LOS by Appr:	C			B			B			C		
AllWayAvgQ:	0.0	0.0	1.1	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.3	2.3

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.1 Worst Case Level Of Service: C[18.8]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0	0	0 0 1	0	1	0 0 0	0	0	1 0 0	1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148 198	0	0	380	127	0	0	0	98	4	421	
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
Initial Bse:	148 198	0	0	380	127	0	0	0	98	4	421	
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
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	0.92
PHF Volume:	161 215	0	0	413	138	0	0	0	107	4	458	
Reduct Vol:	0 0	0	0	0	0	0	0	0	0	0	0	
FinalVolume:	161 215	0	0	413	138	0	0	0	107	4	458	
Critical Gap Module:												
Critical Gp:	4.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		6.4	6.5	6.2	
FollowUpTim:	2.2 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		3.5	4.0	3.3	
Capacity Module:												
Cnflict Vol:	551 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		1019	1088	215	
Potent Cap.:	1029 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		265	217	830	
Move Cap.:	1029 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		229	180	830	
Volume/Cap:	0.16 xxxx xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		0.46	0.02	0.55	
Level Of Service Module:												
2Way95thQ:	0.6 xxxx xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx		2.3	xxxx	xxxxx	
Control Del:	9.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx		33.6	xxxx	xxxxx	
LOS by Move:	A *	*	*	*	*	*	*	*	D	*	*	
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	802	
SharedQueue:	0.6 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	3.7	
Shrd ConDel:	9.1 xxxx xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.4		
Shared LOS:	A *	*	*	*	*	*	*	*	*	*	C	
ApproachDel:	xxxxxx		xxxxxx		xxxxxx			18.8				
ApproachLOS:	*		*		*			C				

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.2 Worst Case Level Of Service: C[19.1]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
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:	148	198	0	0	380	127	0	0	0	98	4	421
Added Vol:	0	3	0	0	3	2	0	0	0	0	0	5
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	148	201	0	0	383	129	0	0	0	98	4	426
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:	161	218	0	0	416	140	0	0	0	107	4	463
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	161	218	0	0	416	140	0	0	0	107	4	463
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	557	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1027	1097	218
Potent Cap.:	1024	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	262	215	826
Move Cap.:	1024	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	227	177	826
Volume/Cap:	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.47	0.02	0.56
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.3	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	34.2	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	D	*	*
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	799
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.9
Shrd ConDel:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.7
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.1		
ApproachLOS:	*			*			*			C		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.0	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.2	2.2
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.3	3.7	3.7

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.1	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.3	2.3
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.3	3.9	3.9

APPENDIX D - NEAR TERM (2015) (OPENING YEAR) CONDITIONS INTERSECTION ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Near Term (Proj Opening Year) AM
Command:	Near Term (Proj Opening Year) AM
Volume:	Future 2015 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cumulative AM
Trip Distribution:	Cumulative
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
Cumulative AM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	29	7	148	39	6	12	11	501	12	172	519	33	1490
Added	9	2	1	0	1	2	1	0	2	1	0	0	19
Total	38	9	149	39	7	14	12	501	14	173	519	33	1509
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	57	285	0	0	556	136	0	0	0	146	5	450	1635
Added	2	7	0	0	5	1	0	0	0	3	0	4	22
Total	59	292	0	0	561	137	0	0	0	149	5	454	1657

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	29	7	148	39	6	12	11	501	12	172	519	33
2	Palo Comado a	57	285	0	0	556	136	0	0	0	146	5	450

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	38	9	149	39	7	14	12	501	14	173	519	33
2	Palo Comado a	59	292	0	0	561	137	0	0	0	149	5	454

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	F	53.4	1.033	F	56.0	1.046	+ 0.012 V/C
# 2 Palo Comado at 101 Fwy On/Off	D	29.2	0.000	D	31.2	0.000	+ 2.063 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.033
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	53.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	1	0	0 1 0
Volume Module:0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	29	7	148	39	6	12	11	501	12	172	519	33
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:	32	8	161	42	7	13	12	545	13	186	564	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	8	161	42	7	13	12	545	13	186	564	36
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:	32	8	161	42	7	13	12	545	13	186	564	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	353	85	506	288	45	91	12	537	13	533	546	35
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.32	0.15	0.15	0.15	1.02	1.02	1.02	0.35	1.03	1.03
Crit Moves:			****	****				****			****	
Delay/Veh:	11.7	11.7	13.0	12.7	12.7	12.7	67.2	67.2	67.2	13.0	70.6	70.6
Delay 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
AdjDel/Veh:	11.7	11.7	13.0	12.7	12.7	12.7	67.2	67.2	67.2	13.0	70.6	70.6
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.7			12.7			67.2			56.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			12.7			67.2			56.9		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	9.0	9.0	9.0	0.5	10.0	10.0

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.046
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	56.0
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1	0 0	1 0
Volume Module:0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	29	7	148	39	6	12	11	501	12	172	519	33
Added Vol:	9	2	1	0	1	2	1	0	2	1	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	9	149	39	7	14	12	501	14	173	519	33
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:	42	10	162	42	8	15	13	545	15	188	564	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	10	162	42	8	15	13	545	15	188	564	36
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:	42	10	162	42	8	15	13	545	15	188	564	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.64	0.12	0.24	0.02	0.95	0.03	1.00	0.94	0.06
Final Sat.:	353	84	505	273	50	100	13	528	15	527	539	35
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.32	0.15	0.15	0.15	1.03	1.03	1.03	0.36	1.05	1.05
Crit Moves:			****		****				****		****	
Delay/Veh:	12.0	12.0	13.1	12.8	12.8	12.8	71.8	71.8	71.8	13.2	74.2	74.2
Delay 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
AdjDel/Veh:	12.0	12.0	13.1	12.8	12.8	12.8	71.8	71.8	71.8	13.2	74.2	74.2
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.8			12.8			71.8			59.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.8			12.8			71.8			59.7		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	9.6	9.6	9.6	0.5	10.4	10.4

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 11.1 Worst Case Level Of Service: D[29.2]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	285	0	0	556	136	0	0	0	146	5	450
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:	62	310	0	0	605	148	0	0	0	159	6	489
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	62	310	0	0	605	148	0	0	0	159	6	489
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	752	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1112	1186	310
Potent Cap.:	866	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	233	190	735
Move Cap.:	866	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	220	176	735
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.72	0.03	0.67
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.8	xxxx	xxxxx
Control Del:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	55.0	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	F	*	*
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	710
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	5.7
Shrd ConDel:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.9
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			29.2		
ApproachLOS:	*			*			*			D		

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 11.8 Worst Case Level Of Service: D[31.2]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	285	0	0	556	136	0	0	0	146	5	450
Added Vol:	2	7	0	0	5	1	0	0	0	3	0	4
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	292	0	0	561	137	0	0	0	149	5	454
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:	64	318	0	0	610	149	0	0	0	162	6	493
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	64	318	0	0	610	149	0	0	0	162	6	493
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	759	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1130	1205	318
Potent Cap.:	862	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	227	186	728
Move Cap.:	862	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	214	171	728
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.76	0.03	0.68
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	5.2	xxxx	xxxxx
Control Del:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	60.7	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	F	*	*
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	702
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.0
Shrd ConDel:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	21.7
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			31.2		
ApproachLOS:	*			*			*			D		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	9.0	9.0	9.0	0.5	10.0	10.0
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.8	5.7	5.7

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	9.6	9.6	9.6	0.5	10.4	10.4
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	5.2	6.0	6.0

Scenario Report

Scenario:	Near Term (Proj Opening Year) PM
Command:	Near Term (Proj Opening Year) PM
Volume:	Future 2015 PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cumulative PM
Trip Distribution:	Cumulative
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
Cumulative PM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	12	8	286	38	3	9	8	184	11	214	347	60	1181
Added	6	2	1	0	3	1	3	0	13	2	0	0	31
Total	18	10	287	38	6	10	11	184	24	216	347	60	1212
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	150	201	0	0	386	129	0	0	0	99	4	427	1397
Added	3	7	0	0	13	4	0	0	0	5	0	3	35
Total	153	208	0	0	399	133	0	0	0	104	4	430	1432

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	12	8	286	38	3	9	8	184	11	214	347	60
2	Palo Comado a	150	201	0	0	386	129	0	0	0	99	4	427

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	18	10	287	38	6	10	11	184	24	216	347	60
2	Palo Comado a	153	208	0	0	399	133	0	0	0	104	4	430

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	C	17.3	0.740	C	17.8	0.750	+ 0.010 V/C
# 2 Palo Comado at 101 Fwy On/Off	C	19.4	0.000	C	20.7	0.000	+ 1.285 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 0 Level Of Service: C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	12	8	286	38	3	9	8	184	11	214	347	60
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:	13	9	311	41	3	10	9	200	12	233	377	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	9	311	41	3	10	9	200	12	233	377	65
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:	13	9	311	41	3	10	9	200	12	233	377	65
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.90	0.06	1.00	0.85	0.15
Final Sat.:	290	193	561	333	27	81	21	480	29	541	510	88
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.55	0.12	0.12	0.12	0.42	0.42	0.42	0.43	0.74	0.74
Crit Moves:			****	****					****		****	
Delay/Veh:	10.2	10.2	15.6	11.3	11.3	11.3	13.8	13.8	13.8	14.0	23.1	23.1
Delay 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
AdjDel/Veh:	10.2	10.2	15.6	11.3	11.3	11.3	13.8	13.8	13.8	14.0	23.1	23.1
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	15.2			11.3			13.8			19.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.2			11.3			13.8			19.9		
LOS by Appr:	C			B			B			C		
AllWayAvgQ:	0.0	0.0	1.1	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.4	2.4

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.750
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 17.8
Optimal Cycle: 0 Level Of Service: C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0 1!	0	0	0 1!	0	1	0	0 1 0
Volume Module:0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	12	8	286	38	3	9	8	184	11	214	347	60
Added Vol:	6	2	1	0	3	1	3	0	13	2	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	10	287	38	6	10	11	184	24	216	347	60
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:	20	11	312	41	7	11	12	200	26	235	377	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	11	312	41	7	11	12	200	26	235	377	65
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:	20	11	312	41	7	11	12	200	26	235	377	65
Saturation Flow Module:												
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:	0.64	0.36	1.00	0.70	0.11	0.19	0.05	0.84	0.11	1.00	0.85	0.15
Final Sat.:	307	171	556	304	49	82	27	443	58	534	503	87
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.56	0.13	0.13	0.13	0.45	0.45	0.45	0.44	0.75	0.75
Crit Moves:			****		****			****			****	
Delay/Veh:	10.4	10.4	15.9	11.5	11.5	11.5	14.5	14.5	14.5	14.3	24.0	24.0
Delay 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
AdjDel/Veh:	10.4	10.4	15.9	11.5	11.5	11.5	14.5	14.5	14.5	14.3	24.0	24.0
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	15.4			11.5			14.5			20.6		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.4			11.5			14.5			20.6		
LOS by Appr:	C			B			B			C		
AllWayAvgQ:	0.1	0.1	1.1	0.1	0.1	0.1	0.7	0.7	0.7	0.7	2.5	2.5

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.4 Worst Case Level Of Service: C[19.4]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	150	201	0	0	386	129	0	0	0	99	4	427
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:	163	218	0	0	419	140	0	0	0	108	4	465
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	163	218	0	0	419	140	0	0	0	108	4	465
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	559	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1034	1104	218
Potent Cap.:	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	259	213	826
Move Cap.:	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	224	175	826
Volume/Cap:	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.48	0.03	0.56
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.4	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	35.2	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	E	*	*
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	798
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.9
Shrd ConDel:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.7
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.4		
ApproachLOS:	*			*			*			C		

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.8 Worst Case Level Of Service: C[20.7]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	150	201	0	0	386	129	0	0	0	99	4	427
Added Vol:	3	7	0	0	13	4	0	0	0	5	0	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	208	0	0	399	133	0	0	0	104	4	430
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:	167	226	0	0	433	144	0	0	0	114	4	468
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	167	226	0	0	433	144	0	0	0	114	4	468
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	578	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1065	1137	226
Potent Cap.:	1006	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	249	203	818
Move Cap.:	1006	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	213	166	818
Volume/Cap:	0.17	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.53	0.03	0.57
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.8	xxxx	xxxxx
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	39.6	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	E	*	*
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	789
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	4.1
Shrd ConDel:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	16.1
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			20.7		
ApproachLOS:	*			*			*			C		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.1	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.4	2.4
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.4	3.9	3.9

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	1.1	0.1	0.1	0.1	0.7	0.7	0.7	0.7	2.5	2.5
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.8	4.1	4.1

APPENDIX E - NEAR TERM (2015) (OPENING YEAR) WITH PROJECT CONDITIONS INTERSECTION ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Near Term (Proj Opening Year) + Project AM
Command:	Near Term (Proj Opening Year) + Project AM
Volume:	Future 2015 AM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cumulative + Project AM
Trip Distribution:	Cumulative + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
Cumulative + Project AM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	29	7	148	39	6	12	11	501	12	172	519	33	1490
Added	9	2	4	0	1	2	1	0	2	8	1	0	30
Total	38	9	152	39	7	14	12	501	14	180	520	33	1520
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	57	285	0	0	556	136	0	0	0	146	5	450	1635
Added	2	8	0	0	9	3	0	0	0	3	0	6	31
Total	59	293	0	0	565	139	0	0	0	149	5	456	1666

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	29	7	148	39	6	12	11	501	12	172	519	33
2	Palo Comado a	57	285	0	0	556	136	0	0	0	146	5	450

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	38	9	152	39	7	14	12	501	14	180	520	33
2	Palo Comado a	59	293	0	0	565	139	0	0	0	149	5	456

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	F	53.4	1.033	F	56.4	1.049	+ 0.016 V/C
# 2 Palo Comado at 101 Fwy On/Off	D	29.2	0.000	D	31.7	0.000	+ 2.559 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.033
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	53.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	29	7	148	39	6	12	11	501	12	172	519	33
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:	32	8	161	42	7	13	12	545	13	186	564	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	8	161	42	7	13	12	545	13	186	564	36
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:	32	8	161	42	7	13	12	545	13	186	564	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	353	85	506	288	45	91	12	537	13	533	546	35
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.32	0.15	0.15	0.15	1.02	1.02	1.02	0.35	1.03	1.03
Crit Moves:			****	****				****			****	
Delay/Veh:	11.7	11.7	13.0	12.7	12.7	12.7	67.2	67.2	67.2	13.0	70.6	70.6
Delay 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
AdjDel/Veh:	11.7	11.7	13.0	12.7	12.7	12.7	67.2	67.2	67.2	13.0	70.6	70.6
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.7			12.7			67.2			56.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.7			12.7			67.2			56.9		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	9.0	9.0	9.0	0.5	10.0	10.0

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.049
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	56.4
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1	0 0 1 0
Volume Module:0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	29	7	148	39	6	12	11	501	12	172	519	33
Added Vol:	9	2	4	0	1	2	1	0	2	8	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	38	9	152	39	7	14	12	501	14	180	520	33
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:	42	10	165	42	8	15	13	545	15	195	565	36
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	42	10	165	42	8	15	13	545	15	195	565	36
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:	42	10	165	42	8	15	13	545	15	195	565	36
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.64	0.12	0.24	0.02	0.95	0.03	1.00	0.94	0.06
Final Sat.:	353	84	504	272	50	100	13	527	15	526	539	35
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.33	0.15	0.15	0.15	1.03	1.03	1.03	0.37	1.05	1.05
Crit Moves:			****		****			****			****	
Delay/Veh:	12.0	12.0	13.2	12.8	12.8	12.8	72.5	72.5	72.5	13.5	75.6	75.6
Delay 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
AdjDel/Veh:	12.0	12.0	13.2	12.8	12.8	12.8	72.5	72.5	72.5	13.5	75.6	75.6
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	12.9			12.8			72.5			60.3		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	12.9			12.8			72.5			60.3		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	9.7	9.7	9.7	0.6	10.6	10.6

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 11.1 Worst Case Level Of Service: D[29.2]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	285	0	0	556	136	0	0	0	146	5	450
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:	62	310	0	0	605	148	0	0	0	159	6	489
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	62	310	0	0	605	148	0	0	0	159	6	489
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	752	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1112	1186	310
Potent Cap.:	866	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	233	190	735
Move Cap.:	866	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	220	176	735
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.72	0.03	0.67
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	4.8	xxxx	xxxxx
Control Del:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	55.0	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	F	*	*
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	710
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	5.7
Shrd ConDel:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	20.9
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			29.2		
ApproachLOS:	*			*			*			D		

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 12.0 Worst Case Level Of Service: D[31.7]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	57	285	0	0	556	136	0	0	0	146	5	450
Added Vol:	2	8	0	0	9	3	0	0	0	3	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	59	293	0	0	565	139	0	0	0	149	5	456
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:	64	319	0	0	614	151	0	0	0	162	6	495
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	64	319	0	0	614	151	0	0	0	162	6	495
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	766	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1137	1212	319
Potent Cap.:	857	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	225	184	727
Move Cap.:	857	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	212	169	727
Volume/Cap:	0.07	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.77	0.03	0.68
Level Of Service Module:												
2Way95thQ:	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	5.3	xxxx	xxxxx
Control Del:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	62.1	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	F	*	*
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	701
SharedQueue:	0.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	6.0
Shrd ConDel:	9.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	21.9
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			31.7		
ApproachLOS:	*			*			*			D		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	9.0	9.0	9.0	0.5	10.0	10.0
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	4.8	5.7	5.7

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	9.7	9.7	9.7	0.6	10.6	10.6
#2	[2Way95thQ]:	0.2	0.2	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	5.3	6.0	6.0

Scenario Report

Scenario:	Near Term (Proj Opening Year) + Project PM
Command:	Near Term (Proj Opening Year) + Project PM
Volume:	Future 2015 PM
Geometry:	Existing
Impact Fee:	Default Impact Fee
Trip Generation:	Cumulative + Project PM
Trip Distribution:	Cumulative + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Existing

Turning Movement Report
Cumulative + Project PM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	12	8	286	38	3	9	8	184	11	214	347	60	1181
Added	6	2	9	0	3	1	3	1	13	7	1	0	46
Total	18	10	295	38	6	10	11	185	24	221	348	60	1227
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	150	201	0	0	386	129	0	0	0	99	4	427	1397
Added	3	10	0	0	16	6	0	0	0	5	0	8	48
Total	153	211	0	0	402	135	0	0	0	104	4	435	1445

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	12	8	286	38	3	9	8	184	11	214	347	60
2	Palo Comado a	150	201	0	0	386	129	0	0	0	99	4	427

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	18	10	295	38	6	10	11	185	24	221	348	60
2	Palo Comado a	153	211	0	0	402	135	0	0	0	104	4	435

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	C	17.3	0.740	C	18.1	0.757	+ 0.017 V/C
# 2 Palo Comado at 101 Fwy On/Off	C	19.4	0.000	C	21.0	0.000	+ 1.627 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 0 (Y+R=4.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 0 Level Of Service: C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	12	8	286	38	3	9	8	184	11	214	347	60
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:	13	9	311	41	3	10	9	200	12	233	377	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	9	311	41	3	10	9	200	12	233	377	65
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:	13	9	311	41	3	10	9	200	12	233	377	65
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.90	0.06	1.00	0.85	0.15
Final Sat.:	290	193	561	333	27	81	21	480	29	541	510	88
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.55	0.12	0.12	0.12	0.42	0.42	0.42	0.43	0.74	0.74
Crit Moves:			****	****					****		****	
Delay/Veh:	10.2	10.2	15.6	11.3	11.3	11.3	13.8	13.8	13.8	14.0	23.1	23.1
Delay 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
AdjDel/Veh:	10.2	10.2	15.6	11.3	11.3	11.3	13.8	13.8	13.8	14.0	23.1	23.1
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	15.2			11.3			13.8			19.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.2			11.3			13.8			19.9		
LOS by Appr:	C			B			B			C		
AllWayAvgQ:	0.0	0.0	1.1	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.4	2.4

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.757
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	18.1
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	12	8	286	38	3	9	8	184	11	214	347	60
Added Vol:	6	2	9	0	3	1	3	1	13	7	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	18	10	295	38	6	10	11	185	24	221	348	60
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:	20	11	321	41	7	11	12	201	26	240	378	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	11	321	41	7	11	12	201	26	240	378	65
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:	20	11	321	41	7	11	12	201	26	240	378	65
Saturation Flow Module:												
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:	0.64	0.36	1.00	0.70	0.11	0.19	0.05	0.84	0.11	1.00	0.85	0.15
Final Sat.:	306	171	554	302	49	82	27	441	58	531	500	86
Capacity Analysis Module:												
Vol/Sat:	0.06	0.06	0.58	0.14	0.14	0.14	0.46	0.46	0.46	0.45	0.76	0.76
Crit Moves:			****		****			****				****
Delay/Veh:	10.4	10.4	16.5	11.6	11.6	11.6	14.7	14.7	14.7	14.6	24.5	24.5
Delay 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
AdjDel/Veh:	10.4	10.4	16.5	11.6	11.6	11.6	14.7	14.7	14.7	14.6	24.5	24.5
LOS by Move:	B	B	C	B	B	B	B	B	B	B	C	C
ApproachDel:	15.9			11.6			14.7			21.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	15.9			11.6			14.7			21.1		
LOS by Appr:	C			B			B			C		
AllWayAvgQ:	0.1	0.1	1.2	0.1	0.1	0.1	0.7	0.7	0.7	0.8	2.6	2.6

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.4 Worst Case Level Of Service: C[19.4]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	150	201	0	0	386	129	0	0	0	99	4	427
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:	163	218	0	0	419	140	0	0	0	108	4	465
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	163	218	0	0	419	140	0	0	0	108	4	465
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	559	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1034	1104	218
Potent Cap.:	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	259	213	826
Move Cap.:	1022	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	224	175	826
Volume/Cap:	0.16	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.48	0.03	0.56
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.4	xxxx	xxxxx
Control Del:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	35.2	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	E	*	*
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	798
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	3.9
Shrd ConDel:	9.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	15.7
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			19.4		
ApproachLOS:	*			*			*			C		

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Average Delay (sec/veh): 8.9 Worst Case Level Of Service: C[21.0]

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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	0 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
Growth Adj:	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
Initial Bse:	150	201	0	0	386	129	0	0	0	99	4	427
Added Vol:	3	10	0	0	16	6	0	0	0	5	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	153	211	0	0	402	135	0	0	0	104	4	435
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:	167	229	0	0	437	147	0	0	0	114	4	473
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	167	229	0	0	437	147	0	0	0	114	4	473
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	583	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1072	1146	229
Potent Cap.:	1001	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	246	201	815
Move Cap.:	1001	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	211	164	815
Volume/Cap:	0.17	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.54	0.03	0.58
Level Of Service Module:												
2Way95thQ:	0.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.8	xxxx	xxxxx
Control Del:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	40.3	xxxx	xxxxx
LOS by Move:	A	*	*	*	*	*	*	*	*	E	*	*
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	786
SharedQueue:	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	4.2
Shrd ConDel:	9.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	16.4
Shared LOS:	A	*	*	*	*	*	*	*	*	*	*	C
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			21.0		
ApproachLOS:	*			*			*			C		

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	010000	001010	000000	100100

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.1	0.1	0.1	0.1	0.6	0.6	0.6	0.7	2.4	2.4
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.4	3.9	3.9

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	1.2	0.1	0.1	0.1	0.7	0.7	0.7	0.8	2.6	2.6
#2	[2Way95thQ]:	0.6	0.6	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	2.8	4.2	4.2

APPENDIX F - LONG TERM (2035) (CUMULATIVE) CONDITIONS INTERSECTION ANALYSIS WORKSHEETS

Scenario Report

Scenario:	Long Term Cumulative AM
Command:	Long Term Cumulative AM
Volume:	Future 2035 AM
Geometry:	Future
Impact Fee:	Default Impact Fee
Trip Generation:	Cumulative + Project AM
Trip Distribution:	Cumulative + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Future

Turning Movement Report
Cumulative + Project AM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	34	8	172	45	7	14	13	582	14	199	602	39	1730
Added	9	2	4	0	1	2	1	0	2	8	1	0	30
Total	43	10	176	45	8	16	14	582	16	207	603	39	1760
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	66	331	0	0	646	158	0	0	0	170	6	522	1899
Added	2	8	0	0	9	3	0	0	0	3	0	6	31
Total	68	339	0	0	655	161	0	0	0	173	6	528	1930

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	34	8	172	45	7	14	13	582	14	199	602	39
2	Palo Comado a	66	331	0	0	646	158	0	0	0	170	6	522

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	43	10	176	45	8	16	14	582	16	207	603	39
2	Palo Comado a	68	339	0	0	655	161	0	0	0	173	6	528

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	F	72.5	1.119	F	75.9	1.134	+ 0.015 V/C
# 2 Palo Comado at 101 Fwy On/Off	B	15.2	0.446	B	15.2	0.452	+ 0.048 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.119
Loss Time (sec):	0	Average Delay (sec/veh):	72.5
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module:0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	34	8	172	45	7	14	13	582	14	199	602	39
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:	34	8	172	45	7	14	13	582	14	199	602	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	34	8	172	45	7	14	13	582	14	199	602	39
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:	34	8	172	45	7	14	13	582	14	199	602	39
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.68	0.11	0.21	0.02	0.96	0.02	1.00	0.94	0.06
Final Sat.:	352	85	504	286	45	90	12	530	13	526	538	35
Capacity Analysis Module:												
Vol/Sat:	0.10	0.10	0.34	0.16	0.16	0.16	1.10	1.10	1.10	0.38	1.12	1.12
Crit Moves:			****		****			****			****	
Delay/Veh:	11.8	11.8	13.4	12.9	12.9	12.9	92.4	92.4	92.4	13.6	97.9	97.9
Delay 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
AdjDel/Veh:	11.8	11.8	13.4	12.9	12.9	12.9	92.4	92.4	92.4	13.6	97.9	97.9
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	13.1			12.9			92.4			77.9		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.1			12.9			92.4			77.9		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	12.8	12.8	12.8	0.6	14.2	14.2

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	1.134
Loss Time (sec):	0	Average Delay (sec/veh):	75.9
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	1	0	0 1 0
Volume Module:0745-0845 AM												
Base Vol:	29	7	146	38	6	12	11	494	12	169	511	33
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	34	8	172	45	7	14	13	582	14	199	602	39
Added Vol:	9	2	4	0	1	2	1	0	2	8	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	43	10	176	45	8	16	14	582	16	207	603	39
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:	43	10	176	45	8	16	14	582	16	207	603	39
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	43	10	176	45	8	16	14	582	16	207	603	39
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:	43	10	176	45	8	16	14	582	16	207	603	39
Saturation Flow Module:												
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:	0.81	0.19	1.00	0.65	0.12	0.23	0.02	0.95	0.03	1.00	0.94	0.06
Final Sat.:	352	84	503	272	49	98	13	522	14	521	532	34
Capacity Analysis Module:												
Vol/Sat:	0.12	0.12	0.35	0.16	0.16	0.16	1.12	1.12	1.12	0.40	1.13	1.13
Crit Moves:			****		****			****				****
Delay/Veh:	12.0	12.0	13.5	13.0	13.0	13.0	98.5	98.5	98.5	14.1	104	103.6
Delay 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
AdjDel/Veh:	12.0	12.0	13.5	13.0	13.0	13.0	98.5	98.5	98.5	14.1	104	103.6
LOS by Move:	B	B	B	B	B	B	F	F	F	B	F	F
ApproachDel:	13.2			13.0			98.5			81.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	13.2			13.0			98.5			81.7		
LOS by Appr:	B			B			F			F		
AllWayAvgQ:	0.1	0.1	0.5	0.2	0.2	0.2	13.6	13.6	13.6	0.6	14.9	14.9

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.446
Loss Time (sec):	0	Average Delay (sec/veh):	15.2
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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			Permitted			Permitted		
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	0 0	0	1 0	1! 0	1
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	66	331	0	0	646	158	0	0	0	170	6	522
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:	66	331	0	0	646	158	0	0	0	170	6	522
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	66	331	0	0	646	158	0	0	0	170	6	522
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:	66	331	0	0	646	158	0	0	0	170	6	522
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.24	0.95	1.00	1.00	0.92	0.92	1.00	1.00	1.00	0.86	0.86	0.86
Lanes:	1.00	2.00	0.00	0.00	1.61	0.39	0.00	0.00	0.00	1.24	0.02	1.74
Final Sat.:	464	3610	0	0	2817	689	0	0	0	2019	27	2833
Capacity Analysis Module:												
Vol/Sat:	0.14	0.09	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.08	0.22	0.18
Crit Moves:					****						****	
Green/Cycle:	0.51	0.51	0.00	0.00	0.51	0.51	0.00	0.00	0.00	0.49	0.49	0.49
Volume/Cap:	0.28	0.18	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.17	0.45	0.38
Uniform Del:	13.7	13.0	0.0	0.0	15.3	15.3	0.0	0.0	0.0	14.5	16.9	16.2
IncremntDel:	0.6	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	14.4	13.0	0.0	0.0	15.5	15.5	0.0	0.0	0.0	14.5	17.1	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.4	13.0	0.0	0.0	15.5	15.5	0.0	0.0	0.0	14.5	17.1	16.4
LOS by Move:	B	B	A	A	B	B	A	A	A	B	B	B
HCM2kAvgQ:	1	3	0	0	8	8	0	0	0	2	7	6

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

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.452
Loss Time (sec):	0	Average Delay (sec/veh):	15.2
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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			Permitted			Permitted		
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	0 0	0	1 0	1! 0	1
Volume Module: >> Count Date: 24 Sep 2013 << 0745-0845 AM												
Base Vol:	56	281	0	0	548	134	0	0	0	144	5	443
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	66	331	0	0	646	158	0	0	0	170	6	522
Added Vol:	2	8	0	0	9	3	0	0	0	3	0	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	68	339	0	0	655	161	0	0	0	173	6	528
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:	68	339	0	0	655	161	0	0	0	173	6	528
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	68	339	0	0	655	161	0	0	0	173	6	528
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:	68	339	0	0	655	161	0	0	0	173	6	528
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.24	0.95	1.00	1.00	0.92	0.92	1.00	1.00	1.00	0.86	0.86	0.86
Lanes:	1.00	2.00	0.00	0.00	1.61	0.39	0.00	0.00	0.00	1.24	0.02	1.74
Final Sat.:	454	3610	0	0	2811	691	0	0	0	2019	27	2829
Capacity Analysis Module:												
Vol/Sat:	0.15	0.09	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.09	0.22	0.19
Crit Moves:					****						****	
Green/Cycle:	0.52	0.52	0.00	0.00	0.52	0.52	0.00	0.00	0.00	0.48	0.48	0.48
Volume/Cap:	0.29	0.18	0.00	0.00	0.45	0.45	0.00	0.00	0.00	0.18	0.45	0.39
Uniform Del:	13.8	13.0	0.0	0.0	15.3	15.3	0.0	0.0	0.0	14.5	17.0	16.3
IncremntDel:	0.7	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	14.5	13.0	0.0	0.0	15.5	15.5	0.0	0.0	0.0	14.5	17.2	16.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.5	13.0	0.0	0.0	15.5	15.5	0.0	0.0	0.0	14.5	17.2	16.4
LOS by Move:	B	B	A	A	B	B	A	A	A	B	B	B
HCM2kAvgQ:	1	3	0	0	8	8	0	0	0	2	7	6

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	102000	001100	000000	100011

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	12.8	12.8	12.8	0.6	14.2	14.2
#2	[HCM2kAvgQ]:	1	3	0	0	8	8	0	0	0	2	7	6

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	0.5	0.2	0.2	0.2	13.6	13.6	13.6	0.6	14.9	14.9
#2	[HCM2kAvgQ]:	1	3	0	0	8	8	0	0	0	2	7	6

Scenario Report

Scenario:	Long Term Cumulative PM
Command:	Long Term Cumulative PM
Volume:	Future 2035 PM
Geometry:	Future
Impact Fee:	Default Impact Fee
Trip Generation:	Cumulative + Project PM
Trip Distribution:	Cumulative + Project
Paths:	Default Path
Routes:	Default Route
Configuration:	Future

Turning Movement Report
Cumulative + Project PM

Volume Type	Northbound Left	Thru	Right	Southbound Left	Thru	Right	Eastbound Left	Thru	Right	Westbound Left	Thru	Right	Total Volume
#1 Palo Comado/Driver Ave at Chesebro Rd													
Base	14	9	332	44	4	11	9	213	13	249	403	70	1371
Added	6	2	9	0	3	1	3	1	13	7	1	0	46
Total	20	11	341	44	7	12	12	214	26	256	404	70	1417
#2 Palo Comado at 101 Fwy On/Off Ramps													
Base	174	233	0	0	448	150	0	0	0	116	5	496	1622
Added	3	10	0	0	16	6	0	0	0	5	0	8	48
Total	177	243	0	0	464	156	0	0	0	121	5	504	1670

Intersection Volume Report
Base Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	14	9	332	44	4	11	9	213	13	249	403	70
2	Palo Comado a	174	233	0	0	448	150	0	0	0	116	5	496

Intersection Volume Report
Future Volume Alternative

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
1	Palo Comado/D	20	11	341	44	7	12	12	214	26	256	404	70
2	Palo Comado a	177	243	0	0	464	156	0	0	0	121	5	504

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 Palo Comado/Driver Ave at Ches	C	20.2	0.809	C	21.2	0.826	+ 0.017 V/C
# 2 Palo Comado at 101 Fwy On/Off	B	14.3	0.450	B	14.3	0.466	+ 0.023 D/V

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.809
Loss Time (sec):	0	Average Delay (sec/veh):	20.2
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0	0 1	0	0	1! 0	0	0	1! 0	0	1 0	0 1 0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	14	9	332	44	4	11	9	213	13	249	403	70
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:	14	9	332	44	4	11	9	213	13	249	403	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	14	9	332	44	4	11	9	213	13	249	403	70
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:	14	9	332	44	4	11	9	213	13	249	403	70
Saturation Flow Module:												
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:	0.60	0.40	1.00	0.76	0.06	0.18	0.04	0.90	0.06	1.00	0.85	0.15
Final Sat.:	285	190	549	324	26	79	21	468	28	529	498	86
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.61	0.13	0.13	0.13	0.46	0.46	0.46	0.47	0.81	0.81
Crit Moves:			****		****			****			****	
Delay/Veh:	10.4	10.4	17.4	11.7	11.7	11.7	14.9	14.9	14.9	15.1	28.9	28.9
Delay 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
AdjDel/Veh:	10.4	10.4	17.4	11.7	11.7	11.7	14.9	14.9	14.9	15.1	28.9	28.9
LOS by Move:	B	B	C	B	B	B	B	B	B	C	D	D
ApproachDel:	17.0			11.7			14.9			24.1		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	17.0			11.7			14.9			24.1		
LOS by Appr:	C			B			B			C		
AllWayAvgQ:	0.0	0.0	1.3	0.1	0.1	0.1	0.7	0.7	0.7	0.8	3.3	3.3

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

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #1 Palo Comado/Driver Ave at Chesebro Rd

Cycle (sec):	100	Critical Vol./Cap.(X):	0.826
Loss Time (sec):	0	Average Delay (sec/veh):	21.2
Optimal Cycle:	0	Level Of Service:	C

Street Name:	Chesebro Rd						Palo Comado					
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			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1	0 0	1	0 0	1! 0	0	0 0	1! 0	0	1 0	0 1	0
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	12	8	282	37	3	9	8	181	11	211	342	59
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	14	9	332	44	4	11	9	213	13	249	403	70
Added Vol:	6	2	9	0	3	1	3	1	13	7	1	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	20	11	341	44	7	12	12	214	26	256	404	70
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:	20	11	341	44	7	12	12	214	26	256	404	70
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	20	11	341	44	7	12	12	214	26	256	404	70
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:	20	11	341	44	7	12	12	214	26	256	404	70
Saturation Flow Module:												
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:	0.64	0.36	1.00	0.71	0.10	0.19	0.05	0.85	0.10	1.00	0.85	0.15
Final Sat.:	299	170	544	299	45	79	25	435	53	521	489	84
Capacity Analysis Module:												
Vol/Sat:	0.07	0.07	0.63	0.15	0.15	0.15	0.49	0.49	0.49	0.49	0.83	0.83
Crit Moves:			****		****			****			****	
Delay/Veh:	10.6	10.6	18.4	12.0	12.0	12.0	15.8	15.8	15.8	15.8	31.0	31.0
Delay 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
AdjDel/Veh:	10.6	10.6	18.4	12.0	12.0	12.0	15.8	15.8	15.8	15.8	31.0	31.0
LOS by Move:	B	B	C	B	B	B	C	C	C	C	D	D
ApproachDel:	17.8			12.0			15.8			25.7		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	17.8			12.0			15.8			25.7		
LOS by Appr:	C			B			C			D		
AllWayAvgQ:	0.1	0.1	1.4	0.1	0.1	0.1	0.9	0.9	0.9	0.9	3.5	3.5

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

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

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.450
Loss Time (sec):	0	Average Delay (sec/veh):	14.3
Optimal Cycle:	26	Level Of Service:	B

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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			Permitted			Permitted		
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	0 0	0	1 0	1! 0	1
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	174	233	0	0	448	150	0	0	0	116	5	496
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:	174	233	0	0	448	150	0	0	0	116	5	496
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	174	233	0	0	448	150	0	0	0	116	5	496
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:	174	233	0	0	448	150	0	0	0	116	5	496
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.36	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	0.85	0.85	0.85
Lanes:	1.00	2.00	0.00	0.00	1.50	0.50	0.00	0.00	0.00	1.19	0.01	1.80
Final Sat.:	675	3610	0	0	2606	871	0	0	0	1925	25	2920
Capacity Analysis Module:												
Vol/Sat:	0.26	0.06	0.00	0.00	0.17	0.17	0.00	0.00	0.00	0.06	0.19	0.17
Crit Moves:	****										****	
Green/Cycle:	0.57	0.57	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.43	0.43	0.43
Volume/Cap:	0.45	0.11	0.00	0.00	0.30	0.30	0.00	0.00	0.00	0.14	0.45	0.40
Uniform Del:	12.2	9.7	0.0	0.0	10.9	10.9	0.0	0.0	0.0	17.6	20.4	19.9
IncremntDel:	0.8	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	13.0	9.7	0.0	0.0	11.0	11.0	0.0	0.0	0.0	17.6	20.7	20.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.0	9.7	0.0	0.0	11.0	11.0	0.0	0.0	0.0	17.6	20.7	20.1
LOS by Move:	B	A	A	A	B	B	A	A	A	B	C	C
HCM2kAvgQ:	4	2	0	0	5	5	0	0	0	2	7	6

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

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Palo Comado at 101 Fwy On/Off Ramps

Cycle (sec):	100	Critical Vol./Cap.(X):	0.466
Loss Time (sec):	0	Average Delay (sec/veh):	14.3
Optimal Cycle:	27	Level Of Service:	B

Street Name:	Palo Comado						101 Fwy-WB on-ramp/101FGwy-WB off					
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			Permitted			Permitted		
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	0 0	0	1 0	1! 0	1
Volume Module: >> Count Date: 24 Sep 2013 << 0500-0600 PM												
Base Vol:	148	198	0	0	380	127	0	0	0	98	4	421
Growth Adj:	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Initial Bse:	174	233	0	0	448	150	0	0	0	116	5	496
Added Vol:	3	10	0	0	16	6	0	0	0	5	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	177	243	0	0	464	156	0	0	0	121	5	504
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:	177	243	0	0	464	156	0	0	0	121	5	504
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	177	243	0	0	464	156	0	0	0	121	5	504
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:	177	243	0	0	464	156	0	0	0	121	5	504
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.34	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	0.85	0.85	0.85
Lanes:	1.00	2.00	0.00	0.00	1.50	0.50	0.00	0.00	0.00	1.19	0.01	1.80
Final Sat.:	656	3610	0	0	2600	873	0	0	0	1932	24	2914
Capacity Analysis Module:												
Vol/Sat:	0.27	0.07	0.00	0.00	0.18	0.18	0.00	0.00	0.00	0.06	0.20	0.17
Crit Moves:	****										****	
Green/Cycle:	0.58	0.58	0.00	0.00	0.58	0.58	0.00	0.00	0.00	0.42	0.42	0.42
Volume/Cap:	0.47	0.12	0.00	0.00	0.31	0.31	0.00	0.00	0.00	0.15	0.47	0.41
Uniform Del:	12.0	9.4	0.0	0.0	10.7	10.7	0.0	0.0	0.0	18.0	21.0	20.4
IncremntDel:	0.9	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	12.9	9.4	0.0	0.0	10.8	10.8	0.0	0.0	0.0	18.0	21.2	20.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	12.9	9.4	0.0	0.0	10.8	10.8	0.0	0.0	0.0	18.0	21.2	20.6
LOS by Move:	B	A	A	A	B	B	A	A	A	B	C	C
HCM2kAvgQ:	4	2	0	0	5	5	0	0	0	2	7	6

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

Lane Geometry Report

Number of approach lanes: (L) (LT) (T) (RT) (R) (LTR)

Node	Intersection	NB	SB	EB	WB
1	Palo Comado/Driver Ave at Chesebro	010010	000001	000001	100100
2	Palo Comado at 101 Fwy On/Off Ramps	102000	001100	000000	100011

Base Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.0	0.0	1.3	0.1	0.1	0.1	0.7	0.7	0.7	0.8	3.3	3.3
#2	[HCM2kAvgQ]:	4	2	0	0	5	5	0	0	0	2	7	6

Future Queue Report (cars)

Node	Intersection	Northbound L	Northbound T	Northbound R	Southbound L	Southbound T	Southbound R	Eastbound L	Eastbound T	Eastbound R	Westbound L	Westbound T	Westbound R
#1	[AllWayAvgQ]	0.1	0.1	1.4	0.1	0.1	0.1	0.9	0.9	0.9	0.9	3.5	3.5
#2	[HCM2kAvgQ]:	4	2	0	0	5	5	0	0	0	2	7	6